

# PUBLIC FINANCE

# THEORY AND PRACTICE IN CENTRAL EUROPEAN TRANSITION

EDITED BY  
JURAJ NEMEC  
& GLEN WRIGHT



NISPAcee

THE NETWORK OF INSTITUTES AND  
SCHOOLS OF PUBLIC ADMINISTRATION  
IN CENTRAL AND EASTERN EUROPE

NISPAcee  
The Network of Institutes and Schools of Public Administration  
in Central and Eastern Europe

PUBLIC FINANCE:  
THEORY AND PRACTICE IN THE CENTRAL EUROPEAN TRANSITION

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## PUBLIC FINANCE

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## **PREFACE**

It was very difficult to determine how to approach the writing of this textbook on public finance in the Central European transition. The reason was that we were attempting to describe two systems, two sets of values and realities. The uncertainty in the process and speed of change in moving from a command to market economy system made this a difficult writing task. It would have been a simpler problem in writing this text if we had simply chosen to focus on one or the other system. But we made our task more challenging by attempting to span or “bridge” this ever changing transition from one system to the other.

First, this text addresses a system of public finance which has rapidly changed from a destroyed economic and political system to one which is not yet fully developed. In this situation comparisons are difficult to make. We attempt to bridge the changing of the old rigid system to one which is more flexible and evolving as political and economic forces continually press for new methods of protecting and promoting economic wealth and political values.

This text must also address an economic value system which at one time greatly valued equity over wealth, in the socialist system, to one which attempts to balance the values of wealth and equity in a free market economy. Many of the concepts described in this text relative to public finance systems, such as taxation principles and expenditure analysis methods, represent a new body of knowledge for the teachers and students of public finance in the Central European region. Certain taxes, such as the property tax and some revenue sources (user charges), are based on a fundamentally different approach to the way citizens are obligated to finance public services. The difficulty of connecting these fundamental differences in economic concepts, values and knowledge base represents one of the main challenges in writing this text.

Other differences to be bridged by this text are on a more human and personal level. Contributors to this text represent most of the countries of the Central European region from Poland to Bulgaria. The exchange of knowledge and experiences shared in this text contributes to a greater understanding of common problems and solutions. This book is also directed at providing an opportunity to share experiences through case studies which are found at the end of many of the chapters.

This bridge across the Central European region has been greatly enhanced by a bridge across continents. The chapters have been greatly improved by reviews and comments from the faculty of the Robert F. Wagner Graduate School of Public Service of New York University. This exchange of ideas, thoughts and information has been interesting and valuable to all participants. We express

grateful appreciation to Professors Elizabeth Durbin, Dick Netzer, Amy Schwartz, and Leanna Stiefel for their time and advice on improvements to this text.

The final bridge we must address is the intended audience for this text. We have attempted to produce a text that is useful for teachers and students of economics and public administration. This necessitated making some carefully balanced decisions on topics and methods used to present the material. Balancing technical terminology and concepts for those with advanced knowledge of economics and providing practical and relevant material for public administration students was another challenge for all of the authors. Our hope is that economics and public administration students will find this text relevant and appropriate for their needs.

We cannot complete this preface without acknowledging the many people who have supported this project in various ways.

First, we wish to express appreciation to Dr. Alfred M. Zuck, former Executive Director of the National Association of Schools of Public Affairs and Administration (NASPAA) in the United States, who initiated this project. Dr. Zuck has a long and distinguished career in American public administration and this book is dedicated to him in recognition of his contribution to this project, as well as the development of public administration in Central Europe.

Our appreciation also extends to The Pew Charitable Trusts for the indispensable financial support which enabled this book to be completed and made available to students of economics and public administration.

The Steering Committee of the Network of Institutes and Schools of Public Administration in Central-Eastern Europe (NISPAcee) is also acknowledged for providing support and encouragement as this project was developed and brought to completion. A special thanks is extended to Dr. Bohdan Krawchenko, former member of the Steering Committee, for his initiative in supporting this project and his active involvement in the publishing of this text. We also wish to express appreciation to NISPAcee Executive Secretary Ludmila Gajdošová, and Juraj Sklenár, NISPAcee assistant, for their assistance in the final publication of this text.

The partnership with the Wagner Graduate School of Public Service of New York University has contributed in many ways to the successful completion of this text. Professor Robert Berne, former Dean of the School, provided the early encouragement and commitment to support this book. In addition to the faculty already mentioned administrative and financial matters were ably performed by Linda Wheeler Reiss, Sarah de Tournemire and Natalie Richard.

Professor David Greenberg, visiting professor to the Budapest University of Economic Sciences from the University of Maryland Baltimore County, USA, provided many helpful comments and reviewed several chapters.

Also, Daniel Roberts, PhD student at the Pennsylvania State University, USA, provided invaluable assistance in the final editing of the text.

To all of the above, the editors wish to express sincere appreciation for their support and assistance.

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**PART 1**  
**THEORY OF PUBLIC FINANCE**

## **INTRODUCTION**

The study of public finance presented in this text requires a different beginning than most books on public finance. In this introductory section we will identify some of the reasons for beginning the text with issues more connected to political philosophy than pure economics. We must begin with some clarification of why the study of public finance is concerned with the areas of economics and politics. The reasons for this will be more evident as we proceed further in this introduction and in Chapter 1.

Typically, public finance texts do not deal with issues of basic political philosophy or the role of government to any great extent. They proceed from the assumption that the reader will understand the framework in which economic decisions are made by governments. The reader is expected to know the values of the democratic/market system, the socialist/state ownership system or the rigid communist/command economic system. From this assumed, but unstated premise, the description of a public finance system usually begins.

A basic definition of public finance, according to David Hyman, “is the field of economics that studies government activities and the alternative means of financing government expenditures” (Hyman, 1990). Most introductory texts dealing with public finance begin with a description of an economic system, concepts of market failures, the basis for public goods versus private goods, and externalities associated with the provision of public goods or private goods. The typical public finance text describes a stable or relatively fixed system of public finance; that is a system in which many issues affecting public finance have been decided or settled over many years. Issues such as taxing power, division of central/local functions, monetary policy, equalization of financial resources, among others, have been settled by constitutions, laws, or common practice and are known and accepted by the populace as well as government authorities.

Some well known public finance texts dealing with public finance in western market oriented systems begin with these basic issues. For example, the widely used text by Musgrave and Musgrave (1992) begins by examining the fiscal functions of public finance (allocation, distribution, and stabilization), then proceeds to describe the economic system with very useful diagrams and highlights the public finance sector within the economic flows, and, finally, looks at the constitutional, legal and institutional arrangements within the American system.

Texts on public finance examine taxation and expenditure problems in great detail. Tax and revenue sources of various types are examined, such as income tax, value added tax, excise or sales taxes, user charges and even import and export taxes. These are evaluated against certain principles of taxation to determine

the economic impact as well as administrative and collection problems. These principles, including such criteria as tax certainty, ability to pay, adequacy of tax revenue, and collectability are all well developed.

Expenditure analysis involves the investigation of the purposes for which taxes and revenues are collected. The purposes of public financing in providing national defense, health and education services, social security and public infrastructure deal with the allocation of public monies in the hope that some rational or economic criteria can be applied. The lack of an economic rationale for many public expenditure choices reveals that these decisions are made within the environment of a political system and philosophy which provides the justification for these decisions. These decisions are based on views of the relationship between the individual and the state. As Harvey Rosen confirms: “views of how the government should function in the economic sphere are influenced by general attitudes concerning the relationship between the individual and the state” (Rosen, 1992). Consequently, the decisions are made based on some political will or preferences that are manifested through a policy or decision making process.

Only since the early 1990s have texts begun to incorporate more recent developments, such as privatization, the role of non-governmental organizations, and contracting out as areas that need examination in public finance texts. Another standard text used in public finance courses is Mikesell’s *Fiscal Administration: Analysis and Applications for the Public Sector*, fourth edition. This includes an introductory chapter section on privatization (Mikesell, 1993). Another text by Holcombe deals with non-governmental alternatives to the provision of government services (Holcombe, 1988).

However, we are writing a public finance text dealing with issues of a transition period for several countries scattered over a large and strategic international region. A region where new constitutions, new laws, new political and economic rights are being formed and are changing yearly, if not almost daily. The magnitude of these changes in Central Europe is well known, but the consequences in terms of public finance have not been fully revealed. It is necessary then to make this book a bridge between the “old system” and the “new system” which is, as yet, not clearly defined though it is moving toward the market system. Therefore, while we begin with the old system we attempt to bridge this to the new system of public finance in a market economy. It is not clear even in 1997, seven years after the dramatic changes began, what the public finance systems will be in these countries. Each nation is proceeding toward reforms in different ways and at different paces. It is not certain that all will eventually move as far in constructing a new economic and political system as have their neighbors to the west. While

the general direction of changes is apparent, the developments and pace associated with moving toward free market economies is uneven.

This text takes the approach that for its readers (mainly those in the transition countries of Central Europe) there is a need to identify what economic models apply and present the underlying philosophical and values systems. Michael Brown makes the case for this approach in the preface to his book *Models in Political Economy* by writing: “Most of the differences between economists and between economic models result from political differences in which fundamental cultural values and philosophical arguments are involved. All models have their own associated ideologies, as these sets of values are termed” (Brown, 1995).

In this introduction we have briefly described some of the issues that impact a public finance text and the development of public finance theory in order to guide, not only teachers and students, but, also, policy makers in the region. The various chapters of this text highlight these issues in theory and practice. Case studies are presented at the conclusion of some of the chapters to supplement the chapters.

### **Examining the Role of Governments in Economic Systems**

The transition period which began in the late 1980s (earlier as in Hungary) provides the background for the development of this public finance text. Consequently, we begin by looking at the political and philosophical basis which is necessary to understand public finance decisions in transition countries.

In Part 1, Chapters 1-3, we examine the political foundations of public finance. We do this by beginning in Chapter 1 with an examination of the models or theories defining government’s role in the economy. In this chapter we examine the spectrum of government actions from non-intervention or laissez-faire to the socialist or state ownership approach to government activity. Chapter 1 deals with the issues of the transition from socialist to market systems. These issues include (1) privatization, (2) state ownership of certain sectors or natural monopolies, (3) decentralization of economic decisions as well as authority to other units of government with accompanying tax and budget powers, and (4) the new role of regulation of the economy by the state.

Chapter 2 follows the traditional approach of public finance texts by looking at the purposes of public finance, the failures of the market, as well as the failures of government which create a need for new methods for delivering public services. The chapter discusses the idea of welfare economics as the basis for public finance in market economies and the relevance to the economies in transition. Also, the concept underlying all public finance decisions, public goods, is addressed.

Chapter 3 provides an examination of how political systems impact public finance decisions. The differences between federal and unitary systems are extremely important in areas of fiscal decentralization, tax and budget authority and local fiscal capacity.

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## **CHAPTER 1: ROLE OF GOVERNMENTS**

*Glen Wright*

Margaret Thatcher, in her book *The Downing Street Years*, wrote: “A correct economic policy depends crucially upon a correct judgment of what activities properly fall to the state and what to the people” (Thatcher, 1995). We begin this chapter with an examination of what role the state or government should play in the economic system. As mentioned earlier we are dealing with a question of political philosophy and ideology. It is this issue which may perhaps be the central conflict of the twentieth century. If we look at the various ideologies which at one time or another implementation was attempted in this century, we could state that all, except for the capitalist system, have largely failed to achieve their objectives. We can include in this evaluation nazism, fascism, as well as the communist system. All of these systems had some philosophical basis for the nature of the state and the role of the government in the economic system.

There are many important issues that arise from a determination of what role the government will play in an economic system. These include the size and scope of government activity. They also involve the issue of property ownership, the basis for the distribution of wealth through tax and expenditure policies, the responsibility for the financing and delivery of public services, and the best methods in terms of economy and efficiency in delivering these services. These are important issues in the transition from a socialist to market system in the Central European region. These will be examined under the headings of privatization, state ownership of enterprises, decentralization of political and economic decision making, and, finally, the regulatory role of the state.

The central question to be examined in this section is the level of involvement by the state in economic activity. Our examination will be historical as we begin with the early classical or laissez-faire view of the state and proceed to the socialist approach. The intermediate stage in this progression will be to look at the activist role of the state utilizing the Keynesian theory of the role of government in managing the level of economic activity. Finally, we will look at what the future may hold in terms of a new role for the state.

At the end of the twentieth century a changed view of the state is emerging in both the socialist and capitalist systems. Both have appeared to fail to deliver on all that was promised. The transformation in the socialist system is required because the accumulation of wealth was sacrificed too much for equality of outcomes. In the end, the socialist state could not create the wealth or savings needed for investment simply because no wealth was produced. The failure to

increase productivity was a major factor in the decline of the economies in comparison with the West. Even though there was some collective wealth in certain areas, such as housing, infrastructure, and social services, the wealth of individuals was stagnant due to the emphasis on equality. The transformation of economies in Central Europe is, thus, an effort to produce some wealth through a capitalist market system in order to provide some material increase in the standard of living. Accomplishing this task without further damaging the fragile political and social systems is a significant problem that must be faced.

The capitalist system finds itself equally at risk because while the accumulation of wealth is great, it is increasingly in the hands of fewer and fewer people. James Tobin, a Nobel Prize winner in economics, draws the conflict between economic equality and democratic values. He writes: “Market capitalism generates more inequality than accords with democratic values. The sources of this inequality cannot be remedied without sacrificing the flexibility and efficiency of capitalist economies. Thus redistribution through the fisc becomes necessary” (Tobin, 1994). Inequality of wealth is increasing in the capitalist system. There is the potential for political and social instability in the Western democracies should this trend continue.

### **Contrasting Elements of the Market and Democratic Systems**

There is a built in conflict between the operation of a market economy and the democratic political system. The decisions of the political system have economic consequences, either on the general public or on certain segments. These public policy decisions with economic consequences are generally revealed through taxation, budgets or monetary policy decisions.

The market economy has a particular value system and its own rules for making decisions. For example, the creation of wealth is valued through a competitive pricing system. Profits reveal the wealth creation and serve as a reward for risk taking. The political system operates through a different value and decision making system. The market and political systems have, as one might expect, numerous conflicts in their values and decision making processes. The following table provides a concise summary of the differences between the market and political systems in modern democratic societies.

#### *ELEMENTS OF THE MARKET AND DEMOCRATIC SYSTEMS*

MARKET SYSTEM	DEMOCRATIC SYSTEM
Exchange Process	Political Process
Private Goods and Services	Public Goods and Services

## Theory of Public Finance

Economic Value System	Diverse Pluralistic Value System
Self-Interest	Public Interest
The Invisible Hand	The Visible Hand
Economic Roles (producers, consumers-investors-employees)	Political Roles (politician-citizens-public interest groups)
Consumer Sovereignty	Citizen Sovereignty
Profit as Reward	Power as Reward
Business as the Major Institution	Government as the Major Institution
Operating Principles: Efficiency, Productivity, Growth	Operating Principles: Justice, Equity, Fairness

Source: Rogene Bucholz, 1985 *Essentials of Public Policy for Management*, New Jersey: Prentice-Hall, Inc.

In the market system prices reflect values and money is the method of exchanging goods and services. Individual decisions are made in terms of choosing to obtain some good or service. Economic rationality is the basis for making these choices.

The political process represents a collective decision based on bargaining and compromise that may not be based on economic rationality. The political process often requires the government to undertake actions that cannot be performed by any other institutions. In the political process power and influence may not be based on wealth, although wealth is becoming increasingly important, but by popular opinion and ultimately votes. The political process also fosters the growth of organized special interests to influence the outcomes in the system.

The types of goods and services delivered differ greatly between the public and private sectors, although privatization has blurred this distinction. The private sector relies on market demand to satisfy consumer needs. Thus, goods and services may only be available to those who have the money to buy them. Public goods may be available to everyone though they do not pay directly for the service or the good. A range of goods and services exists which both the public and private sector can provide. The decision as to whether the service will be provided by the government or by private companies, the method of paying for that service (taxes or user charges), and the control or regulation of the service delivery is made in the public policy process.

The political process does not have such explicitly defined values as profitability or return on investment that characterizes the market economy process. The goods and services delivered through the political system are based on other criteria, such as the distribution of wealth, control of economic monopoly positions or maintaining the health and well-being of certain segments of the population. The

most fundamental difference in the value systems is in terms of the interest represented in each system. The market system rests on individuals pursuing their personal or self-interest as the central motivation for action. The political process attempts to make decisions based on a collective public interest that is greater than each person's individual interests. Defining the public interest rests on political processes and not on economic calculations which can be made in terms of self-interest. Consequently, the public interest is more difficult to determine.

The guiding force in the market system identified by Adam Smith is the invisible hand. This was his term for each individual pursuing their own self-interest and unknowingly also helping the interests of others. The market system, as described by Smith, is one in which competing forces of individual interests enable all interests to increase their well-being without seeing or knowing of each others actions. Decision making is not always open for everyone to see. But in the political process of democratic societies where the interests of all are to be represented the decisions of government are, and must be made, visible. Decisions must be made in open public forums. The decision-makers are forced to be responsible for their actions. Accountability is enforced through the electoral process which is also visible to the public.

There is a great difference in the roles that individuals and groups play in the market and democratic systems. The roles in the market system are oriented toward the self-interest of those who stand to gain from economic activity. The results are measured through wealth and profits. Political roles do not rely on economic rationality. In the political roles success is measured by power and influence. Playing these roles requires skills of persuasion, bargaining, and compromise among all participants.

Ultimate authority in each system is also very different. In the economic system it is the consumers that holds the ultimate power by the way they spend their money. If a firm does not produce a product at a price the consumer is willing to pay, then the firm will fail. In the political process the citizen is the ultimate authority through the election process. To the extent that a government does not meet the needs of citizens, these same citizens can change that government by peaceful and democratic means. In this situation votes are the medium of exchange as money is in the market system.

As mentioned previously, each system has different rewards. In the market system, the rewards are profits and ultimately wealth. This provides the motivation for economic activity by those valuing these rewards. Power and influence are the main rewards of a democratic political process. Accumulation of wealth through political power is generally not accepted in democratic societies, although this

occurs because of corruption by those in power. It, however, may be accepted by the cultural standards of a society.

The organizational structure for each system is different. In the economic system the business or corporate structure, defined by certain laws, is the major institution. In the political process government organizations operate at various levels and through different forms or structures. In a separation of powers system, the major institutions of the executive, legislative, and judicial branches can be said to be the main structures. The institutions of government are defined by the constitution of a country and laws made through the political process. The characteristics of bureaucratic organizations are a common element between the business and governmental institutions.

Finally, the basis on which each system operates is different. Economic rationality is the basis for decisions in the market system. In the political system the operating basis rests on more subjective values of justice, equity, and fairness. Wealth or social status are not generally a basis to differentiate how an individual will be served by government even though certain economic measures, such as means testing, are utilized to determine eligibility and the level of services received. Equal treatment, regardless of position or other factor, is held to be a criteria for receiving or being subjected to government action. Consequently, government must operate on a moral and legal basis more often than some economic criteria.

This comparison is not intended to demonstrate mutually exclusive or necessarily continually conflicting forces. The elements of the two systems provide a check and balance set of forces in societies. It is only when economic and political power is concentrated in an elite or single party system that the danger is great. The best situation is when there is a tension between the elements and a constitutional or legal system that enables these conflicts to be resolved thereby ensuring that a balance of forces is maintained. When this situation of balanced economic and political forces is achieved the basis for a market economy system in a democratic society can be developed and maintained.

It is useful, before beginning our examination of the various theories of the role of government in the economy, to provide a definition of the term intervention or state interference. According to Milanovic's definition "state interference is defined as all state actions that (a) limit the area of choice of an economic agent, or (b) make an economic agent not entirely responsible for his decisions, or (c) impose any cost on the agent's activities. This definition of state interference means that the economic role of a 'non-interfering' state is limited to the enforcement of the legal framework, that is, to the protection of a given set of property rights. Any other action falls under the category of interference"

(Milanovic, 1989). This definition provides a baseline from which to examine the various models which seek to explain the role of government in the economy.

### **Comparing Capitalist and Socialist Systems**

To provide some historical comparison between the capitalist and socialist systems the following data provided by Milanovic (1989) in terms of output and employment in the government sector in several countries is illustrative of the different systems.

Table 1  
Comparison of Government Output and Employment  
Between Capitalist and Socialist Countries

	Output % of GDP	Employment % of Total Employment
<b>Capitalist:</b>		
France (1982)	16.5%	14.6%
West Germany (1982)	10.7	7.8
Italy (1982)	14.0	15.0
Austria (1978-79)	14.5	13.0
<b>Socialist:</b>		
Soviet Union (1985)	96.0	—
East Germany (1982)	96.5	94.2
Poland (1983)	81.7	71.5
Hungary (1984)	65.2	69.9

This data details the differences in terms of fiscal intervention of the central governments in capitalist and socialist countries of the 1980s. Comparisons across the decade into the 1990s are difficult, but the downward trend of government expenditures as percent of GDP in the transition countries and the overall decline is evident from data provided by Bird, Ebel, and Wallich (1995). The percentage level of general government expenditures in 1993 for several transition countries is provided in the following data. In Hungary, government expenditures amounted to 57.2%; Poland, 48.1%; Romania, 35.6%; Ukraine, 73.4%; and Bulgaria, 41.2%.

### **Classification of Economies**

There are essentially three economic systems in which the government's role must be defined (Hyman, 1990). These have been thoroughly analyzed and provide

a spectrum across which we can examine the role of the government in the economic sphere. We should begin our discussion with a brief description of these three systems.

Most of the national economies of the world are classified as mixed economies. The main features of the mixed economy, which includes the Western capitalist system, are that government is an important, but not dominant, supplier of goods and services in the economy. Generally, government expenditures for goods and services provide approximately 25 to 50% of GNP. There is a large private sector which is regulated through government intervention in pricing (for natural monopolies primarily), providing subsidies, and taxation. While government regulation exists, the private sector does not have to respond to government decisions regarding production, distribution or other economic decisions of the firm. The government can also be a direct provider of services and use its fiscal powers to redistribute wealth on an equitable basis. Transfer payments are used to insure a basic standard of living.

The opposite of mixed economies can be characterized as socialist, or in the case of the Soviet communist system, a controlled or command economy. These have been described by Hyman as follows: "Almost all decisions concerning the production of goods and services are made collectively by politically appointed committees. Prices for goods and services in controlled economies are determined by central committees to achieve certain resource allocation and income distribution goals. In such economies, prices and quantities of all goods and services are in effect determined through political rather than market intervention" (Hyman, 1990).

The compromise situation between these two extremes has been termed market socialism. This provides for private ownership of property with a significant level of public ownership of certain industries or services, such as utilities. The private market is a substantial part of the economy for the production and distribution of goods and services. The government plays a major role in the redistribution of wealth by providing for income equality and by insuring a high standard of living through the welfare system.

The full scope of changes which are related to the collapse of the communist system and the rise of the capitalist system in Central Europe is one of the major turning points in history. The underlying political and philosophical basis which guided state actions have had to be completely reoriented. The state instead of owning property and making all economic decisions has to turn to more benign and less interventionist rules. Instead of controlling or commanding the economy, the state now has to turn toward a mixed economy or variant of market socialism.

This shift in government activities is not marked by clear lines of definition. Moreover, the state apparatus is often the major obstacle in making this shift due to a perceived loss of power, influence, and potential economic gains. This situation is vividly described in the following statement: “Just who is in control here? No one really knows, and that is part of the trouble. Like most former Soviet states, the Ukraine still employs thousands of faceless apparatchiks, who have the power to block exports, ban sales, levy licensing fees, seize money from private bank accounts, and generally make life hell for business. Some of these communist holdovers are anxious to protect old state monopolies. Others appear to be looking out for old cronies who have gone into business for themselves. And most of the officials are paid little more than \$100 a month, leaving them highly susceptible to corruption” (Brzezinski, 1996).

The role of the state in economic activities must be fundamentally changed, but the lack of a well developed system of laws and efficient state apparatus to affect the changes is one of the major obstacles for the transition countries of Central Europe.

### **Criteria for Evaluating the Role of Governments in the Economy**

Microeconomics provides clear-cut rules for evaluating economic performance. Measures of efficiency, competitiveness and profitability are well developed and based on quantitative measures. Over the long run, the survivability of the firm at the micro level and continuation of the economic system provide the ultimate criteria of success. But, at the macroeconomic level there are few objective or quantitative measures to examine government performance. As witnessed in this century, political and economic systems have been born and have died relatively quickly in terms of the longevity of human development. The twentieth century has been a burial ground of supposed ideologies for perfect political and economic systems. There is some difficulty then in defining criteria or measures by which to evaluate the role of government in the economic system.

In this section we will briefly discuss some criteria by which government activity and actions can be measured. These are based on value judgments and theories of economic rationality which are, for all practical purposes, beyond validation in objective or quantitative measurements. This discussion will provide background material for later analyses concerning market and governmental failures, welfare economics and the concept of public goods.

### *Positive and Normative Economics*

Two branches of economic analysis are important in identifying a criterion for evaluating the role of government in economic systems. These are termed positive



and normative economics. These views of economic analysis provide some basis for framing our discussion of the criterion for government actions.

The basic difference between positive and normative economics can be understood by referencing two phrases. Positive economics looks at “the real world” while normative economics examines “the ideal world.” This is obviously a great simplification of the two concepts. However, relating “positive” to “reality” and “normative” to “ideal” provides a basis for remembering the two concepts.

We can add to our understanding of the differences by referencing the distinction proposed by Holcombe. “Positive economics examines the real world to discover what it is like and how it works. Within the realm of positive economics there is no concept of public interest, nor of what the world ideally should be like. Normative economics makes value judgments as to how the world should be. Normative analysis assesses the desirability of the facts determined through positive economics” (Holcombe, 1988).

There is a basic point of reference by which we can distinguish between a positive and normative analysis of an economic action. This point of reference involves a shift from facts to values. Positive economics looks at verifiable situations through measurable results. In this case, the facts either prove or disprove a result. For example, a tax, such as a user tax, may be intended to alter consumption patterns. The result of the tax on consumption patterns is measurable, that is, people will change their consumption of the item depending on individual choices. Consequently, consumption may either increase, decrease or remain the same — there is a before and after measure of its consequences. This is a measurable result of the tax.

We switch from positive to normative economics when value judgments are made about the results of the measurable fact. For example, a tax on certain items, such as tobacco or alcohol, which results in less consumption of these items may be considered a beneficial result by those who see the effects on people who previously consumed these items to the detriment of their health. For those who wish to consume these items, but now can consume less because of the tax effect on their income, the imposition of the tax might be considered a negative result. To put the difference more explicitly, positive economics rejects a label of good or bad of a public finance decision; while normative economics provides a value judgment of good or bad on the results. The importance of distinguishing between positive and normative economics is stated by Holcombe. “The distinction between positive and normative is crucial to public sector economics. With public sector economics,... normative elements necessarily enter into the picture because the government’s activities are voluntarily chosen by the individuals in a society” (Holcombe, 1988). Positive and normative economics are necessarily linked in

public sector economics. The analysis of the real world through positive analysis leads to political decisions that are based on normative evaluations of the political and economic system.

### *Promotion of Efficiency and Competitiveness*

The fundamental criterion for evaluating the market economy is the efficient allocation of resources. The ideal market economics involves the production and exchange process of the market where individual wants are satisfied. If this is the “reality”, there would be no need for government intervention. However, as we shall investigate later, a completely efficient market does not exist in “reality.” Consequently, we can evaluate government actions to the extent that the promotion of efficiency and competitiveness can be measured by economic data and laws designed to promote the goals of economic efficiency. There are, however, other goals such as fairness, equity, justice and freedom that are important in societies which are realized through the political and cultural institutions of society.

Measures which promote efficiency and competitiveness rely on the protection of economic interests through anti-monopoly laws, property rights laws, measures against fraud and deception of consumers and other such laws regulating banking, securities, and insurance sectors of the economy. To the extent that a private sector dominates the total share of an economy, the government must rely on more regulation of economic activity to insure that the market operates efficiently and competitively. The change from an ownership state to a regulatory state presents one of the major problems for the role of government in the economies in transition.

### *Protection of Individual Rights*

According to Holcombe “The operation of a market economy depends on the protection of individual rights, which is the primary function of all governments” (Holcombe, 1988). The purposes of government have necessarily evolved over the centuries. From protection of the physical person in feudal times to the modern function of protecting the economic, social and, even environmental rights of individuals, the role of government has now intruded into all aspects of human life.

The extent to which government should “regulate” individual actions is one of the major debates of the last twenty years. Certain governments, such as the Reagan and Thatcher governments, felt that government had gone too far in regulating economic activity. Based on this belief the government bureaucracy created to protect the individual’s rights was now deemed to be detrimental to the operation of a market economy. This political philosophy places a greater reliance

on individuals protecting themselves through the market rather than by the government through regulation.

However, others argue that certain segments of the society and economy would not be adequately protected if only market forces were allowed to operate. These arguments focus on employment rights for certain groups, opportunities for entering certain businesses because of a lack of capital or pricing by existing firms that precludes entry, and access to the justice system which is not possible to certain low income or discriminated against groups. The redistribution of wealth through government tax and allocation policies seek to overcome the inequality of market activity.

Where to draw the line between allowing markets to operate freely and protecting individual rights is a dilemma in mixed economies based on democratic principles. There are few guidelines for determining where the line should be drawn. We will examine some approaches to this dilemma in the following discussion.

### *Defining the Public Interest*

One measure of determining public finance policies is by defining them as in the public interest. Defining what is the public interest, however, is an old debate in political philosophy and economics.

At one time, the means of determining the public interest could be resolved by direct democracy in which all citizens could vote on issues. However, over the centuries, as populations have grown and societies have become more complex, the actual practice of direct democracy became impossible. Therefore, voting as a means of determining the public interest was replaced by a system of representative democracy. While this system served as a surrogate for direct citizen participation, the rise of special interests (interest groups) in complex societies tended to subvert what could be considered the overall public interest. Consequently, attempts to evaluate public finance policies as being in the public interest in modern societies has become impossible for lack of a measurable and specific method.

In earlier theories of political economy an approach to defining the public interest was proposed by Jeremy Bentham and further advanced by John Stuart Mill. Bentham defined the public interest as being that action which produced the greatest good for the greatest number. It would seem obvious that all public decisions would be based on this criteria. However, determining who and how many people benefit from a government action compared to the number who lose

as a result of that action is difficult or practically impossible to determine. Again, this approach lacked a mechanism for determining what was the greatest good.

The approach advanced by Bentham and further refined by John Stuart Mill came to be known as utilitarianism. This philosophy advanced the idea of utility or satisfaction stemming from each individual's consumption of a good or service. The goal would be to apply those policies in amounts that add utility or satisfaction to individuals. The method as explained by Holcombe was that "to measure the public interest was to add up the total utility of all the individuals in a society; any policy that increased the total social utility would then be in the public interest" (Holcombe, 1988).

There are numerous drawbacks to applying this utilitarian approach in practice. Again, there is no satisfactory method of measuring satisfaction among all individuals in society due to different values and wealth characteristics. A second objection is that a purely economic approach to determining the public interest may violate certain political, democratic or human rights. As described by Holcombe (1988), even slavery might be calculated to be in the public interest on purely utilitarian grounds. Therefore, utilitarianism lacks a broader framework by which public interest decisions can be evaluated.

#### *The Relationship between Economic Efficiency and the Public Interest*

Efficiency is the basic criterion for evaluating the operation of market systems in general and for evaluating the effects of government intervention in particular. Aggregate efficiency refers to the macroeconomic functioning of a given economy in terms of the aggregate levels of prices, production, employment, savings, investment and outcomes. Allocative efficiency refers to the allocative functioning of an economy as a whole, and of specific markets within the given market system. It is concerned with the allocation of the scarce factors of production, that is, labor, capital and land, to the production of goods and services for the satisfaction of consumers. These concepts grew out of the Keynesian revolution in economic thinking following the publication of *The General Theory of Employment, Interest and Money* in 1936. They were refined and applied to the practical problems of economic management after World War II. The Keynesian approach to economic management is further described in a later section on the activist role of government.

The concept of allocative efficiency had its original genesis in classical economic theory and the notion of utilitarianism discussed above. It was refined and formalized in the work of the neoclassical economists at the end of the nineteenth century. Vilfredo Pareto is credited with defining the conditions for full allocative efficiency in this period. These conditions are often referred to as Pareto Optimality which is more fully discussed in the next section.

*The Pareto Optimality*

We address the concept of Pareto Optimality here as a criterion for evaluating government actions. This is an important concept in public finance and provides the basis for economic and expenditure analyses. The criterion and application for government actions were developed by Vilfredo Pareto, an Italian economist and sociologist.

Pareto Optimality consists of three conditions which must be fulfilled in order to be able to state unequivocally that an economy has reached the point of maximum efficiency. First, goods and services must be allocated to maximize consumer satisfaction. This condition is met when no goods or services could be redistributed to make one consumer better off without making another consumer worse off. Second, factors of production must be allocated between goods and services to minimize the cost of production. This condition is met when no factor of production could be reallocated to increase the production of one good without reducing the production of some other good. Third, the system must also maximize production. This is accomplished when no factor of production could be reallocated to the production of a good that could make a consumer better off without making another consumer worse off. This last condition basically ensures that the exchange values for goods and services generated by the preferences and income levels of each consumer are equal to their production costs as generated in the use of the factors of production.

It is the competitive pricing system that provides the mechanisms for achieving these three conditions. Indeed, it has been proven that it is only when the conditions for perfect competition exist in all factor markets and in all goods and services markets that Pareto Optimality can be reached. Furthermore, any given optimal allocation depends upon the initial distribution of the ownership of factors of production, which alone determine income levels in the microeconomic world. In other words, if the distribution of income is changed, the market system will adjust to this new situation and result in another optimal allocation of resources. Thus, the efficient allocation of resources is entirely independent of the distribution of resources — an optimally efficient system can be very inequitable in its distributive results. It should also be apparent that Pareto Optimality can never be achieved in the so-called “real world”, since the stringent requirements for perfect competition are never achieved in reality. However, it does provide a benchmark, or rather a set of benchmarks, for evaluating whether one situation is more or less efficient than another. It is in this capacity that the concept of Pareto Optimality has been applied to the public sector. It allows one to judge whether government actions increase efficiency or not.

The basis of Pareto Optimality is that as long as one individual's interests are advanced without harm to any other individual then the public interest is served. Based on this approach, as long as public finance decisions do not harm anyone, and promote the interest of at least one person, the government should pursue policies to the point where the adding of additional benefits causes someone to lose. While this situation provides an attractive win-win situation; in actuality very few public policies can be said to be neutral or positive in all effects. Many public finance policies are directed at the redistribution of wealth through taxes. Some citizens are made worse off in terms of wealth or disposable income because of the decision to finance some public goods or services that are consumed by those who do not pay. This represents the conflict between the functions of redistribution and efficiency since it is not certain that an equitable state is also necessarily an efficient state.

The Pareto criteria provides a theoretical framework for evaluating government actions. However, its limitations are considerable in actual practice. The basic difficulty is that, in reality, almost all government policies tend to involve some winners and some losers. Public finance decisions are made in complex societies today and calculating benefits and losses across a population is impractical. Pareto recognized this difficulty and felt that there should be some method by which the winners would compensate the losers due to this policy decision. However, it is difficult, if not impossible, to develop a compensation mechanism that is not rife with problems of its own. Moreover, there are severe practical problems in determining the amounts by which losers need to be compensated to correct inequalities.

Another deficiency of the Pareto approach is that it tends to maintain the status quo in economic situations (Holcombe, 1988). If Pareto optimality could be applied, then changes based on political and social rights such as the elimination of discrimination against women and minorities would not be possible since these actions would necessarily produce some winners and losers in terms of economic potential.

### *Cost-Benefit Analysis*

An approach that tends to be more objective and measurable in determining what actions should be made in the public interest is the application of cost-benefit analysis. This is frequently a method applied in public infrastructure decisions regarding water, sewer, transportation, and other projects. A simple decision rule is applied: if all the benefits, in monetary terms, are greater than all the costs, then the project is in the public interest. Comparisons of projects are

made on the basis of net benefits. Those with the largest net benefits are the ones that should be financed.

There are a number of limitations to cost-benefit analysis. Cost-benefit analysis will be fully described in a later chapter to highlight these difficulties. The main difficulties result in measuring all of the benefits and costs in monetary terms and in applying an appropriate discount rate to future benefits and costs. Comparing public spending projects that have social utility (i.e., education, and health and welfare) against public infrastructure projects, such as roads and highways, proves to be exceedingly difficult. This makes comparisons across all public expenditures difficult, if not impossible.

The difficulties of applying the Pareto criteria through cost-benefit analysis is made more practical through the Kaldor-Hicks criterion. This rule provides a method for potentially compensating the losers. Pareto recognized this lack of compensation as a flaw in his criteria (Boardman, et. al, 1996). Nicholas Kaldor and John Hicks pointed out that, in principle, if the gainers gain more than the losers lose, the gainers could compensate the losers for their losses. Thus, the new rule states: a government action is in the public interest, if the gains or benefits from the action are greater than the losses or costs. This is referred to as the compensation principle, or the Kaldor-Hicks condition. It is the theoretical basis for cost-benefit analysis. In their seminal article, Kaldor and Hicks, demonstrated that while compensation could be paid, it did not matter whether it was or not. From an efficiency perspective, the action improved economic efficiency even if it was unfair to the losers. Thus, the problems encountered in attempting to apply the Pareto Criteria are circumvented. This leads to the decision rule in cost-benefit analysis that only those projects with positive net benefits should be approved.

The above discussion highlights the difficulties of applying an appropriate and measurable criteria to public finance decisions. This reveals the importance of the differences between public and private sector economics and the relationship of public finance economics to the political and social values that must be represented in these decisions. The necessity for judging public finance decisions on a political basis should now be apparent.

### **The Role of Government in Economic Systems**

We can now turn to a more direct examination of several models or theories on the possible roles of the government in economic systems. In doing this we will limit our discussion to three major models which represent the range of ideas. For our purposes here, we consider the classical theory based on the ideas originated by Adam Smith. These were ignored in the twentieth century as governments had

to deal with economic depressions, wars, movements of people from rural to urban areas and increasing demands for government to promote trade and industry. However, the ideas of less state intervention and, in fact, the belief that the state has intervened too much, has made a return to laissez-faire policies popular. This can be seen in the writings of widely read economists such as Milton Friedman and in the political policies of Margaret Thatcher and Ronald Reagan.

The second approach we will examine is the activist approach, based on the theories of John Maynard Keynes. Keynesian economics can be said to have dominated economic thinking from the depression era of the 1930s to the 1970s. In this period, the role of governments continually expanded beyond mere economic policy to include the social policy as well. Government economic policy was expanded not just to solve trade and industrial problems, but to be utilized for purposes of economic stabilization, social mobility of classes and social security protection for the elderly and disabled.

Finally, we will examine the socialist approach which will include the communist system within its framework. While the communist system is now being dismantled, many aspects of it in terms of the role of the government, state ownership of some industries and concern for social welfare still provide the philosophical ideal for those citizens undergoing the pain of the transition. Expressions of this are seen in the popular vote for those “reformed communists”, who have won elections to political office in Poland, Hungary and elsewhere in recent years.

### *Classical Theory*

By our definition of government intervention (provided above) the economic role of government should be minimal. The idea of government not intervening in economic activities is largely attributed to Adam Smith. However, his idea can be found in the statements of others who examined the nature of government. Even Machiavelli had some appreciation for the effects of allowing free competition to the public benefit when he wrote: “It thus comes about that, in competition one with another, men look both to their own advantage and to that of the public; so that in both respects wonderful progress is made” (Quoted from *The Discourses*, edited by Bernard Crick, 1976). Thomas Jefferson also contributed to the thinking about the role of government by stating “that government is best which governs least.” This economic policy of pursuing economic self-interest was compatible with the political philosophy of the time which argued for the rights of individuals against authoritarian kings or rulers. A natural law of competition and self-interest, unfettered by the state, would enable individuals to overcome economic deprivations without the assistance of the state.



However, even Adam Smith recognized and economists since have felt that government has some role to play in economic decision making. Tanzi writes: “At least since Adam Smith wrote *The Wealth of Nations* in 1776, it has been recognized by economists that an organized society requires certain goods and services whose technical characteristics (indivisibility, jointness of production, etc.) make their provision by the private sector unprofitable. These so-called public goods include defense, law and order, justice, basic education, and provision of roads” (Tanzi, 1990).

Pure laissez-faire economics has never been practiced to any considerable extent even by the revolutionary colonists of the United States. Seeing the need to bind the colonies together in trade and in order to bring the produce from the expanding agricultural regions to the markets, the earliest role of the government was to build roads, canals, improve harbors, control flooding, and to create a postal system. The basic role of government was the promotion and improvement of commerce. An extension of this role was to stabilize economic conditions and trade through printing money and paying the national debt. In comparison, European states were much more active in the ownership and promotion of economic interests from the very earliest times.

While even the laissez-faire approach allows for some governmental activity, it does not proceed to embrace public ownership of production or to place severe limitations on the private ownership of land and other productive resources. It is difficult to determine at what point a capitalist or laissez-faire philosophy fades into the socialist concept of the role of the state.

Milanovic provides some thoughts on the conditions of intervention by the state, that do not prevent a state from maintaining a capitalist system. He writes: “The state can exercise vastly different degrees of interference in the capitalist economy without the economy ceasing to be a capitalist one. The state can determine some prices, or leave all of them free; it can bail out some private firms, or let them go bankrupt; it can impose different tax rates on different products or firms, or impose no taxes at all. Private entrepreneurs/capital owners may in one case have to operate under very stringent regulations (their range of free decisions being accordingly curtailed), while in another case there may be no restrictions at all. However, in all these cases, the economy remains capitalist” (Milanovic, 1989). Milanovic makes an important characterization of a capitalist system with different degrees of state intervention. It is not so much the fact that the state intervenes, as it is the extent of the intervention into the decisions of the economic agents. The fact that certain actions of economic agents are constrained by the state does not render the whole economic framework a socialist state.

As noted earlier, some economic theorists such as Milton Friedman of the so called Chicago School, and political leaders, such as Reagan and Thatcher, believe that the level of intervention by the state has proceeded too far in the last half of the twentieth century. They view government regulation as interventionist and the cause of many economic problems. Their emphasis is on restraining government intervention and government ownership of certain economic activities. In their view many of the interventions create some of the modern problems facing societies, i.e., rent controls lead to housing shortages, oil price controls lead to long gas lines, and labor unions with too much power lead to higher wages and prices.

Accordingly, the management of modern economies is not to be accomplished through government intervention, but through regulating the money supply. This approach to government finance is called the Monetarist Model. According to Michael Brown “The monetarist model of the economy was fundamentally a revival of the old market model, with a new twist to turn the tables against what were said to be failed Keynesian policies” (Brown, 1995).

The basic proposition of monetarists is that the supply of money in circulation produces inflationary pressures. By regulating the supply of money through interest rates and government spending, the economy can be regulated better than through more direct intervention. These ideas fit neatly into the policies of Thatcher and Reagan who wanted less government and more private sector decision-making on economic activities.

### *The Activist Approach*

The activist approach is characterized by the theories of John Maynard Keynes who provided the theoretical foundations for the government to manage national economies. The classical role of government changed in the twentieth century as a result of large scale economic problems; such as depressions, immigration, and urbanization. Solutions that involved voluntary or individual actions were not possible. The free market became a highly complicated money and production exchange system. The most important consequence of this fact was that the private sector was not able to produce all of the social goods and services needed, such as housing, transportation, sanitation, and education.

The reasons for the government to increase its role are due to several aspects of market failures. These include, according to Musgrave (1984), the following:

1. markets do not always lead to efficient allocation of resources where competition is limited or non existent.

2. without legal and contractual arrangements to enforce market activity there is no means to insure efficient market activity.
3. social values are not reflected in market decisions, but play a role in determining employment, prices and economic growth.

The Keynesian approach relies on active government fiscal and monetary intervention to adjust the demand side of the economic equation. As Michael Brown has written: “What Keynes proposed was that governments should manage effective demand in several ways: to expand it if a slump threatened and cut it back as the boom got under way. Governments could influence interest rates by their own borrowing and lending policies; they could run their own investment programs to balance private investment; and they could simply run a deficit or a surplus on their income and expenditure account, spending more than they collected in taxes to offset a slump, collecting more than they spent to steady a boom” (Brown, 1995).

The Keynesian model of government intervention in the economy came from the necessity of governments having to respond to the conditions of the Great Depression of the 1930s. The traditional approach of the laissez-faire model was insufficient to overcome the extreme depths of the world wide economic situation. In fact, most government policies at the time only deepened the crisis. These policies included cutting back on government spending and imposing trade restrictions that attempted to export the economic problem to other countries. The high level of interdependence between the domestic economy and international trade was not yet fully recognized. Keynesian ideas in terms of government intervention became the only viable alternative for the capitalist market oriented system. The other alternatives, nazi or fascist states, were feared by the democratic as well as communist states.

Keynes developed his ideas regarding government intervention from the results of the settlement against Germany dictated by the Allies following World War I. The onerous system of reparations designed to punish Germany was correctly perceived by Keynes as eventually harming the victorious allies’ economies. The payments made by Germany through exports would leave very little money to buy imports from the allies. Consequently, these export markets would suffer as well.

R. H. Coase presents an interesting perspective on why Keynesian economics became rapidly popular with governments. He writes: “This swift adoption of the Keynesian system came about, I believe, because of its analysis in terms of the determinants of effective demand seemed to get to the essence of what was going on in the economic system and was easier to understand (at least in its broad outlines) than alternative theories. That the Keynesian system offered a cure for

unemployment without requiring any sacrifices, provided a clearly defined role for government, and a policy easy to carry out (as it then appeared) added to its attractiveness” (Coase, 1994).

Keynesian economics was the dominant economic model from World War II to the 1980s when the effects of large budget deficits and the financing of these deficits proved to be more politically unpopular than economically sound. One of the raging debates in economics during this period was whether budget deficits really mattered in terms of economic performance of an economy. However, the calls for balanced budgets to reduce taxes and lower interest rates, and calls to cut back on government spending and bureaucracy had powerful political appeal as evidenced by the election of Thatcher in Great Britain and Reagan in the United States.

### *The Socialist Approach*

The two approaches described above differ only in their orientation toward government involvement in the economy. Neither would go so far as to advocate large state ownership of productive enterprises. Government interference is largely confined to specific sectoral problems and overall economic conditions. Under these approaches the market economic agents are able to compete and engage in activities without intervention by the state into the overall production or delivery of services.

Milanovic described the extreme case of state socialism as follows: “In state socialism in its pure form all economic decisions are taken by the state. There is de facto only one economic agent: The state. The range of freedom for individual enterprises is nil: all the decisions about prices, quantities of inputs and outputs, firms suppliers and buyers have already been taken. Individual enterprises are simply sub-departments of the national economy (part of a single workshop, masterskaia, as Bukharin and Preobrazhensky called it.)” (Milanovic, 1989).

The extreme socialist approach of the communist system has been discredited over the past twenty years, leading to its collapse in 1990. Aside from the defects of its political system there are numerous reasons for its failure as an economic system.

Joseph E. Stiglitz detailed these in his book *Whither Socialism?* He identified the following as the reasons why the socialist economies failed. The concentration of authority for economic decisions could not lead to correct decisions largely because of the lack of information on which to make these decisions. Second, the obsession with product quantity was made at the sacrifice of product quality. As Stiglitz relates: “it was hard for the central authorities to specify, in their central

planning exercises, the precise nature of every commodity, including the quality of the produce” (Stiglitz, 1994). Additional deficiencies identified by Stiglitz include: (1) the absence of incentives (either wage or standard of living) to encourage more economic efficiency; (2) the lack of accounting and pricing systems to provide meaningful economic data; and (3) the failure to have competition as a means of pursuing economic rewards or product quality.

Perhaps Stiglitz’s most insightful reason for the failure of the socialist system is his assessment of the change in industrial structure and the inability of the socialist system to adapt. He writes: “But the last fifty years has seen a marked change in industrial structure, the growth of the service and high-technology sectors and the decline in heavy industry” (Stiglitz, 1994). Relating these to the socialist system Stiglitz further explains: “The system (socialist) failed to adapt to the innovations that were occurring elsewhere in the world. It is not clear that it could have adapted. In the evolution of the world’s economy, there may have been a short window of time, the period of heavy industry associated with steel, autos, coal, and so on, in which some variant of socialism may have been able to work” (Stiglitz, 1994).

Some prophesizing about the eventual outcome of the competition between socialist and capitalist systems in the twentieth century by Leon Trotsky in his *Toward Socialism or Capitalism* written in 1926 seems appropriate to close the discussion about socialist systems. He stated: “If world capitalism led by European capitalism establishes a new dynamic equilibrium ... and if capitalist production in the forthcoming years and decades begins to expand, we, the socialist state...will have to try to catch the express train” (Quoted from Milanovic, 1989). This is the situation that now faces the countries of Central Europe in shifting from socialist to capitalist system.

### **The Changing Role of the State**

The political and public finance dilemma of initiating changes successfully was recognized by Machiavelli and is appropriate to quote as we examine what changes are possible in the Central European region. Machiavelli proclaimed “It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institutions and merely lukewarm defenders in those who would gain by new ones” (Machiavelli, 1513).

The models presented above provide only reference points for making cross-country comparisons. The importance of including these in this text is to orient the reader to the options based on political philosophies and to provide a framework

for understanding the remaining chapters of this book. This is a public finance book that examines public finance in an unstable transition situation. Consequently, the discussions and information presented represent a system not fully envisioned or complete. The trial and error methodology in the transition countries of Central Europe makes a tight, consistent, and logically arranged text extremely difficult.

The role of the state is the central and fundamental issue in understanding where the system of public finance will ultimately end up in these countries. Most countries in the region still have not completely transitioned from socialist systems to full blown market style economies. Politics and elections have insured this, as people have proven to vote with their pocketbooks in such countries as Poland and Hungary where a resurgence of reform communists has been successful in the mid-1990s.

### **Changing from a Socialist to a Market Economy**

In this section we will address some of the issues involved in the transition from a socialist to a market economy in Central Europe. Much has been written about this transition and the many facets of this change. We can only highlight some of the issues which are directly related to public finance.

It is useful to differentiate some aspects of the capitalist and socialist system. The socialist systems, in the extreme, merged political and economic power through the governing apparatus. The lack of competing political parties or a pluralistic society with diverse interest groups resulted in a very rigid and hierarchical power structure. There was no opportunity for competing values to be heard or become dominant. Power, thus, became easily concentrated and controlled.

The capitalist system provides for a separation of political and economic power. Power could never be completely centered or concentrated. Therefore, all economic and political decisions have to be made based on compromises and with flexibility.

This presents one of the dilemmas in the transformation of the socialist system. Earlier the situation of the state apparatus blocking economic reforms was described with reference to the Ukraine. This situation is basically true throughout the Central European region. The importance of the state apparatus was noted by Milanovic when he describes the difficulties of change in the state socialist system. He writes: "First, changing the level of state intervention in state socialism is more difficult than it is in capitalism, because such a change directly affects the dominant mode of production. This is particularly true for the dominant mode of production because it determines the overall structure of economic and political

power in the system, with the result that the people who have the greatest stake in its preservation are always the most powerful” (Milanovic, 1989).

The role of government is dramatically changed in the transitional period from the socialist systems toward the market oriented systems being developed in Central Europe. A change of system from one in which the government acting as an agent of the leading political (communist) party directly managed the majority of the social and economic processes in the system to a system in which the government through multi-party competition has a predominantly regulatory role is a necessary condition of the transition. This is a very complicated, and most probably, a long term process in reality.

William Nordhaus (1992) has concisely identified the requirements for the transformation of the socialist system imposed under the communist rule in Central Europe. The following are major requirements to change the socialist system:

- Price reform and free market pricing to include the elimination of central allocations and rationing, raising prices on necessities, freeing competitive sectors of the economy and privatize or regulate natural monopolies
- Labor market changed to include provision for laying off workers, providing unemployment insurance and welfare reforms, as well as mobility through housing reforms.
- Imposition of hard budget constraints through accounting reform, credit constraints and tax negotiation
- Stabilization through reducing budget deficits, raising interest rates, and anti-inflation measures
- Decentralize economic decisions by allowing private property, separation of firms from government ownership and privatization.

As indicated by Nordhaus, the most important economic requirements to change the socialist system are privatization, defining the level of state ownership of economic agents, decentralization of political and economic decision making, and the establishment of a new system of economic regulation. We will examine these in the following sections.

### *Privatization*

Privatization has occurred in the developed, developing and transition countries, but at different scales, sizes and speeds. Nicolas Barletta in the preface to a book titled *Privatization and Development* written in 1987 made these comments: “In the past several years, interest in privatization—which means contracting with or

selling to private parties the functions or firms previously controlled or owned by governments—has been growing in both developed and developing countries. There are many reasons for this, but the most important have to do with a combination of growing pressures on budgets and mounting evidence that the competitive discipline of private markets increases efficiency, producing greater quality at a lower cost. Even the socialist countries have thus been affected by the movement, and pressures for privatization have surfaced in almost all of the Eastern bloc countries” (Barletta, 1987).

We must address privatization in two different aspects in the Central European transition. There are fundamentally two different privatization actions being simultaneously accomplished. The first relates to the transfer of the ownership of economic agents from the government to the private sector. The second relates to allowing the delivery of certain public goods and services through private enterprises or non-governmental organizations. This second point is more concerned with alternative service delivery systems that will be more fully explained in a later chapter.

The importance of the transfer of state ownership, commonly called privatization, in the transition has been emphasized by Brada as follows: “Only if transition economies are able to make large and lasting changes in the ownership of productive assets away from the state and toward individual owners will they make the transition from socialism to capitalism. How to bring about such a change in ownership is bound to be a difficult and contentious issue” (Brada, 1996).

The speed and methods of privatization of productive assets is one of the major debates within the region. Each country has proceeded at a different pace and utilized several methods to privatization. These decisions are largely dictated by the political situation and in most countries have been somewhat erratic over the past seven years.

The proponents of a broad and fast privatization program support their ideas with several economic arguments. First, that this will produce incentives for rapid development by using profits as an incentive to become productive and efficient. Second, that the sale of state owned enterprises will enable the government to overcome budget deficits and provide for social needs. In most cases, these ideas have been difficult to realize in practice.

The limited and slower pace of privatization has been based on several factors within the transition countries. These include: (1) ideological opposition to private ownership; (2) social problems relating to unemployment and welfare that accompany the privatization process; (3) difficulties of the privatization process



itself in determining a fair, equitable and feasible basis for the privatization of property; (4) difficulty in determining what should be privatized with respect to certain utilities and the natural monopolies, particularly in the energy and telecommunications sectors. Additional problems have arisen due to failures to find qualified buyers in many instances. Also, the controversy over the possible transfer of ownership to foreigners of land and other assets has been an obstacle in many cases.

A variety of methods are available to accomplish the privatization objectives in the transition. These include returning the property to the prior owners where possible, sale or auctioning of the property, mass privatization through voucher methods, and encouraging new firms and entrepreneurs to create new private enterprises.

Returning property to the former owners or descendants poses many difficulties and seems to have limited potential. Ownership records may no longer exist and finding descendants willing to assume ownership can be difficult. The restitution of land could disrupt agricultural production because new private farmers must overcome small land holdings, insufficient capital, and inexperience with management practices (Brada, 1996). Some areas, such as forests, may be exhaustively cut for immediate revenue rather than being properly managed over the long term. This has occurred in some areas in Albania and Slovakia. Some properties may now be used for public purposes and returning them to the original owners may create problems in providing educational, health or social services now being delivered from these properties. Finally, the valuation of these properties is difficult to determine and the properties may be essentially worthless in their present condition.

Privatization through the sale of state property may be realized in two basic forms—as a sale of small properties (shops, flats) or as a sale of huge enterprises (or their shares). The first form was often used in the first period of transformation in most of the countries (OECD, 1993). The sale of large entities, or a substantial amount of their shares, is politically very sensitive especially during the current period in several countries where the wealthy or influential gain control in the domestic market or where foreign capital investments take over all of the best enterprises. In many, if not most, countries, small businesses were successfully privatized. However, the expected level of competition did not arise. The experience in most of the transitional countries has been characterized by monopolistic behavior and price setting techniques by many small firms in all branches of the economy—industry, commerce, and services. This is the reason many people call for an increase of government influence in the economy in some of the transitional economies now — especially with regard to price controls and the elimination of

“bad business practices.” The bureaucratic response to such calls is evident. For example, in Slovakia in 1995 tightened price regulations represented a move back from market to calculated prices.

The sale of large firms to domestic private investors or foreign investors is much more controversial and generally least successful. There are problems because of a lack of domestic investors. Several countries have worked to prevent foreign investments from representing too high a proportion of the national economy because of political reasons or poor economic performance of existing foreign investment in the country. There are several examples of foreign firms that have not performed well — K-Mart in Slovakia is one of many such cases. The sale of property is very often not transparent and realized not for public, but for small group interests (Nafta Gbely-Slovakia).

An additional factor in this situation is the transformation of the formerly defense oriented industries to consumer and durable goods. The problems of changing the production mode of these goods and finding markets where these could compete against Western products only produced a situation in which there was further declines in production. Many Western firms took over existing plants or built new ones in the region with higher levels of technology in order to get into the emerging consumer markets as early as possible. This tended to place domestic enterprises at an additional disadvantage.

Mass privatization provides for eligible persons to bid their vouchers for shares of state-owned enterprises. This method was implemented in most of the Central European countries, with a high level of success in some, such as Czech and Slovak Republic, and Poland. It is very interesting that relatively concentrated shares of ownership have now emerged, although concentration was not what was originally hoped for.

Privatization from below is realized through the formation of new private firms. Many small or medium private business firms have been established during the transition in Central European countries, especially in construction, trade and services. These firms may create a “healthy and independent basis” for competition and decentralization. However, in most countries, high taxes, limited access to capital (credits) and heavy government regulation present serious obstacles to small business growth.

### *State Owned Enterprises*

An accompanying movement to the mass privatization effort is the liquidation of certain state owned enterprises. Raymond Vernon in a World Bank Economic Development Institute working paper written in June 1988 stated that: “In the last

five years, governments in upwards of 60 countries have announced their intention to dispose of some of the enterprises that they own. In some instances they plan to sell them to the private sector, and in others to liquidate them. The countries represented in the group vary widely, ranging from mature industrialized entities, such as the United Kingdom and France, to struggling economies such as Bangladesh and Sri Lanka. Even countries organized on socialist principles, including the Soviet Union and China, have taken measures that seem to be loosening the ties of their enterprises to the government” (Vernon, 1988).

An issue of critical importance is the extent to which state owned enterprises will be a part of the total economy. The arguments for limited state ownership and more semi-public and semi-private institutions to increase market efficiency (White, 1981) are opposed by some theorists (Hayek, 1973). There are several arguments against a rapid transfer of state owned enterprises. Among these are the deficiency in corporate governance methods through corporate boards and shareholders and the lackluster performance of many of the privatized state firms (i.e., the banks in the Czech Republic in 1996). There is also often opposition to the sale of national treasures which deprive the state of revenues after the sale. The idea that selling state owned enterprises will lead to a competitive economic environment is not completely certain in the transition (Cullis and Jones, 1987). A free economic system, open to entry, coupled with an educated and active consumer population may be as important in developing a market system.

The sale of certain public utilities and natural monopolies is even more difficult to accomplish. Several political and economic arguments against an “ill prepared” transfer of ownership from the public sector have been identified. First, citizen’s expectations could be decisive in non-competitive branches (Pejovich, 1996). Universal access to free public services, a characteristic of the old system cannot be rapidly changed to the user charge systems that are utilized in Western market economies. Areas like education, health care, welfare and social services are very politically sensitive. Citizens will resist changes which diminish their access to these services.

Second, market instruments do not work well in the non-competitive environment for most public sector services (Robinson, 1995). Many argue that the form of ownership in the non-competitive environment is not decisive in ensuring efficiency, economy and effectiveness of delivery and cost of services (Weisbrod, 1988). There are examples of failures in the transition economies where reliance was placed on simple transfers of ownership (i.e., Czech health care reform).

The complexity of the public sector means that privatization of state owned enterprises is not a simple transaction that can always be realized successfully.

The form of privatization in the non-competitive sectors has to be decided on a case by case basis. In many instances state ownership will remain in the first stage of reform. First, a competitive environment must be established in basic industries while a competitive behavior of consumers is developed. Then the transfer of ownership in the non-competitive sectors can be examined with emphasis on efficiency and equality of service delivery to the population.

### *Decentralization*

Another main theme in global change is decentralization. Two types of decentralization are occurring with respect to the role of government. The first pertains to the direct involvement in economic decisions at the plant or factory level. With the demise of state owned enterprises, government managers no longer make the decisions. The decentralization of production, distribution, and pricing to plant managers represents a decentralization of decision making in the private economic sector. The second aspect of decentralization is the devolution of authority from the central government to local units of government and an emerging non-governmental sector.

We begin a brief overview of decentralization in relation to economic decision making between the central planning apparatus and the factory manager. In the former planned or command economies, central directives provided most economic decisions. In this system, the emphasis was on quantity or quotas of production being met without regard to pricing or consumer needs. In the market system, decisions on production are indicated by pricing, competition and consumer driven demand. This requires a fundamental re-orientation from the apparatus of the central ministries and, also, at the factory management level. Managers must be more capable marketers than production engineers.

Some measures of economic decentralization, or liberalization have been developed by De Melo, Denizer and Gelb (Murrell, 1996). Three measures were employed to make a cross-country comparison of Central European countries and the Commonwealth of Independent States. These measures were based on factors relating to the freeing of internal markets, foreign trade and export markets, and freedom of entry to the private sector. Comparisons were made for the years 1989 and 1994. A sampling of the scores for economic freedom is provided in the following table with the scale ranging from 0 (little economic freedom) to 100 (economic freedom) as compared to OECD member countries.

Table 2

	Degree of Economic Freedom 1989	Degree of Economic Freedom 1994
Albania	0	73
Bulgaria	13	73
Croatia	43	87
Czech Republic	0	90
East Germany	0	100
Estonia	7	90
Hungary	37	87
Latvia	3	80
Lithuania	43	80
Poland	23	87
Romania	0	73
Slovakia	0	87
Slovenia	43	83
Ukraine	3	27

Source: Peter Murrell: How Far Has the Transition Progressed? *Journal of Economic Perspectives*, Volume 10, Number 10, Spring 1996, pp. 25-44

According to Murrell “The median score on economic freedom has advanced from 3 to 70, meaning that the median country has traveled nearly two-thirds of the distance from central planning to OECD levels within a few years. Taken as a whole, this is the most dramatic episode of economic liberalization in economic history” (Murrell, 1996).

While there has been substantial progress in economic decentralization, the levels of decentralization measured by the three factors have not progressed evenly. The liberalization of the internal markets has proceeded the furthest, while freedom to enter the internal markets has been the slowest. The restrictions on foreign trade have also been loosened, and this measure has exhibited significant progress in nearly 75% of the countries (Murrell, 1996).

Further evidence of the trend toward measuring economic decentralization is found in the 1996 Index of Economic Freedom prepared by Bryan Johnson and Thomas P. Sheehy. This is a comprehensive measure utilizing ten economic factors. These are: (1) trade policy; (2) taxation policy; (3) government consumption of economic output; (4) monetary policy; (5) capital flows and foreign investment; (6) banking policy; (7) wage and price controls; (8) property rights; (9) regulation;

and (10) the black market. Countries were assessed on a scale of 1 to 5 with 1 being a high level of economic freedom, and 5 indicates that government intervention or ownership is high with little or no economic freedom. Countries with an average score between 1 and 2 on these factors are considered to be free economies, a score of between 3-4 is considered to be mostly not free, and between 4 and 5 an economy is considered to be repressed. For reference, countries with scores between 1 and 2 include Hong Kong, Singapore, Switzerland, Taiwan and the United Kingdom. Countries with scores of 5 include Cuba, Laos and North Korea.

We can make a comparison with the scores in Table 2 above with the results of the index developed by Johnson and Sheehy. The figures below are for the year 1996.

Table 3  
1996 Index of Economic Freedom

	Score	Description
Albania	3.45	Mostly Not Free
Bulgaria	3.5	Mostly Not Free
Croatia	3.7	Mostly Not Free
Czech Republic	2.0	Mostly Free
Estonia	2.35	Mostly Free
Hungary	2.9	Mostly Free
Latvia	3.05	Mostly Not Free
Lithuania	3.5	Mostly Not Free
Poland	3.15	Mostly Not Free
Romania	3.7	Mostly Not Free
Slovakia	2.95	Mostly Free
Slovenia	3.35	Mostly Not Free
Ukraine	4.0	Repressed

Source: Bryan T. Johnson and Thomas P. Sheehy, 1996 *Index of Economic Freedom*, Washington, D.C.: The Heritage Foundation, 1996.

These indices indicate that progress has been made for the most part since 1990 toward a free economy. The lone exception is the Ukraine which still has not been able to loosen its old economic system. According to the report some progress has been made since 1994 in the Ukraine. Privatization in a more aggressive fashion has begun, some subsidies to state-owned enterprises have been reduced and the lowering of barriers to trade has begun. However, according to Johnson and

Sheehy (1996) “The corrupt and entrenched bureaucracy continues to stifle reforms.”

Another equally important area is decentralization of political authority and responsibility from central governments to local units. This is occurring on a global basis as well. According to a World Bank study in 1994 “out of the 75 developing and transitional countries with populations greater than 5 million, all but 12 claim to be embarked on some form of transfer of political power to local units of government” (Dillinger, 1994). This trend has enormous implications for public finance systems in areas of intergovernmental finances, local tax and revenue sources, and on budget decisions regarding what services to deliver to citizens. This is one of the major topical areas in public finance and is the subject of Chapter 3 in this text.

### *Regulation*

Regulation or more properly deregulation is another major trend. This trend is more evident in the industrialized countries of the world, particularly the United States than in some other countries, such as those in Asia.

Regulation has been defined by Meier (1995) as “any attempt by the government to control the behavior of citizens, corporations, or sub-governments.” Regulation provides a whole range of policy options or tools that the government can use to modify or control behavior. According to Meier these include:

1. Price regulation of goods and services
2. Franchising or licensing the right to do business
3. Setting standards for quality of products or production processes
4. Direct allocation of resources; such as natural resources
5. Direct or indirect subsidies or loans as a means of influencing the delivery of goods or services to certain segments of the economy and either promote or discourage entry and economic returns
6. Promotion of competition through anti-trust, monopoly or pricing and advertising regulations.

The issues of regulation and deregulation are more concerned with very free market oriented economies rather than the socialist systems where regulation was practiced through state ownership. Where economies, such as in the United States, have little state ownership, regulation served as the political means to enforce economic sanctions.

The utilization of government regulatory agencies demonstrated a dramatic increase in the US from the 1960s to the 1980s. There was an increase from 28 regulatory agencies in 1960 to 56 in 1980 (Meier, 1995). The Carter administration

began and the Reagan administration continued to stem the tide in the growth of government regulations, but it did not reduce the number of regulatory agencies. The Thatcher government also undertook the deregulation approach, but more efforts were directed at privatization of government services to reduce total government employment.

### **What Role for the State?**

An analysis of the historical basis for the activist or regulated state in developing industrialized economies is provided by Claudio Frischtak who wrote: “During the last forty or so years, the state in most developing countries has attempted to emulate a Schumpeterian engine of growth. State activities were focused on mobilizing resources, directly investing in productive activities or steering them to specific sectors. A complex array of regulatory controls, protective policies and promotional instruments led to the emergence of industries and entire social segments—entrepreneurs and renters—dependent upon them” (Frischtak, 1992).

Frischtak projects that this activist state is no longer relevant to the needs of the industrialized countries. There are several reasons for this. These include a large entrepreneurial class in these countries, the decrease in transaction costs due to greater transportation and communication capacities, even greater global economic relations in areas of finance and capital markets and rapid technological changes. These factors have produced a situation which requires more rapid adjustments in economic sectors. Government’s inability to adapt to changes make them largely ineffective in an activist or industrializing role. Because of this situation Frischtak predicts a new and more limited role for the state. He writes: “The new developmental state will continue to exercise a decisive influence upon the process of industrialization and long term growth. However, its role will be distinct from that of the postwar years. A diminished [government] involvement in directly productive activities will contrast with a greater emphasis on physical and social infrastructure; in maintaining a stable macroeconomic environment, and establishing common development objectives with the private sector, on the basis of which government policies and programs will be carried out. The state will also be required to undertake bold reforms in the regulatory arena: by removing the maze of regulatory controls, promotional mechanisms, and protective regimes, that constituted the instruments of state action under the old paradigm; and by introducing policies, rules and institutions which support efficient markets and improve their distributional results” (Frischtak, 1992).

It is evident from the above that the role of the state in economic policies and intervention is changing dramatically in the last decade of the twentieth century. Unfortunately, there is no clear model or paradigm with which we can describe



these changes at the present time. The complexity of political, social and economic changes makes a clear and direct route to a new economic model very uncertain in the developed as well as transitional countries.

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## **Case Study: Poland: An Economy in Transition**

*Glen Wright*

The issues described in Chapter 1 are illustrated with reference to the transition problems faced in Poland. The change from a socialist to a market economy is a twisted path without a certain outcome. The importance of the political factors involved in the transition cannot be underestimated during the process as illustrated in this case.

Economists concerned with the transition to a market economy from the socialist state have debated many issues on how to handle the transition. The total magnitude of the transition with its political, social, as well as economic problems, renders the task exceedingly difficult. The debate in the early 1990s was whether the transition should be undertaken rapidly or more gradually. The “shock therapy” or “Big Bang” approach was most vigorously applied in Poland. In this short case study we detail some of the thoughts of the principal architects of this reform in Poland. This case study is intended to illustrate the myriad problems associated with economic reform and to provide some relevant experiences to the issues highlighted in Chapter 1.

### *Background*

Poland had exhibited many similar conditions to the other countries in the region as outlined by Sachs and Lipton (1990). These included the following:

1. The Stalinist legacy of highly centralized planning with an emphasis on heavy industry, particularly defense
2. The economic crisis of the late 1980s which resulted in hyperinflation and huge foreign debts which necessitated tight fiscal and monetary policies
3. The power of the communist party was being challenged in various ways throughout the region resulting in political uncertainty.

Poland did have some features which were more specific to its situation which necessitated the development of certain fiscal and monetary policies. First, the increases in prices and wages were explosive in the 1989-90 time period. According to Balcerowicz, “Wages in 1989 were 120 percent higher than a year earlier. Sharp increases in state purchase prices for agricultural products combined with the continued controls on the consumer prices of foodstuffs produced an explosive budget deficit, increasingly financed by the creation of money. The broad money increased in 1988 by 63 percent and in 1989 by 515 percent. After the freeing of the prices for foodstuffs in August 1989, inflation jumped in that month by 40 percent and wages by another 90%. The free market rate of exchange in early

September 1989 was eight times the official one. Poland was entering into hyperinflation, that was accompanied by massive shortages” (Balcerowicz, 1994).

Balcerowicz describes the immediate economic conditions prior to the institution of the reform programs in 1990. However, two other features deserve more attention in order to clearly differentiate the situation in Poland from that of other countries. The first is the importance of the union movement in the form of Solidarity in confronting the government with an effective political, as well as economic and social force. To this should be added the importance of the Catholic Church as a strong force in providing safe havens for the opposition.

The other important feature was the largely private ownership of the agricultural areas, even though these constituted very small individual holdings. The farming sector had benefited from rising food prices without having to pay for increases in agricultural inputs. Consequently, farmers tended to enjoy some advantages, economically, in the initial period of transition. This was a situation that would have to be dealt with in the implementation of economic reforms.

### *Reform Actions*

With so many problems to tackle it is difficult to choose a strategy which can address all of the problems simultaneously. The architects of the reform process made a careful assessment of what were the most critical aspects of the economic problems facing the nation.

The reform program began by targeting the excess demand for consumer goods or the “shortage economy” prevalent in all the Central European economies. The effects of this excess demand were described by Sachs and Lipton as “rampant rent-seeking, queuing, hoarding, and anti-export bias, and an anti-private sector bias” (Sachs and Lipton, 1990). The first target for changing the economic situation was to eliminate this excess demand which was being effected through loose fiscal and monetary actions as well as the obstacles created by bureaucratic controls over production and trade.

Several actions were undertaken in early 1990 to address the excess demand problem. Budget controls were greatly strengthened to offset the demands for subsidies and to overcome the “soft budget constraint” that had characterized industrial management. Wage indexing was also enforced so that additional inflationary pressures were constrained. Credit controls were also imposed more vigorously by the central banks to further control inflation. The result was a decrease in the rise of real wages by 37 percent in a two month period and a decrease in the broad money supply by 27 percent in late 1989.

The next step in the reform process was to create a competitive market through rapid deregulation of prices to induce supply, the promotion of free trade largely through currency convertibility and the removal of import restrictions, the promotion of small scale entrepreneurial enterprises, and through reductions in the state enterprise sector.

The increases in the private sector were dramatic. Excluding the agriculture sector, the private sector workforce grew from 13.2 percent in 1989 to 34.4 percent in 1992. With the inclusion of the agricultural sector, the private sector workforce amounted to 60 percent at end of 1992 and contributed over 50 percent of GDP (Balcerowicz, 1994). Additionally, the size of firms demonstrated a new deconcentration of the Polish economy. The number of firms employing 51-100 workers increased by 202 percent from 1989-91 while firms employing over 5,000 workers declined by nearly 36 percent. Even smaller firms with less than 50 employees were started at rapid pace thereby creating a new entrepreneurial class.

The final step in the reform process was privatization. This proved to be more difficult to accomplish than was expected. This was largely because of political considerations. The main point of contention was the sorting out of the ownership of the enterprises in order to sell the assets. The workers, with their politically powerful influence, contended that ownership belonged to them. However, this was a rather baseless argument since the workers in the industrial enterprises constituted only 30 percent of the labor force and 15 percent of the population (Lipton and Sachs, 1990).

Several alternatives were proposed to overcome the resistance to privatization of the large state owned enterprises. One was the issuance of vouchers to the general public to be used during the auctioning of shares. The holding company approach was also considered in which the public would be given shares in the holding companies of the enterprises. A final approach considered involved making a distribution of the shares to various interest groups; such as the workers, local governments, and the state.

The difficulty in developing the privatization program was exacerbated by the political situation. There was a split in the Solidarity organization between Lech Walesa and the then leader of the government (which was supported by Solidarity), Tadeusz Mazowiecki. Eventually, Walesa won the election in 1990. The aftermath of the election was a relaxation of the strict controls on wages. In the following year, with the formation of a new government, these wage controls were maintained despite intense pressure from the trade unions.

In 1991, parliamentary elections produced a very fragmented parliament with nearly 30 parties. This necessitated the need for over 5 parties to form a ruling coalition. This was the situation by the end of 1991. In mid-1992 this coalition

failed and a new coalition was formed under the leadership of Ms. Hanna Suchocka. This government attempted to reinvigorate the reform effort, but the members of parliament representing Solidarity were able to get a no confidence vote passed in mid-1993 at which time new elections for parliament were held. According to Balcerowicz, "With rather strong and aggressive trade unions, frequent elections and a fragmented party system, Poland fared much worse than Hungary or the Czech Republic, and correspondingly had a much more difficult political environment for economic reform" (Balcerowicz, 1994).

### *Results*

The three areas involved in the reform effort succeeded for the most part. The stabilization of the economy beginning with elimination of excess demand proved successful. Five policies contributed to this success. These were:

1. Balancing the budget with cuts in subsidies and investment spending
2. Credit controlled through the banking system with interest rate increases
3. Currency exchange rates devalued and made convertible
4. Limitation on wage increases through indexing and tax policies.
5. Liberalization of prices all at once with exceptions only in the utilities areas.

The development of a competitive market economy was furthered by efforts to create a convertible currency, the removal of restrictions on quantities of imports, a uniform tariff of 20 percent, the removal of export restrictions, and a decrease in export taxes.

Western financial assistance also proved helpful in supporting the balance of payments problem with loans and a stabilization fund from the International Monetary Fund and governments of the industrial countries. This greatly facilitated the convertibility of Polish currency and the stability of exchange rates.

The final step of the reform process, privatization, proved to be more difficult and beyond the control of those making the fiscal and monetary reforms. The shock approach to this transition was perhaps the only alternative given the circumstances. While the economic policies were clearly delineated, in some cases the political will was not sufficient to enact an overall comprehensive program, particularly with privatization. The necessity of a comprehensive program for the transition is described by Sachs and Lipton. They write: "The transition process is a seamless web. Structural reforms cannot work without a working price system; a working price system cannot be put in place without ending excess demand and creating a convertible currency; and a credit squeeze and tight macroeconomic policy cannot be sustained unless prices are realistic, so that there is a rational basis for deciding which firms should be allowed to close. At the

same time, for structural adjustment to take place under the pressures of tight demand, the macroeconomic shock must be accompanied by other measures, including selling off state assets, freeing up the private sector, establishing procedures for bankruptcy, preparing a social safety net, and undertaking tax reform. Clearly, the reform process must be comprehensive” (Sachs and Lipton, 1990).

*Questions for Discussion:*

1. Compare the economic policies in Poland with other countries of the region, particularly Hungary, that chose another route in their economic transition.
2. Which approach do you think has worked better over the past several years — shock therapy or more gradual approach?
3. What are the factors that are unique to Poland that may not be applicable in other countries of the region?

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## CHAPTER 2: ECONOMIC AND SOCIAL BASIS FOR GOVERNMENT ACTIONS

*Juraj Nemec*

### **Purposes of Public Finance**

*“From birth to death, our lives are affected in countless ways by the activities of government”* (Stiglitz, 1988)

Modern societies have what is called a “mixed economy” - meaning some activities are undertaken by the private sector and some activities by the government using public funds. In this chapter we shall examine economic and social issues of government interventions to further develop the basic ideas of Chapter 1. We shall provide the reader with some definitions of the most important terms such as public finance, public sector, market and others.

There is not a clear distinction or boundary between the public and private sector or between public and private finance. Several activities seem to be fully connected with public finance today (or were yesterday), like redistribution of wealth, providing some public services, building of infrastructure and many others. However, none of these activities could be strictly devoted only to the public sector. Broadcasting services are a very good example of rapid changes. They have changed from originally a public provided and public financed service to a mixed service provision with an increase of private provided and private financed services in Western market economies and more recently the former socialist states.

According to Musgrave (1959) “The complex of problems that center around the revenue-expenditure process of government is referred to traditionally as public finance.” Wagner (1967) further clarifies the public sector activities by stating: “The fiscal economy or public budget comprises those economic activities which the State must carry out to obtain and use the resources or funds which it needs to supply its services.”

To understand the link between public finance and public sector (public economics) we can quote again the seminal work of Musgrave. “While the operations of public budget involve money flows of receipts and expenditure, the basic problems are not issues of finance. They are not concerned with money, liquidity, or capital markets. Rather, they are problems of resource allocation, the distribution of income, full employment, and price-level stability and growth ...those aspects of economic policy that arise in operation of the public budget” (Musgrave, 1959).



There does not exist an exact definition of the “public sector”. Microeconomic theory will not agree with a pragmatic view on the public sector in being “regarded as the outcome of historical processes and political compromise, an evolving organic institution that has changed in response to the imperatives of national security and changing social expectations regarding the welfare state” (Bailey, 1995). It tries to define the public sector by distinguishing between “private (market)” and “public”, or what is most common by describing public sector (government) activities (roles). Neither approach provides a clear categorical definition. However, despite the weaknesses in theory, economics does have some practical measures of the public sector and its size.

Bailey (1995) presents a description of the public and private sector in the following: “The market sector is stereotyped as private, unregulated, economic activity providing output in accordance with consumers willingness to pay, allocation of goods and services ultimately depending on the existence or not of profits.”

Bailey (1995) then proceeds to define the public sector as “stereotyped as planned non-market services, provision of which is determined collectively through democratic decision-making processes, and whose allocation is according to the assessed needs of the final recipient.”

#### *Concept of Collective Action*

There are, of course, other ways through which one can demonstrate the necessity of the public sector. As one of them, the logic of collective action is often given as an explanation why individuals should cooperate. To avoid street accidents, the actions of all drivers must be coordinated. The same is true in the case of the environment. What is good for each utility maximizing individual acting selfishly may not be good for the collectivity as a whole.

The problem of collective action is very often analyzed in the context of a particular game known as the prisoners’ dilemma (Brown and Jackson, 1990). This game involves two players who do not know what the other will do and where there is no communication between them. The players have two alternative strategies - to cooperate, or not to cooperate. Under these conditions there are four possible strategy combinations as shown in Figure 1. Each combination generates an outcome with defined payoff for each player - the higher the payoff the better. The combinations of payoffs are given for each strategy combination (like 3,3 in cell I). In this situation the preferences of both players are as follows:

Player A    Player B  
 Cell III    Cell II  
 Cell I      Cell I  
 Cell IV    Cell IV  
 Cell II    Cell III

Each player faces a dilemma - if he decides to cooperate, he risks the other adopting the non-cooperative strategy. In such situation the expected solution of both players is with high probability cell IV, which is less desirable than cell I in both players ranking. This choice seems to be irrational, but in terms of individual choice it is perfectly rational.

Figure 1. Prisoners' dilemma

		Individual B's strategies	
		Cooperate	Do not cooperate
Individual A's strategies	Cooperate	Cell I  (3,3)	Cell II  (1,4)
	Do not cooperate	Cell III  (4,1)	Cell IV  (2,2)

<u>A's ranking</u>	<u>B's ranking</u>
Cell III	Cell II
Cell I	Cell I
Cell IV	Cell IV
Cell II	Cell III

The prisoners' dilemma example “gets at the heart of the conflict that can exist between individual and collective rationality. The result does not necessarily depend on the two players not being able to communicate. Even if they do communicate there is still fear of double-cross. To achieve the cooperative solution of cell I requires each player to be able to assess the sincerity of the other. A very high degree of trust must exist before the mutually advantageous cooperative solution can be achieved” (Brown and Jackson, 1990).

There are two possible arrangements to achieve collective action (second best solution in terms of Pareto efficiency theory). The first is voluntarily through private sector arrangements or, second, in organized way through public sector arrangements as a result of government decisions. This problem presents the dilemma in the determining of how societies reach a decision on the size and scope of government. Achieving a consensus through trust and cooperation for determining the appropriate public policy goes to the heart of the political system and public finance decisions.

### **Economic Roles of Government**

Public finance literature describes four main economic roles of government:

1. The allocative role - correction of distortions in allocation of resources (market failure conditions).
2. The (re)distributive role - primary concern is equity (welfare economics).
3. The regulative role - enforcement of laws and other types of regulation in order that the market economy may function efficiently.
4. The stabilization role - follows macroeconomic function of government to control inflation, unemployment, and economic growth.

These four functions interact in a number of areas and a full understanding is needed for economic policy-making. In this textbook we focus primarily on the allocative and distributive roles of government through fiscal policy. The stabilization function is generally dealt with through monetary policy of the central bank system. The regulative role is managed by institutions of the government or independent bodies created to enforce competition and protect citizen interests.

### *Market Failure*

Basic neoclassical microeconomic theory describes the use of several models under the conditions of Pareto efficiency where competitive markets achieve “first best solution” (partial and general equilibrium) and why this situation under some assumptions should be achieved. Readers can review these models in standard microeconomic texts.

In this textbook we simply describe the conditions of partial equilibrium and general equilibrium presented from neoclassical point of view. The equations expressing these conditions are as follows:

a/ partial equilibrium:  $MC=MB$  (demand equals supply)

MC - marginal costs

MB - marginal benefits

b/ general equilibrium:

1. efficiency in production:  $MRT_{kL}^X = MRT_{kL}^Y$

2. efficiency in consumption:  $MRS_{xy}^1 = MRS_{xy}^2$

3. total efficiency:  $MRS = MRT$

MRT = marginal rate of transformation

MRS = marginal rate of substitution

Equilibrium models provide that there is no need for allocative government intervention as long as all assumptions used in the given model are valid. The case when the market fails to achieve allocative efficiency (Pareto optimum) is a necessary but not essential condition for government action from the point of view of neoclassical theories. There exist at least two possible causes of market failure (Bailey, 1995):

1. The prices do not equal marginal costs in all sectors of the economy.

2. The prices fail to incorporate all costs and benefits.

These two causes could be described in more concrete terms of market failure that refers to situations in which the conditions necessary to achieve effective market solution fail to exist or are contravened in one way or another (Stiglitz, 1988). The most important assumptions of partial and general equilibrium model are as follows:

a/ producer and consumer maximize their benefits with individuals being the best judges of their own welfare

b/ there are no externalities

c/ there are no public goods

d/ there exists perfect competition

e/ there exists perfect information

f/ there are no imperfect or non-existing markets

From the presentation of basic assumptions of equilibrium models it is apparent that the market system of any economy is unlikely to operate under these conditions. However, the situation when any of these assumptions is not fulfilled is not an automatic impetus for government action. Government interventions in market failure situations should be appropriate only in the case where we expect an apparent increase of efficiency as a result of such intervention.

## **Externalities**

According to Rosen (1992) “An externality occurs when the activity of an entity affects the welfare of another in a way outside the market.” Cullis and Jones (1992) further explain that “an externality is said to be present when the utility of an individual depends not only on the goods and services the individual purchases and consumes but also on the activity of some other individual. ...it is an interdependence that occurs outside the price mechanism.”

The affect of an external entity could have either a positive or negative impact on the welfare of individuals to distinguish between positive and negative externalities.

The formal expression of externality can be written in following form:

$$U^A = U^A(x_1, x_2, x_3, \dots, x_n, y^l)$$

$U^A$  - individual A's welfare

$x_1 \dots x_n$  - range of goods and services consumed

$y^l$  - activity carried out by individual B

The description of an externality as an interdependence between two individuals does not mean that only this type of positive or negative externality exists. We have to understand that there is a producer (subject) of an externality - smoker, rural farmer, etc., and another entity that is influenced by the externality (object) - nonsmoker, urban neighbor, etc. A possible taxonomy of externalities could under this construction be described as follows:

### *A: Positive externalities*

- a1/ producer - consumer type (free public education, charities)
- a2/ producer - producer type (beekeeper - apple orchard relationship)
- a3/ consumer - producer type (human capital developments)
- a4/ consumer - consumer type (somebody allows me to watch his TV set)

### *B: Negative externalities*

- b1/ producer - consumer type (environmental pollution)
- b2/ producer - producer type (water pollution)
- b3/ consumer - producer type (exhaustive collection of blueberries, mountain bike through the forest by off the road areas)
- b4/ consumer - consumer type (disturbing noise from radio)

Why are externalities a problem? In the case of externalities, markets, even perfectly competitive ones, will not produce a first best Pareto optimal solution.

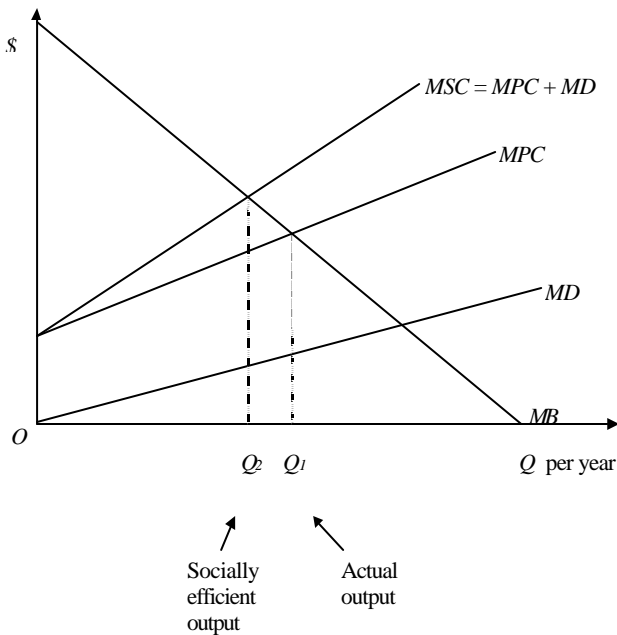
The possibility to produce a negative externality allows the producer of the externality to decrease his costs (increase production) because others (producers or consumers) bear part of the social cost of production.

A typical example would be two factories using water from the same river. Factory A dumps its garbage into the river without cleaning. If factory B downstream wants to use the water from the same river it has first to clean it. Cleaning costs that originally belong to factory A are in this way transferred to factory B without any compensation. This situation changes the marginal cost curve and leads to increased losses in production.

Negative externality situation is shown in Figure 2. We use a standard quantity-price figure, where:

- MB - marginal benefit of producer of externality
- MPC - marginal private costs of producer of externality
- MD - marginal damage caused to consumer by producer (cost shifted by externality)

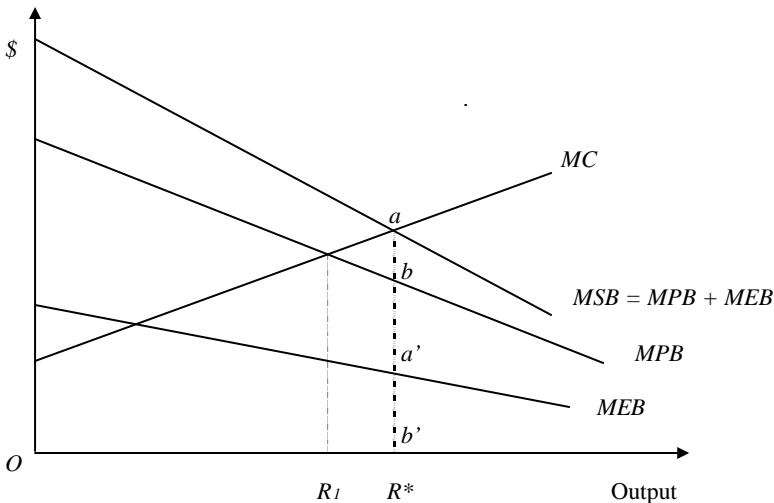
Figure 2 Negative externality



The producer of the externality will produce  $Q_1$  of goods (point where his MB curve intersects MPC curve). However, real equilibrium production (socially efficient output) is  $Q_2$ , where MB curve intersects MSC curve which is a summation of MPC and MD curves. Figure 2 demonstrates why in the case of a negative externality we can expect inefficient output and the economy will not achieve Pareto optimality because the actual output will be inefficiently high.

The reverse is true in the case of positive externality. The individual's action confers a benefit for him (MPB) and a benefit for others (MEB) (see figure 3). The output in this situation will not reach a socially efficient level (intersection of MC and MPB+MEB curves), but only a point derived from the intersection of MC and MPB curves. In the case of a positive externality the actual output will not reach a socially desired level which is an inefficiently low output.

Figure 3 Positive externality



Do externalities require an allocative role for government? Is it necessary to allocate external effects by government intervention? Or are there some effective private remedies?

There are at least five solutions in the case of an externality (see Baumol and Oates, 1979 for more exhaustive explanation):

1. Internalization of externality - mostly taken as a private solution.
2. Prohibition or compulsion.
3. Regulation.
4. Taxation.
5. Subsidies.

**Internalization of externalities.** One possible way to deal with externalities without the aid of direct government intervention is to internalize the externality. Two possible solutions could be given under this situation:

- a/ internalization by establishment of property rights
- b/ internalization by forming an economic unit of sufficient size

The first efficient solution will be achieved if property rights are assigned and this is known as the Coase Theorem (Coase, 1960). This solution is highly attractive for classical liberal economist who strongly oppose any kind of government allocative intervention. Rosen (1992) provides at least two reasons why society cannot always depend on the Coase Theorem to solve the externality problems.

First, the theorem requires that the costs of bargaining not deter the parties from finding their own way to the efficient solution. However, some externalities (air pollution) involve literally millions of people and it is impossible to get them together at sufficiently low costs.

Second, the theorem requires that resource owners be able to identify the source of the externality and there are legal measures to prevent or charge the damage. Is it possible for the owner of the river to discover and charge all individuals who pollute his water?

Forming economic units of sufficient size means that most of the consequences of the externality occur within this unit. Again the idea of this kind of internalization looks very fine if the same body is both the producer and “consumer” of the externality; since the external cost can be internalized within this company ( $MC=MSC$ ). The classical example is the beekeeper and an apple orchard that merge to internalize the externality. This, however, requires that the apple orchard is sufficiently large that the bees stay within it (Stiglitz, 1988).

Economists who carefully assess the potential of market forces to deal with externalities generally conclude that at least some negative externalities should be suitable for some type of government intervention.

**Public remedy for externalities - prohibition or compulsion.** Government can pass legislation which makes illegal any activity causing a negative externality. Total prohibition is nearly impossible; such as to stop all automobile traffic in the city and to force people to walk or to use a bike. However, partial prohibition may often be feasible. In Slovakia it is possible to import used cars only if they are less than 5 years old and are equipped with catalyser - benzine engines.

Compulsion is used in the case of a positive externality. Parents of children of school age are compelled by force of law to send their children to primary school.



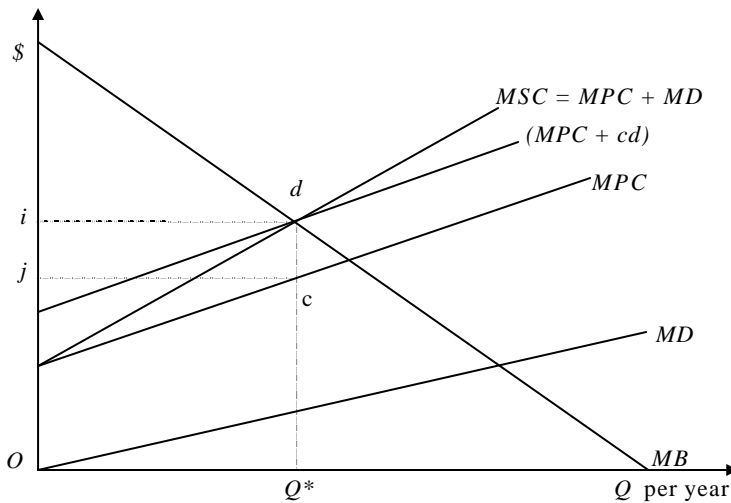
**Public remedy for externalities - regulation.** There are several possibilities to use regulation as a remedy for an externality; such as pollution. Government may simply tell each polluter to reduce pollution by a certain amount. This kind of regulation could reach a socially acceptable level of pollution in the case where there are not too many firms that produce the pollution and a monitoring system exists. In such a situation we are able to calculate the appropriate level of pollution allowed to each producer. However, in many cases some non-calculable limits are introduced in the case of a extremely high number of polluters such as emission limits (standards) for cars.

From the point of view of neoclassical economics this type of regulation is likely to be inefficient when there is more than one firm generating the same externality (Rosen, 1992). Each firm's appropriate reduction depends on the shapes of MB and MPC curves. This kind of output regulation mandates all firms to cut back by equal amounts. This lead to some firms producing too much and others too little.

Government can regulate the level of pollution also without having a monitoring system. It may simply introduce input or output limits on production. It may not allow the use of certain inputs (low quality coal) or to set maximum limits of their consumption in production processes. It may set a maximum level of production of some commodities. Some authors suggest that these kinds of regulation are preferable to monitoring.

**Public remedy for externalities - taxation.** In the situation of a negative externality, the shifting of some parts of the cost generating the negative externality are too low. To correct this the government can simply impose a corrective (Pigouvian) tax to shift the MPC curve. Figure 4 demonstrates this principle.

Figure 4 Pigouvian tax



The tax that is  $cd$  in our figure simply raises the marginal private costs of the producer. With a correct tax the MPC curve is shifted to  $MPC + cd$  curve and a socially efficient output should be achieved. The generated tax revenue ( $cdij$ ) may be used to compensate individuals (firms) damaged by this externality.

The Pigouvian tax seems to be a very efficient remedy for a negative externality. There are many practical problems in implementing it. It is very difficult to calculate an appropriate rate of tax and to estimate the marginal damage function. Pollution caused by cars is a very good example. In principle the corrective tax has to be levied per km. It seems impossible (or infeasible) to administer such tax. Most countries use substitutes like special sales tax on the car, taxes on petrol or taxes per car and year that are theoretically not the most efficient. It is doubtful that such taxes will improve the situation in the form of decreasing traffic (especially if there is no other travel possibility - inelastic demand). Are these taxes corrective or only revenue raising ?

In the period of management reform of public sector some attempts to change the standard taxation system as a remedy for externality were introduced; such as auctions of pollution permits. The government may announce that it will sell permits to produce some kind of pollution. All firms have to bid for permits that are sold on the basis of the highest bid and the calculation of marginal damage is not done by the government administration, but by the market. Many economists are in favor of this method. The debate on the relative merits of taxes and charges versus tradable permits remains unresolved (OECD, 1993).

**Public remedy for externalities - subsidies.** In a situation with positive or negative externality the government may impose subsidies. This seems clear in the case of a positive externality shown in Figure 3. It is apparent that to reach socially efficient output we can (by subsidy) shift MPB curve to MSB curve. Financial sources for this subsidy are mostly (but not necessarily) created via taxation.

In the case of a negative externality subsidies are quite often used as the instrument. There are at least two kinds of subsidies for a polluting firm. Rather than taxing pollution, the government could subsidize pollution abatement expenditures. There are several examples of governments (sometimes of foreign government) paying full costs of highly expensive equipment; such as for power plants in Northern Bohemia.

Also, the government may decide to pay a polluter for each output that is not produced in order to limit the level of production to a socially efficient point.

**Comparison of public remedies.** Most economists do not argue in favor of subsidies because of efficiency, distributive and moral consequences. Subsidization of pollution abatement will lead to excessive production. Subsidization for “not producing” can lead to the increase of the number of firms in the economic area and may not be desirable from a moral perspective (Mishan, 1971).

Most economists prefer economic approaches; such as taxes or subsidies, as a much cheaper remedy for an externality rather than administrative regulation or prohibition. Oates (1985) argues that in some cases the economic solution approach is only one-tenth the cost of administrative actions..

## **Monopolies**

If there is not a competitive environment then market forces cannot guarantee Pareto optimal solutions. The reason is that monopolies will restrict output to obtain a higher price. Because of its power a monopoly can produce, say 100 cars per 50,000 USD instead of competitive 200 cars per 20,000 USD; if this is more profitable. We shall not go further on monopoly pricing as this is more appropriate for a microeconomic text. Those interested can find details on this topic in standard microeconomic literature.

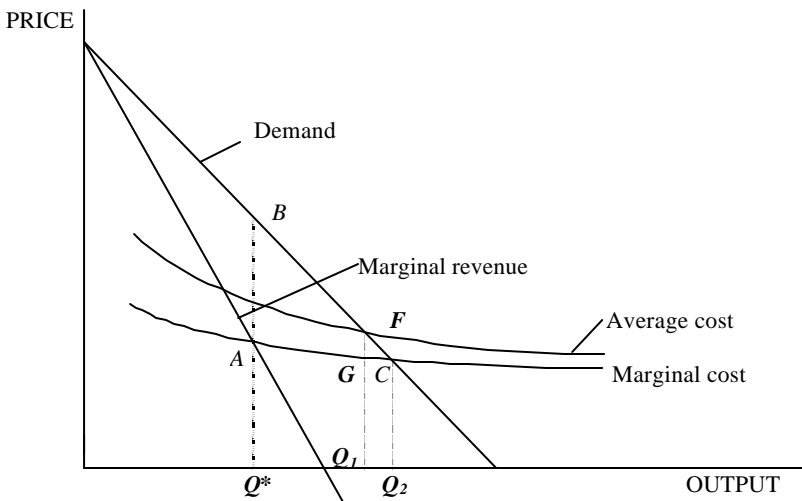
Of the several types of monopolistic behavior the main concern of public economy is natural monopolies based on so called “scale economies”.

In the situation of “scale economies” the average costs of the firm continually fall over the whole range of output. Examples of such industries are utilities like gas, electricity, and water. Decreasing costs arise because of indivisibilities in distribution networks.

Why do decreasing costs limit the possibilities of a market? Since marginal costs in this situation are less than average costs, a price set equal to marginal costs would cause the firm to incur a loss. If a society wants to enjoy the benefits of a larger volume of output and a lower price because of the economies of scale, then the government must intervene in the market. Several possible solutions are available including subsidies and nationalization. It is very important to note that in the case of natural monopolies the breakup of one big firm into a number of small firms for the same good or service is an inappropriate solution. This is because of indivisibilities which may cause important increases in the total costs for producing the same amount of a given good (because the average and marginal costs are decreasing with the scope of production). The same inappropriate solution may be possible through the privatization of natural monopolies (utilities) as intended/expected in many Central European countries. Many Western and Eastern authors warn that changing from a public utility to a private monopoly may be like the change from “devil to Belzebug.” Private natural monopolies may be even more ineffective from society’s point of view than a public utility.

Figure 5 depicts the pricing dilemma for a decreasing costs industry. Generally, the most efficient point is where marginal costs equal price, but at this point average costs are above marginal costs and the firm will operate at a loss. In the case of monopolies it is clear that the firm will not choose this point, but would restrict production to get a higher price - and since a monopoly can do this - the production will be  $Q_1$ . The solution is to use average cost pricing where the industry breaks even. This, however, is not as allocatively efficient.

Figure 5 Decreasing costs (increasing returns) industry



### **Degree of competition in transitional countries.**

The typical problem for all transitional countries is a noncompetitive environment. Small trade in most of these countries is dominated by private ownership. However, some monopolistic behavior of providers survives since there are still too few providers or producers of goods and services and some markets are subject to coercive actions by criminal elements. This situation could be a specific argument for certain kinds of government interventions in transitional countries (like price control). All Central European countries governments and citizens have to be very aware of the surviving noncompetitive environment in most, if not all, industries. This environment limits the possibilities for applying Western efficiency criteria in assessing economic policy in all areas.

### **Information**

To make rational decisions in the market the consumer and producer have to be provided with perfect information. This is generally not true in reality. Without appropriate information the market cannot achieve Pareto efficiency. In practice the market will never reach this ideal. Therefore, some government role in remedying information failure seems to be appropriate in the support of production and dissemination of information.

### **Incomplete and/or non-existing markets**

Several concepts are associated with the issue of market failure. Whenever private markets fail to provide a private good or service, even though the costs of providing it is less than what individuals are willing to pay, an incomplete market exists. Typical examples are insurance and loans markets.

The most important phenomena that causes problems in the insurance markets are adverse selection, cream-skimming, informational asymmetry and moral hazard. All of these can be documented in the example of health care insurance markets. The purchasers of health insurance would be mainly people who actually expect that they will need such insurance - old and/or chronically ill people. These people represent bad risks for profit maximizing insurance companies. Such companies are looking for good risks (young and healthy people). Because insurance is costly, individuals will not seek to discover their real health status. Doctors can provide more treatment than is necessary as they have a "monopoly" on information about the health status of patients and relatively unlimited freedom to decide about appropriate treatment. "Moral hazard" will likely occur, because insured persons will behave in a more risky manner (e.g. will continue to smoke or will not follow all safety rules at work or during free time activities), than those

without insurance. It is apparent in such situations the health insurance market has to fail at least in some aspects.

### **Misuses of the theory of market failure**

Bailey (1995) provides for several misuses of the theory of market failure; such as the following:

a/ Using the concept of public goods to justify provision of the current set of services provided by the public sector.

The private provision of several mixed goods may be or may not be efficient and the externality or distributional consequences may be solved by several kinds of subsidies. This issue is discussed during the transformation in Central European countries. All countries have to decide the following:

- what services will be fully produced by public sector - there is no clear economic reason, say for primary schools, to remain as state owned budgetary institutions.
- what services will be financed from public funds, but produced in private sector (or jointly in public and private sector)
- what former public services have to be completely provided on a private basis

b/ Using public goods, merit goods and positive externality concepts to justify free services.

Only pure public goods may require production costs to be fully subsidized because of private producers inability to recover costs through charges. There are many situations in which the production of a pure public good will occur without any or only with a partial subsidy of the costs. Merit goods and positive externalities may justify only partial subsidization. The example for discussion in Central European countries may be university education. There does not exist any clear economic reason for free university education. Indeed, there may be more arguments against rather than in favor of several special kinds of subsidies for poor students. Many representatives of political parties use public goods or positive externality arguments to continue free provision of this service and are able to stop the proposed change of legislation as has occurred in the Czech Republic.

c/ Using transactions costs as a blanket justification for the current set of public sector outputs on the grounds that a private supplier would exploit the public sector and/or the service user.

There are many examples of efficient production of services in the public sector (Weisbrod, 1988). However, many services could also be provided by

the private sector. Contracting out, commonly used in all Western countries, provides a number of examples that the market could be more efficient than a government structure. All Central European countries have to think much more about the imposition of compulsory contracting out policy; especially at the local level as a part of new public procurement legislation. However, because of the non-competitive environment, the public form of production has to be included as one of the competitive tender options in the market testing procedure utilized, for example, in the U.K.

- d/ Government use of market failure concepts as scientific pretense to impose its own preferences on individuals and communities.

Governments may adopt solutions that are not in the general public interest, but in the interest of smaller groups or of the government alone. To obtain control over small firms; government may adopt several forms of regulation (like price regulations in Slovakia, where the public administrator has the right to decide if the given price for some product is an “adequate” price or not). This is proclaimed on the basis that such measures are directed at correcting the failures of a non-competitive environment.

In the next part we shall describe the governments behavior from the viewpoint of “public choice” theory. The consequences of certain economic situations may facilitate political manipulation of the electorate. Government may use market failure arguments to justify an exaggerated level of free public services, for government regulations or for the number of public servants needed. The role of the electorate and economic theory is to establish parameters for the scope of government interventions based on market failure assumptions.

An additional misuse of market failure typical in transition countries may be added to this list. Many economists in Central European countries and most citizens do not distinguish between public provision and public production of goods and services. As mentioned above a number of typical public sector services may be more efficiently produced by private providers. This is often the case for such services as operation of garbage collection, recreation facilities or other services. On the basis of competitive tendering such production could be contracted to the private sector, but remain publicly financed.

### **Benefit Maximization**

Most traditional public economy/finance textbooks do not analyze this basic neoclassical assumption. However, for students in countries in transition it is necessary to start from this point.

The behavior of producers and consumers in transitional economies is one of the most important sources of current reform problems. Standard neoclassical theory suggest that both consumer and producer maximize their utility. This is completely different from Lenin's suggestion of citizen maximizing the total benefit of society. Do the people in reforming countries follow neoclassical or Lenin's model of behavior? Or something between?

Everyone can have an opinion on this question. However, it is clearly apparent from experience that neither consumer nor producer acts according to standard expectations of neoclassical theory in the transition countries and probably in Western countries, too. The transitional problems must be solved on the consumers and producers side of the market. It is necessary to educate consumers to act in their own interest. This will not be simple because in "socialist" regime prices for the same good were equal and the small range of goods offered in the "market" were mostly the same or very similar in quality. Is it to be expected that five or ten years of transition will change all consumers to utility maximizers? Can this be done without sufficient effort to educate them from the side of both producers and government?

Several problems are connected with the supply side of the transitional market. There are many firms that prioritize high immediate profits to be achieved sometimes in semi-legal form. Legal protections in transitional countries are weak, consumers are unable to control the market, and legal enforcement methods to enforce obligations are not well developed. In Slovakia the standard business case in the court lasts 2-3 years and this instrument of enforcement is only beginning to be used. The same may be true for most of the other transitional countries.

### **Public Goods**

The concept of public goods is defined by Samuelson (1954) as goods "which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtraction from any other individual's consumption of that good." This is the primary concern of most public finance books. Some authors distinguish between the terms public goods as publicly provided goods and collective goods as an economic characteristic. The two important characteristics of public goods are:

- a/ non-rivalry
- b/ non-excludability

**Non-rival consumption** means that consumption of a public good by one individual does not reduce the amount that is available for others to consume and



does not reduce the benefits derived by all other individuals. However, if everyone enjoys the same level of public good (since only one quantity is provided), this does not mean that everyone derives from this consumption the same benefit (unless everyone has the same demand-benefit curve, which is highly unlikely). Thus, the public provision of a non-rival good will always have a distributional impact bringing more benefits to those who value this good more highly, and less to those who do not value it as highly.

This non-rivalry may be written in the following form:

$$1. \text{ Level of consumption: } X_g^i = X_g^j = X_g$$

$X_g$  - consumption of public good by individuals (i,j ...)

$$2. \text{ Level of benefit (unless everyone has the same demand curve):}$$

$$\frac{{}^D U^i}{{}^D X_g^i} \neq \frac{{}^D U^j}{{}^D X_g^j}$$

$U$  - benefits of individuals i,j ...from consumption of the public goods  $x_g$

Economic analysis provides that the goods are non-rival in consumption when the marginal costs of adding another person to consume the good is zero (“jointness in supply”). It arises from the indivisibility of the product. Adding one or more persons (up to a capacity constraint) does not add to the variable costs of producing the non-rival good and so does not add to marginal costs. The zero marginal costs of additional consumption have to be distinguished from marginal costs of production of non-rival good. Zero marginal costs of additional consumption tell us that the exclusion of additional consumer is not desirable, but does not tell us that the supply curve (marginal costs of production) is identical with x-axis, and, consequently, any demanded level of non-rival good (with zero price) has to be supplied.

Typical examples of non-rival goods are TV and radio broadcasting, a non-crowded bridge or an under-utilized computer.

The non-rivalness in consumption plays an important role in altering Pareto-optimum conditions in the case of public goods. However, from the point of view of practical management of the public sector this characteristic of public good is not so important as a second one that could be better taken as a rationale for government intervention.

**Non-excludability** can be explained by several approaches to this principle as it relates to public goods. Several authors suggest that it has the following characteristics:

- a/ technically not possible to exclude any individual from consumption of public good (technical non-excludability)
- b/ desirable to not exclude any individual from consumption of public good due to social or economic reasons, such as public decisions, high transaction costs or because of zero marginal costs of additional consumption in the case of non-rival goods.

There are many who discuss in their analysis only the first of these conditions - technical non-excludability. From our point of view we prefer to use a broader concept taking into account some weaknesses of it. The technical non-excludability is directly connected with the free-rider problem that has to be explained at the beginning of our analysis.

In the case of non-excludable goods the good has been provided by one individual who has no sanction to prohibit or restrict the consumption of the good and/or a ready mechanisms to enforce this sanction. The absence of a sanction (like free market price for private goods) appears to cause a problem of preference relation for such goods. If individuals may consume a good without having to pay for it, there may be an incentive to hope that others will bear the cost of provision. This is the strategy of free-rider: to consume public goods without paying for it. However, if everyone attempts to be a free-rider, nothing will be provided and this is the basis of a possible rationale for government intervention. It is arguable that it is in everyone's interest to pay taxes to finance the production of non-excludable goods if the taxes are determined appropriately.

National defense is often used as an example of pure public good. It is technically impossible to exclude anybody in the country from being defended.

Another type of public good is a public park. It is technically possible to exclude some persons by not allowing them to enter a park. However, such exclusion needs to take some additional measures (fences, entry control) that are costly and maybe inappropriate (fences interfere with the visual enjoyment of the park).

There are several goods that could be taken as public goods because of some political decision. According to national legislation elementary education should be accessible to all citizens and may be compulsory. This approach could be a subject of great debate. It does not rely on economic characteristics of the good as a basis for decision, the social-political arguments are considered more important.

Government very often either compels or prohibits the consumption of some goods on the basis of a belief that the individuals seemingly do not know or will not do what is in their own best interest (paternalism). This good is referred to by many authors as a merit good. Goods and services like drugs, safety belts or,

sometimes, elementary education are used as examples. It can be said that elementary education could be viewed by the public either as a collective good because of the constitutional principle of free access and/or a merit good because of compulsory participation.

**Public, Mixed and Private Goods**

Before we start with further analysis it is necessary to stress that “classification as a public good is not an absolute, it depends on market conditions and the state of technology” (Rosen, 1992). TV broadcasting is an example. Several years ago it was fully impossible to exclude any owner of TV set from receiving the signal. Today many private channels scrambled their signal and sell programs in the market. It is difficult to think of many examples of pure public goods, because the boundaries are subject to change over time. Several classifications of goods based on basic economic characteristics are present in economic literature. We shall use some of them to explain the differences and linked consequences. Brown and Jackson (1990) provide the following classification of goods:

	Excludable	Non-excludable
Rival	<p><i>Pure private goods</i></p> <p>Exclusion costs are low Produced by private firms Distributed via markets Financed out of revenues from sales</p> <p>Examples: food; shoes</p>	<p><i>Mixed goods</i></p> <p>Goods whose benefits are collectively consumed but which are subject to congestion or crowding Produced by private firms or directly by the public sector Distributed via markets or directly via public budgets Financed out of revenues from sales, e.g. fees for the right to use the service, or financed from tax revenues</p> <p>Examples: public park; common property resources; public swimming pool</p>
Non-rival	<p><i>Mixed goods</i></p> <p>Private goods with externalities Produced by private firms Distributed via markets with subsidies or corrective taxes Financed by revenues from sales</p> <p>Examples: schools; transport systems; health services; inoculations; cable TV; un-congested bridge; private swimming pool; golf club</p>	<p><i>Pure public goods</i></p> <p>High exclusion costs Produced directly by government or by private firms under contract to government Distributed via public budget Financed out of compulsory tax revenue</p> <p>Examples: national Defence</p>

Bailey (1995) illustrates the most important features of public, mixed and private goods in the following:

<i>Type of commodity</i>	<i>Pure public good</i>	<i>Mixed goods<sup>1</sup> with externalities</i>	<i>Merit goods</i>	<i>Pure private goods</i>
Who benefits?	All in society	Consumers and society	Individual consumers	Individual consumers
Exclusion of non-payers	Technically impossible	Difficult or impossible	Feasible	Feasible
Feasibility of pricing	Not feasible	Feasible	Feasible	Feasible
Consumer choice	None	Some	Full	Full
Impact of use on supply	None	Depletes supply	Depletes supply	Depletes supply
Who pays on allocative efficiency grounds?	The taxpayer only	Consumers pay prices adjusted by taxes or subsidies <sup>2</sup>	Consumers pay prices subsidized by taxpayers	Consumer pay full costs
Relationship between payment and use	None	Close	Close	Full
Who decides whether to produce	Government only	Modified market	Modified market	Market only

*Notes:*

1. Having elements of both public and private goods.
2. Taxes in the case of negative externalities; subsidies in the case of positive externalities.

Mikesell (1986) introduces two intermediate types of goods - toll goods and common pool resources, based on the following diagram:

		<b>Exhaustion (rivalry)</b>	
		<i>Alternate use</i>	<i>Joint use</i>
<b>Exclusion</b>	<i>Feasible</i>	private goods	toll goods
	<i>Not feasible</i>	common pool resources	public goods

For toll goods exclusion is possible because payment is required in order to use the service and one person's use does not preclude other people from using the good or service at the same time. There are several examples of such goods including subways, buses, and highways which charge a fee in order to use the service; theaters, and sporting events. For the toll good it is necessary to take into the account the capacity limit of any service in this category. In the case of an overcrowded bus the use by one person may limit the use of this service by another person.

Common pool resources are goods where exclusion is not feasible, but the goods are rivalous since the taking or use of the good means others cannot use it. Examples are water, mineral resources or fish in the sea.

Bénard (1986) introduces a specific approach to mixed goods. According to his work the characteristics of mixed goods are as follows:

- excludability
- rivalry
- increasing or decreasing quality when the quantity of consumption is changing

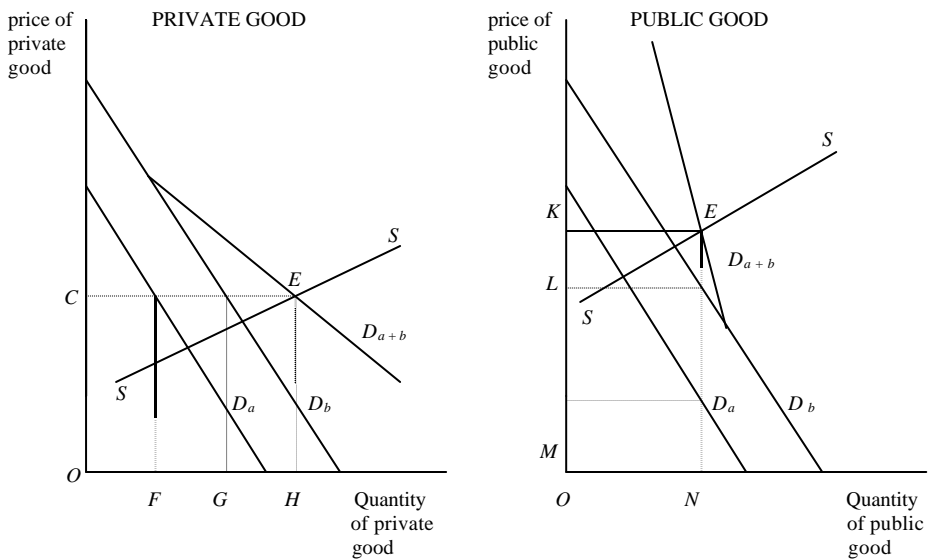
Quality in relationship to quantity consumed may increase in such cases as screening or vaccination in health care, or may decrease for roads, highways, or theaters. The relation between quality and quantity is called the overcrowding function and is the basis for optimal government regulation and setting of fees for this type of goods.

The differences in the economic analysis of private goods and public goods follows from the characteristics of these goods. In the analysis of a private good the individual is a price-taker and quality-adjuster, whereas for a public good each person is a quantity-taker and adjusts the price to his willingness to pay.

In order to find the aggregate demand for public goods it is not sensible to talk about the quantities that individuals A and B consume - by definition each individual consumes the same quantity of a public good. It is more appropriate to ask how much they would pay for a given quantity of a public good ( $D_a$  and  $D_b$  curves) and to add these sums together. The aggregate demand curve ( $D_{a+b}$ ) is established by vertical summarization - addition over price at any quantity. Characteristics of a public good imply that individual's demand curves must be added vertically rather than horizontally as in the case of private goods (see figure 6). This figure depicts the difference between private and public goods equilibrium. A private good equilibrium at market prices is found when the total quantity demanded is equal to the total amount that will to be supplied at that price. A public good equilibrium is established when the total willingness to pay for public

output is equal to the price at which the producer is willing to supply that level of output. The socially efficient output for private goods is OH, where the marginal costs equal the marginal benefit of each consumer. The socially efficient output for public goods is ON, where marginal costs equal the sum of marginal benefits of all consumers since only one quantity of the public good is supplied. This means that consumers of public goods consume the same quantity, but have to pay prices relevant to their individual marginal benefits from consumption of the given public good. However, Samuelson has referred to demand curves for public goods as pseudo-demand curves because to draw them we must assume that each person accurately reveals his willingness to pay for the given output of public goods. This means that nobody is wishing to be a free rider - to consume public goods without contributing to cover their costs. It is apparent that such an assumption is not fully realistic.

Figure 6 Aggregate demand - private and public goods



**Public Goods Problem**

Neoclassical theory suggest that “if a pure public good is to be available for consumption then it must be provided collectively; either through private voluntary arrangements or publicly via budget” (Brown and Jackson, 1990). The theory suggests that in the case of a public good the market forces fail to achieve Pareto efficient production and some kind of government intervention is proposed. “The government’s role with respect to public goods is to aggregate consumers demand for these goods and express it to private sector producers. If there is no public

expression of demand, there will not be production of public goods” (Singer, 1972).

In principle there are two possibilities to finance public goods. First, on the basis of voluntary exchange, and, second by taxation. In reality, most public goods are financed by taxation because decentralized voluntary equilibrium (Nash equilibrium) is hardly Pareto efficient. If the price of a public good is thought of as a tax the Pareto optimal conditions will be satisfied when the sum of the marginal benefits (demands) of individuals equals the marginal costs. As such each individual would pay a tax equal to the marginal benefit to them of the good financed via the public sector.

However, the principle of public production and financing of public or mixed goods may in practical life result in important failures. One typical example of the failure of government intervention in the case of non-rival, but excludable good is described by Hardin (1968) as one of many examples of the so called “tragedy of the commons”.

Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. This arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast below the carrying capacity of the land.

Finally, the day of reckoning comes. That is the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy.

As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, he asks, “What is the utility to me of adding one more animal to my herd?” This utility has one negative and one positive component.

The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of this additional animal his positive utility is high.

The negative component is the function of the additional overgrazing created by one more animal. Since the effects of overgrazing are shared by all the herdsmen, the negative utility for one individual herdsman is very small.

Adding together these partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to this herd, and another, and another. This is the tragedy. Freedom in the commons brings ruin to all. The solution to this situation, other than individual self restraint, is for some collective decision that is enforceable by all or by the state to intervene in limiting the grazing rights of the herdsmen.

Inefficiency and possible public and private remedies for public goods are often explained by the lighthouse example. A lighthouse could be taken as a pure public good. It would be too costly and technically very complicated to attempt to exclude ships from using its signal. We can compare costs and benefits. This can be done in absolute figures for those who are not familiar with microeconomic analysis or in marginal amounts as is more appropriate.

In absolute figures, suppose that the annual total costs of the lighthouse are \$50. The benefit per ship each year is \$1. If there are 100 ships using the lighthouse it seems to be efficient to operate. However, the real solution of whether or not the lighthouse should be built depends on a number of factors. If there are many small shipping firms which would use this service, but be unable to finance it alone or collectively, we probably cannot expect the operation of the lighthouse without government intervention. The demand of individual owners will not be aggregated by a market because of the free rider problem. If the owner of a ship cannot be excluded from the consumption of lighthouse service he probably decides to play the strategy of non-cooperation and will not voluntarily support the operation of lighthouse. If most of the owners do not cooperate and no sponsor exists who will cover the costs there is a high probability that the lighthouse will be not constructed and operated under pure market conditions. The opposite may be true in the case of one big owner with 60-70 ships. He will built and operate the lighthouse and small owners will benefit from this service free of charge.

Marginal analysis of the lighthouse could be characterized by a relatively high marginal cost curve. The marginal benefit curves of all owners are not aggregated by market forces because of non-excludability and the free rider strategy. If all the individual marginal benefits curves are below the marginal costs curve, there is no market incentive to built such lighthouse. Only in the situation where there is high aggregated demand will the government consider the project acceptable.

The hypothetical role of the government in this public good situation could be derived by using absolute figures. All partners will be better off if \$90 will be collected by taxation, \$50 used for the lighthouse construction and operation and \$40 to cover the costs of public administration!

Coexistence of market and government failure (to be described later) in the case of public (collective) and mixed goods provides for a careful analysis of existing conditions to answer two important questions related to this issue:

1. What should be the proportion of government funds in financing the production of public or mixed goods?



2. Who should provide public or mixed goods - government, private sector, voluntary sector or all of them?

There are no definitive answers to these questions. Discussing these questions with concrete examples of public or mixed goods in classrooms should reveal a variety of possible solutions.

### **Social Basis for Government**

Market failure is not the only justification for government intervention. The distributive role of government is based on social (welfare economics) arguments.

Government intervention may be justified in situations where competitive markets produce a very unequal distribution of income and may leave some individuals with insufficient resources to maintain their living standard. In principle, economic theorists agree that some degree of redistribution in a society is necessary. However, they disagree on the question of whether the distributional effects provide a sufficient rationale for the degree of government intervention that may be required, and, whether government can fulfill this function efficiently.

In this part we shall briefly discuss the basic arguments of neoclassical welfare economics with respect to weaknesses of this theory based on value judgments. Hayek's (1976) arguments are that there is "no reason why in free society government should not assure to all protection against severe deprivation in the form of an assured minimum income or a floor below which no one need descend" and this provides a justification for the social actions by government.

A simple example of the economy with Robinson, Friday and oranges is used to describe the basic assumptions of welfare economics. If there are only ten oranges in this society, eleven possible Pareto efficient distributions arise (0-10, ..., 10-0). Several of these distributions may be viewed as undesirable and "call" for some government activity to alter this distribution. However, it is impossible to transfer some oranges from Robinson to Friday (or alternatively) without costs (the number of oranges available for the society is decreasing as a result of redistribution).

Welfare economics looks for partial and global optimal income distributions. This analysis uses individual marginal utility functions and some type of social welfare function.

In our example with Robinson and Friday the principle of decreasing marginal utility is described by individuals marginal utility function (identical for both individuals). Robinson's (Friday's ) marginal utility from getting the first orange is given as 14, from the second 12, then 10, 7, 5, 4, 3, 2, 1, 0. To maximize the welfare of society we have to choose a distribution of oranges that maximizes the

social welfare function. There is much literature on what kind of social welfare function should be used.

Utilitarian social welfare function suggest that:

$$W = F(U_1, U_2 \dots U_n)$$

With regards to this function, in our society with Robinson and Friday, the maximum social welfare will be given as the highest possible sum of individuals welfare derived from one of the possible distributions of oranges. In the absence of any losses in efficiency, this optimum is five oranges for both individuals.

Rawls seminal book, *A Theory of Justice*, (1971) uses a fairly radical social welfare function. He suggests that the appropriate way to think about the development of the theory of justice is from so called position behind “a veil of ignorance.” That is to be ignorant about your own position in the society (“blind justice” principle). Rawls suggest that the welfare of society depends on the welfare of the worst-off individual. Under Rawls’ social welfare function, in the absence of any gross inefficiency, the optimum distribution of ten oranges in our case is again five for both individuals.

A competitive market will generally not reach this “five-five” optimum. In the situation that the original distribution of income (oranges) is (8,2), both social welfare functions justify some kind of government intervention. Assume that for every two oranges taken from Robinson, Friday gets only one (one orange is lost in the process since Robinson will get six and Friday three, with the tenth yet to be distributed). The optimum solution according to the utilitarian social welfare function is a combination (6,3). However, the Rawlsian optimum is now (4,4).

The diminishing marginal utility principle explains why it is possible to lose one orange and still increase the total welfare of society - with the possibility to compensate Robinson for taking away two oranges from him. Under this assumption everybody could be better off - Robinson with compensation, Friday with more oranges and the “public administration” with a portion of one orange (an orange that represents the cost of transferring oranges between Robinson and Friday) as its “profit” for accomplishing the processes of this transaction.

Principles of diminishing marginal utility and compensation look very fine in theory. The principles are often objected to because this approach is based on interpersonal utility comparisons that are impossible in practice in society with millions of individuals. It is impossible to derive a real social welfare function. That is, to derive the social indifference curves necessary to determine the general optimum. Tools of neoclassical welfare economics could be a useful way of summarizing and evaluating the effects of alternative policies so long as they are used carefully and with an understanding of their limitation (Stiglitz, 1988).

However, the weaknesses of welfare economics do not mean that need to redistribute income does not exist. There is doubt if it is necessary to provide income related welfare to those who are able to earn money individually. But there is common consensus that society shall help those who are unable to realize sufficient standard of living individually because their age, health etc. There exists considerable discussion of how to do it without losing too much efficiency (social insurance versus direct benefits, in-kind versus cash benefits). This is not a discussion about the principle of human solidarity, but about the best way to follow this principle without wasting the scarce resources of the society.

### **Equity in transitional economies.**

Careful evaluation of equity considerations is a necessary precondition of the success of transition and its reforms. People in transitional countries still heavily rely on the state as the guarantor of a basic standard of living. These are risk averse individuals who will not politically support implementation of changes bringing a high risk to their individual welfare. Conservative habits of politicians and bureaucrats and risk averse behavior of electorate can slow the transitional processes in a very dramatic way.

### **Government Failure**

There are several reasons why the market may fail to reach optimal solutions as explained above. However, there exist a number of arguments why the success of any government intervention could be very limited. These arguments could be classified at least into three groups as follows:

- a/ general government failure arguments
- b/ “public choice” (collective decisions making) arguments
- c/ “bureaucracy” arguments

#### *General government failure arguments.*

There are several reasons why government programs do not work well derived from the inherent nature of any governmental activity. Some of them could become more clear if we ask the following questions:

1. Is it possible to define the goals of government intervention exactly?
2. Is it possible to define the best way to reach these goals?
3. Is it possible to implement reform measures without unexpected results?

All answers should be probably no. The society could feel that the level of unemployment is too high. However, there will not be a consensus about the ideal

level of unemployment. Should it be 3%, or 5%, or 7%, or 10% ? Probably all figures will find their supporters from several streams of economic theory.

If (hypothetically) the USA would be satisfied with a 7% unemployment rate should this be the target for all other economies? Or it is necessary to follow national sentiments?

There is not one best way to achieve defined results of government intervention. Health care could be an example. The principle of access to basic services for everybody independent of ability to pay is accepted by a number of countries. However, the ways to reach this target differ dramatically. In the U.K. a general taxation based “quasi market” system may be created as a result of current reform. In Germany a social insurance system is used. In some countries private ownership is dominant. In others, public hospitals serve most citizens.

The government has only limited control over the consequences of its actions because these actions are complicated and it is difficult to foresee all possible results. The private market will often not respond as expected. The reform of health care in the Czech Republic was directed toward an increase in quality and efficiency, but led to cost increases and problems in access to services because of failures in the insurance market.

#### *Collective decision - making*

In this part we shall not examine all consequences of collective decision-making, but the way decisions in the public sector are made. We shall concentrate on the analysis of why a type of decision-making could create a number of inefficient decisions.

#### *Inefficiency in direct democracy.*

Only a unanimity voting rule guarantees that no one will be “exploited” and Pareto efficiency conditions will not be broken (Lindahl equilibrium). However, unanimity is clearly a difficult state to reach. Most collective decision-making procedures could not be based on this principle. If the unanimity rule is used in any Parliament then the decision may concern only salary increases for elected members.

Mechanisms of majority voting that are used, instead of the unanimity principle, in most cases can simply lead to Pareto inefficient decisions. A simple example demonstrates this fact. Consider a five persons community voting on a given proposal. The tax costs for everybody in the case of adopting the proposal are \$5.

The net benefits (total benefit-tax price) for members of this society are distributed as follows:

Member	A	B	C	D	E
Costs	5	5	5	5	5
Benefit	6	6	6	0	0
Net benefit	1=yes	1=yes	1=yes	-5=no	-5=no

With a majority voting principle an inefficient solution may well be adopted in this society.

Majority voting is connected with the “voting paradox” element described in public economics. The “voting paradox” is highlighted in the following standard example with three voters and their preferences on budget (possible solutions are high, middle, low):

	1st preference	2nd preference	3rd preference
Voter A	L	M	H
Voter B	H	L	M
Voter C	M	H	L

Suppose that the first vote is between H or L, H will win, because voters B and C prefer H to L. In a second possible vote between L or M, L will win, because voters A and B prefer L to M. In a third possible vote between H or M, M will win, because voters A and C prefer M to H. This is a disconcerting result. If H is preferred to L and L is preferred to M, then H should be preferred to M, but the opposite is the result.

In the situation of voting paradox (double-peaked preferences) the ultimate outcome depends crucially on the order in which the votes are taken. The possibility to influence the result is very high as an “agenda manipulation” phenomenon could occur (Rosen, 1992) and inefficient solutions could be adopted.

Arrow’s impossibility theorem (Arrow, 1963) provides that there is no voting rule that would satisfy all desired characteristics, such as:

- to be non-dictatorial
- its outcome independent of irrelevant alternatives
- completeness and transparency
- Pareto principle - responsiveness to individuals preferences
- unrestricted domain

This theorem suggests that we cannot expect the government to act with the same degree of consistency and rationality as an individual (Stiglitz, 1988).

*Inefficiency in representative democracy.*

In a direct democracy with no double-peaked preferences the outcome of majority voting reflects the preferences of the median voter (voter whose preferences lie in the middle of the set of all voters preferences) as is shown in

Figure 7 - Two party system and the median voter

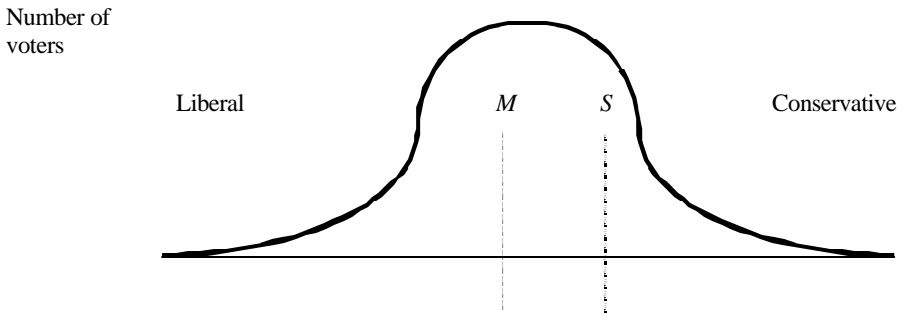


Figure 7. Direct democracy decisions are not the dominant means of reaching decisions. More commonly, citizens elect representatives who make decisions on their behalf.

Elected representatives should in principle act on behalf of their electorates. This is not necessarily true. An economic theory of politics was described by Downs (1957): “The political parties in our model are not interested per se in making society’s allocation of resources efficient; each seeks only to get re-elected by maximizing the number of votes it receives. Therefore, even if the government has the ability to move society to a Pareto optimum it will do so only if forced by competition from other parties.” Stiglitz (1988) develops this argument: “Our political process is one in which those who are elected to serve the public sometimes have incentives to act for the benefit of special-interest groups. Thus, the failure of politicians to carry out what would seem to be in the public interest is not just the consequence of the greed or malevolence of a few wayward politicians, but it may be the inevitable consequence of the workings of political institutions in democratic societies”.

Consider that there are only two political parties represented in Parliament (as in USA and proposed for instance in Slovakia). In the case of single-peaked preferences the result of voting should be the position of median voter as a result

of perfect competition between these two parties maximizing their votes. However, in reality this will be not true. Because of lobbying, special-interest groups, low activity of electorates (especially of those who are near median-voter position), imperfect information and limited competition we cannot expect efficient solution(s).

There exist at least two additional models explaining why efficiency in representative democracy is likely not to be achieved. One model explains low activity of the electorate and the other of the political business cycle.

A utility maximizing voter should only act if benefits resulting from their action of obtaining government services exceed the cost of obtaining the services to them. Under this assumption it may not be necessary for an individual to vote or to be politically active if the same result would occur without voting. The voter may assume his vote would not make any difference or have any effect on the outcome. This is often the reason that voters do not vote.

The political business cycle model is used to explain the degree of competition between political parties and the over expansion of public expenditures programs. It suggests that if the degree of competition among political parties after elections is very low, then the elected political party is likely to be in monopolistic position. If the degree of competition is increasing in the period before new elections the party in power may increase public program spending to attract voters and increase economic growth and employment. Also, political parties can make many promises in an election campaign - and may not fulfill these promises when elected.

#### *Further factors of inefficiency in collective decision-making.*

There are several possibilities to influence results of voting procedures.

Log-rolling by political parties (voters) may occur in which they may trade their votes. If some voters are indifferent concerning voting decision they may offer their votes to other group of voters to get their support in any defined case. "We shall vote for your decision today if you will vote for our decision tomorrow". Log-rolling is often present in all democratic institutions.

Manipulation is possible through legal or semi-legal activities in the voting processes. The simple ordering of items on the ballot may be decisive. The decision about the system of adopting the results, and the form of reporting of preferences or information can also be decisive.

#### *Public employees - theory of bureaucracy*

Legislation is enacted by politicians, but the precise way a program is run is in the hands of bureaucrats. The enacted law cannot specify all of the details of

administration. Most details are left up to relevant ministries or government agencies.

Modern societies cannot function without bureaucracy. However, can bureaucracy adopt Pareto efficient solutions? Niskanen (1971) argues that utility maximizing bureaucrats will be primarily concerned with the size of the budget of their organization. The objective of bureaucrats is to maximize the budget. Incentives of bureaucrats were described in popular form by Parkinson (1955) who wrote “An official wants to multiply subordinates, not rivals; and officials make work for each other.”

With budget maximizing bureaucrats we are unable to expect a Pareto efficient outcome from their activities. There is common agreement among economists that bureaucracies generally produce too much outputs and may be technically ineffective by producing too high costs per one unit of output. Some discussion exists on the level of inefficiency, the relationship between allocative and X-inefficiency and on relationship between price elasticity of demand and inefficiency (Cullis and Jones, 1987).

Several practical problems limit the level of efficiency of bureaucratic administration. It is often impossible to measure the performance of bureaucracy. The processes of objectives setting are very complicated. Programs provide for multiplicity of objectives. Most countries restrict salaries of public servants which has a negative impact on motivation and on the quality of persons hired. Many countries have special legislation on public servant job security and it may be very difficult to dismiss somebody from a governmental job. There exists a non-competitive environment for bureaucratic services with elements of imperfect information. Government agencies may not go bankrupt as opposed to private enterprises. Bureaucrats are considered to be risk-averse individuals.

There are several attempts in Western countries to improve the performance of bureaucracy such as “new public management”, or “management with market type incentives.” However, some degree of inefficiency in bureaucratic behavior should be expected as a standard feature of government administration.

### **Specific Role of Government in Transitional Economies**

Market failure and redistribution arguments of neoclassical economy can be used as a benchmark to evaluate purposes of government interventions in countries in transition. These are not sufficient. At least one specific argument for several kinds of government action has to be underlined in the conditions of transitional economies.



There are many necessary government interventions specifically related to the transition process, including the following:

- organize privatization
- prepare, adopt and audit new legal system
- education of people
- price control
- providing more public services than is standard in Western economies
- subsidies and grants to the private sector for restructuring or other purposes.

In this last part we do not intend to analyze all mentioned possible kinds of government intervention. We wish to add two further aspects of the neoclassical analysis of government specifically related to transition from a directly managed to a market oriented economy and society as follows:

1. Several government activities that are not appropriate in market economies may be appropriate during the transition process.
2. The scope of additional government activities and the length of those provisional arrangements cannot be generally defined for all transitional countries.

Typical examples of specific transitional government activities are price control and social subsidies. Prices in monopolistic or oligopolistic industries should be controlled in transitional economies, but some government intervention into the price policies of firms may be necessary because of the noncompetitive behavior of privatized firms in potentially competitive branches. Government may set upper price limits in basic food commodities or other commodities with inelastic demand. The type and length of price controls should be the subject of political debate in each country - according to its own internal conditions. However, price control in competitive industries should be taken only as a temporary measure and must not limit the scope for competition. The education of consumers on how to behave in competitive markets should be advanced as a basic measure of an efficient transformation.

Government needs to guarantee a certain standard of living for citizens. A massive decrease in the standard of living for most citizen could limit the success of reform processes or stop them entirely. Citizens can accept some decrease of their own welfare during transition, but not a very massive decrease and not for a long period of time. If most citizens are risk averse individuals, they would after several years without apparent improvements vote against transformation. This has to be taken very carefully into account.

## **Conclusion**

This chapter has examined numerous concepts related to the economic and social conditions which governments must address in making public finance decisions. The concepts of market failure, public and private goods, and externalities are the basis for many of the topics to be discussed in the following chapters.

## Case Study: Examples of Market and Government Failure in Health Care

*Juraj Nemec*

There are many examples of market and government failure in economies. One of the best of these is in health care. In this short case study we shall describe selected issues of market imperfections connected with the provision of health care, and some of the limitations of government intervention to reach efficient solutions to cope with efficiency and equity considerations in health care.

### *Market failures connected with health care*

A perfectly competitive market with well informed and rationally acting providers and consumers is a structural means by which an optimal allocation of resources may be obtained. However, there are several obstacles preventing the achievement of allocative efficiency in the health care market. The most important factors contributing to the shortcomings of the health care market are:

- a) health care is an impure public good
- b) informational asymmetry
- c) externalities
- d) uncertainty and complexity
- e) market failure in private health insurance

**Health Care as an impure public (collective) good.** Pure public goods have two important economic characteristics, whose absence in the case of health care may preclude it from a standard competitive market situation,

- non-excludability
- non-rivalry

There are technical or social-economic barriers which prevent the exclusion of consumers from the consumption of collective goods. The case of health care is connected with social-economic non-excludability - exclusion is not desirable. Why? The answer is obvious. There is a general opinion that everyone is eligible for basic health care services independent of their ability to pay.

Health care is an impure public good - and although we suppose that non-excludability is a basic feature of it, it is not non-rival in consumption. All capacities are limited, the consumption of one patient limits consumption by another.

**Informational asymmetry.** Most of the relevant studies suggest that the limited information on the side of the patient /consumer is the most important

obstacle preventing health care from the free market. The free market condition implies that the consumer of health care services must obtain information about the production relationships that govern the effectiveness of all available treatments and information concerning the likely future effects on their health status. In reality, the consumer has little or no information concerning their needs, level and form of treatment required, and the effectiveness of the treatment. Thus, the consumer has to rely on the producer for all information.

This information asymmetry provides the medical profession with a monopoly position and could cause “supplier induced demand” resulting in over-consumption of health care (regarded by some as an important negative feature of the US health care system).

**Uncertainty and complexity.** Each case is potentially different from every other case. We are unable to suppose that two different persons with the same diagnosis will have the same treatment - methods, medicines, length of recovery, reactions, and so forth. The same case concerning a particular person may even develop in a different way from previous such cases involving the same person.

The supply of health care represents a complicated sequence of adaptive responses to conditions of uncertainty - uncertainty concerning the best way to treat the patient from the time the illness occurs.

**Externalities.** Health care is connected with several kinds of positive externalities and its provision as a public good can prevent some negative externalities. The most important positive externalities result from preventive care, vaccination and technical development. According to the standard paradigms of neo-classical economy, the state should support such positive externalities.

**Market failure in private health insurance.** Private health insurance is only a partial response to market failures in the health care market. It could partially solve the problem of uncertainty, however, there are some specific failures connected with this system:

- private insurance will usually not cover high-risk groups of citizen. A person with high probability of needing high cost treatments will usually pay a very high premium or alternatively will not be insured by some companies. Private insurance is based on commercial principles and cannot accept bad risks.
- the “cream-skimming problem” has the same origin as non-coverage of high-risk groups. We can expect that insurance companies will select the clients according to their premium and health status. The best customers of private insurance company are rich and healthy people.

*Equity considerations in health care*

Socially oriented economists argue for horizontal and vertical equity in providing health care.

- a) horizontal equity - all persons with the same need should be treated equally
- b) vertical equity - all persons with unequal needs should be treated unequally

The concepts of horizontal and vertical equity are more theoretical than practical concepts and are not dealt with by all economists in the same way. It is not clear what equity should be - equity in health status? Equity in obtaining the same treatment for the same diagnosis? However, there is one common feature in all relevant studies: under equity we should assume at least guaranteed access to a defined range of medical services for all citizens independent of their ability to pay.

Some liberal economists agree with their socially oriented colleagues on this conclusion, mostly because average citizens cannot be responsible for their health status as a whole. Smoking could result in cancer, but there are many non-smokers with the same diagnosis. Should lucky persons pay less for health care than unlucky persons, and the chronically ill many times more?

*The failures of state interventions in health care delivery: an example of health care financing*

Because of market failure and equity issues several models on financing of health care are in place. We shall use two examples - primary and hospital care financing to describe the limits of government intervention (the impossibility to find the best suitable system to finance providers).

**Primary care** - there are at least four basic possibilities of financing general practitioners GPs:

- fixed salary /GP receives a fixed salary, or fixed salary with increments/
- capitation /GP receives some amount of money per registered patient according to the formula: number of patients x price/
- fee for service /GP receives some amount of money per service according to the formula: service (number of points per service) x price of service (price of point)
- some combination of these methods

As is common in all economic matters, these three basic pure systems have some advantages and some disadvantages. We mention them very briefly and urge the reader to try to examine this problem in real practice; and find which of them exists in reality and which exist only in theory.

*Potential advantages*

- Fixed salary
  - more attention to preventive care
  - less incentives for supplier induced demand
- Capitation
  - more attention to preventive care
  - less incentives for supplier induced demand
  - higher quality of the care provided
- Fee for service-
  - higher complexity of treatment in primary care
  - higher quality of care

*Potential disadvantages*

- Fixed salary
  - less incentives for quality
  - less incentives to have more patients
  - increasing number of referrals to secondary care
- Capitation
  - increasing number of referrals to secondary care
  - cream skimming
- Fee for service-
  - supplier induced demand /boom of services provided
  - problems of controlling the real amount of delivered services

**Hospitals** - The financing of hospitals may have a prospective or a cost-reimbursement character. The financing authority can reimburse the costs of the hospital at the end of the financial year or establish some set of criteria of reimbursement of care before the start of the financial year (prospective payment).

Most of the countries use prospective payment systems based on:

- negotiations about the total budget of the hospital
- negotiations about the total budget and departmental budgets
- capitation
- episodes of illness
- cases or stays
- days of services
- specific services

The approximate behavior of the hospital under these systems is summarized in the following table:

Areas of performance

Payment Unit	1	2	3	4	5	6	7	8	9	10	11
Total budget	-	-	-	-	-	-	-	+	-	-	-
Departmental budgets	-	-	-	-	-	-	-	+	-	-	-
Capitation	-	-	-	-	-	-	-	+	-	-	-
Episode of illness	-	-	-	-	-	-	-	+	-	-	-
Cases or stays	+	-	-	-	-	-	-	+	-	-	-
Days of services	+	+	-	-	-	-	-	+	-	-	-
Specific services	+	+	+	+	+	-	-	+	-	-	-
Cost reimbursement	+	+	+	+	+	+	+	-	+	+	+

*Key to table:*

+ = increase

- = decrease

1 - cases treated

2 - length of stay

3 - complexity of case mix

4 - intensity of service

5 - scope of service

6 - amenity level

7 - quality level

8 - efficiency

9 - input price levels

10 - investments in the maintenance and improvement of human and physical resources

11 -teaching programs

**You can again try to check the validity of those suppositions in the practice of real hospitals!**

Market failures in health care are the reasons for many kinds of government interventions in this field. The Czech system of health care may be used as an example of the role of government in health care and its reform in a transitional economy.

Health services and institutions in the Czech Republic experienced enormous changes in the last several years. Before 1989, health services and institutions were managed centrally and financed by means of the government budget. A significant transformation was implemented in order to increase the efficiency of the health care system. The main aim of the reform was to establish a system that would result in both better preconditions for improving the state of health of the population and would help allocate the financial resources in the health care service system in a more efficient manner.

The original single-source financing (only the government) was replaced by the so-called multi-source financing, where the contributions to the newly introduced general health insurance play the most important role now in financing. The General Health Insurance Office was established to collect and administer these contributions. With a view to a competitive market environment, other health insurance offices were established. All health insurance offices are supervised and managed by the government and the Parliament of the Czech Republic.

The reforms in the health care system included the cancellation of the government monopoly on the ownership of health institutions which resulted in new forms of ownership being established. Thus, health services are now rendered both by state-owned and private health institutions. A significant element in the reform was the manner of payment for received medical care. This involved the introduction of payments for demonstrated outputs.

Since 1993, there have been multiple parties involved in the financing of the health system. The first of these parties is the government. It pays the health insurance for certain groups of the population (e.g., senior citizens, children, students). These groups represent about 5.8 millions out of the 10.3 millions inhabitants of the Czech Republic. The second party are Czech employers. They pay two thirds of the cost of employee health insurance. The final party includes the employees themselves. Individual contributions for health insurance are directed straight to the accounts of the individual insurance offices. The re-distribution system directs these resources to the insurance offices which must insure those with low incomes or at higher risk (such as senior citizens, small children and others).

An important indicator showing the changes in the Czech health system is the relationship between health expenditures and GDP.

Tab: Changing expenditures in the Czech health care system (1990 - 1995).

Year	Total (in billions of CZK)	% of GDP	Government budget	Health Insurance Offices	Expenditure per 1 inhabitant
1990	30,05	5,3	30,05	-	CZK 2.900
1991	38,22	5,3	38,22	-	CZK 3.708
1992	43,55	5,5	43,55	32,48	CZK 4.221
1993	69,26	7,6	13,03	56,23	CZK 6.705
1994	81,14	7,8	13,79	67,35	CZK 7.850
1995	91,82	7,6	15,10	76,72	CZK 8.888

Source: Zdravotnictví v CR 1995 ve statistických údajích, ÚZIS, Prague 1996  
(Note: In 1992, only the General Health Insurance Office was in operation. This explains why the amount presented as expenditure for health insurance offices is the same as the health expenditure from the government budget).



It is apparent that the total expenditure for the health care system is increasing steadily. It is very important that this growth should soon begin to slow.

Tab: Development of the individual items in the expenditures for the health care system in billions of CZK

	1991	1992	92/91 index	1993	93/92 index	1994	94/93 index	1995	95/94 index
non-investment	32,3	4,5	13,93	6,1	135,56	7,05	115,57	7,67	108,79
investment	5,9	6,6	111,86	6,9	104,55	6,74	97,68	7,4	109,79
health insurance	0,0	32,5	-	56,24	173,05	67,35	119,75	77,31	114,79
TOTAL	38,2	43,6	114,14	69,26	158,85	81,14	117,15	92,38	113,85

Source: Zdravotnictví v CR 1995 ve statistických údajích, ÚZIS, Prague 1996

This figure depicts the unbalanced development of the individual items in the expenditures for the health care system. The development of the health insurance system can only be analysed for the previous four years. It should be taken as a positive sign that the number of insurance offices in the health care system is increasing against the administrative costs. The increase in the expenditures for the health system is a result of a number of factors. In the Czech Republic, low technical and technological standard were common at the end of the communist era. This created an enormous need to purchase medical appliances and devices, technologies, and large quantities of general medical products.

Tab: Expenditures for pharmaceuticals

Year	Total expenditures for pharmaceuticals in billions of CZK	GDP in billions of CZK	Expenditures for pharmaceuticals in % of GDP	Expenditures for pharmaceuticals in % of expenditures for health system
1990	6,57	567,00	1,16	21,87
1991	7,28	717,00	1,02	19,06
1992	9,57	803,00	1,19	21,94
1993	14,13	911,00	1,55	20,40
1994	21,32	1037,00	2,06	26,28
1995	25,74	1130,00	2,28	27,59

Source: Ekonom 5/97

Increases in quality, broader accessibility, along with changes in people's lifestyles, have resulted in gradual improvements to the general state of health of the Czech population.

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### **CHAPTER 3: PUBLIC FINANCE IN POLITICAL SYSTEMS**

*Tamas M. Horvath*

From the previous chapters it is apparent that public finance exists within political systems. Public finance is particularly concerned with collecting and spending tax money and other revenue sources by the state at different levels of public administration, including local governments. Therefore, politics and the structure of governmental systems is very important in the scope and activities of the field of public finance. The political institutions, cultures, tax and expenditure methods of a particular country provide a framework and the basic conditions for the public finance system. The decisions on alternative revenue and spending preferences are defined through the political processes.

The political and fiscal decentralization processes occurring in the transition countries of Central Europe are closely linked (Bird and Wallich, 1993). In fact, it is difficult to imagine that one nation could succeed without the others also succeeding. The requirements for decentralization of authority and fiscal responsibility to sub-national units were recognized very early in the program of Solidarity in Poland. In the “Round Table” discussions held with the Communist Party, Solidarity proposed the following approaches to restructuring the centralized authority of the state while giving more fiscal responsibility to the local units. The elements of this reform included (1) provide local councils with direct authority and release them from the hierarchical structure of the state administration, (2) enact municipal organizations as legal entities with property ownership rights, (3) limit state direction and interference in local affairs, (4) provide the authority for the creation of inter-municipal associations, and (5) allow for locally controlled and stable systems of finance and budget (Plaza, 1995).

Hungary experimented in the 1970s and 1980s with some decentralization of authority, consolidation of local units and regional approaches to service delivery (Wright, 1997). These experiments did not succeed in their initial stages, but did, however lead to successful decentralization in Hungary in the early 1990s during the transition period.

The politics of public finance begins with institutions. Different governmental bodies make decisions on strategic issues such as tax and budget priorities that affect the distribution of wealth and economic growth. The most important institution is the Parliament at the national level. State budgets are passed which incorporate the fiscal policy of the government. These budgets affect individuals as well as sub-national level units. The national government is responsible for preparation and execution of the state budget. In a decentralized system decisions

are made by institutions at other levels of the government. These institutions are influenced by actors directly from the economic and social system apart from the politically elected representatives. The complicated structure of institutions directing financial issues always depends on the character of the particular social and cultural system. For instance, in the communist regimes the organizations of the totalitarian party (party committee) became an important element of the institutional structure. In a democratic societies elected bodies make crucial decisions in public finance.

Apart from institutions of decision making, the process of decision making is also important. This process can be very different even in the same or similar institutional settings. Through the process of determining priorities there is a process of decision making which often consists of struggles among the different interests in a society. The whole process is prescribed by the legal rules, constitutional framework, and norms of political bargaining and compromises in democratic systems.

Parliaments and other elected bodies are the main arenas for political decision making. However, administrative bureaus and social groups are heavily involved in the process. The most complex aspect is the central and local relationships which exist in the making of public finance decisions. This subject is at the crossroads between theories of political decision making and operational issues of public finance. Local government needs are always greater than their own resources and transfers from the central budget. Intergovernmental fiscal decisions made at the national level create a framework not only for territorial financial decisions, but also for the political issues that arise at these other levels of the state. Thus, the decision making process and its financial consequences cannot be analyzed separately. This is why one of the most politicized areas in public finance is the fiscal decentralization issue. This issue will be the focus of this chapter.

The relationships between central and local governments is the starting point for the decentralization debate. This has been a very contentious area in the transition period. It is a subject which involves the dilemma of separating political values and economic efficiency. For while there is a need to devolve authority to lower units for delivery of services, these lower units lack (in most instances) the fiscal capacity to assume these responsibilities. This problem will be examined in greater detail in the section on the number and size of basic units of local government.

The context in which these intergovernmental fiscal decisions are made depends on what are the functions or purposes of the sub-national units. Strong local governments are at the heart of democratic systems. According to Sharpe (1994) there are three functions of local governments: (1) defense against abuse of

central power, (2) provide for popular participation in governmental decisions, and (3) as an efficient provider of services. The dilemma faced is that there is a conflict between how democratic the decision making process should be while still providing services at an economical and efficient level. This issue will be explored in later sections.

In the following sections we will analyze some aspects of the conflicts in political and fiscal decentralization. First, the national versus regional and local fiscal dimension is highlighted. The question is how can regional and local governments fulfill roles in state functions. What is the rationality of this and what are the limits of functions and finance? Decisions in public finance are the main instruments to develop an equilibrium between the national and sub-national levels.

Second, the level of decentralization or vertical linkage also characterizes the fiscal framework. In federal states the state and local levels are very important balances against centralization. A crucial guarantee is the possibility of autonomous decisions concerning possible sources of revenue. However, many financial functions can be fulfilled only at the federal level, such as fiscal and monetary policies for stabilization and to control inflation and unemployment. Therefore, there is often a basic contradiction in policies. The situation is similar in unitary states where one or more intermediate tiers exist between the municipal and national level.

A third dimension is the horizontal linkage between local governments. The importance of these connections are addressed by fiscal equalization and the transfer of money among local units to offset economic problems, promote economic growth and infrastructure improvements. The horizontal connections exist between the different local actors and the central and local levels. For instance, national policy can support local cooperation through various financial incentives, such as matching grants to regional or special districts to deliver certain services or to make infrastructure improvements.

Policies and politics must be distinguished in public finance. Different social policies are defined by particular fiscal preferences. Policies are formulated centrally as well as locally. The parliament executes a specific policy through the allocation of financial resources. A municipality formulates a policy by its spending preferences. The chosen fiscal policy influences many different policy areas, such as education, social care, and the development of physical infrastructure. Bird and Wallich (1993) indicate that "fiscal balance at the sub-national level is a key to macroeconomic stability in the transition countries." They point out that the national governments have attempted to manage the macro economy and budget deficits by shifting expenditure responsibility to the sub-national units. This policy

may effectively bankrupt local units. The most important financial policy areas are connected to the following fiscal functions:

- geographical source allocation,
- geographical equalization,
- distribution of wealth and income
- municipal development,
- stabilization,
- financial retrenchment

All of these are connected to public service functions and affect specific social structures and institutions.

The topics to be discussed in this chapter are:

(1) *Fiscal federalism and political systems.*

Fiscal federalism is linked to the principle of decentralization. It encompasses all of the methods needed for political decentralization and fiscal independence.

(2) *Local units of government.*

One of the crucial characteristic features of the central-local government relation is the capacity of the basic units of government. The number of them, their tasks and rights depend on models of government systems. The fiscal capacities are important in determining how effective these units will be in meeting their functions.

(3) *Intergovernmental fiscal relations.*

These are linkages between the different levels of government. These intermediate levels are the state in federal countries, and county and/or department in unitary states. The potential roles of these levels are determined by fiscal influence and other instruments such as mandates. Central governmental influence is realized through different financial methods, like the grant system and tax policies. These are very important instruments which enable the central government to realize its full influence on political decentralization.

(4) *Local fiscal capacity.*

It is necessary to categorize municipalities on the basis of their financial data. The measurement of their capacity is an element of central political strategies, financial support, and tax incentives.

(5) *Case study.*

The case study is about the present governmental grant system in Hungary. It demonstrates the use of instruments of fiscal federalism in a transition country.

This selection of topics concentrates on the burning issues in Central European countries in transition. Their territorial administration and local government systems were established in the late 1980s (Local Governments, 1994). The financial systems, however, are continuously being adjusted to the new political structure.

### **Federal and Unitary Systems**

A comparison of federal and unitary systems of government is a good starting point from which to begin a study of their functions and fiscal capabilities in public finance. According to the *Lexicon of Terms and Concepts in Public Administration, Public Policy and Political Science* federal and unitary systems are distinguished as follows:

**Federal System (federalism):** a form of government constructed on the principle of the division of powers between the levels of government. In such a system, each level of government can act directly on the citizen and can also independently exercise certain powers, which are usually specified in the country's constitution.

**Unitary System:** a unitary government is characterized by a single level of government for the entire country. There are no regional or local governments acting independently of the national government. The national government usually delegates specific powers to locally constituted bodies or functionaries who are responsible to the national government for their actions.

The unitary form is the more common system and is the form utilized in most European countries including Denmark, France, Great Britain, Italy, Norway, Spain and Sweden. The federal system is used in the United States, Canada and Germany. In the transition countries of Central Europe the unitary form is also the most common system. Hungary, Poland, Romania and Bulgaria have adopted this form (Bird and Wallich, 1993). It should be noted that even in these unitary systems there may be second or third tier level of government, but the political and fiscal decision making capacity of these levels is within the constitutional or legal limits of the national (central) level.

Fiscal federalism provides for the distribution of functions and fiscal capacity among different levels of government. It concerns fiscal functions such as raising revenues and making expenditure decisions. Local governments usually need more funds than are usually generated from its own efforts. Central governments levy taxes and use this revenue to equalize the fiscal capacity of local units. The fiscal responsibility is mixed among the levels of government. Democratic decision making and control are parts of fiscal federalism.

Fiscal federalism means the *distribution of functions among different levels of government*. It includes the most important fiscal function: raising revenue. Local

governments usually spend more than its directly obtained revenue. Central governments levy taxes on local revenue sources and partly use the realized income. Thus, the fiscal responsibility becomes mixed. Therefore, democratic decision-making and control is indispensable in a democratic system. It is realized by the ruled mechanism of fiscal federalism which involves organizational, economic, and fiscal mechanisms at the same time.

Fiscal federalism is a means to guarantee effective independence of sub-national units. The national (federal) level always has an influence on local and regional incomes and spending through the system of taxation, grants and regulations. Fiscal federalism provides the linkages between these different levels. It provides principles and practical means for effective central influence within the democratic system. Fiscal linkages also exist between the state, regional, and municipal levels.

There are different reasons which necessitate the need for national influence. One stems from the need for fiscal unity of every independent country. National taxes are applied in a uniform way so that all citizens are compelled to contribute to the national needs. Second, equalization is important for the various areas of countries with different social conditions and levels of economic development. Third, the impact of externalities is very important. The delivery of local functions has an effect on other government units. These effects can be positive in the construction of roads, bridges, hospitals and schools or perceived to be negative such as in the case of the building of garbage disposal areas, prisons or nuclear power plants in a particular neighborhood. For this reason, cooperation between different municipalities and the coordination of policies between regional and national levels is very important. Coordinated fiscal policies help to distribute advantages and disadvantages throughout the country on an equitable basis.

### **The Extent of Sub-national Finance**

The scope of sub-national finance can be measured in different ways. The more expanded the local and regional financial capacity, the more important may be the tasks and responsibilities that are given to these governments.

The total sub-national expenditure is related in many respects to the general overall government expenditures. This data can be compared with respect to general government expenditure as a percentage of GDP (See table 1). The relationship of GDP to government expenditure illustrates the real size of the state financial dimension. The relationship with general government expenditure helps categorize the structure of the state expenditure and the distribution of functions between central and local levels.



Table 1  
Municipal expenditure in relation to Gross Domestic Product (GDP) and  
General Government Expenditure (GGE)

<i>Country</i>	<i>Year</i>	<i>% of GDP</i>	<i>% of (non-consolidated) GGE</i>
WESTERN			
Austria	1993	12,71	20,18
Belgium	1993	4,9	10,9
Cyprus	1993	1,4	4,1
Denmark (1)	1994	19,9	31,28
Finland	1993	18	29,5
France	1992	5,54	27,22
Germany	1993	8,12	28,69
Greece	1989	3,33	5,6
Iceland	1994	9,1	22,3
Ireland	1994	4,9	13,8
Italy	1993	7	13
Luxembourg	1993	9,92	32,3
Malta	1995	0,337	0,629
The Netherlands	1994	13,3	23,1
Norway	1994	18,9	60
Portugal	1993	4,6	9,7
San Marino	1993	0,11	0,19
Spain	1994	4,87	12,17
Sweden	1994	27,5	38
Switzerland	1993	10,8	27,9
Turkey	1992	2,41	12,3
United Kingdom	1994	11	27
TRANSITION			
Albania	1995	7,7	25,4
Bulgaria	1994	9	20
Czech Republic	1994	9,3	20,9
Estonia	1994	7,1	17,6
Hungary	1994	17	53
Latvia	1994	12,45	24
Lithuania	1993	13,1	58,8
Poland	1994	7	21,6
Romania	1993	3,5	16,9
Slovakia	1994	4,79	11,78
Slovenia	1995	4,4	10,1

**Source:** Council of Europe, 1997:19

*Note:* (1) The Danish Statistical Agency uses a definition of municipal sector which includes expenditures with 100 % reimbursement (e.g. pensions). According to this definition, total municipal expenditure amounts to 251.364.000.000 crowns 26,9 % of GDP and 42,3 % of GGE.

(2) Given that Oslo is at the same time a municipality and a county-municipality and it represents the biggest share of municipal expenditure. The total figures include municipalities and county-councils.

There are significant differences between Western countries by regions and historical periods. The welfare oriented states and Scandinavian countries traditionally spend more through local governments. The politically more conservative nations generally limit the allocation of funds to local units. It appears that sub-national responsibility is growing in Central European transition countries (Bird, Ebel, and Wallich, 1995).

Table 2 provides the percentage distribution of government revenue by level of government and defines the role of other government levels in the state finance.

Table 2  
Percentage of government revenue, by level of government  
(Various years in the late 1980s)

<i>Country</i>	<i>Central level</i>	<i>Middle tier or state</i>	<i>Local</i>
<b>FEDERAL</b>			
Germany	64,4	22,2	13,4
Switzerland	53,4	24,6	22,0
United States	59,1	24,4	16,5
<b>UNITARY</b>			
Belgium*	93,9	0,0	6,1
France	87,1	0,0	12,9
Ireland	91,8	0,0	8,2
Netherlands	95,2	0,0	4,8
Spain	87,0	3,6	9,5
Sweden	69,9	0,0	30,1
U. K.	85,9	0,0	14,1

\* Unitary at that time.

**Source:** Government Finance Statistics Yearbook 1990.

In federal countries states are the basic unit. They have independent revenue sources. The financial capacity of the states is greater than the local level. The distribution of functions between federal, state, and local levels is mixed.

In unitary states the medium tier consists of one or two levels, or in some cases it is omitted. The medium tier has its own expenditure responsibility. Revenues are transferred from the national level. The middle tier also transfers revenue to municipal governments and participates in regional development activities.

The middle tier and its functions, including its financial role, is frequently discussed in the transition period of Central European countries. In the former communist regimes the middle tier government (and the connected communist territorial party organizations) served as an integrative link of the state hierarchy. They effectively directed local councils. Much of the state financial sources were transferred from this level. Later, in the so called 'soft dictatorship' the medium-

tier government became a partly autonomous decision-maker for state revenues. This system has been changed radically. The allocative function no longer exists at this level. The questions now become: how can the medium tier participate in regional development activities? How can it be controlled by municipalities? And how can local functions be distributed between the different levels?

The distribution of grants is also important from the point of view of the different tiers. Grants can be characterized in two ways: by the subject of distribution, and according to the level of the recipient. Tables 3 and 4 provide illustrative data on the granting and receiving level of governments in a number of countries.

Table 3

Grants from different levels, in percentages of the total revenue of the granting government  
(Various years in late 1980s)

<i>Country</i>	<i>grants from central level</i>	<i>grants from middle tier or state level</i>	<i>grants from local level</i>
<b>FEDERAL</b>			
Germany	5,3	19,6	6,1
Switzerland	11,1	20,1	8,0
U. S.	9,6	27,0	2,5
<b>UNITARY</b>			
Belgium	7,0	0,0	1,2
France	7,0	0,0	3,0
Ireland	20,1	0,0	0,5
Netherlands	22,6	0,0	2,0
Spain	13,4	8,7	0,6
Sweden	11,3	0,0	3,1
U. K.	13,9	0,0	0,0

**Source:** Government Finance Statistics Yearbook 1990.

Table 4

Grants to different levels, in percentages of the total revenue of the receiving government  
(Various years in the late 1980s)

<i>Country</i>	<i>grants to central level</i>	<i>grants to middle tier or state level</i>	<i>grants to local level</i>
<b>FEDERAL</b>			
Germany	0,3	15,4	28,5
Switzerland	3,2	25,7	16,2
U. S.	0,0	19,8	36,8
<b>UNITARY</b>			
Belgium	7,7	0,0	1,2
France	0,4	0,0	33,4
Ireland	0,0	0,0	73,7
Netherlands	0,2	0,0	84,8
Spain	0,9	0,0	32,9
Sweden	0,0	0,0	20,7
U. K.	0,0	0,0	49,4

**Source:** Government Finance Statistics Yearbook 1990.

The national government of unitary states leads in the level of allocation. In federal countries the states are regularly more involved in distribution. This means that different policies can be realized at the different levels. States are able to add their own priorities to the federal ones. At every level, preferences are proposed and the potential recipients are able to apply or not apply for the various grants. A public process of decision making and conditions for applying are required. In this way decisions can be made at the level directly affected by the grant.

The primary recipients of grants are units at the local level. In federal countries the states are also recipients of national government grants. States both distribute grants and are the recipients of (central) grants. From the point of view of policy making, this provides a special “turning” position in which states can formulate their own specific strategies for local governments. This financial technique helps to realize the essence of a decentralized political structure.

### **Types of Financial Transfers**

The main forms of financial transfers are as follows: taxes, grants, and user charges. The latter of these is special because it represents a unique form of revenue collection (often it requires a central or higher governmental approval).

#### *Taxes*

Taxes are levied centrally or locally. Local taxes go directly to the local government. These revenue sources are typical of a decentralized system. However,

the amount of local tax revenue may be limited because the national government may regulate rates of these taxes. Obtaining a significant amount of revenue from these taxes may be impossible since the state may already utilize these taxes. There are some good reasons to centralize tax collection. Technical efficiencies of tax administration promote this centralized solution. Prevention of tax evasion is often better in the case of a central levy and collection.

Practically all of the central taxes are collected at the taxpayer level. Therefore, in the case of central taxes, collection is a type of redistribution or equalization among different municipalities. Municipalities vary greatly in their ability to produce tax revenue. They depend on their inhabitant's wealth and local economic factors. The more centralized the taxation system is, the less a linkage can exist between the locally collected sources and local spending.

A portion of central taxes is often shared revenue between the national and sub-national levels. The proportion of shared revenue is significant from the point of view of the extent of intergovernmental financial transfers. Tax revenue may be shared on the basis of the source or on the basis of a formula that equalizes revenue among the sub-national units. In the first case, the proportion of collected taxes left to the local level depends on a central decision. If the portion of the centralized share is large it limits the linkage between the locally collected sources and public spending decisions.

Shared taxes are also used for equalization among different local units of governments. It is also important between levels of government. It is necessary in the case where a level of self-government does not have its own sources or does not have enough sources of revenue.

### *Grants*

Grants are also sources of government expenditure but there may not be any linkages between the source of the revenue and the expenditure. Grants serve different functions in local government finance. First, the equalization function guarantees that less wealthy areas can finance an acceptable level of services despite limited tax resources.

Second, the impact of different government functions on areas differs considerably from one to another. This is the case where a main road passes through the residential area which is used by non-residents of the municipality. In this situation externalities can be equalized as benefits and costs of local government activities spillover the local boundaries and influence other places, causing unexpected benefits or damages. Grants can compensate for these impacts.

Grants are made on the basis of specific policies. Preferences are prioritized and added to other sources from different levels. The decisions on transfers are decided in public forums. Rules are decided in advance as an application is required and the specific decisions are made within the authority of the unit of government. This is a guarantee against bias and potential lobbying activity from special interests.

Grants serve a balancing mechanism between levels of government or among different areas of a country by providing preference to poorer areas (with less revenues). In order not to allow local governments to levy or collect taxes at minimal levels (in order to maximize their grant income), grants can be used by central governments to encourage local expenditure for particular purposes. This pushes municipalities to use their own sources in addition to the grant from the central government. Therefore, the higher unit is responsible for the crucial determination of targets for grants. Further discussion of grants is provided in Chapter 11 relating to local government issues.

#### *User charges*

User charges are also forms of financing. The history of the transition countries demonstrates that these sources may also be considered transfers depending on the decision regarding which level of government may collect them. In communist countries most urban services, like water and sewer, central heating, solid waste collection, as well as education and health were free or the price was a symbolic payment in the case of rental flats or public transport. Some services were subsidized centrally, particularly electricity and gas. There was a specific social contract in which wages were held down as they were not calculated based on real living costs. The state accepted a formal responsibility to provide these services for its citizens.

In the process of transformation giving these revenues “back” to local governments has become a decision of financial transfers. This process is composed of several steps. First, the prices are to be liberalized in the public sector. This is important even if the state enterprises are the only providers. Second, conditions for competition have to be established. An emerging market for these services parallel with the multiplying number of service providers from the private sector, provides an opportunity to decide about the application of user charges. It does not necessarily mean that subsidies will be eliminated. A longer process is needed for this.

User charges are good for some different purposes of local government. These include:

- covering costs
- maximizing revenues
- as an incentive for economical use.

The importance of user charges by local governments in the transition is emphasized by Bird and Wallich (1993). They write: “the importance of charging for public services in these various ways is, as emphasized earlier, much greater than the relatively small amounts of money most countries can or do collect from such levies. To the extent that a local government is viewed primarily as a provider of services, as it should be, and the benefits of services can be attributed specifically to individual citizens, properties, or businesses, the appropriate policy is clearly to charge the correct (roughly, marginal cost) price.”

It is nearly impossible to introduce user charges in all services. Several conditions must first be met. First, a measurable output is necessary. For instance, health and education costs are difficult to direct toward a specific user or beneficiary. Benefits from the services should be measured directly with reference to the user. This is impossible in some public services like police or fire protection where the benefits are not realized or not exclusively realized by the direct recipient of the service.

Second, the excludability of individuals from receiving the service or benefit is important. Persons, who do not contribute to the production of a service should be excluded from enjoying it. This is impossible to do with many services such as social care or education.

Third, the character of consumption should be analyzed from the point of view of user charges. The user charge should be appropriate to the amount consumed. In the case of water it would not be appropriate to use a property tax as property does not necessarily relate to the amount of water consumed. Consumers would not adjust their consumption of water under a property tax, and would actually be encouraged to be wasteful. Consequently, a charge based on usage would be more fair and would discourage wasteful consumption.

The implementation of user charges is clearly a public policy decision. General taxes can be chosen as well, but the question in every case should be which is the better way to reach the preferred policy goals consistent with principles of taxation.

### **Decentralization in Finance**

Fiscal decentralization means that financial capacity and decision-making are made at different levels of government. The advantage of this system is that

decisions are directly related to policy preferences where they have the most impact. A disadvantage is the more complex coordination which is required at the national level in order to achieve macro-economic targets and to balance the financial capacity within the state.

The national and state levels have various instruments with which to influence intergovernmental fiscal relations. The most important of these include the following:

*Regulation.* Legal and financial regulations may be made for different levels. Besides the system for creating rules the regulations may focus on task-definition and sharing responsibilities between different levels.

*Control.* Fiscal control does not completely comprise the execution of central decisions, but may include the evaluation and auditing activities.

*Mandates, Standards.* Details of requirements for providing public services are prescribed in mandates and standards. These technical norms are often very rigorous and involve important preferences. This instrument is utilized in the regulation of the European Union, i.e. on a sub-national level.

*Financial assistance.* National financial assistance is realized by general revenue sharing, grants-in-aid and by using specific public political instruments in order to influence sub-national fiscal policies.

These are some of the contemporary fiscal policies for intergovernmental fiscal relations which emphasize a conservative approach to public finance. Budget decentralization refers to cost centers and budget centers. This concept and practice gives a priority to managers making budgetary decisions and tries to limit pure political preferences. Fiscal austerity as a general tendency creates different solutions for urban policies in terms of restricting the range of choices or creative solutions.

National policies often create challenges for municipalities and other sub-national governments. The implementation of fiscal decentralization allows different and innovative solutions to be tried in order to determine what works best. For this reason, among others, political and fiscal decentralization are important in the transition economies.

### **Local Units of Government**

In this section we address one of the distinguishing features for comparing the governmental systems in Western and Central Europe. This involves the problem of the number of units of government and the efficiency of these units in delivering services.



*Number and Size of Basic Units*

One of the results of the transition in Central European countries has been an increase in the number of units of government. Hungary, for example, went from 1,500 units in 1990 to over 3,000 in 1991. Similar trends have also been followed in other Central European countries.

These trends, however, are in contrast with the patterns observed over the past several decades in Western Europe. In West Germany there were 24,292 units in 1950 and only 8,077 in 1992. The United Kingdom reduced its number of local authorities from 2,028 in 1950 to 484 in 1992. Austria went from 3,999 to 2,301 in the same period.

According to a report prepared by Jim Sharpe (1994) for the Council of Europe, countries reduced their number of municipal units by the following amounts: Bulgaria, Denmark, and Sweden by more than 80%; Belgium, Germany, and the United Kingdom by between 60% and 80%; Austria, the Czech Republic, the Netherlands and Norway each by approximately 40%.

The main impetus for this reduction was the belief that by consolidating these units greater economy and efficiency could be achieved in the delivery of services. The values of economy and efficiency dominated over the political values of creating political units of a size that is conducive to citizen participation in local decision making. There is an assumed relationship that small units of government, population wise, provide for greater democratic participation and increased power to individuals.

In the transition countries, large numbers of local units create service difficulties and force the intergovernmental fiscal system to provide additional resources than might otherwise be necessary. According to Bird, Ebel, and Wallich (1995) "Most of the transition countries have created a large number of small and probably not fiscally viable local government units." The average population of local units in selected countries is as follows: Hungary, 2,600, Romania, 50% of the population lives in local units under 3,000 population, Bulgaria, 20% of its 255 municipalities have less than 5,000 population. In Ukraine the number of settlements under 5,000 population is 10,545, or 96% of all settlements.

Page and Goldsmith (1987) have classified two groups in Western European unitary states according to their systems of local government. In the northern region of Western Europe municipal systems are termed integrated. This means that the political boundaries of local units do not follow the geographical boundaries of settlements. They have been adjusted to the rationality of service provision. This is why a smaller number of units with larger populations have been created. The large cities are units of local authority as well as geographically unified

areas. On the basis of this philosophy small local units have been merged and large self governments have been established.

In contrast to this model, in the southern unitary states of Western Europe the reform of the Napoleonic state was realized without any organizational integration. Many municipalities exist and typically every settlement has its own self government. However, the service providing system capacities are established at different levels of government (three or four tier systems) with a relatively wide range of associations among small municipalities. The autonomy of rural and urban units is very important from the political point of view. This is called the non-integrated system, underlining the administrative character of these systems, as opposed to the defined autonomy for small communities.

In federal states the structure of relatively independent states is determined at the local level. This means that the municipal structures may differ from one state to another. However, a federal state can be close to one or the other basic models. For instance, Switzerland is closer to the non-integrated model. The western part of Germany is similar to the integrated model. These systems can be compared in the figures provided by table 5.

Table 5

Different systems of local authorities according to the number of basic units

<i>Country / group of systems</i>	<i>Number of basic authorities</i>	<i>Average population of municipalities (at basic level, approx.)</i>
<i>i. Integrated</i>		
United Kingdom	484	118440
Sweden	286	30040
Portugal	305	32300
Turkey	2378	23340
Netherlands	647	23200
Denmark	275	18760
Belgium	589	16960
Finland	455	10870
Norway	439	9000
<i>ii. Non-integrated</i>		
France	36551	1580
Greece	5922	1700
Spain	8086	4930
Italy	8101	7130
<i>iii. Federal states</i>		
Austria	2333	3340
Germany	16061	4925
Switzerland	3021	2210

**Source:** Colloquy, Council of Europe, 1994

Can this classification be used for Central European countries? As a part of the political transformation, new municipal systems have been established since the beginning of the 1990s. Table 6 presents the comparative data on the development of Central European units.

Table 6

Different East European systems of local authorities according to the number of basic units

<i>Countries / groups of systems</i>	<i>Number of basic authorities</i>	<i>Average population of municipalities (at basic level)</i>
<i>i. Integrated systems</i>		
Lithuania	56	66900
Macedonia	34	59822
Slovenia	62	32163
Bulgaria	279	30367
<i>ii. Non-integrated systems</i>		
Czech Republic	6196	1667
Slovakia	2853	1845
Hungary	3130	3315
Latvia	568	4517
Ukraine	10915	4773
<i>iii. Systems with very limited integration</i>		
Belorussia	1691	6067
Estonia	255	6169
Romania	2949	7735
Albania	360	8798
Poland	2459	15623
<i>iv. Federal systems</i>		
Russian Federation	approx. 26000	5719

**Sources:** Local Governments in the CEE and CIS, 1994; Lithuania: Lithuania Municipal Finance Report, 1995

The same groups can be classified with relationships to the models. Although the new systems have not been completely developed yet, the emerging political strategies for establishing local government structures are quite interesting.

The current phase of reform in these states is now very different. Some of them had some years of experience in the middle of the 1990s, while the others have not yet established their new structures, particularly in some of the countries of the Commonwealth of Independent States.

A recent analysis (Horváth, 1996) focuses on the Central European region. The following countries were involved: Poland, the Czech Republic, Slovakia and Hungary. These countries were chosen for the analysis because of (1) the common and often conflicting historical tradition, (2) the similar process of transformation

from communist to democratic state, (3) and the relatively similar municipal changes since 1990.

A common feature of this region, among its local government systems, is the fragmented or in a very limited way its integrated structure. From this point of view, they are very close to the Western European 'southern group' (group ii/ in Table 5). However, the motives of this kind of development are different. The explanation for this phenomenon is found in the recent history of the region. Communist regimes forced small units to merge into common councils or soviets. The inhabitants' protest to this was so strong that these units were reconstituted during the changes following the collapse of the communist regimes.

The typical elements of the Central European model are:

- Many small units of local government exist.
- In some countries almost every settlement has a self-government.
- In others the basic units are relatively close to settlements (Poland).

As a part of the same structural reform, the middle tier government became weaker. The middle tier lost the former position as a superior authority of local councils. Now the distribution of functions between the basic and middle tiers is quite clear. Compared with the Napoleonic states, where besides the basic level, two or three levels exist (district, department, region), in Central European countries only a single intermediate tier operates. This is a second very important characteristic element of decentralization.

Finally, this single middle tier is divided as far as administrative functions are concerned in each country. In Hungary county governments and separate state administrative offices work in the same areas. Both are responsible for middle level tasks where not combined into one office. In the same way the Polish voivodships (provinces) and Czech districts are state administrative levels. State and local governmental functions are separated if possible. In the reform philosophies this separation seemed to be an appropriate guarantee for preventing the middle tier governments from directing and supervising municipal governance.

It is necessary to add that the questions mentioned above are burning issues in each country. A real middle level of local government is discussed for new areas, such as regions or re-establishing one of the former government levels that existed in the previous regime. In the Czech Republic and Slovakia the discussion is about regions, in Hungary about the strengthening of counties, in Poland it is also about province government and the possible re-establishment of the district level (former powiat) (State Budget Support, 1994:18-19). These discussions prove the necessity of integration in these new systems. The question arises when administrative and economic efficiency confronts the "exaggerated decentralization" that has occurred in some countries.

*Municipal Integration in the Central European Countries*

The structure of local government systems in a comparative framework is presented in table 7. With the exception of Hungary, every country has a single tier local government. Hungarian county councils have limited power but they are elected directly. At a regional level in all of the examined countries state administrative offices operate with responsibilities for the general control of territorial state functions. They are responsible for providing particular services if municipalities cannot provide these services.

Table 7  
Forms of territorial administration

	Type of government	Number	State adm. office with general competence	Number (1994)
<b>Czech Rep.</b>				
	regional district		district office	76
	local municipality	6590		
<b>Hungary</b>				
	regional district	19	state adm. office	20
	local municipality	3130		
<b>Poland</b>				
	regional district		province (voivodship) district of state adm.	49 267
	local municipality	2459		
<b>Slovakia</b>				
	regional district		administrative district, sub-district office	38 121
	local municipality	2853		

**Source:** Horváth, 1996

The Polish province is responsible for health care, secondary education, vocational training, theaters, etc. (Local Governments, 1994). Slovakian sub-district offices previously performed tasks of municipalities with less than 600 inhabitants. These tasks cannot be carried out by the municipality or in cooperation with another municipality (Local Governments, 1994). This feature of these systems is very important. It demonstrates that integration exists in middle tier state administration rather than in the middle tier of government.

This is the reason this solution is discussed by municipal politicians. They consider it as a feature of centralization, because state functions are increased at the local governments' cost. However, the existence of these offices shows the demand for territorial integration and it is a solution which can meet the requirements for service delivery.

The second form of existing integration is cooperation at local level. Different organizations serve several small municipalities. In the Czech Republic there is cooperation for common provision of particular services. In Hungary common (rural) administrative offices are maintained by groups of small municipalities. It is possible to have administrative cooperation for matters with legal power (building permission, etc.); joint maintenance of institutions (schools, social care home etc.) is allowed and a joint representative body can be established by local governments to solve particular tasks determined by the establishing municipalities. In Poland joint representative bodies also perform managing services. Larger towns have taken over some regional tasks in addition to their original functions from the state administration. Local authorities may create zones for common municipal services. Joint municipal offices are permitted to fulfill certain tasks in some Slovakian settlements.

Thus, there are different forms of cooperation. It seems these are defined by the law most thoroughly in Hungary. The common problem is that these forms and legal institutions are not sufficiently popular. Local representative bodies are reluctant to collaborate because they want to guarantee their autonomy.

The third form of existing integration is the separate territorial representation at the regional and district levels. These bodies represent municipalities in a definite region. The district assembly in the Czech Republic, the Polish provincial assembly and associations organized on territorial basis are delegated by local governments to address specific problems. They have different consultative rights to the district or other state administrative offices and are separated from political entities to ensure that their influence will be limited. The common characteristic is their status which is close to an association.

The Central European countries solve the necessary integration problems mainly in an administrative way. As a result, some of the functions are outside the influence of the self-governments. Opportunities for horizontal cooperation among municipalities are rather limited. The conclusion to be drawn from the present models of distribution of functions is that some type of integration must exist. This conclusion is supported by the professional and political debates in the countries about these questions. A burning issue is establishing regional governments in the Czech Republic. In Poland, the creation of *powiat* (as an upper tier of administration) is being given less support in the process of local government reform and the position of *voivodships* is a subject of current political disputes. Both organizing forms have a tradition in Polish administrative historical development. In Slovakia regionalization and the territorial division of regions is an issue of political discussion. In Hungary the strengthening of counties has been a topic of continuous political battle since 1990 (the year in which the new

territorial administration was introduced). New forms and incentives for cooperation are being developed, but it is not clear if this is the best path or whether an amalgamation of smaller units might be more preferable.

The common lesson from these debates and process of development is that there is a demand for integration in all of the examined countries. Secondly, different forms and institutional frames work in practice. This phenomenon again proves the necessity of integration. It is clear, however, that levels of autonomy, once achieved are difficult to reverse. Political parties and citizens in small rural settlements want their autonomous local politics.

It is clear from the Western models that it is possible to maintain the effectiveness in public administration. Integration does not necessarily mean centralization. The future question that is to be solved is how these countries can reconcile these two different principles of democratic decentralization and administrative efficiency.

What are the possibilities to solve this dilemma? The question has been analyzed by some expert groups (Bird, Ebel and Wallich, 1995). The first possibility is to create a more effective intermediate tier of general-purpose government. The second choice is to strengthen the institutional framework for municipal associations. The third is to develop integration in service provision through special districts or in some other way. A final choice is based mainly on changes in functions. This choice is more problematical than the others.

### **Intergovernmental Fiscal Relations**

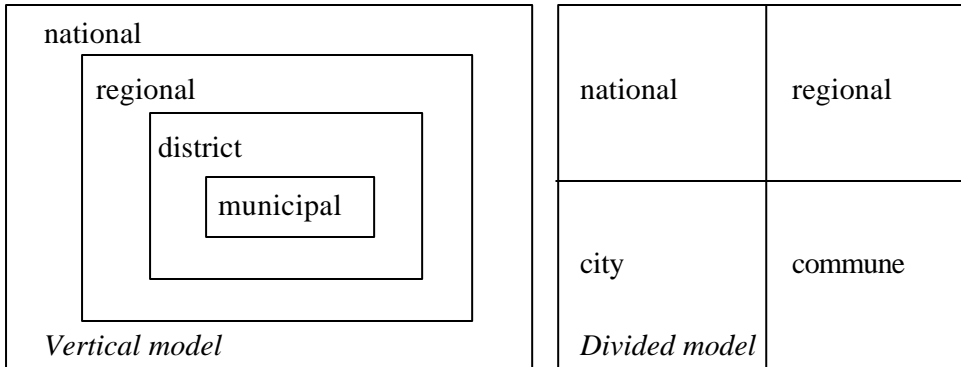
The responsibility for providing public services is divided between different governmental levels. A number of models are used in analyzing administrative relationships between the levels of government. From the Central European point of view a historical comparison seems the most relevant. During the communist regime all functions at the lower levels of government were directed from the upper levels and a global responsibility was added at the level of regional units. This resulted in a subordinating and hierarchical structure in providing services. After the system transformation, the functions were distributed between the levels of government. These difference are depicted in figure 1. There is no level at which functions delegated to a lower level are duplicated. This does not mean a complete separation of governments in coordinating and financing services.

Functions may be linked to different levels of government (Wright, 1996), but it is relatively rare that a single government is responsible alone (Zimmerman, 1983). For example, in the case of education municipalities are responsible for schools, but the teachers' wages are calculated centrally, and the system of

mandatory examinations is regulated by the Parliament. In a system like this responsibility at one level may be restricted by a higher level.

Figure 1

### Models of intergovernmental relations



Financial tasks are also distributed in a similar manner as functions. Intergovernmental revenues are provided in different forms such as grants, revenue sharing, and revenue from other local governments. We will briefly examine different forms of grants. Additional discussion of grants is found in chapter 11.

Grants may serve a single or multiple purposes. The single purpose grants, sometimes called categorical grants, support specific tasks at another level of government. Multi-purpose grants can support a number of activities within a defined functional area, such as education or health. The expenditure decision is at the discretion of the recipient of the grant. This is often called a block grant. Block grants are a general purpose transfer without any stipulations on the use of the funds.

Revenue sharing provides even less direction than grants from the central level. The amount of the transfer depends on revenues raised, so there is more flexibility for the recipients to utilize this revenue source in connection with their own needs and policy preferences. There are two types of revenue sharing. The origin based system which allows transfers within the sum that has been collected from the source. In the formula based distribution a fixed percentage of pooled revenue is distributed among qualifying units of government.

Transfers from central and upper levels have some dangers for local governments. There are two areas where these transfers may not serve the purposes intended or lead to poor financial decisions at the local level. The donor government (central government) often distributes money based on



formulas which are not accurate or hide many of the problems that local governments are experiencing. The formulas often misallocate funding to various units or regions which are not in such financial need.

Second, the transfer of funds is generally made with at least some restrictions for their use. Thus, no transfers are completely free of control from the donor level to the recipient level. The transfers are made for some political purposes as the politicians at the upper level want to take credit for the activities funded by these transfers for their electoral purposes.

In using single purpose or categorical grants, local governments are often tempted to apply for these funds even though they have other higher priority needs. The lure of the grant money distracts them from attempting to gain grants for their specific needs. When these are matching grants with a contribution coming from the lower unit, the overall financial condition and allocation of funds at the lower level is distorted by gaining these grants.

Transfers are also a problem for the transition countries as shown in Table 8. The rate of transfer and shared revenues are traditionally high as a percentage of the local government expenditure. The reason is not only a reluctance of the national government to provide local units with sources of revenue, but municipalities also fear increasing their own sources of revenue due to the reaction of taxpayers to higher local taxes. The local councils would face conflicts if they would raise local taxes.

Table 8

Local Government Revenue Sources, 1993 (percentage of government revenue)

Country	Own tax	Nontax/other revenue	Transfers and shared revenue
Albania	0.0	0.0	100.0
Bulgaria	1.2	4.1	94.7
Hungary	4.0	19.9	76.1
Poland	25.7	18.8	55.5
Romania	17.0	6.0	77.0
Russia	8.8	1.6	89.6
Ukraine	0.7	2.5	96.8

**Source:** Bird et. al., 1995:24

Intergovernmental fiscal transfers include not only central or state (upper level) transfers. Revenues from the “horizontal” level are also important. In these cases the basis is not the normative allocation, but through forms of co-operation between municipal or regional connections. Different organizational structures work in order to reach the optimal concentration of sources or optimal size of government activity (Bird, Ebel and Wallich, 1995). These types of co-operation

are very important in the development of municipal integration in integrated systems, and in non-integrated systems when the linkages are through organizational structures at the different levels of government.

Different forms of intergovernmental coordination have been established in practice using the following methods:

- *Municipal federations.* In the Nordic countries local units are organized on a voluntary basis into common, independent structures to provide services like transport, environmental protection, hospital care, etc. Financial instruments from the central level provide incentives for the municipalities to create these associations.
- *Special districts.* In the United States and Anglo-Saxon countries delegated bodies have been established for the purpose of delivering services. The special districts are one way to reconcile the political boundary and service area dilemma. Special districts cross political boundaries and can provide some “economy of scale” level of services. These are important for such services as garbage disposal, water and sewer services, and public transportation. The special districts can be for single purposes, like water supply, or multiple purposes such as water and sewer services. Data on the number of special districts in the United States in the 1980s reveals the extent to which special districts are used. Of the 82,637 governmental units in the United States the special districts constitute 28,733, or 35 percent. Adding school districts, which number 15,032 or 18 percent, further reveals how numerous special districts are in the US system (Banovetz, 1984).
- *Municipal associations.* Municipal associations are established for major services or administrative functions. In Latin countries, small municipalities are obliged to form common integrative organizations to solve their tasks. Some are mandatory while others are optional, but after their establishment the central regulation and obligations are applied by participants. The financing of the associations depends on the members and their capacity to contribute based on services received.

Intergovernmental fiscal relations help to solve problems of spillovers (Mikesell, 1991). Spillovers are a regular phenomenon of local activities when local activities may influence other municipalities positively or negatively. In these situations co-operation between different units or levels is necessary to optimize or limit the impact on the relevant areas.

A second important feature of intergovernmental fiscal relations is to equalize fiscal capabilities. This principle is based on different economic and fiscal circumstances which should be balanced in order to ensure approximately the same level of services for people living in the various regions of the country.

Fiscal equalization is difficult to achieve in practice and can lead to political problems as the wealthier parts of the country may resent transfers being made to poorer regions. Italy is a country where resentment of transfers from the north to the south has produced political conflict and a movement to create a separate state.

### **Local Fiscal Capacity and Measures of Source Allocation**

Under a federal system the different levels of government can influence but not direct the other levels. In all systems, the various functions of each level of government are different (Musgrave and Musgrave, 1989). The allocation and distribution of income evidence powers that are limited and regulated by the rules of grant system. It is relevant to calculate the fiscal capacity of different units and measures of revenue allocation since financial policies may influence unequally the social circumstances in different regions and settlements. This is very important to ensure fiscal equalization for inhabitants.

Fiscal capacity on the revenue side is measured by the relative size of the tax base per capita. On the spending side it is measured by the relative needs, like the number of elderly people, inhabitants' health conditions and other factors. The measurement of local fiscal capacities is necessary to compare local governments. Comparisons are needed for the calculation of intergovernmental sources, for the allocation of grants, and for defining revenue shares. These shares, in many cases, are adjusted to the local ability to collect and accumulate revenue. In this way revenue sharing becomes an instrument for equalization.

The measurement of fiscal capacities is also used for financial evaluation and monitoring. For instance, in the transition countries the new systems of audit and control are just developing. Organizations responsible for this function are different from their predecessors. They are restricted in their direct influence and they need efficient instruments to enforce legal, fiscal and accounting rules. The evaluation of the financial systems is also indispensable for making changes when analysis and investigation reveal difficulties in the allocations. This area of policy analyses is constructed on relevant financial and program measurements at the central and intermediate levels.

What are the relevant data for comparison? For this purpose, local fiscal capacity is only a relevant starting point. The whole system of local finance must be examined. One of the most important functions of local finance is to correct differences of local capacities on both the revenue and expenditure sides. The main question is the possible measures of source allocation. The following indicators can be used (Péteri, 1994):

Capacities of expenditures

distribution of expenditures by population of municipalities  
distribution of expenditures by intergovernmental levels  
the structure of expenditures by types (city, rural, towns with specific rights)  
of local governments

Capacities of revenues

distribution of grants between different levels and types of local governments  
distribution of revenue shares

distribution of own revenues like

- local taxes
- user charges
- revenue from municipal property

the structure of revenue by types of local governments

In a unitary state the main comparable categories are comparisons of municipal and county or any other level of government based on the territorial structure of the system. An urban versus rural comparison is important from a social geography and territorial dimension. The distribution of population and financial resources between the capital city and other areas of the country reveals the level of financial transfers to the more populated areas.

On the basis of these measures fiscal capabilities can be calculated (Peteri, 1994). Average and estimated capacities must be distinguished. The mechanism of subsidies can be adjusted to the estimated capacities. There should be an incentive for increasing revenues without limiting central transfers. This method is intended to make fiscal capacities the basis of the financial transfer system.

Policy preferences are also identified by analyzing the fiscal capacities. Changes can be anticipated by the calculation and estimation of the economic and fiscal relations. The data should reveal preferences in order that political bargaining between the different levels or groups of local governments may be made on the basis of accurate and relevant fiscal capacity.

A research effort was undertaken by a World Bank team in 1995 to develop an analysis of fiscal capacity and options for a new scheme of intergovernmental transfers in Hungary. A complex simulation analysis was done which included data from 3,069 municipalities on their normative grants, personal income tax collection, demographic and unemployment data and municipal fiscal/tax revenue data in the fiscal year 1990 (Bird, Wallich, and Peteri, 1995). Various simulations were run which compared different grant formulas and own source revenue capacity of the municipalities. Attempts to use a representative tax system, such as in the United States, proved impossible due to a lack of necessary data. Overall, the attempt to measure local fiscal capacity and to develop an alternative grant system was not successful because, as the researchers noted, "The fiscal data are

incomplete: some counties have been excluded from the calculations, and there are many estimates in the data” (Bird, Wallich and Peteri, 1995). This effort indicates an important area of research that must be continued with improved methods of data collection and new analysis.

### **Conclusion:**

In this chapter we have examined how different governmental structures influence the public finance decisions. This is an important element of public finance since these systems and structures influence the sources of revenues, the expenditure decisions and the fiscal capacity of lower governmental units to be effective provider of services. The difficulties of constructing a new central-local relationship based on values of democratic participation, yet providing efficient delivery of services by local units with limited fiscal capacity continues to be one of the major problems of the transition. We have examined a number of solutions to this situation from Western European and American experiences. The conclusion is that there is no perfect solution, but many good practical solutions to this problem.

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**Case Study: The Grant System in Hungary***Tamas M. Horvath*

This case study introduces the Hungarian grant system as it was administered in 1996 (see and compare: Bird, Ebel and, Wallich, 1995). Grants are a crucial source of revenue for local governments in Hungary. They represent a larger percentage of income than in other Central European countries. Regardless of the fact that this indicates centralization, the system as formulated was part of the local administration transformation. Changes in the percentages of grants are shown in Table 9.

Table 9  
Local revenues in Hungary (%)

<i>Revenues</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>
Own revenues	17,0	17,7	17,6	16,9	18,0
Shared revenues (PIT, etc.)	11,9	12,7	8,5	8,5	11,3
Capital incomes (privatization, selling out, etc.)	3,9	5,5	8,1	10,7	11,2
<b>Central grants</b>	<b>48,0</b>	<b>42,5</b>	<b>42,6</b>	<b>38,8</b>	<b>36,6</b>
Central transfers (from Social Security Fund)	16,9	16,2	16,4	17,0	17,2
Others	2,3	5,4	6,8	8,1	5,7
<b>TOTAL</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>

**Source:** Ministry of Finance, Hungary

Local governments receive six types of grants in Hungary, as follows:

- normative grants,
- targeted grants,
- addressed grants,
- grants for centralized appropriations for specific purposes,
- addressed grants for maintaining specific institutions,
- grants for distressed areas.

Normative grants are the most important. Almost 70 % of all subsidies involve these grants. This type of grant was provided before the transition year of 1990. The grant is used for operations and maintenance. It is given without conditions. Complete autonomy is afforded the recipient governments regarding their spending decisions. The principles of the system as prescribed by the Local Government

Act are that grants must be given through formulas rather than subjective decision-making. This is an important improvement over the previous system of bargaining between the central and local units.

The allocation of normative grants is based on a complex formula that incorporates needs-based measures and per capita-based measures. There are no requirements on how localities actually allocate their funds within these categories.

The Budget Act fixes the amount of the normative grant each year. In order to calculate the grant, the aggregate local spending is first estimated. After that, the amount of local revenue sources are estimated. The allocation of the aggregate transfer across localities is then made. Inflation is incorporated into the calculation yearly but there are no guarantees that the normative grant or the total local revenues can be maintained in real terms.

The norm-based grant has two basic elements. The first is population-based which consists of lump-sum transfers to each local unit depending on the number of inhabitants or defined age cohorts. For instance, local governments receive Ft 1,637 per capita to supplement administration, communal, cultural and sport services. The second element is related to local unit expenditure on their main areas of responsibility, such as primary schools, secondary schools and care for the elderly people. For instance, local governments receive Ft 54,000 per each child enrolled in a municipally operated primary school or kindergarten.

These norms are not based on actual expenditures or actual costs. There are wide differences by sector and locality. The normative expenditure-related weights cover only a part of the nationwide average cost of providing services. The norms themselves do not distinguish between small and large municipalities or towns and villages. The norms are generally a smaller fraction of costs in cities, because their resource mobilization capacity is greater.

Targeted and addressed grants are for investments. Targeted grants are specified by the decisions of Parliament. For instance, in 1996 preferred targets were given for investments in solid waste disposal, new instruments for hospitals and investments for sewers. Local governments which fulfilled the conditions of the applications were authorized to receive this grant. In contrast, addressed grants are designed to support specific investments which, because of their size or cost, are impossible to finance from a municipal budget. For example, the construction of a hospital, or its rehabilitation are too expensive for a municipal or a county government to finance alone. Addressed grants are fully discretionary for the local units.

Grants for distressed areas are authorized for local governments that, through no fault of their own, cannot achieve budgetary balance. The beneficiaries include



localities whose population structure (i.e., large numbers of pensioners, high unemployment rates) implies a limited tax base or personal income tax share. These funds are only for municipalities that cannot meet even minimal maintenance and expenditure needs. Funds cannot be used for investments.

Local governments which maintain a current budget deficit are eligible for supplementary grants for “handicapped” municipalities. This amounted to approximately 5 billion HUF for 800 local governments in a recent year. Measurement of expenditures are based on incremental budgeting. Eligibility criteria for the grants include the fact that no capital expenditures can be financed by their own current revenues and the fact that public utilization of institutions must exceed 50%. The general requirements of the grant involve initiating joint operations of services, employing district notaries, and cooperation in handling administrative services. Revenue calculations are based on factors such as a mandatory levy of authorized local taxes and the failure to have any bank deposits for a period longer than three months.

There are also general grants for maintenance purposes. A number of central budgetary payments go for appropriations for specific purposes such as social assistance, subsidies for minorities’ self-governments in settlements and subsidies for the improvement of public employee’s wage system. Addressed grants for maintaining specific institutions are for covering those costs which are determined centrally and are entirely discretionary. Local governments who maintain theaters are supported in this way. Fire services which are maintained and directed by local governments constitute a basis of grant allocation. This function used to be centrally organized, but now it is done by local units.

*Questions for Discussion:*

1. Compare the Hungarian grant system with the grant system in other countries of the Central European region.
2. What deficiencies exist in the grant system as far as equalizing fiscal capacity across regions or size of jurisdictions in the Hungarian system?
3. What factors should be considered in redesigning the grant system and what objectives should be served?

## **PART 2**

# **TAXATION AND REVENUE SOURCES**

## **INTRODUCTION**

In Part II we examine tax and revenue sources. Chapter 4 provides an introduction to the classical principles of taxation beginning with Adam Smith. The important concepts introduced here relate to the tax principles of equity through the tax system. Horizontal equity and vertical equity are explained in relation to the types of tax systems, such as progressive and regressive. Equity is an important issue from the socialist period and we will look at this in a brief examination of research on inequality before and after the changes.

Chapters 5 and 6 focus on the tax systems as they currently exist and how they are evolving to meet the requirements of European Union. Important topics in these chapters concern the VAT and its introduction into the taxing schemes of the transition countries. In this introduction we will discuss the VAT and property taxes to provide some more details on these two taxes. An interesting analysis could be made as to the why the VAT has been adopted while the property tax faces such intense opposition in these countries. We can only briefly address this here.

In Chapter 7 we focus on the non-tax revenue sources. An important area is user charges and their introduction into the revenue system, particularly at the local level. The analogy of a user charge to market pricing as a justification for rationing what was once virtually free goods, energy, water, housing, and transportation, is a politically sensitive issue as we will see from recent changes in Russia.

This section also contains some very interesting case studies for the reader. The operation of the tax administration office in Hungary is described along with details on the organizational and structural changes which were made to make tax collection more efficient and effective. The tax code in two countries, the Czech Republic and Bulgaria, are described in Chapters 6 and 7, while a description of the methods of applying a general consumption tax is the concern of the case study in Chapter 5.

In the remainder of this introduction a few of the issues raised in these chapters will be examined in order to introduce some additional research on these topics.

### **Tax Systems and Inequality**

The tax systems of the transition countries are probably the most unstable and least understood part of the transition. The violation of tax principles of certainty, equity, adequacy and efficiency of administration is a distinct feature and has caused many problems in promoting economic growth and increasing tax revenues.

One of the purposes of an effective and efficient tax system is the equity and redistribution of wealth in a society. Tax systems can assist in this function in a number of ways; through the tax rates on income, providing for incentives, deductions and exemptions, taxing inherited wealth and through any number of other methods.

An interesting question for this transition period is whether there is more or less equality in terms of income distribution and the impact on poverty rates before and after the changes. What would one expect to find occurring in this transition period? Christopher Niggle (1997) has provided a comprehensive review of the research and findings in this area. Detailed studies of income and earnings have been undertaken over the past five years in the countries of the region (the Czech Republic, Hungary, East Germany, Poland and Slovakia, as well as Russia).

Based on Niggle's review of the data and analysis of these studies four conclusions are drawn with regard to income and wage inequality. These are:

1. Before the transitional period income distribution was fairly equal within countries but there were differences among the countries.
2. After the transition began a significant increase in inequality occurred in most of the countries
3. Poverty increased in most of the countries.
4. Central European countries now have higher levels of inequality and poverty, but these levels are within the lower range of the inequality measured in the wealthier Western countries. (Niggle, 1997)

The above analysis is based on using Gini coefficients which is the most frequently used measure of income inequality. A Gini coefficient of 0 means everyone has the same income, while a coefficient of 100 means one person has all of the income.

A World Bank report (1996) supports these conclusions. It states that: "inequality has increased in Bulgaria, the Baltic states and the Slavic countries of the former Soviet Union, to levels broadly similar to those in the less-equal industrial market economies, such as the United States. Inequality has increased less dramatically in some CEE countries, to levels similar to those in many Western European countries. Hungary made strenuous and costly efforts to offset rising inequality and has seen little change in income shares by population quintile, from that of the poorest 20 percent to that of the richest. The change was greater in Slovenia, and still greater in Bulgaria and Ukraine. In Russia, where inequality rose sharply, the top quintile in 1993 received fully 20 percentage points more of total income than the top quintile in 1988, mainly because of an explosive increase in the relative share of the very richest, but also because of increasing wage

dispersion. Income dispersion between sectors in Russia has also risen. The energy, banking, and related sectors all made major gains, with the biggest losers being agricultural workers, followed by workers in culture, education and health.”

These results should not be unexpected given the enormity of the political, social and economic changes. However, the relationship of income inequality to the tax and transfer system should be recognized as being closely linked. The change in the tax systems failed in basically two respects. The first is the failure to collect taxes and, the second, is that government policies tended to push economic activity outside the formal money economy. The first of these we address briefly here in terms of tax avoidance and tax evasion. The discussion of the second will examine policies in the Ukraine which furthered the deterioration of its economy.

### **Tax Avoidance and Evasion**

It has been said that there are two things that are certain in life—death and taxes. No one has as yet escaped the first, but for many in the transition countries escaping taxes has been raised to a near certainty. For clarity of this issue we should emphasize the distinction between tax avoidance and tax evasion. Tax avoidance is legal and is based on a reduction of one’s tax burden through exemptions, deductions or incentives approved in the tax code. Tax evasion is the illegal means of not paying taxes on all taxable income either by not reporting or underreporting one’s income.

Several factors have contributed to widespread tax evasion in the transition countries. These include:

1. Introduction of VAT with its large reporting and paperwork requirements which could not be met in a system of non-automated cash registers and accounting systems.
2. The constant changes to the tax code which no one could comprehend or comply with (see Bulgarian tax case study) .
3. Lack of qualified staff and audit organizations to enforce the tax code (see Hungarian tax administration case study).
4. Extensive bribery and corruption in the tax and customs services which enabled many to avoid paying their full tax burden.

Progress is being made in effectively administering the tax collection function, at least in Hungary. In 1997 the Hungarian Tax Office (APEH) reported that “unpaid taxes and unjustified claims totaling 36.5 billion Hungarian Forints were discovered in an audit of 137,000 tax returns in the first six months of 1997. Irregularities were found in more than two-thirds of the audits and APEH anticipated

taking in 16.1 billion Hungarian Forints from related fines” (Budapest Week, 1997).

### **Administrative Regulation by the State**

The individual’s tendency toward tax evasion is often compounded by actions of the state which both lead to the same result: decreasing tax collections. An interesting analysis of this subject was prepared by Daniel Kaufman (1994) of The World Bank in Ukraine. His paper “Diminishing Returns to Administrative Controls and the Emergence of the Unofficial Economy: A Framework of Analysis and Applications to Ukraine” details how the relaxing and then the re-imposition of controls affected economic growth as well as tax collections. Kaufman constructed an administrative control index consisting of (1) foreign exchange regime indices, (2) trade regime indices, and (3) pricing regime indices and then averaged these indices to make an overall index of administrative controls. The indices were calculated from the first quarter of 1992 to the first quarter of 1994. An average approaching 100 indicated a high level of administrative control of the economic factors, while averages approaching 1 indicated progressively liberalized economies. The average index for Ukraine went from 80 in the first quarter of 1992 to a low of 35 in the second quarter of 1993 and then back to the 80 level in the first quarter of 1994. Similar calculations were made for Chile over the same period which revealed an index of 0.1, or a virtually fully liberalized economy.

What was the effect on the economy and tax collections in Ukraine as a result of the changes recorded by these indices? Kaufman’s study hypothesizes the inverse relationship of administrative controls and the actual regulation of the economy by the state. He writes: “intended tightening of controls by the state over the economy, beyond a certain point, results in reality in reduced management control over economic activity” (Kaufman, 1994). Essentially, the government forced businesses and entrepreneurs into the hidden economy. In surveys quoted by Kaufman business transactions outside the official economy “rose from 25% in 1992 to close to 75% in March 1994” (Kaufman, 1994).

A World Bank report also analyzed these control policies and the consequences of the Ukrainian government policy. The World Development Report 1996 stated: “Ukraine’s policies proved counterproductive. The intergovernmental agreements failed to stem the trade decline with other NIS countries and blocked trade diversification: Western Europe accounted for less than 20 percent of Ukraine’s total trade in 1994. Isolation from world markets delayed enterprise adjustment and perpetuated inefficiencies. Exports fell, contributing negatively to output growth during 1992-94 and large trade deficits contributed to a spiraling

depreciation of the currency and economic destabilization. Ukraine's reforms in late 1994 included considerable price liberalization and the elimination of most direct export controls, and exports grew in 1995" (The World Bank, 1996).

This imposition of administrative controls resulted in a dramatic and significant decline in tax collections. During this period the government was unable to obtain the hard currency needed to finance its gas and other energy imports, particularly from Russia which utilized this in its negotiations with Ukraine over the Black Sea Fleet.

### **Changing Tax Systems**

The above discussion is intended to provide some background with respect to the tax systems in the transition countries. Also, it provides some data and research analyses on the effects on income, poverty, tax collections and economic difficulties if an effective tax system is not implemented.

Chapter 6 deals with the efforts to change tax systems with the impetus for this being the harmonization of tax codes with the European Union. Bird, Ebel and Wallich (1993) detail the changes being made in several countries for this purpose. These tax reforms have included:

1. Using a corporate income tax on profits of enterprises
2. Replacing the "turnover tax" with its complicated tax rates on commodities with the VAT
3. Using personal income tax instead of wage controls
4. Taxing land and property
5. Financing social security, unemployment and health services through payroll taxes
6. Eliminating taxes which burdened businesses, such as wage taxes, bonus taxes and profits taxes.

Many of the above changes have been enacted into the tax codes of the countries of the region. The capacity to implement effective tax assessment and collection procedures is still in the early stages of development in the various countries. Further study of their impact on income distribution and poverty would seem to be fruitful.

### **VAT and Property Taxes**

Perhaps the greatest change in the tax systems has been the introduction of the VAT and property tax in these countries. The VAT has succeeded in being accepted despite considerable barriers, while the property tax faces obstacles of both a cultural and administrative nature. Here, we analyze briefly the main points

of each tax as additional background to the chapters that follow. There are a number of similarities and differences in the VAT and property taxes to warrant comparison to the principles of taxation criteria.

Revenue adequacy is one criteria by which to evaluate these taxes. According to Tait (1991) the VAT contributes from 12 to 30 percent of revenue in most countries, representing about 5-10 percent of gross national product. This reliable revenue creates a valuable alternative tax source, especially in countries that have a limited income tax base or that must rely on revenues from primarily commodities that may be volatile, such as oil, minerals, coffee, sugar and cocoa.

The property tax is also a potent revenue source for local governments in Western countries, particularly the United States. Property tax provides upwards of 70 percent of local government own-source revenue. (Mikesell, 1986) According to Bahl and Linn (1992) "The property tax is the single most important local government tax in developing countries." The situation in the several countries of Central Europe as reported by Kingsley (1996) is quite different In Poland, property tax accounted for 16 percent of total municipal revenue in 1992, the Czech Republic followed with 3.4 percent as reported in 1994.

Neutrality in its affect on economic activity is considered one of the advantages of the VAT. This is the situation where investments are not taxed as well as on exports. Also, a zero-rate is applied on food and drug products in order to lessen its regressivity and thereby not further distorting consumption patterns.

The property tax can have economic and wealth impacts and, therefore, is not neutral in its effect. Bahl and Linn (1992) point out that "It is, however, not necessarily the best revenue raising instrument for a city because it is difficult to administer, can have undesirable land use effects, and is very unpopular with taxpayers." Property taxes which may be imposed on businesses may distort economic potentials in certain areas. There is a tendency to use property taxes more heavily on businesses than on property owning residents as a means to reduce the tax burden on the voters. Bird and Wallich (1993) point out that "severe constraints should be placed on the degree to which local governments are permitted to tax businesses more heavily than residential taxpayers if the property tax is to be an economically desirable source of local revenue."

The criteria of efficiency in administration and collection has some disadvantages for both taxes; particularly at the initial stage of introduction. Both are exceedingly complicated taxes in several respects. First, the VAT is often applied at different rates on different products. Some countries have had as many as ten to fifteen different rates at one time or another. Most countries have now settled on three to five rates, including the zero rate on certain items. In any event



there are considerable costs in administering a VAT. These include the need to register all firms, to periodically report their VAT collections and to make payments, and then to provide rebates on the amounts paid.

According to Mikesell (1986) the VAT is justified as a tax source where there is tax evasion and a lack of cooperation from businesses or vendors in not applying the VAT, and, secondly, it allows countries to eliminate the tax on domestically consumed items, but still apply these to exported items.

The administration requirements of the property tax continues to be one of its main disadvantages. The lack of a functioning real estate market combined with situations where property prices skyrocket in some of the transition countries places formidable obstacles in developing a fair assessment system that would not hurt fixed income persons. Property registration in an automated mode is still developing and without trained assessors the implementation of the property tax faces considerable difficulty.

The political and cultural obstacles to a property tax are formidable. Local councils resist employing such a visible tax. This is as true in Western countries as it is in the transition countries. The cultural legacy that housing was a right provided by the socialist government embedded the idea that taxing living quarters is against the social contract of the citizens with their government. Given the poor quality of housing in the Central European countries there is little to be gained, at present, from imposing an additional tax. Where property taxes have been implemented the tax is based generally on the square meter areas and then an allowance is made for the number of persons living there. In the end no tax is generally paid or it is a nominal fee just as in the old days.

There are many tax issues associated with the VAT and property taxes. The VAT has been successfully implemented in most transition countries of Central Europe and further refinement will occur as necessitated by compliance with European Union standards.

The property tax as a source of revenue is still more uncertain. Its best hope lies in local governments realizing it can provide some measure of fiscal independence from the central government. This is based on the development of competitive real estate markets where local administrations have the capacity to create and administer the tax, and that the property tax serves as a stable revenue source to provide funds for the increasing needs of these local governments. As Kingsley (1996) indicates: "This tax undoubtedly holds high potential for the future, but it seems doubtful that a major acceleration can be anticipated in the short term."

## User Charges

Chapter 7, as well as Chapter 11, provides a very comprehensive analysis of user charges. There is no need to repeat here the characteristics of user charges. In this concluding section we only wish to provide some further discussion of the difficulty of imposing user charges in the transition countries.

The politically sensitive nature of subsidies and the relatively free utility services provided to the citizens in Russia is detailed in an article by Michael Gordon (1997) in the *International Herald Tribune* of July 14, 1997. He writes: "In a politically risky move, that has galvanized much of Russia, Mr. Yeltsin is pressing to phase out the enormous subsidies by 2003. Prices for food and clothing have soared, often exceeding those in the West. But most Russians still pay a pittance for shelter, leaving cash strapped local governments to pick up most of the tab. Utility subsidies have spawned an almost palpable disdain for energy conservation. Water and gas meters for apartments are rare, though electricity meters are common" (Gordon, 1997). There is a stark difference between the amount of money that Western families spend on shelter and their Russian counterparts. It is not unusual that Western families spend from 25 to 50 percent of their income on housing and utilities. According to Gordon, a Russian family may spend only 6 percent on shelter and utilities (Gordon, 1997).

Housing and utilities are still under-priced in practically every country of the Central European region, but the difficulties of installing metering systems in poor housing developments, along with the politically sensitive nature of these price increases, makes any change toward an appropriate pricing scheme difficult.

## Conclusion

In this introduction to Part II we have attempted to identify and elaborate on some of the main issues involved in the tax and revenue systems of the transition countries. While progress has been made in certain aspects, the VAT and tax administration areas, other components of a modern tax system, such as property taxes and user charges, still require further efforts at implementation.

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## CHAPTER 4: PRINCIPLES OF TAXATION

*Mihály Hőgye*

### Introduction

*Taxation* is the imposition of taxes, or mandatory contributions to the government, in order primarily to acquire real resources for governmental activities. In countries where private enterprise prevails, governments do not own extensive resources. At the same time, in the modern world their expenditures account for a relatively large share of national income or output. To finance these expenditures, they must derive the necessary revenue<sup>1</sup> from the private sector of the economy—from individuals, businesses, and corporations. A tax intends to move resources away from private use; tax policy seeks to achieve that movement with the least possible economic or social harm. (Mikesell, 1991)

Revenue may be obtained by taxation, by borrowing, by the imposition of fees for services rendered, or by creating money. This chapter deals only with the first policy. Except during unusual situations such as wartime, taxation typically accounts for 90 percent or more of total governmental<sup>2</sup> receipts. Since taxation is part of government budgets it plays an important role in government policies. The tax system itself can promote a government's policies of stabilization and redistribution. Although it does not allocate public goods directly (this is a function of expenditures), it provides resources and it has a certain impact on allocation as well, for instance, through tax expenditures. (Musgrave, 1996)

The principles of taxation can be defined as comprehensive and systematic views and ideas related to taxation. Principles of 'good' taxation have been proposed by many observers with a high degree of conformity. In *Wealth of Nations* (1776), Adam Smith proposes four maxims that should be followed in taxation:

- I. The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.
- II. The tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person.
- III. Every tax ought to be levied at the time or in the manner that makes it most convenient for the contributor to pay it.

IV. Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state. ...<sup>3</sup>

In the 19<sup>th</sup> century the German historical school of economics added new approaches to the principles of taxation. According to that school particular principles are drawn for taxation from the following fields:

- the tax as revenue of government budget
- ethics and welfare
- economic policy
- legal and administrative framework.

In modern economics the dominant American textbooks do not follow the German school. They summarize the principles of taxation in the following scheme:

A tax system

- ought not to distort the optimal allocation of production factors in efficient markets
- ought to be fair
- ought to be a flexible automatic stabilizer
- ought to be clear and transparent, and definitive
- ought to provide inexpensive collection.

It is obvious that Smith's principles have not been greatly changed, but these ideas put more emphasis on economic effects of taxation simply because of its significant growth in the economy. However, the contents of these general principles have changed considerably. In the 18<sup>th</sup> century the main question was one of *equity* — to dismantle privileges. Today the main question may be the level of progressivity or the ability to pay.

The analysis in this chapter is mostly *normative*, although behind principles people often have different definitions for key terms and different objectives for the tax system. Principles can be interpreted in different ways and their interpretation depends on how people treat contradictions such as trade offs between equity and efficiency.

From one view the principles of taxation can be divided into equity and efficiency issues. From another view these can be divided into two general groups. The first group is the *positive* principles of taxation, which concerns the effects of taxation. This is a 'technical' approach, such as how to minimize the cost of taxation. Hence the most important positive principles of taxation are tax shifting and the excess burden, or welfare cost of taxation. The second group of principles refers to tax policy issues, to the 'values'. This is a *normative* approach to describe a fair and good tax policy and system. (Holcombe, 1987) Of course,

there can be different structures for discussing issues of tax principles. What follows is one of the possible approaches. We discuss equity issues first. Then we consider some basic questions of tax incidence and the economic effects of taxation, although we are aware that we also need to know incidence to judge equity. This is followed by a discussion on efficient and optimal taxation. Finally we deal with tax evasion, tax compliance, tax administration, and related issues.

## **Equity**

A basic issue in public finance is to distribute among people the burden of financing the cost of public goods and services. There is no way of distributing these costs that will satisfy all citizens. However, there are principles for doing this. The most basic distinction in the equity dimension of public finance is the one between ability to pay and benefits received as the basis for setting and judging taxes. The *ability-to-pay principle* is concerned with raising revenue and it focuses on the distributive nature of taxation. The *benefit principle* is concerned with expenditures and this focuses on a fair way to pay for the benefits government provides. An alternative view of equity, related to the benefit principle, is the principle of marginal cost pricing. (Hirsch-Rufolo, 1990)

### *Ability-to-pay principle*

The ability-to-pay principle states that taxes should be distributed according to the capacity of taxpayers to pay them. This sounds reasonable and fair, but questions arise in any interpretation period. For example, how to measure ability-to-pay, how to determine a fair set of tax rates based on differing abilities to pay, how to compare the economic positions of various individuals. Taxation moves economic resources from private to public use. This transfer depends on what a taxpayer has to begin with or what he will retain after the tax has been paid. A taxpayer's ability to pay may thus be measured in terms of the economic resources that are available to him. Income provides the broadest base for it, but income is not easy to measure and, moreover, does not necessarily reflect actual wealth or ability to pay. A measuring standard based on income does not, for example, take into account a person's leisure, which is also part of his well-being. In addition, capital resources available to an individual may further add to his economic strength. The ideal measure of ability to pay, therefore, should include not only a person's actual income but his potential earnings as well. Unfortunately, however, the latter is not subject to accurate or objective measurement. (Musgrave, 1996)

This principle of taxation has two specific equity principles. The first is one of the most widely accepted principles or norms for distributing taxes among individuals. It maintains that individuals in similar situations should be treated

similarly, or similarly equals should be treated equally. This is the principle of *horizontal equity*. The origin and general acceptance of this principle in democratic societies are not difficult to explain. Its source is the principle of the equality of individuals before the law, tax treatment being legal treatment in essential respects. Arbitrary and capricious treatment of individuals by legal institutions is prevented by constitutional law, and this protection has been extended to the distribution of taxes. Horizontal equity seems to be the easiest principle of taxation to justify. The problem arises at the time of specifying and implementing equity. The ability-to-pay has normally been measured by incomes and wealth. The principle suggests that tax rates should vary directly with income and wealth. If income is used, one should tax individuals with the same income by the same amount. However, the problem is that people obtain income individually and spend it in households. Should a family be treated as a group of individuals with income for each equal to the total family income divided by the number of family members? (Hirsch-Rufolo, 1990) How should tax policy treat married couples or families with different numbers of dependents? Is it a private matter if somebody cares for their children alone or is it also a public affair? If it is the latter how should it be awarded? Through taxation or through social benefits? What about people who have very high medical expenses? How do these different questions fit into other budgetary or economic principles? In practice, the attempt to maintain horizontal equity can be extremely complex, since it is hard to reach agreement on what constitutes equality.

A corollary of this equity principle states that unequals should be treated unequally. This is widely referred to as the principle of *vertical equity*. However, distributing the total tax bill among the different classes and groups of taxpayers presents many difficulties. To what extent should discrimination in tax rates among separate classes and groups be accepted? The concepts of *progressive, proportional, and regressive taxes* were developed to help address this issue. Namely, attempts have been made to define ability to pay in order to justify progressive taxation. It has been argued that the ability-to-pay principle has not been met unless high-income groups pay proportionately more than the low-income groups.

Defining progressive and regressive taxation is not easy and ambiguities in definition sometimes confuse public debate. (The definition of proportional tax is straightforward; it describes a situation in which the ratio of taxes paid to income is constant regardless of income level. However, the definition of income is not straightforward.) A widely accepted way to define these words is in terms of the average tax rate<sup>4</sup>, the ratio of taxes paid to income. If the average tax rate increases with income, the system is progressive; if it falls, the tax is regressive.

(Rosen, 1992). A graphic account of the three different tax systems is shown below.

Table 1.  
Regressivity, Proportionality, and Progressivity in Tax Systems

<i>Regressive System (\$10,000 Total Tax)</i>				
<i>Taxpayer Income</i>	<i>Share of Pretax Income</i>	<i>Tax Paid</i>	<i>Effective Tax Rate</i>	<i>Share of Post Tax Income</i>
\$ 20,000	20%	\$ 3,000	15%	18.9%
80,000	80%	7,000	8.75%	81.1%
\$100,000	100%	\$10,000		100.0%
<i>Proportional System (\$10,000 Total Tax)</i>				
<i>Taxpayer Income</i>	<i>Share of Pretax Income</i>	<i>Tax Paid</i>	<i>Effective Tax Rate</i>	<i>Share of Post Tax Income</i>
\$ 20,000	20%	\$ 2,000	10%	20%
80,000	80%	8,000	10%	80%
\$100,000	100%	\$10,000		100%
<i>Progressive System (\$10,000 Total Tax)</i>				
<i>Taxpayer Income</i>	<i>Share of Pretax Income</i>	<i>Tax Paid</i>	<i>Effective Tax Rate</i>	<i>Share of Post Tax Income</i>
\$ 20,000	20%	\$ 1,200	6%	20.9%
80,000	80%	8,800	11%	79.1%
\$100,000	100%	\$10,000		100.0%

(Mikesell, 1991, p.223.)

A tax structure is regressive if effective tax rates (tax paid divided by the current income) are lower in high-ability groups than in low. The tax structure is progressive if effective rates are higher in high-ability groups than in low. Finally the tax structure is proportional if effective rates are the same in all groups. Effective-rate behavior distinguishes the structures. (Mikesell, 1991)

In other words, if tax payments go up faster than income, the tax is called a progressive tax. If tax payments go up less rapidly than income, the tax is called a regressive tax. (Hirsch-Rufolo, 1990) In case of a regressive tax, the burden falls more heavily on people with low incomes than on those with higher incomes. A proportional tax is one whose burden falls equally on people at all levels of income. A progressive tax is one that imposes a greater relative burden on high-income people than on those with low incomes. The relative burden most often means the portion of the person's income (used as the measure of ability to pay) taken by the tax. (Musgrave, 1996)

Measuring how progressive a tax system is presents an even harder task than defining progressiveness. Following Rosen's (1992) textbook we consider two simple alternatives. The first says that the greater the increase in average tax rates



as income increases, the more progressive the system. The second possibility is to say that one tax system is more progressive than another if its elasticity of tax revenues with respect to income (i.e., the percentage change in tax revenues divided by percentage change in income) is higher. Now consider the following proposal: everyone's tax liability is to be increased by  $x$  percent of the amount of tax he or she currently pays. Does this proposal have an effect on progressiveness? The answer using the first measure is yes, in the second case it is no. The lesson here is that even very intuitively appealing measures of progressiveness can give different answers.<sup>5</sup>

This extension of the ability-to-pay principle to the concept of progressive taxation is not supported on scientific or analytical grounds. The justification or explanation of progressive taxation must rest on different grounds as the ability-to-pay principle leads to no specific configuration of taxes apart from the single proposition that higher-income receivers should pay higher taxes.

Some economists, beginning in the 19<sup>th</sup> century with John Stuart Mill, have attempted to solve this problem by approaching it from a different direction: rather than interpreting the principle of equity in terms of ability to pay, they have used a criterion of sacrifice. The traditional "equal sacrifice" approach has been derived from the utilitarian objective of the maximization of the sum of individual utilities.<sup>6</sup> This approach suggests a "marginal income utility" measurement showing the additional amount of usefulness, or satisfaction, that an individual derives from successive "marginal" or additional amounts of income. If we thought that every additional dollar has the same utility then a linear tax can be considered as equitable. [However, if we thought according to this school that the increasing tax-dollars of the higher income represent less and less sacrifice, and even this marginal utility declines at the same rate for everyone, then the progressive tax seems to be just.] This approach is generally accepted but the question is what degree of progression is appropriate? (Some people think that proportional (linear) taxation is a principle but that progressive taxation is an arbitrary act.)

The traditional "equal sacrifice" approach sought to demonstrate that the principle of vertical equity could be satisfied by an equal surrender of utility, or sacrifice, by all taxpayers. Rules for determining vertical equity i.e. the degree of progressivity require assessments of the sacrifice made by taxpayers, but it also requires subjective interpersonal comparisons of the well-being of taxpayers.<sup>7</sup> This concept can also be interpreted in various ways. Equal sacrifice can be defined as equal *absolute* sacrifice, as equal *proportional* sacrifice, and as equal *marginal* sacrifice. This last interpretation provides for the greatest degree of progressivity i.e. after-tax incomes are equalized, but it is not clear how the first two interpretations would be implemented. Depending on the rate at which the

marginal utility of income is said to decline, the proper tax system could be proportional, regressive, or progressive. Thus, the sacrifice approach does not lead to any simple conclusion, even if the highly simplifying assumptions of equal and declining marginal income utility are accepted. (Musgrave, 1996)

Mainly because of its radical implications this theory has been under strong criticism. First of all, there is no evidence that the marginal utility of income declines monotonously. It also excludes the possibility that the marginal utility of income for various people may differ. Once this possibility is recognized no general formula for tax rates can be derived, since each person must pay in line with his own particular schedule. Beyond this, there remains the basic question of how meaningful interpersonal comparisons of the “utility” of income can be made. Prest (1975) rejects the sacrifice approach because sacrifice is not only immeasurable for any one individual but also not comparable between individuals. Rawls (1971) would accept comparability but reject the view that the sum of individual utilities is the appropriate [maximand]. His book, *A Theory of Justice*, attracted much attention. It argues that the guiding principle should be the maximization of the welfare of the least fortunate person. The maximin criterion implies that income and wealth differences are acceptable only to the extent that departures from equality increase the welfare of the worst-off person. This criterion has a special claim to ethical validity. Rawls’s argument relies on his notion of the original position, an imaginary situation in which people have no knowledge of what their place in society is to be. Their opinions concerning distributional goals are fair. In the original position individuals adopt the maximin criterion because they want the level at the bottom to be as high as possible.

In real life taxation, tax policy is not based on any particular concept and even if it would happen, the actual shape of the marginal utility income curve is unknown. The only possibility is that given the first two interpretations (equal absolute sacrifice and equal proportional sacrifice) one can try to recalculate from the existing charts of a country what sort of curve can be assumed. (This can only be used as an illustration in textbooks.)

Another problem is that different marginal utility curves would be needed for the redistribution of incomes, consumption and properties. According to psychology, for example, people tolerate inequalities most in properties, less in incomes, still less in consumption, and least in their rights.

A more realistic approach to the implementation of the ability-to-pay principle may be taken by postulating a “*social welfare function*” that assigns social values rather than utility to marginal units of income. Given such a function, equal sacrifice may be expressed in terms of social valuation. (Stern, 1976, and Seade, 1977) The question then becomes how this social valuation is to be determined.

If it is argued that the valuation may be derived from the existing tax rates as imposed by the political process, the existing tax structure will be equitable by definition. This is hardly a satisfactory conclusion. Yet, if social valuation cannot be determined in this way, an outside norm is needed to determine what equity is to mean. (Musgrave, 1996)

Finally, even if the above problems could be solved a practical issue still remains: the concepts should be interpreted for the whole tax system not just for the separate tax forms. In other words, not every tax should necessarily be progressive. One solution to the dilemma is through agreement upon the legal or constitutional framework in which political decisions about distributional matters are to be reached.

An additional consideration that cannot be overlooked when dealing with the issue of progressive taxation relates to the effects of such taxation upon the level of income. In responding to an income tax the taxpayer may choose to work, save, or invest less. As will be explained, this imposes an efficiency burden on him. Moreover, if progressive taxation is viewed as an instrument for redistributing income, progressive rates must not be carried too far. Raising rates beyond the point at which they become so burdensome that they eliminate the incentive to increase work effort and earnings will lead to declining revenue, thus leaving less for redistribution to low-income groups. (Musgrave, 1996)

### *Benefit principle*

An alternative principle for distributing the tax load among separate individuals and groups states that tax obligations should be based on the benefits received from the enjoyment of public services. This is called the benefit principle, and it has the advantage of linking the discussion of tax equity with the expenditure side of the public budget. This link is basically absent in the context of the ability-to-pay principle, which considers only the tax side. Taxes are viewed as a price paid for these services, more or less similar to the price paid for the purchase of private goods. The whole fiscal process is taken into account and a comparison between taxes and expenditures becomes possible. The earmarking of revenues is particularly appropriate when the benefit approach is applicable. Whenever votes are cast for a particular government activity, its financing should be decided simultaneously. Since the fiscal process deals with the allocation of resources for public use, an approach that integrates both aspects is superior.

On the other hand, the benefit principle does not allow for the redistributive function of fiscal policy. Taxation based on benefits received sets taxes in line with the amount taxpayers are willing to pay for public services — that is the amount of consumer surplus each taxpayer receives from public services. This

amount depends, however, not only on tastes but also on income. As an equitable pricing system for public services, taxation in terms of benefit reflects the existing state of income distribution but does not change it. To the extent that income redistribution is to occur, the ability-to-pay principle, as interpreted by a social welfare function, must be applied.

The benefit principle also has its shortcomings. There are several interpretations which have different practical meaning and implementation. The principle is much easier to state on an abstract basis than it is to apply in a realistic situation.

The first, and least acceptable, interpretation of the principle says that the total tax bill for each individual should be equated to the total real benefits that the individual receives from the provision of public services. This is clearly misleading. The benefit principle of taxation should never be stated in total benefit terms. (Buchanan-Flowers, 1987)

The second interpretation is that the benefit tax should be proportional to total benefits. This version of the benefit principle has some abstract merit, but in practice it would be almost impossible to determine. Different people would receive different amounts of consumer surplus even if they did not get any differences in service. (Hirsch-Rufolo, 1990)

In case of general public services, such as national defense or the administration of justice, the benefit rule is an empty formula unless it is given practical interpretation through the legislative process. For example, this independent normative principle states that the beneficiaries of a particular government spending program should have to pay for it. Thus, to the extent that the program creates benefits for future generations, it is appropriate to shift the burden to future generations via loan finance. (As an example, the Bush administration defended its plan to borrow to pay for the Persian Gulf War by arguing that the cost might rightfully be borne by future generations who would enjoy the war's presumed benefits. (Rosen, 1992))

The benefit principle is much more relevant when people must choose a tax in order to get certain benefits. For example, a tax paid to a local government can be considered as a price for the benefits that local government provides ("Voting with the feet"<sup>8</sup> - if people are free to migrate among different local government jurisdictions). The distinction between local taxes and central taxes is key in terms of the analysis of the equity of specific taxes. (Hirsch-Rufolo, 1990)

In another interpretation (Buchanan-Flowers, 1987) these forms are explicit use of the benefit principle, the authors call it a principle of differential benefit from particular public services.<sup>9</sup> Unfortunately, there is not always a clear relationship between tax and benefits received. Therefore, it is useful wherever

government goods and services have the characteristics of private goods such that licenses, fees, user charges and tolls may be applied.

From an analytical point of view, an elegant interpretation of the benefit principle is: taxes are allocated on the basis of *marginal benefit* or incremental benefit received, not total benefit.

Efficiency requires that the production of pure public goods be undertaken to the point where the sum of the marginal private benefits is just equal to the marginal cost of production. The principle involves setting taxes in a way analogous to setting prices in the private market economy. However, the market supply of public goods for individual purchase will be insufficient because of the positive *externalities* associated with market provision of such goods. Persons often attempt to consume the benefits of others' purchases of pure public goods while bearing no costs themselves. These people try to become *free riders*.<sup>10</sup>

Ideally, an efficient output of a pure public good could be achieved if each person contributed an amount equal to the marginal benefits received per unit of a public good. This is called the *Lindahl equilibrium*, after the Swedish economist, Erik Lindahl.<sup>11</sup> The individuals' equilibrium contributions per unit of the public good are sometimes called *Lindahl prices*. If the good were made available at these prices per unit for each of the consumers, the quantity demanded by each consumer would be efficient. (Hyman, 1990)

In the real world, however, applying the principle of marginal benefit is difficult. One of the main problems is how benefits received should be valued. Since there is no market mechanism that forces consumers to reveal their preferences, a political process is needed. (Buchanan-Flowers, 1987) The benefit principle is in fact present in the political process of budget determination. The taxpayer chooses among different expenditure and tax packages, so he in fact reveals his preferences and contributes in line with this principle.<sup>12</sup> A budgetary choice accordingly requires that tax and expenditure decisions be linked to each other, which is to say that benefit considerations should be taken into account when developing tax policy. (Musgrave, 1996)

### **Incidence and Economic Effects**

One can distinguish two types of tax incidence. The statutory incidence of a tax indicates who is legally responsible for paying the tax. Taxes are almost always levied in a way that a particular person or firm should pay the tax. However, when a tax is levied, people can change their behavior in response to the tax. To the extent that this effort succeeds, it reduces the negative effects of the tax on those who pay it and shifts some of the tax burden to others. For

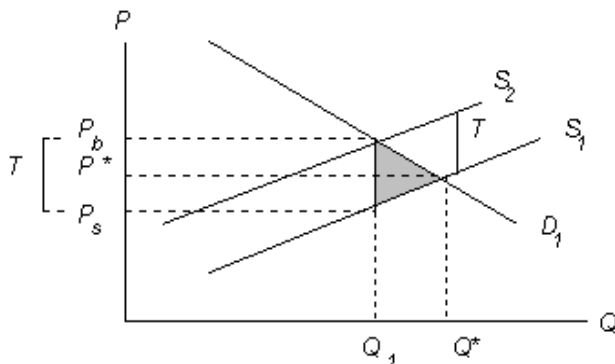
example, the payroll tax to finance social security is partly paid by the employer and partly by the employee. Some analysts argue that both components reduce the real income of the employee: the payroll tax paid by the employer represents wages, salaries, and fringe benefits that would have been paid to employees in the absence of the tax. Hence, the real burden, or incidence, is on the employee (Mikesell, 1991). Because prices may change in response to the tax, knowledge of statutory incidence tells us essentially nothing about who is really paying the tax. As a general principle, laws define tax impacts, but market forces define incidence.

The economic incidence of a tax is the change in the distribution of private real income brought about by a tax.<sup>13</sup> The extent to which statutory and economic incidence differ is the amount of tax shifting. The incidence of a tax is determined by looking to see who is made worse off because of the tax and by how much. The determination of who is made worse off by a tax is called incidence analysis. In incidence analysis there are basic assumptions that have to be taken into considerations. The essence of the problem is that taxes induce changes in relative prices. But these changes in most cases are analyzed only in the market in which the tax is levied. This is the so-called partial equilibrium model of price determination which is most appropriate when the market for the commodity taxed is relatively small compared to the economy as a whole.

For illustration we consider the following case: the incidence of a unit tax imposed on the supply side. A unit tax is levied as a fixed amount per unit of a commodity sold. For example, liquor taxes are typically applied as a certain amount per liter of liquor, taxes on cigarettes are by the pack, while taxes on beer are per can. These goods could also be subjected to an ad valorem tax, which is based on the value of the goods sold.

The situation is shown in Figure 1, which depicts supply curve  $S_1$ , demand curve  $D_1$ , equilibrium price  $P^*$ , and quantity without tax  $Q^*$ .

Figure 1 Unit tax placed on suppliers



A unit tax shifts the supply curve up by the amount of the tax. The new supply curve is  $S_2$ . As a result, the price rises to  $P_b$  and the quantity produced declines to  $Q_1$ , determined by the intersection of the new supply and demand curves. The price goes up but not by the full amount of the tax. Tracing down from the intersection of  $S_2$  and  $D_1$  to the old supply curve  $S_1$  gives the total amount of the tax, which means that the after tax revenue per unit left for the supplier is  $P_s$ . Thus, while the tax is initially imposed on the supplier, part of the tax burden is shifted to the consumers in the form of higher price and the rest of the tax ends up being paid by the suppliers. The proportion of the tax paid by the customer or the supplier, the incidence in competitive environment, depends on the elasticities of supply and demand.

The effects of elasticities on tax incidence can be summarized as follows. (Holcombe, 1987) “In general, the more elastic a schedule, all other things held equal, the more the burden of the tax will fall on the other side of the market. For example, the more elastic the demand curve, the smaller the proportion of the tax paid by the demanders and the larger the proportion paid by the suppliers; conversely the more elastic the supply curve, the greater the proportion of the tax shifted to demanders. In the extreme case of a perfectly inelastic supply curve, the entire tax will be borne by suppliers; conversely, for a perfectly elastic supply curve the entire tax will be shifted to demanders.”<sup>14</sup>

This conclusion makes intuitive sense. If one side can respond by buying or supplying less - in case of elastic demand or supply - that might lead to substituting another good in order to avoid the tax. In other words, the more willing one side is to substitute out of the taxed good, the more able they are to avoid the tax and shift it to the other side of the market.

The analysis of tax incidence and tax shifting has been widely extended to different tax forms used by governments in different types of markets and different conditions.<sup>15</sup> In case of income tax incidence, for example, the tax causes a *wedge* between gross (total or before-tax) and net (after-tax) wages, reduces the real wage rate, and distorts the choice between income and leisure. As leisure tends to be increased, income declines, and less tax is paid, but the interference with the choice between income and leisure in itself imposes a burden on the taxpayer. Similar observations apply to other taxes. The corporation tax, for example, distorts the allocation of capital between incorporated and unincorporated sectors of the economy. (Musgrave, 1996)

Mikesell also lists some important cases (US) when *tax wedge* influences different choices of economic actors:

- “Work versus leisure. High taxes on extra income earned may induce workers to choose more leisure time instead of working more hours when much of the extra income would be taken by government.
- Business operations. Firms ought not be induced to undertake strange business practices solely to avoid a tax. Thus, a state property tax on business inventory held on a particular date can induce firms to ship inventory out of state on that date for return later.
- Consumption choice. High tax rates on cigarettes and liquor in some states induce their residents to purchase those items from nearby states with lower taxes and lower prices.
- Personal management. Because travel expense to professional conventions can be subtracted from income subject to the federal individual income tax, such conventions frequently are held in resort locations. Those attending can thus combine vacation and business while reducing their tax obligation.
- Productive investment. High-income entities may direct investable funds to municipal bonds yielding tax-free interest, rather than to the purchase of productive capital equipment, the return on which would be taxed.”<sup>16</sup>

Rosen emphasizes<sup>17</sup> that the US personal income tax, for example, affects myriad economic decisions, including the amount of labor supplied, the level of saving, the amount of residential housing consumed, and the choice of portfolio assets. In many cases the direction of the effects of taxation is theoretically ambiguous. The size of the tax-induced behavioral changes may be determined only by empirical investigation. The effect of taxes on saving, for example, may be analyzed using the *life-cycle model*. It suggests that taxing interest income lowers the opportunity cost of present consumption and thereby creates incentives to lower saving. However, this substitution effect may be offset by the fact that the tax reduces total lifetime resources which tends to reduce present consumption, that is, increase saving. The net effect on saving is, thus, an empirical question.<sup>18</sup>

Another example: in the United States the burden of the corporate income tax has been found to shift, under different analyses, from the stockholder (the point of imposition), onto the consumer (forward shifting), or onto the firm’s suppliers (backward shifting). These outcomes may vary depending primarily on the assumptions concerning the elasticities of demand and supply, the degree of market competitiveness and the length of the time period investigated. (Meyer, 1991)

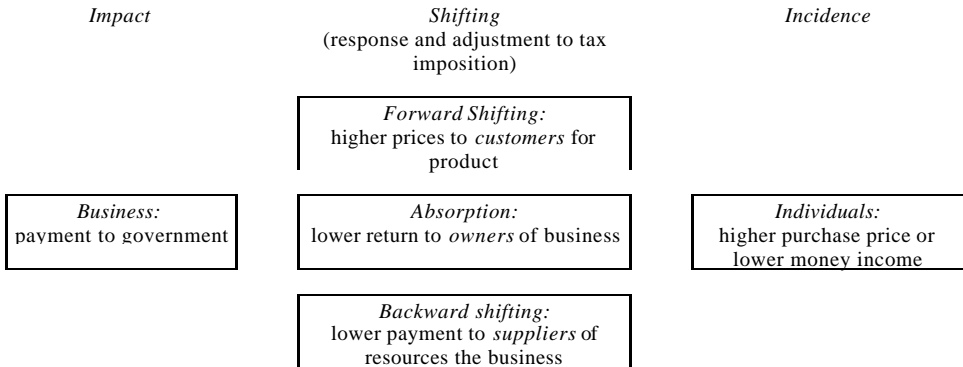
An illustrative summary of the relationship between impact, shifting, and incidence in the case of a business tax is shown in Figure 2.

There are philosophic differences on how taxes distort economic activity and influence behaviors. (Mikesell, 1991) One view is that a tax should be neutral and



that no intervention in the market is desirable. Others argue that market outcomes can be improved by using taxes to alter private behavior in desired fashions. However, despite much investigation, the effect of taxation on several important kinds of behavior is not known definitively. “When journalists, politicians, and economists make assertions about how taxes affect incentives, it is prudent to evaluate their claims in light of what their hidden agendas might be.”<sup>19</sup>

Figure 2 Impact, Shifting, and Incidence<sup>20</sup>



### Efficient and Optimal Taxation

#### *Efficiency*

A good tax system should not only be equitable but it should also be efficient. As with all economic activity, public or private, waste should be avoided. This has two specific meanings for tax policy: taxes should not impose an “excess burden”; and the cost of tax administration and taxpayer compliance should not be excessive, relative to the revenue obtained.

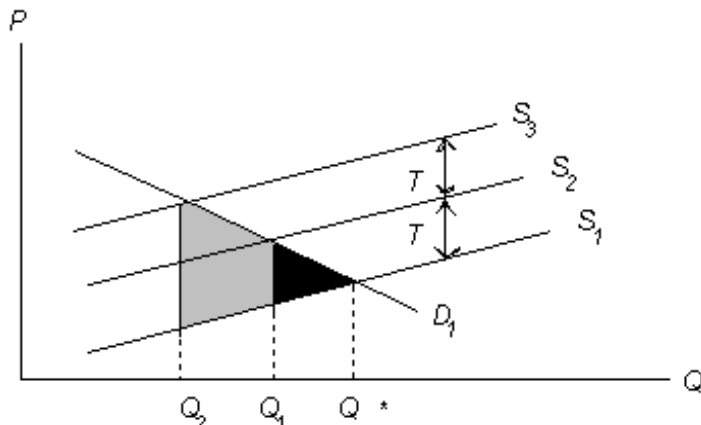
#### *Excess burden*

The imposition of taxes can have important effects on economic activity. First of all, taxes impose a cost on taxpayers. It is tempting to view the cost as simply the amount of money that individuals hand over to the tax office. But this is a more subtle problem. If the government collects  $x$  \$ from a particular person, the burden that this imposes on him will depend on how the tax is imposed. If the tax is imposed simply as a direct head tax, the resulting burden may be<sup>21</sup> exactly  $x$  \$. But if the tax is on income or expenditure, the burden will be higher because the tax disturbs relative prices and interferes with an efficient allocation of resources. In that case the tax disturbs economic decisions and brings about an excess

burden. The excess burden is a loss of welfare above and beyond the tax revenues collected. It is sometimes referred to as welfare cost or deadweight loss.

For example, suppose that the government imposes a tax on wine. The taxpayers will be worse off for two reasons. First, the taxpayers must pay the tax every time they purchase wine. Second, the tax on wine will cause the price of wine to rise, which means less wine will be consumed.<sup>22</sup> The welfare cost to the taxpayers of consuming less wine is an excess burden to the taxpayer over and above the amount of the tax paid. The amount of this loss is tied to the change in quantity sold in the market. This concept is illustrated graphically in Figure 3.

Figure 3. The Excess Burden with Linear Demand Curve



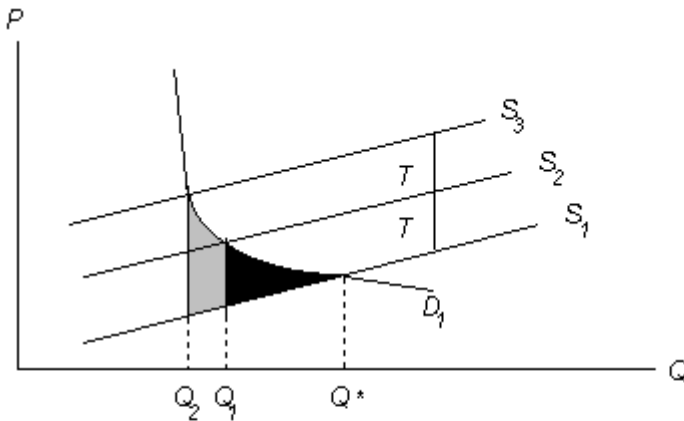
The tax per unit is  $T$ , the quantity exchanged is  $Q_1$  after the tax is imposed. Therefore, the exchanges from  $Q_1$  to  $Q^*$  that could have taken place and provided net benefits to buyers and sellers will not take place. The welfare cost of the reduction in output from  $Q^*$  to  $Q_1$  is the area in the darkly shaded triangle between the demand and supply curves. This triangle represents the value of the burden of taxation resulting from the altered behavior due to the tax. Imposing higher taxes results in even more changes. As the quantity decreases to  $Q_2$ , the loss increases as shown by the lightly shaded area. This serves as a basis for the general argument against high marginal rates. (Hirsch-Rufolo, 1990) The sum of the losses on each unit is the deadweight loss. (The larger increases in deadweight loss with each increment to the tax rate serve as the basis for the general argument against high marginal tax rates on specific goods or services.)

However, similar to the analysis of tax shifting in the previous point, the amount of shifting (losses) is determined by the relative elasticity of supply and demand. The deadweight loss is smaller when demand or supply of a good is inelastic and larger when both are elastic. In case of a non-linear demand curve,

for example, the reduction in quantity is smaller for the second increment of the tax than for the first, and the increase in welfare cost is actually less. This is illustrated in Figure 4.

As the examples have shown excess burden is caused by tax-induced distortions in behavior. To say that an efficient tax causes the least change in individual economic behavior refers to that portion of any price change (caused by a tax, for example) attributed to the *substitution effect*. It is observed that individuals faced with a higher price (including tax) for one good relative to another will tend to want more of the cheaper good. If the taxed good is wages, a rise in the wage tax may cause the individual to reduce work hours and increase leisure hours as the higher marginal tax rates make work relatively less rewarding. This outcome is highly sensitive to income level and individual preferences.

Figure 4. Excess burden with Non-linear Demand Curve



However, not every tax entails an excess burden. It is widely accepted that a lump sum tax has no excess burden, but is unattractive as a policy tool. Lump-sum taxes are imposed on individuals independent of wealth, income, occupation, consumption pattern, family status, age, work habits, or any other distinguishing characteristics. The burden of such a tax cannot be shifted. Moreover, because the tax does not alter the cost of any activity relative to any other activity, there is no excess burden. In practice, there are few taxes that will not cause individuals to alter their behavior in some way. Nevertheless, lump sum taxes represent an important standard against which the excess burdens of other taxes can be compared. Excess burdens can be measured by comparing revenue from a particular tax with revenue from a lump-sum tax that left taxpayers with the same level of utility or satisfaction. The reason why a lump-sum tax is unattractive as a policy tool is that it cannot satisfy any reasonable interpretation of the ability-to-pay

principle. The latter requires that tax payments be related to economic capacity whether measured as income, consumption, or wealth; but linking tax bills to capacity inevitably involves an inefficiency or excess burden. One important problem of tax structure design, therefore, is how to minimize excess burden or welfare loss.

Early in the 1920s Frank P. Ramsey elaborated a theoretical proposition explaining how the excess burden of taxation can be minimized.<sup>23</sup> This principle states, in general, that in order to minimize excess burdens that taxes be set so that the demands for all commodities are reduced in the same proportion. This implies that tax rates should be set in inverse proportion to the demand elasticities. The *Ramsey rule*, which is summarized<sup>24</sup> in the equation appearing in footnote 24, implies that the large tax is placed on the more inelastic good. But the larger the tax, the greater the excess burden from any additional tax on the good will be.<sup>25</sup>

On the basis of this and further development of the rule, economists for many years argued in favor of the placement of taxes on goods with inelastic demands because individuals demonstrate the least reaction to a price change for such goods.

Today, economists argue that sometimes we prefer to change economic behavior on efficiency grounds in order to move society closer to an optimal position<sup>26</sup>. (Meyer, 1991) Therefore, the modern policy actions to satisfy efficiency are more complex.

### *Administration and Compliance Costs*

The total cost of tax collection includes both the cost incurred by the government to manage and actually enforce the regulation and the cost incurred by taxpayers and their agents to meet legal requirements to be in tax compliance (excluding tax actually paid). As for governmental costs, tax administration is subject to large economies of scale, and once substantial amounts of revenue are collected, the cost of administration tends to be small relative to revenue. On average, for central tax administrations, the cost of collecting taxes amounts to only about one percent of the amount collected. Local taxes, however, can be very “expensive” amounting to even one-third of the amount collected. This varies greatly among different tax-forms; the most inexpensive tax is the turnover tax. The next least expensive tax is the income tax. Property taxes are the most expensive. The cheapest tax would be a *head tax*. Additional expenditures to improve the efficiency of tax administration typically yield greater gains in revenue collected.

The compliance cost on the part of the taxpayer is more difficult to determine. Including the value of time spent in filling out returns and the fees paid to tax

accountants and lawyers, these costs may be substantially higher than those incurred by government. If a taxpayer is audited, additional compliance costs are incurred. At both levels, the more complex the tax structure is, the higher the cost of tax administration and compliance will be. At the same time, the tax structure must cope with a highly complex set of economic institutions and forms, which are used in measuring income forms so that equitable taxation (especially as applied to the income tax) cannot be simple. As a result, the desire for equity may easily conflict with the desirability of simplicity and low administration costs. A good tax structure costs money; and though waste in tax administration should be avoided, the cost of operating an equitable (and efficient) system of taxation is well worth its price. (Musgrave, 1996)

Some authors distinguish an additional cost of taxation: a political cost as a result of taxpayers trying to influence the tax laws. (Holcombe, 1987) Since tax laws are always subject to modification, the different interest group's lobbying efforts for more favorable tax treatment represent a real cost.

Given these costs, it follows that the most efficient tax structure would be one that uses only a head tax. Such taxes also have the advantage of great administrative simplicity. Why then are they not used? The answer, as mentioned earlier, is that they are inequitable and politically unacceptable. Equity requires that tax payments be related to economic capacity whether measured as income, consumption, or wealth; but linking tax bills to capacity inevitably involves an inefficiency or excess burden. A problem of tax structure design, therefore, is to minimize the conflict between the objectives of efficiency and equity. But doing so will only reduce, not eliminate, the conflict. (Musgrave, 1996)

### *Optimal taxation*

Taxation is only a part of public finances. To speak about optimal taxation, therefore, should be a limited investigation. For example, the most optimal or at least desirable tax system for collecting a given revenue sum can be analyzed. Having considered that equity has a normative feature and both governmental revenues and expenditures effect the economy and the society at the same time, achieving optimality faces additional constraints. Analyses of taxation aimed at providing appropriate advice for tax policy can investigate tax matters from two aspects: how to improve equity at a given level of efficiency, or how to minimize welfare cost at a given level of equity. This analysis is useful for decision-makers.

Hence, optimal taxation is a question of optimal budgeting, which is a relatively young discipline. The theory and computation of optimal tax rates continues to be of great interest to economist. The basic models of how optimal tax rates are affected by new complications<sup>27</sup> have now been expanded. However, the answer

to the questions of optimal taxation ultimately depends to a large extent on value judgments, and economics does not provide definitive answers to ethical questions. (Rosen, 1992)

Optimal tax theory has used the tools of *welfare economics*, and derives the criteria for a good tax using an underlying social welfare function. The main question in the analysis is how the individual preferences could be transferred to an “optimal” public decision. Welfare economists focus on the problem of how to reconcile efficiency and equity for an optimal system. However, how to determine a real optimum - so far - is an unresolved question. It seems to be that the trade-off between an equitable and an efficient system of government finance must be resolved through political interaction. In reality, under a system of compulsory finance, such as taxation, the resulting structure of government finance likely will be neither efficient nor equitable from the point of view of all citizens.

### **Tax Administration, Tax Compliance and Tax Evasion**

#### *Tax administration*

In every government, the bureaucracy in charge of administering and collecting taxes is of extreme importance. Since the tax administration is labor-intensive and requires a considerable amount of information technology, a significant amount of public money is spent in making the tax administration work. The proper functioning of the tax administration is essential for acquiring the revenues necessary to assure the government’s functioning and activities. It is of extreme importance to government to utilize the correct instruments to optimize the acquisition of its revenues. Tax administration can be considered as a prototype of an externally oriented administration focused on service delivery to the taxpayers. Some countries are even considering the privatization of tax administration.

However, with regard to the functioning of their tax administration, most governments are confronted with the same kind of problems: a steadily growing workload, the complexity of fiscal legislation, the attitude of taxpayers and the degree of non-compliance, the need to improve customer service, the need to reduce costs of tax assessment and collection, and the need for efficient and effective management. These problems raise questions about the efficiency and the effectiveness of tax collection and the ways in which they can be improved.

A major function of a tax administration is to implement and enforce the rules of taxation. This is not tax policy at all. Sometimes, however, tax collection can become policy. For example, if the rate of tax evasion is too high the equity principles become distorted and citizen participation in tax payment declines.

Major criticisms of tax systems have focused on the complexity of their administration and the difficulty for taxpayers to understand and comply with it. Both of these problems cause taxpayers to incur costs in order to correctly calculate their tax liability. This may encourage the growth of unreported transactions in the underground economy (tax evasion) and the growth of demand for tax shelters (tax avoidance).

According to Mikesell<sup>28</sup> tax administration includes six general steps: The first step is preparation of an inventory of tax eligibles, which provides the foundation for administering any tax structure. Second, individual holdings of the tax base must be valued for assignment of tax. Computation and remittance, or collecting tax due, is the third step. The fourth step involves audits that seek to ensure substantial taxpayer compliance with the tax law in a voluntary compliance system. The fifth step in tax administration is appeal or protest. The final step in the process is enforcement (the step used when other remedies have not produced an appropriate payment of tax due).

Tax bureaucracies are structured in different ways in different environments. In developed countries, the implementation of a new result-oriented approach to public management might involve the following:

- division between formulation and implementation of policy,
- decentralization, separately identified units,
- development of a product-oriented or a market-oriented structure,
- new management systems outlining autonomy, responsibility, accountability,
- new management techniques focusing on planning instruments from strategy to budget to improve the capacity for management control,
- the strategic management process embracing the planning and control cycle, contract management (a negotiation within the organization),
- fundamental changes in the relationship between civil servants and politicians on the one hand and between civil servants and citizens on the other.

In developed countries one of the most advanced tools for improving efficiency in tax administration is to modernize customer service. This activity is based on the recognition of new management techniques with new concepts of “client orientation” or “customer orientation”.

One can identify a number of key taxpayers’ rights that should be recognized and upheld if a tax system in a democratic society is to be equitable and just. Some countries have found the concept of taxpayers’ rights to be so significant that they have chosen to consolidate the measures taken to protect taxpayers into a taxpayers’ “charter” or “declaration”. The key rights identified include:

- The right to privacy and confidentiality means that all taxpayers should have the right to expect that the tax authorities will not intrude unnecessarily

upon their privacy. In practice this is usually interpreted as avoiding unreasonable searches and requests for information.

- The right of access to information requires that taxpayers should have access to up-to-date information on the operation of the tax system and the way in which their tax is assessed. They should also be informed of their rights, particularly their right to appeal.
- The right to appeal is a central tenant of any equitable tax system that properly protects its taxpayers.
- Taxpayers should have a relatively high degree of certainty in regarding the consequences of their actions.

### *Tax compliance and tax evasion*

An important question of the tax regulation is what system of compliance best serves the implementation of tax policy. The following systems of compliance exist:

- voluntary compliance in which taxpayers submit their own tax return after computing their own tax liability,
- institutional compliance in which the payee deducts and accounts for a tax-advance and pays tax liability,
- tax-assessment by the tax office in which tax authorities compute and levy tax liabilities directly to the taxpayer,
- conditional assessment, this is a so called ruling in which the taxpayer applies for a tax assessment from the tax authorities (generally this happens in cases of large tax liabilities).

Non-compliance relates to one of the most important problems facing any tax administration. First, it is important to distinguish between tax avoidance and tax evasion. Tax avoidance is a change in behavior to reduce tax liability. People respond to the changes in prices caused by taxes by rearranging their personal affairs. There is nothing illegal about tax avoidance. For example, high taxes on labor income might induce workers to refuse overtime work. Several categories of tax avoidance are mentioned below:

Barter is the exchange of goods for goods and services, or services for goods and services, without the use of money. There are a growing number of barter groups throughout the world. (Even in the “first economy” different forms of barter, such as “compensation business” have been widely used.) Although barter is an inefficient means of economic exchange, individuals use it increasingly to avoid reporting income and paying income taxes. A related form of tax avoidance is the do-it-yourself activity. Engaging in these activities also reduces tax burdens because taxable income is not earned to pay for the work done. High marginal tax



rates also encourage people to purchase consumer durables rather than to invest in stocks or bonds.

In contrast, tax evasion is noncompliance with the tax laws by failing to pay legally due taxes. Tax compliance and tax evasion are essentially legal problems with economic aspects. Tax evasion - simply cheating - is rooted in underground economic activities. The underground economy exists, at least, for two reasons: (1) because certain activities are illegal and individuals do not want records of those activities having taken place, and (2) because high marginal tax rates give people an incentive to obtain income without reporting it.

The incentives for evasion depend on the costs and benefits expected from noncompliance. The benefits of evasion tend to increase with the amount of the tax. This in turn, tends to increase with the marginal tax rate and the amount of tax owed. (Hyman, 1987) The costs of tax evasion vary with the penalties involved and the probability of being caught by the authorities.<sup>29</sup>

### **Conclusion**

This chapter has examined many of the complex issues in designing tax upsters. The many problems associated with applying the principles by taxation to actual implementation of tax upsters has been detailed. This chapter purvides the fundamental framework for examining the evolving top systems in the Central European transition countries which are the focus of the following chapters and case studies.

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- 1 In 1994 taxes and tax-like revenues amounted to 38.4% of the GDP in the OECD countries. (Non-consolidated data according to OECD Statistics and Methodology, 1996)
  - 2 Government here means all levels of governments regardless the system in which they function.
  - 3 Adam Smith, *An Inquiry into the Nature and Cause of the Wealth of Nations*, Modern Library Edition. (New York: Random House, 1937), pp. 777-779. Quoted in Mikesell, 1991. pp. 229-230.
  - 4 Confusion arises when some people think of progressiveness in terms of the marginal tax rate - the change in taxes paid with respect to a change in income. (See, Rosen, 1992, p. 278.)
  - 5 For the algebraic solution, see Harvey S. Rosen, *Public Finance* (Irwin, Inc, 1992) pp. 278-279.
  - 6 For an advanced study on traditional "sacrifice" theories, see Antony B. Atkinson - Joseph E. Stiglitz, *Lectures on Public Economics* (McGraw-Hill, International Edition, 1980), in lecture 13.
  - 7 For technical derivations of such rules, see Richard A. Musgrave, *The Theory of Public Finance* (New York: McGraw-Hill, 1959), chap. 5.
  - 8 Tiebout (1956) emphasizes the key roles of mobility, property tax finance, and zoning rules in local public finance. Under certain conditions, "voting

with the feet” - moving to one’s preferred community - results in an efficient allocation of public goods.

- 9 Buchanan-Flowers, p. 57.
- 10 The irony of the free rider problem is that everyone could be better off if the public good were provided efficiently, but because people act in their narrow self-interest, not enough is provided. (Rosen, 1992)
- 11 Erik Lindahl, “Just Taxation.”
- 12 The manifestation of the free rider problem to the public choice issues relates to various voting procedures that are used to decide what quantities of public goods to provide. See Rosen, 1992, Chapter 7.
- 13 Note the similarity to the problem of expenditure incidence in Chapter. 8.
- 14 Holcombe, p. 162-163. For more detailed analysis and graphical illustration see also Rosen, 1992.
- 15 For advanced studies, see reference books
- 16 Mikesell, p. 232-233.
- 17 Rosen, Chapter 17.
- 18 Rosen, p. 440.
- 19 Rosen, p. 440.
- 20 Mikesell, p. 226.
- 21 If the supply of “heads” inelastic.
- 22 Note that the price paid by the consumer generally does not rise by the full amount of the tax unless the supply curve is horizontal.
- 23 Frank P. Ramsey, “A Contribution to the Theory of Taxation”, *Economic Journal* 37 (1927)
- 24 For any two goods, A and B, the following conditions minimize the total excess burden:  
$$t_A E_A = t_B E_B$$
where  $t$  is the tax rate for each good (indicated by the subscript) and  $E$  is its price elasticity of demand. This is called *Ramsey’s rule* which states that the percentage reduction in the quantity demanded of each of the goods must be equal.
- 25 This represent a bit of an oversimplification for several reasons. For more advanced explanations, see Rosen, 1992
- 26 A Pareto-efficient system is widely accepted as theoretically optimum.
- 27 For advanced studies, see the list of reference books.
- 28 Mikesell, p. 323.
- 29 For the positive and normative analysis of tax evasion, see Rosen, 1992

## Case Study: The Hungarian Tax Administration

*Mihály Hőgye*

### ***The reform of the tax system and tax administration***

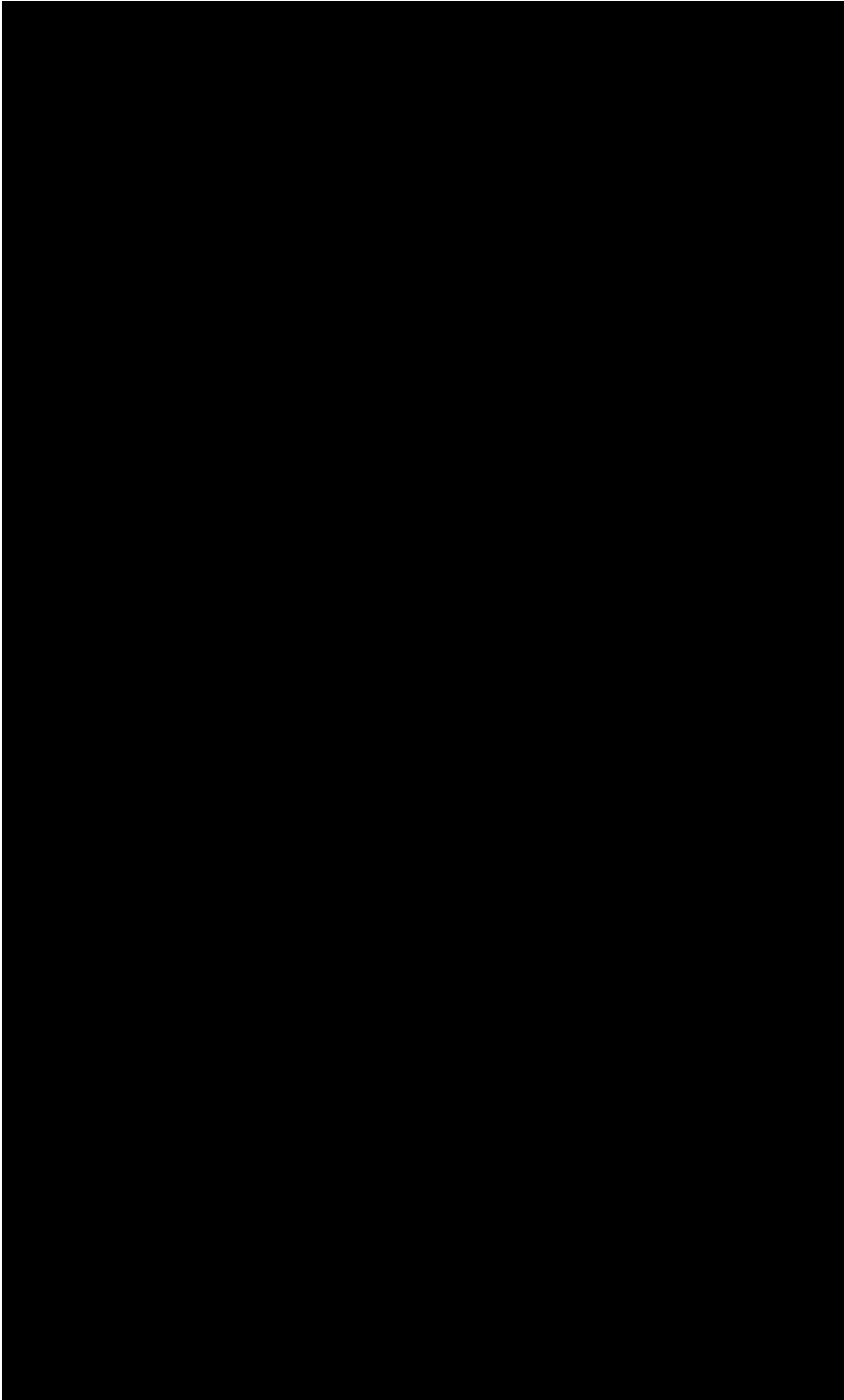
In the late 1980s Hungary, a long-time gradual reformer, quickly accelerated its transformation into a multi-party democracy and a market economy. In order to accomplish the general tasks of market reforms during the transition, Hungary had to initiate comprehensive tax reforms and to restructure state budget policies. The tax reform introduced on January 1, 1988, aimed at reducing distortions in relative costs and prices, shifting a large share of the tax burden from enterprises to individuals, and reducing income inequalities arising from the development of private sector activities. A VAT and a comprehensive personal income tax (PIT) were simultaneously introduced, while a number of previous taxes were abolished or transformed.

The *Tax and Financial Controls Office (APEH)* was established in 1987 to administer the new system of taxes. A large part of the tax administration functions are carried out by local councils. They have been assisted in this task by the reforms which, to date, have had the effect of moving toward a simplification of the tax system. This reform is efficient because a tax administration can operate most effectively in a system with only a few broadly based taxes, with low rates, and where exemptions are not widespread.

In addition to reforms of the system of tax rates, significant efforts have been given to the *modernization* of the tax administration, in line with Hungary's transformation into a market economy. This reform has been underway in Hungary for several years. Significant progress has already been achieved by APEH in implementing basic tax administration systems and procedures. As the agency responsible for administering the domestic tax system and ensuring that taxpayers comply with the law, the main priorities for APEH must be:

- to identify and register taxpayers to ensure that taxpayers comply with their filing and payment obligations,
- to ensure that taxpayers comply with their filing and payment obligations,
- to carry out audits of taxpayers, focusing on tax evaders,
- to provide information and assistance to taxpayers to promote voluntary compliance.

Chart



In mid-1991 APEH formulated a strategy for institutional improvements and strengthening, with the objective of introducing a system of paying taxes based on voluntary compliance. In 1992, APEH reorganized its structure along functional lines - collection, audit, appeals, registration and taxpayer services.

APEH now has a two-tier organizational structure, with its national headquarters in Budapest. It has four directorates (from January 1, 1996) in Budapest and 19 county offices called directorates, as well as 100 county-level branches.

The collection of information required for central processes is conducted by the *APEH Institute for Computer Center and Tax Accounting* (APEH SZTADI). The head of the APEH SZTADI reports to the president of APEH.

In the hierarchy of the tax administration there is a special subordination of levels dealing with each functional division: the heads of major departments at the headquarters can order the county directors along their functional lines. Thus, there is a special control carried out by major-departments at the Headquarters over their respective (functional) departments in the county offices.

The major departments are relatively autonomous organizations. They play a crucial role in elaborating and implementing different policies in their fields of responsibility. Consequently, the relations between heads of major departments and the vice-presidents are less hierarchical than those with the President. The relative autonomy of the major departments is due to the tradition of the Hungarian public administration. Nomination and accreditation of the leaders in the hierarchy are based on professional qualifications rather than political considerations.

Within a major department the style of decision-making is similar to that at the presidential level. In formal meetings of heads of departments and independent groups the heads of major departments make the decisions on basic questions concerning the activities and performance of the departments.

#### *Degree of centralization and decentralization*

The APEH has fully merged tax operations at the county level, so that only summary data on taxpayer registrations is held at the head office, and this is only for backup purposes. The basic responsibilities of a typical county tax directorate are: revenue collection, audit, appeals, data processing, and administration. (see chart)

The reorganization of activities along functional lines has allowed the APEH to consolidate its most important functions. In line with its intention to decentralize its processing operations, all taxpayer registration systems and records were transferred to county offices in December 1992. Some of the payment and return processing systems were also transferred in January 1993.

The latest developments in the organizational structure of the APEH is that besides the traditional functional lines the necessity for a 'target oriented' approach has emerged concerning large taxpayer units. From 1996, large taxpayer units (those who provide the most tax revenues) will be given separate treatment. In the long run, this must be implemented in a decentralized way. As a first step a separate directorate for large taxpayers has been established in Budapest.

In 1992, as an indication of the decentralization process, county offices were allocated specific revenue targets, (this is consistent with the move to give them greater responsibility). Revenue collection is now a key measure in assessing their performance. Despite the decentralization of tasks along functional lines the autonomy of county directorates in their own management is restricted. The functional organizational structure is uniform and highly centralized. The discretion of directors is also limited because of the strong functional lines.

The budget for the APEH is funded by the government. The Headquarters of the APEH allocates resources to the different units in the administration. The budget allocated by the Headquarters to the county directorates is basically for personnel and maintenance. The county directorates have a limited ability to use these resources freely.

*Building up the system of taxpayers' rights and the modernization of customer service in tax administration*

In a welfare state one can identify a number of key taxpayers' rights, like the right to privacy and confidentiality, the right to access of information, the right to appeal, and the right to certainty. Hungary has not reached the stage of officially recognizing or codifying taxpayers' rights. However, there is increasing agreement that taxpayers in similar circumstances should be treated consistently and that taxpayers with similar sources of income should be subject to the same control procedures.

In Hungary, the tax administration has extensive information-seeking powers. Specialist divisions can enter and search business premises and even dwellings (with or without notice) and request information from third parties. Banks and financial institutions have obligations with regard to the confidentiality of client affairs. However, the tax administration has the power to override that confidentiality and to obtain specific information from the bank for tax purposes. These tools can help the administration's capacity for auditing and thereby improve their productivity.

In Hungary, the privacy and confidentiality of taxpayers is respected. Information received by the tax authorities from a taxpayer should be kept secret.

If there is a breach of confidentiality the taxpayer has the right to sue the tax authority in court. The burden of proof in these cases is placed upon the taxpayer to show that the action of the tax authorities brought him material damage. The tax authority can also be expected to penalize tax officials who breach confidentiality rules.

The primary means of providing information to taxpayers in Hungary is through the mass media (newspapers and television) and explanation booklets. The information is widely distributed. It effectively covers new laws and amendments. However, information on penalties, audits and appeal procedures is less well publicized.

In Hungary, a hierarchical appeals procedure is available to taxpayers to contest the merits of tax assessments and decisions. There are no specialized tax tribunals set up to deal with tax matters, so appeals taken to the courts are heard by judges with little experience in taxation.

In developed countries' people have got a relatively high degree of certainty regarding the tax consequences of their actions. In Hungary rapid changes can be observed in the last several years. The improvements in this field include the following:

- The new tax laws define who are taxable persons and provide rules for calculating the tax base.
- Retroactive amendments of tax laws are not made, except if they benefit taxpayers.

These principles have guided the Hungarian tax administration to build up and modernize improved customer service for clients. The task and function of customer service is to provide true and complete information. The staff of the customer service division should answer every question of the client. If not, there should be unambiguous guidance in writing as to where the appropriate answer is available. There must be facilities (forms) for written documentation of the inquiries. *According to law, the customer service division must answer all questions in writing within 30 days (except on ambivalent issues).*

The central customer service units at each directorate must provide information concerning every tax issue and every taxpayer belonging to that unit. This information must be based on legal provisions of related issues and should avoid being misleading. Servants can not give any information based on their own interpretation. Professionals should follow the official statements given by higher authorities.

In cases of bankruptcy or general audits the customer service division can provide information only with agreement of the authorities or organizations



involved. To avoid mistakes the customer service division must ask the client about whether they are under a process of bankruptcy or audit.

There are generally separate windows at each customer service office for different types of taxes (returns) and for different tax affairs (registration, reimbursement, checking accounts, etc.). The 'one-stop service' form has not yet been established in the offices. However, the different taxpayer groups can inquire at one office (directorate) regardless of their different types of payment obligations. Special signs guide the clients to their needed information.

*Some concluding remarks*

On the road to a market economy, Hungary has made significant strides toward building up a new public sector system, to reduce the role of the state, and to introduce modern management forms. Changes in the business world have had an important impact on the public sector. More and more issues are being discussed and new solutions are being made concerning management and its performance in public affairs.

The responsibility for managing taxation mainly belongs to the APEH in Hungary. Starting from scratch, the APEH has been able to meet the requirements of its purposes. However, in meeting these requirements Hungary could not simply copy another countries' system. The main conclusion in Hungary is that a traditional form of organization with a relatively high centralization of functions can be efficient when the basic requirements of the organization are to survive and to stabilize change.

In the Hungarian tax administration, one and one half organizational reforms have been implemented in a relatively short period of time (1987 and 1992). During this period of change, the economy has been transformed from a state command economy to a mixed economy where the share of private business had reached 55% of GDP in 1995.

In the rapidly changing Hungarian environment one can observe many new elements of a modern management in tax administration. Although emphasis was placed on the elaboration and operation of a uniform organizational system, new principles like 'target orientation', 'client orientation', 'performance related pay', and others have progressively become the determining factors in management.

The 'traditional' concept of measuring and evaluating productivity, efficiency and performance still dominates the system. However, the need for applying systematic and organic measures is around the corner, and it is now a significant part in the strategic plans for the modernization of the Hungarian tax administration.

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## CHAPTER 5: FORMS OF TAXATION

*Kvìta Kubátová*

At the present time, income taxes, consumption taxes and property taxes are exacted from the population. The list would not be complete if we did not mention also special taxes like social security contributions, payroll and workforce taxes, custom duties. Tax systems in individual countries differ from each other in many respects. But what is common among all tax systems is the fact that the tax revenues of governments at all levels generally come from many sources. Two or three tax sources constitute the most important while the others have only a supplementary importance.

If we discuss individual taxes we examine their economic characteristics, collection methods and techniques of administration, and their social and political effects and consequences. We should also consider how to classify them.

Economists often classify taxes as direct and indirect taxes. The direct taxes are paid by a taxpayer at the expense of his own income and it is assumed that these taxes cannot be shifted to another taxpayer. Direct taxes are income, property and poll taxes. Indirect taxes differ from the direct taxes in that shifting is generally possible for indirect taxes. Tax incidence and shifting analysis indicates that these taxes are generally only partially shifted to the next payer. The tax can be shifted through increases in prices, but may not be fully shifted since market competition and product substitutes may effectively limit shifting the full amount of the tax. Among the indirect taxes are consumption and sales taxes including the value added tax, payroll and workforce taxes and customs duties.

In this chapter the basic classification according to the OECD<sup>1</sup> will be used. The OECD classification serves for the statistical evaluation of tax systems in individual countries and for making recommendations in this area.

The OECD tax classification divides taxes into the following six basic groups:

- 1000 Taxes on income, profits and capital gains
  - 1100 Paid by individuals
  - 1200 Paid by corporations
- 2000 Social security contributions
- 3000 Taxes on payroll and workforce
- 4000 Taxes on property
- 5000 Taxes on goods and services
- 6000 Other taxes

According to the OECD, in the first classification are the personal income taxes paid by individuals on all sources of their incomes (wages and salaries, net business incomes, interests, pensions etc.) and on capital income.

The corporation income taxes are levied on the incorporated or business enterprise profits and capital gains.

The social security contributions are intended to cover the cost associated with the need for paying retirement and disability pensions, sickness benefits, maternity allowances, unemployment welfare, work injuries and other benefits as well as the cost associated with the financing of the health services on the solidarity or common interest principle.

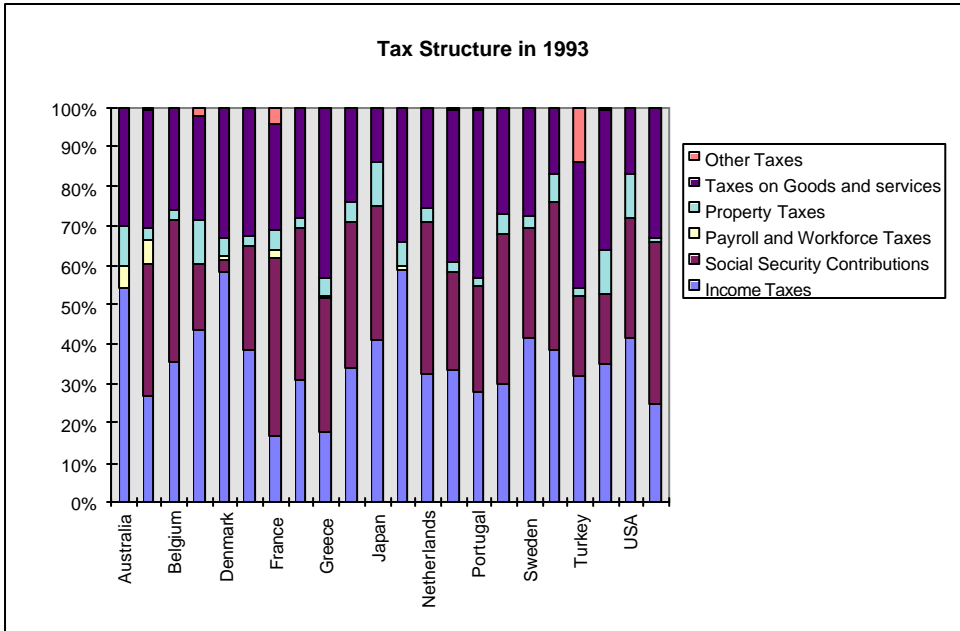
Taxes on payroll and employment paid by employers have been insignificant in recent years and are levied only in a few countries.

The object of the property tax levy is both movable or immovable properties of individual or incorporated businesses. From this point of view the property taxes are on capital investments such as land, buildings, and other physical objects.

Taxes on goods and services are indirect taxes paid by producers and traders and partially shifted to consumers. Among these taxes are the value added tax, excises and custom duties.

In the OECD classification the most remunerative taxes are the following three groups: 1000, 2000 and 5000. These three groups represent on average over 90% of the overall tax revenues in the OECD countries and in the transition economies. The order of these groups can, however, be different in individual countries. This is illustrated on graph 1, which presents the tax revenue structure of several countries. The importance of selected forms of taxation differs from one country to another and there is no simple explanation for this feature. The tax structure of each country has developed over many years and it depends not only on economic, but also political and cultural conditions.

Graph 1



Sources: OECD Revenue Statistics, Czech Republic Ministry of Finance

Great differences among individual countries can be shown with the social security contributions that form the largest part of the tax revenues. For example, in the Czech Republic, they represented 42% of all tax revenues in 1995 while in other countries the social security contributions are very low in comparison with other taxes. In Australia and New Zealand they do not exist at all.<sup>2</sup>

Regarding taxes on property, their revenue is on average only a small percentage of the overall tax revenues and in the transition economies these taxes are usually not imposed because the state has not been able to change from the surviving culture of the old regime. During the socialist period, most of the property belonged to the government so there was no reason to tax it. The taxes levied on individuals' private properties were also insignificant. It was also because fixing the taxes, the market principles were not used and their assessed value remained unchanged for years.

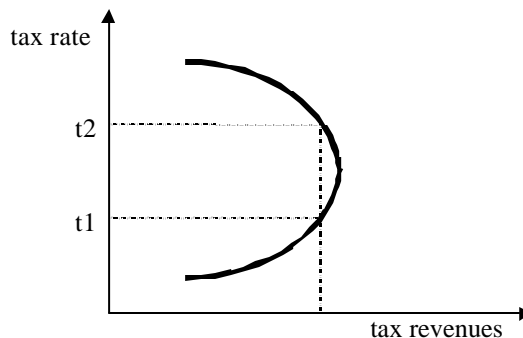
In this chapter we deal with selected forms of taxes. First we will examine their characteristics, then describe the tax base, rates and administrative issues. Statistics about tax revenues in different countries are presented in the end of each section.

## Personal Income Tax

These taxes are considered to be the most important source in a majority of countries from tax fairness and economic effectiveness point of view. As a personal tax, this tax allows inclusion of various requirements for providing for economic and income differences. This is not possible with other taxes, e.g. consumption taxes which must be the same for all taxpayers.

The personal income tax maintains its significant position although it has been criticized for its “undesirable” qualities frequently since the sixties. The tax is often criticized for its impact on the high level of taxation of higher incomes. In this criticism the high marginal rates on the highest incomes discourage taxpayers from work and other gainful activity and encourage leisure time and tax avoidance and evasion methods. This relationship is described by the Laffer curve (graph 2.). The tax revenue increases with a rising tax rate until the point at which the higher rates result in declining revenues. The same total tax revenue can be obtained with either lower tax rate  $t_1$  or with higher rate  $t_2$ .

Graph 2: Laffer Curve



An additional criticism of applying personal income tax to all taxpayers is that many are disadvantaged by not having exemptions or deductions that are available to some other taxpayers, such as entrepreneurs.

The personal income tax upon its introduction<sup>3</sup> had only low tax rates and it was directed toward high incomes. Between the world wars and especially after World War Two its rates were continually increasing and in some countries (e.g. U.K., USA) the highest incomes were taxed at over a 90 percent rate in the 1960s.

The tax system reforms in the 1980s and in the early 1990s changed the so called “tax mix”, i.e. the proportion between the direct and indirect taxes in favor of the indirect taxes. The tax rates were lowered by as much as 10 to 20%. It was

only Switzerland, among the European countries, that did not lower its rates. However, in Switzerland the highest rate is relatively low. Simultaneously, some efforts were made to expand the base of the personal income tax by cancelling the tax reliefs and some tax exemptions and deductible allowances emerged. This should lead to a simplification of the whole tax system which is often criticized for its excessive complexity and incomprehensibility.

The personal income tax was introduced also in the post-communist countries at the beginning of the 1990s to replace several inconsistent taxes on different personal incomes. Simultaneously, the social security contributions which flow to special parafiscal funds were separated from the tax itself. Thus, in the post-communist countries, the process has taken place with a forty-year delay after World War II.

### *Characteristics of the Tax*

Since the personal income tax was introduced nearly two centuries ago, it has gained a significant position because of its equity and tax system efficiency. The following are the most important advantages of this tax:

- The tax corresponds to the ability-to-pay principle
- The tax revenues are flexible
- The tax does not cause price distortions
- The tax is a good macroeconomic stabilizer
- The tax is “transparent” in that the tax burden of the taxpayer is clear and obvious
- The tax source is identifiable and clearly defined

The ability-to-pay principle is actually expressed in the progressive tax burden. The personal income tax is the only tax where the progressiveness can be inserted directly into its construction. With the help of the progressive personal income tax, the incomes can be redistributed among society members in order to gain a better distribution.

In spite of the above, taxation by income level has become a matter of criticism. The criticism is based on the belief that the best equitable taxation base according to the ability-to-pay principle is the consumption (expenditures) of taxpayers. The critics suggest to replace the tax on total income by the personal expenditure tax. The personal expenditure tax should then tax personal or family consumption capacity. It should be calculated as incomes plus gifts and inheritances plus capital assets sale and sums borrowed minus net savings, (positive or negative), expenditure on capital assets, loans, interest amounts, and gifts.

The flexibility of the personal income tax means that economic wealth is shown by the growth of personal incomes and by shifting the taxpayers into

higher tax bands, so that the tax revenues grow relatively quickly. Although this characteristic of the personal income tax is not advantageous to taxpayers (since they lose a higher and higher proportion of their earnings), it makes the public budgets more stable and provides the government with a larger scope for making decisions. With inflation, the tax flexibility can serve as an instrument for “impoverishing” taxpayers as the specifically higher incomes are burdened with a higher personal income tax even though real incomes grow slower or even do not grow at all.

The tax imposed on personal incomes does not affect price relations of goods and services. The tax is, however, often criticized in that it causes distortions between the value of labor and the value of leisure, especially if its progressivity exceeds a reasonable limit. Neo-conservative economists consider the substitution effect of leisure to work by the personal income tax to be a great obstacle to further growth (see the Laffer Curve theory). The progressiveness of the personal income tax becomes more and more often a subject matter of criticism also for tax equity reasons. The critics point out that the harder-working taxpayers should not be punished with a higher tax and the tax should be more proportional. Sweden has already introduced this innovated system by fixing a uniform tax of 20% with all incomes above 202,600.- Swedish crowns<sup>4</sup>.

From the Keynesian economic point of view, it is the progressive personal income tax that corresponds best to the ideals of accommodating the relative taxes to the economic cycle. The tax is therefore a good macroeconomic stabilizer.

Unlike the indirect taxes (about which the taxpayers are not well informed because they do not pay them to the public budgets and because it is not quite clear who is actually burdened with them), the personal income taxes (as direct taxes) are much more transparent. They are the only taxes that enable a taxpayer to calculate the burden for any hypothetical income. Also the government has an opportunity to construct the tax in a way corresponding to the voters' preferences. The fact that most taxpayers are able to estimate the amount of their yearly income taxes while the same taxpayers have no idea of the taxes paid in the prices of consumed goods is clearly an advantage.

A great advantage of the personal income tax is the fact that a clearly defined taxable income is the tax base. This tax can be paid in a relatively high amount and insures sufficient resources for the public budgets.

### *Defining the Tax Base*

The subject matter of the personal income tax is the income made during the taxation period. As for equity in taxation, the goal is quite clear: individuals having their incomes from various sources must be taxed alike. This goal was



emphasized years ago by Adam Smith (1956): “It does not matter whether the income is represented by a rent or a salary”. Generally, a personal income is considered to be an increased ability to satisfy personal needs during a certain period of time. This conception also includes incomes from other non-financial sources since the non-financial incomes can also help to “satisfy personal needs”. The comprehensive conception of a taxable income should also consist of incomes in kind, as well as imputed incomes (imputed rent in the form of living in the taxpayer’s own house) and unrealized capital gains.

In practice incomes are very difficult to tax (except for monetary incomes) and thus the unfairness of taxation increases. If two taxpayers with the same incomes, i.e. with the same increase in the ability to satisfy personal needs decide on different uses of their incomes, the horizontal fairness will not be attained. The overwhelming majority of tax systems exclude non-monetary incomes from the tax base.

The taxable income is then formed by incomes from: employment, net business incomes, fringe benefits, capital gains, rents, interests and pensions. In most countries, private pensions are excluded from taxation since they are not considered to be income during the relevant period.

To understand the political and theoretical discussions about the personal income tax better, we should note the fabric of the tax from the technical point of view. It can be stated that the tax levy itself is created as follows:

1. The taxable incomes from all sources are added up. This amount is called adjusted gross income.
2. All allowances (in the form of deductible items) are then subtracted from this amount,
3. The resulting tax base is then multiplied by the tax rate (mostly progressive)
4. The calculated tax may further be lowered by tax credits. The resulting sum is the tax to be paid.

The whole process is much more complicated in actual practice. It should be noted that taxable income must not include exempted incomes. The incomes are added up after they were revised and adjusted according to the rules for individual types of taxes (e.g. the gross incomes have to be lowered by business expenditures). Some incomes, however, are taxed by withholding at the source. Since the rate applied to withheld incomes is usually flat, it loses the income tax character and interferes with the originally considered progressivity of the system.

### *Tax Allowances*

In general, the personal income tax base (i.e. taxable income) to which the tax rate is applied is the total taxable income reduced by tax allowances. The tax

allowances are (besides tax credits and zero-rate brackets) the principal methods of tax reliefs. In some countries so called “splitting” is used as a method of providing tax reliefs (splitting means the taxation of the husband and wife or household members as if all of them had the same income). In this way the unfairness between households with different structures caused by the progressive tax is eliminated. This problem will be discussed later. Other methods of providing tax reliefs in some countries are through different tax allowances or separate tax schedules for married and for single persons or through conversion coefficients for the households with varied numbers of members.

There are several reliefs that are generally included in the personal income tax. These reliefs consider the social position and family background of the taxpayer. There are also special reliefs on loans, investments and other expenditures. The tax reliefs are usually divided into the so called “standard” and “nonstandard”.

A standard relief does not depend on taxpayers’ expenditures and is applicable to all taxpayers who meet the given rules for eligibility for such an allowance. It is, for instance, the basic deductible item for each taxpayer.

A nonstandard relief depends on real expenditures and for that reason it is usually limited (e.g. by interest on some loans). The nonstandard reliefs serve to stimulate taxpayers to behave in a certain way (i.e. to save money, to participate in some special funds, to invest into certain areas, etc.).

The commonly used standard reliefs are:

- Basic relief available to all taxpayers
- Reliefs on work incomes (e.g. the tax credit in Austria). These reliefs are to compensate for the fact that employees are taxed at source without their being able to adjust it in any way, while the self-employed can apply reliefs to obtain profit and are often able to achieve a considerable decrease in their tax bases legally. But the employee has also some expenditures to attain his salary. This disproportion between these two groups of taxpayers should be compensated by the mentioned relief of work incomes.
- Deductible items or other reliefs on dependent children
- Disability reliefs
- Deductible social security contributions
- Relief for the aged
- Reliefs on dependents

The principal nonstandard reliefs are:

- Deductible interests on certain credits (e.g. investments)
- Pension contributions
- Life assurance premiums

- Reliefs on medical expenses
- Reliefs on granting contributions for charitable purposes
- Reliefs on investments
- Traveling expenses to work

As it has been already mentioned, the expenditures of this kind are usually limited by law.

Besides the above reliefs there exist some special reliefs for small entrepreneurs for certain kinds of undertakings (e.g. agriculture) in some countries (Greece).

The deductible items form a considerable part of the tax base. The OECD countries average in 1990 was 27% but there are great differences among individual OECD countries. In Italy the deductible items can decrease the tax base by a mere 5%, but in the U.K. it is nearly 44% (Messere, 1993, p. 244).

It is often criticized that those with higher incomes usually apply more nonstandard reliefs as these reliefs are closely connected with such activities as commercial investments, mortgages on houses, various kinds of savings which the poorer taxpayers do not have such opportunity.

In addition to the above, tax reliefs (in the form of deductions from the tax base) are definitely more advantageous for taxpayers with higher incomes as shown in Table 1.

Table 1: Effective tax relief

Taxpayer	A	B
tax base	10 000	1 000 000
tax allowance	5 000	5 000
marginal tax rate	10%	50%
effective tax relief	$5\,000 \times 0.1 = 500$	$5000 \times 0.5 = 2\,500$

This represents a highly simplified situation which is often not the case in actual tax rate applications. The table shows that a “rich” taxpayer enjoys a greater decrease of tax than a “poor” one.

Another issue often discussed is whether the effort of the government to introduce tax incentives is greater than the losses from such efforts. We can also ask about who capitalizes on the tax reliefs: Is it the taxpayer the relief is meant for or the institutions which enable the taxpayer to obtain the relief?<sup>5</sup>

Last, too many reliefs make the system complicated, non-transparent and allows tax evasions. This is the situation characterized by “loopholes” which make the tax rates less effective in actual tax burdens on taxpayers.

The aforementioned reasons resulted in a drastic decrease in the number of tax reliefs in the middle of the 1980s and in the early 1990s. In the transition economies personal income taxes with a relatively low number of reliefs have been introduced. Nevertheless, in the Czech Republic it can be shown that over time the number of reliefs have gradually increased which is caused by political and interest group pressures. The following tax reliefs have been introduced or extended in the Czech Republic since 1993: reinvestment deductible item, increased time for deducting loss from 5 to 7 years, expanded list of purposes for which a tax-deductible donation may be granted, tax exemption on some interest payments and others.

### *Tax Rate Schedules*

With the personal income tax the rates are (with some exceptions) progressive to arrange for the average rate on higher incomes to be higher than on lower incomes. It is a rule that the marginal rate is above the average rate for each taxpayer. To ensure progressivity two different methods are used. One method is the tax rate schedule, while the other is a formula (in Germany).

The tax rate schedule determines the limits above which part of the tax base exceeding the limit is taxed by a higher rate. This is a “sliding-scale progression”.

As an example of such sliding-scale progression the tax rate schedule valid in the Czech Republic in 1996 (given in the Case Study of Chapter 6) can be mentioned.

Tax rates are the center of the taxpayers’ attention and are often compared and discussed. It is interesting that the tax rates themselves are only a part of the burden to taxpayers and to tax progression. The tax paid is a result of the application of the tax rate schedule or a different regulation to the tax base. Nevertheless, the differences in the determinations of the tax bases can considerably change the taxpayer’s position. To compare the tax bases internationally is very problematic and an exact comparison is practically impossible. But the tax rate schedules have a psychological importance to taxpayers who usually infer the overall character of the tax from the schedule. Table 2 provides an outline of the tax rates paid to the central budget, to individual province (state) budgets and to local budgets in several countries.

Table 2: Personal income tax rates (1995)

	Rates of Central Government Income Tax	Rates of State/Provincial Inc. Taxes	Rates of Local Inc. taxes	Top Rate of all levels
Germany	19 - 53  (tax is computed by a formula)	-	-	53
Switzerland	0.77, 0.88, 2.64, 2.97, 5.94, 6.6, 8.8, 11, 13.2, 11.5	2.16 - 14.04	2.82 - 18.33	43.87
United Kingdom	20, 25, 40	.	.	40
USA*	15, 28, 31, 36, 39.6	0 - 11	0 - 4.46	46.9
Czech Republic (1997)	15, 20, 25, 32, 40	-	-	40
Hungary (1992)	25, 35, 40	-	-	40
Poland (1997)	20, 32, 40	-	-	40

Sources: The OECD Tax Data Base (1995)

The Tax/Benefit Position of production Workers (1995)

Czech Tax Law

Koperkiewicz-Mordel (1996)

\* Certain States and many local governments do not impose income tax  
. not available

In several countries, including the Czech Republic, Germany and Poland, the revenue from a tax is divided between central and local governments budgets, although it is collected by the financial services of the central government.

#### *Collection of Tax*

The personal income tax is usually paid on the taxpayer's tax return basis. The taxation period is the past calendar year or another twelve-month period. In the U.K. the period begins on April 6 of the past year and ends on April 5 of the current year. In Switzerland there is a two-year taxation period to minimize different taxation on the taxpayers whose incomes are subject to fluctuations over years and with the taxpayers whose incomes are more constant.

The tax reliefs are applied by either the taxpayer himself or by the tax office. The tax office calculates the tax in the proper amount so that the taxpayer cannot pay more than he is due to pay under the law. This system has been introduced in France, where the complicated system of conversion coefficients does not enable all taxpayers to calculate their taxes correctly.

The incomes from wages and salaries and some incomes from capital revenues (e.g. interests on bank accounts, dividends, interests on bonds and debentures) are taxed by the withholding at the source. This makes fewer demands on the taxpayer, decreases the number of filed tax returns and prevents tax evasions. The employer deducts possible outstanding payments at the end of the year or possibly submits claims to refund overpayments. The monthly paid amounts are actually advance payments for the yearly tax. Considering the high rate of taxable salaries in the total taxable incomes, the PAYE<sup>6</sup> tax provides (together with the other taxes collected at source) an overwhelming majority of the total collections and only a small number is paid directly by taxpayers.

The method of tax collection influences significantly the tax revenues, speediness of the collection, expenses connected with the collection and, the taxpayers' approach towards taxes. The introduction of the PAYE system for example immediately increases tax revenues.

### *Unit of Taxation*

For various reasons, replacing individual taxation by the taxation of wives and husbands, couples or families can be considered. The opinion on whether the tax reliefs should be granted to individuals or to families is not clear-cut. Finding an ideal solution for people living in common households or for those living alone is not easy. In most countries an individual taxation has been introduced. In the other countries the taxation is common for the wife and husband or for a family and in some countries the taxpayers may even chose the tax unit. In many countries there are some tax reliefs for the married and in some countries these reliefs can apply to two individuals of the same sex living together.

The tax unit influences (by its progressive rates) the tax burden of married couples or families. If the wife and husband have the same or similar incomes, the total tax will be lower if compared with the wife and husband whose individual incomes are very different. This is the reason why in some countries the tax unit is not considered to be an individual but a married couple or why the tax unit can be chosen by the taxpayers.

*Other Taxes Levied on Personal Income*

Besides the income tax paid to the central government (in federal states to the federal government), in some countries taxes are to be paid to local bodies and in some federal states taxes are to be paid to self-governing units at the medium level such as to cantons in Switzerland and to individual states in the USA. These taxes are mostly calculated from the same tax base as the federal tax or on a lower-percentage basis. The Czech Republic and Poland are among the few OECD countries where there are no personal income taxes to be paid to the lower levels of the state administration.<sup>7</sup> In some countries the church tax, trading tax or taxes similar to the inheritance and gift taxes (Portugal) as well as the taxes on incomes from real estate property (Greece) are paid. There are only a few countries which do not collect these additional taxes. In the European Union countries only the Netherlands, Spain and the U.K. do not collect these taxes.

*Tax Revenue*

The personal income tax is one of the highest tax sources in the developed countries. The total tax revenues at all levels of the government in the OECD countries amounts on average to almost 30% of total tax revenue (arithmetic mean in 1993) while in individual OECD countries the proportion is within the range from 9% (Greece) to 52% (Denmark). The personal income tax quota (i.e. the tax proportion in the gross domestic product) is in the OECD countries on average about 11% and in individual OECD countries from 4% to 26% (also Greece and Denmark). A more detailed outline of the personal income tax revenue significance in individual countries is given in Table 3.

Table 3: Taxes on personal income as percentage of GDP and of total taxation in 1993

	as percentage of GDP	as percentage of total taxation
OECD *	11,3	29,2
Germany	10,6	27,1
United Kingdom	9,3	27,8
USA	10,2	34,5
Czech Republic (1994)	5,3	11,2
Hungary (1994)	6,5	15,9
Poland (1994)	9,8	23,1

\* unweighted average

Source: OECD Revenue Statistics

Czech Republic Ministry of Finance

It is obvious from the above table that in the post-communist countries the personal income tax share both in the GDP and in the total tax revenues is relatively low. This is caused by the low tax base, i.e. by low personal incomes in these countries. An important role was also played by the transformation itself during which the incomes significantly decreased. It should also be noted that in the centrally planned economies the personal incomes were level. The personal income tax as such did not exist and the main source of personal taxation was the payroll tax. For that reason the tax rates were relatively low. The tax reforms were unable to strengthen the importance of the personal taxes. On the contrary, the reforms tried not to create the negative impact of the change in the personal income tax on net incomes of taxpayers.

If we compare the above data to the data from underdeveloped countries, we would realize that the personal income tax share in the GDP is on average only about 2% and in the total tax revenues about 10%. This is closely connected to the complexity of the tax which makes demands on education, culture of the society on both sides of the tax administration, i.e. on the side of taxpayers and on the side of the public administration. This is also connected with the problems of the level of accounting and with tax discipline. That is the reason why developing countries rely on indirect taxes rather than on other taxes.



### **Corporation Income Tax**

This tax is intensively discussed by many experts. There are opinions that this tax has no economic justification because all corporation incomes will, after all, become incomes of individuals and will be subject to the personal income tax. Still, the tax exists in all developed countries. Its revenues are very low in many countries since the main emphasis is put on the personal income tax.

#### *Characteristics of the Tax*

It has already been mentioned that the corporation income tax is very controversial and that some economists and politicians have even suggested its cancellation. Entrepreneurs also highlight its negative impact on prices by making production more expensive. The economic arguments against this tax are very strong but still the tax has some positive qualities that can be stressed by its proponents.

From an economic point of view, the following drawbacks can be mentioned:

- Companies do not have special taxation capacities and taxation of personal incomes is sufficient
- Companies shift the tax to other taxpayers
- The tax is not neutral since the “taxable income” is difficult to define
- The double-taxation problem arises

Economically, the corporation incomes do not represent any special “income” since they will be finally changed into individual incomes and as such they could be taxed. If the personal income tax was all-embracing and fair, the profits would not really need to be taxed before their distribution. Moreover, the corporation income tax cannot be other than “in rem” - not considering personal positions of individual taxpayers - unlike the personal income tax. That means that the part of the tax which is paid as a corporation tax before the profits are divided does not correspond to the ability-to-pay principle and the corporation income tax thus weakens the fair action of the progressive income tax.

It is known that the personal income tax is neither perfectly fair nor all-embracing, and that the taxpayers often do not state all their incomes in their tax returns. Therefore the corporation income tax can be considered as an additional tax to the personal taxation. The taxation of all incomes at the level of personal incomes would also postpone the tax duty and shareholders could gain an unfair advantage by the repeated reinvesting of undivided profit. The public finances would then not receive these revenues.

Moreover, payment of profits to foreign countries would not be subject to tax at all in the country of origin. The country which would decide to cancel the

corporation income tax would be able to attract more foreign investors. That is why all legislators should consider this possibility of foreign competition since today capital can freely cross borders, a high taxation of corporate incomes can turn away possible investors.

The corporation income tax does not have to be effectively paid in full by the owners of the corporations but it can be shifted forward to prices or backward to employees. Both these shifts mean a higher impact on poorer people and, as a consequence, they are regressive. Thus, the tax which was originally imposed on high incomes of large companies and is perceived by people as a tax reducing incomes of the rich; has quite the opposite effect.

If we are to tax incomes of corporations we should first answer the question what is the “income of the corporation”. Defining the accounting profit and converting the accounting profit into a tax base is such a complicated operation that many tax advisers have a good business. It is often stressed that the large international companies have great possibilities to manipulate their tax bases. The possibilities become greater the more complicated the tax laws are and with the high number of various tax reliefs.

Another problem arising with the corporation income tax is the so called “double taxation of dividends”. We can understand it more clearly if we compare two entrepreneurs; one of them a private citizen and the other a member of a trading company. In the former case the profit shall be taxed by the appropriate rate of the personal income tax according to the tax rate schedule. In the latter case the profit shall be taxed twice. Table 4 shows that the effective tax rate in the latter case is much higher and the tax system is not neutral.

Table 4: Double taxation of dividends

business as:	physical person	corporation
profit	100	100
Corporation Income Tax (40%)	-	40
base of personal income tax	100	60
Personal Income Tax (30%)	30	18
personal income after PIT	70	42
effective tax rate	30%	58%

The problem of the double taxation of dividends can be moderated or eliminated in different ways but none of them are considered to be perfect. This is the reason why even the OECD or European Union recommendations are not unified. The systems preventing double taxation will be discussed later.

In spite of these facts the corporation income tax has some positive qualities and fulfills some important functions. For these reasons it has not been cancelled in the OECD countries and in the post-communist countries this tax is part of the tax system. Some important arguments are:

- Corporations pay for utilizing public services
- The tax compensates the limitation of the legal persons' liabilities
- The tax is imposed on the profits which would otherwise evade taxation
- The tax can be used as an instrument of macro economic policy

Corporations utilize some of the public services and the infrastructure in the countries in which they have their offices and in which they are in business. Their corporation taxes can therefore be considered as a payment for these services. This benefit principle is ensured not only by the part of the tax flowing to local budgets but also by the part flowing to the central budget. Corporations, although they are not natural persons, utilize the infrastructure services in the given place or in the given country which enable them to obtain their profits. That is why it is appropriate for them to pay for such services.

A natural person is liable for liabilities against the whole property while a trading company is liable only up to the level of its subscribed capital. For that reason the corporation income tax is sometimes considered to be a compensation for the advantage of those who undertake to create a corporation. The tax laws therefore recognize the companies in which the members are liable with their whole properties (like public companies). The company members liable with all their properties are taxed like natural persons (i.e. the profit is first divided and then taxed with the personal income tax). Nevertheless, all this argumentation contradicts the requirement for the tax neutrality. If the taxes themselves encourage taxpayers to think about which method they should choose, then they have distorting effects on efficiency.

In many Anglo-Saxon countries and in many post-communist countries, the neutrality of the tax system is considered to be one of the most important features at the present time. According to conservative economic teachings, taxes should not influence decisions of people and should not cause distortions. In spite of that, there is no corporation income tax in any country which does not comprise a special solution in order to support certain investments, such as research and development and environmental activities (often whole regions, branches, new

and small companies are advantaged). These programs utilize the instruments like deductible items (tax allowances), and tax credits (reduced rates).

Besides the structural economic policy the tax can also be utilized to support the stabilization policy since it is effective as an automatic stabilizer in the Keynesian meaning. Corporation incomes fluctuate more than other incomes. That is why in boom periods the tax represents a higher percentage of the domestic income than in recessionary periods.

During a boom period the tax hinders an excessive growth of personal incomes and demands while during a recessionary period the tax draws relatively less money from the private sector.

### *Tax Base*

Like the personal income tax, the tax base and tax rate decide the total tax to be collected. The tax base for the corporation income tax is derived from the accounting profit which is further revised in a significant way in some countries so that the accounting profit and the taxable profit can differ considerably. In Germany, for instance, the taxable profit (with a few small technical exceptions) equals the accounting profit. In the U.K. and the Netherlands a different view is taken that the accounting and taxable profits need not be the same since yearly accounts can have different purposes and can be created according to different rules. Most countries can be placed between these two extremes.

The result is that an international comparison of the tax bases are very difficult. It is therefore very difficult to comment on the level of the tax burden in individual countries. Entrepreneurs and politicians compare the tax rates which are more transparent (tax rates - see later discussion). In the developed countries, the tax reforms introduced in the second half of the 1980s and in the early 1990s have extended the tax bases and lowered the tax rates.

The most important differences in the tax bases are the following:

- Different recognizable expenses
- Different regulations on tax deductions
- Different tax reliefs including business losses

As for the recognizable expenses, they actually represent the most important part of the Tax Act. The Tax Act is influenced by the possibility of including traveling expenses, expenses to improve the working and social conditions of employees, the method of assessment of stocks, the kind of deductible interests, the fact whether the reinvested capital gains are exempted from the tax, etc. Some of the expenses are recognized in full and others only up to the certain limit given by law and the amount exceeding this limit is actually paid from the profit after

tax. An example of a commonly limited cost item is food for employees on business trips.

The tax depreciations of the tangible and intangible assets are given by the law and the period of depreciation and the appropriate depreciation rates in individual years will influence the tax base. Companies have usually a possibility to choose between the linear and accelerated depreciations. These methods are also used in the post-communist countries after the reforms. In Romania only the linear depreciation is allowed and in Russia the other methods are allowed only with the consent of the Ministry of Economy.

As we have already mentioned, the tax base is influenced by the number of tax reliefs such as investment tax allowances, tax credits and others. One of the commonly provided reliefs is a possibility of including the loss incurred in the previous years of business (the time is either limited - mostly 5 or more years or unlimited). In some OECD countries the deduction of losses is recognized retroactive from one to three years. In the post-communist countries the losses are also deductible from the tax base but the carry-back possibility does not exist (the only exception is agriculture in Hungary).

#### *Tax Rates*

There is no need for the corporation income tax to be progressive since corporations are not persons having the need of mutual fairness. One rate also limits possibilities of tax evasions. In spite of that, lower rates are granted to small or medium-large companies. But in the Netherlands higher incomes are taxed less. Of the OECD countries, only Switzerland has the progressive tax rate similar to Bulgaria and Romania.

Table 5 presents a comparison of corporation income tax rates in several countries.

Table 5: Rates of corporation income taxes (1995)

	Rates of Central Government CIT	Rates of State and Local CIT
Germany	45, 30	-
UK	33*	n.a.
USA	35*	6.6
Czech Republic (1997)	39	-
Hungary (1994)	36	-
Poland (1997)	40	-

Source: The OECD Tax Data Base (1995)  
 European Tax Handbook (1994)  
 Czech Tax Law  
 Koperkiewicz-Mordel (1996)

\* Small profit rates are 25 in UK and 15.34 in USA

When determining the corporation income tax and the personal income tax rates a certain cooperation usually takes place. Often the corporation income tax rate is unified or almost unified with the highest limit of the personal income tax rate. The goal is to prevent people from making decisions on personal investments or corporate investments on the basis of differences in tax rates.

### *Preventing Double Taxation*

We have already mentioned the fact that the corporation incomes are actually twice taxed (by the corporation income tax and then by the shareholder's personal income tax). If a corporation would be considered to be a channel through which the shareholder's profit flows to the shareholder, the double taxation appears to be absurd. Besides, the total tax is unreasonably high. For that reason some countries are trying to cancel or at least to decrease the double taxation. In practice these efforts are limited to distributed profits only.

The limitation of the double taxation can be performed at the corporation level or at the shareholder level. At the corporation level, there are the two following methods:

- The dividend-deduction system (the corporation dividends are recognizable expenditures for taxation purposes)
- The split-rate system (on distributed profits a lower rate is applied)

At the shareholder level, there exist also two methods:

- The imputation system (a shareholder is allowed to deduct the tax paid at the corporation level either fully or in part)
- The schedular treatment of the dividend taxation: a) a special, uniform rate for dividends, b) uniform tax crediting regardless the tax level paid by the corporation, e.g. tax crediting for 10% of the received dividends in Spain.

In practice all the above systems are used and some countries have a “classic” system of dividend taxation where the double taxation is not eliminated at all. In these countries, however, the CIT rate is usually lower than in other countries.

*Tax Revenue*

The revenue of the corporation income tax at all levels of the government represents only a small part of the GDP in developed countries. In the OECD countries it was only 2.6% in 1993 (arithmetic mean) which represented 6.9% of total tax receipts (arithmetic mean). There are considerable differences between individual countries. The share in the GDP ranges from 1 to 7% and the proportion in the total tax revenues from 3 to 16%.

Table 6 shows that in the post-communist countries the income tax proportion has already approached the proportion in the developed countries although in some countries the taxation of corporations is still relatively high. In the countries with planned economies the state companies were taxed most and the proportion in filling the state treasury exceeded 90%.

Table 6: Corporation income taxes as percentage of GDP and of total taxation (1993)

	as percentage of GDP	as percentage of total taxes
OECD*	2.6	6.9
Germany	1.4	3.6
United Kingdom	2.4	7.2
USA	2.3	7.9
Czech Republic (1994)	6.4	13.6
Hungary (1994)	1.9	4.6
Poland (1994)	3.4	8.0

\* Unweighted average

Source: OECD Revenue Statistics

Czech Republic Ministry of Finance

The tax revenues flow to the central budgets either as a whole or they are split between the central and local governments.

### *Other Taxes Paid by Corporations*

Corporations have further taxes imposed on them such as the social security contributions for employees.

Among the other taxes paid by corporations in some countries are the taxes on net property of corporations. In Iceland a local turnover tax is paid. This tax is considered to be a direct tax burdening business activity and not an indirect consumption tax (see the section on consumption taxes).

In France, corporations have to pay the so called “taxe professionnelle” which is based on the rent value of the fixed capital and the paid-out salary. In Austria, Germany and Luxembourg a local tax called “Gewerbesteuer” is paid. In all countries, corporations pay the taxes on properties.

### **Social Security Contributions**

The social security contributions are one of the newest taxes. They were first introduced in Bismarck’s Germany in 1880 for government employees. Soon, public funds with contributions from employers and employees came into existence. These funds were first established for industrial workers and later for other professions. Nowadays, social security concerns not only employees but also self-employed persons - people running their own businesses. The rapid development of social security contributions took place in West Europe after World War Two.

We should ask why are the social security contributions classified among the statutory and non-purpose taxes?

It is true that the contributions do not exactly meet the conditions for being classified among taxes but they have some qualities very similar to taxes. One of the qualities similar to taxes is the duty and regularity of payments. The amount of the contribution is based on the level of the income. On the other hand, the social security insurance coverings are mostly not derived from the contribution amount. For example, with the health insurance, the health care provided is not dependent on the contribution amount from the given payer at all.

The social security system also does not take into consideration the factors that are usually considered in private security systems such as the sex, age, state of health, style of living, risks of loss of employment, etc.

The arguments why the social security contributions are understood to be a tax rather than real contributions is also the economy of the insurance funds where



the costs and expenditures are balanced. The health insurance funds are often subsidized by the government. In the Czech Republic the retirement pension plan contributions are generally higher than the retirement pensions.

Another important fact is that taxpayers tend to consider the contributions as a tax. The important thing for them is the amount of the contribution. For that reason people (taxpayers) behave as in the case of taxes - they try to minimize the contributions and commit illegal evasions subject to punishment by the government.

Milton and Rose Friedman say that calling social security contributions “contributions” is a typical Orwellian double way of thinking since “a contribution” means a voluntary payment. Based on their opinion “The social security insurance is rather a combination of a certain tax and a certain program of transfer payments... There exists a certain dependence between the contributions paid and the benefits received but this is nothing more than “a fig leaf” to create a fiction justifying the title of “insurance” for this combination.” (Friedman M. - R., 1992)

#### *Characteristics of the Tax*

The social security contributions are paid partly by employees and partly by employers (for the time being let us not consider the contributions paid by self-employing persons). From the microeconomic point of view this is a tax paid in the labor market by “the seller” ( an employee selling his workforce) and “the buyer” (an employer buying the workforce). The tax shift and incidence theory says that in the competitive market it is not important which side the tax is imposed on. The economic effect of this tax (i.e. the volume of the labor used, price and incomes of the involved) would be the same if the tax was paid by employees or if it was fully paid by employers. The labor market, however, may or may not be competitive and besides the price of labor is not flexible because of the Trade Unions activities. Therefore the tax will be burdening the side of the market (at least for a short period of time) upon which it is imposed by the law. The long term impact will probably not correspond to the ratio by which the contributions are statutorily divided between the employers and employees.

The social security contributions paid by employees and self-employers function as personal income taxes that are not progressive but proportional or even regressive. These are regressive in the USA as earnings over a certain limit are not taxed. The contributions to be paid are limited by the amount of the personal income. Starting from a certain level of the taxpayer’s personal income the limiting rates are zero. The contributions there are neither non-taxable nor tax allowances. In some cases (with very little incomes) the contributions are even calculated from an amount higher than the income itself (so called “minimum basis of assessment”). These features of the contributions are effective against the

progressive income tax and the overall effect of both the taxes does not correspond to the ability-to-pay principle and the vertical fairness.

The social security contributions paid by employers are actually taxes on the workforce. As such they increase the price of production. Therefore, they have a distorting effect on the choice of production factors. It is often criticized that as a consequence of the statutory social security contributions paid by employers the labor price is too high which causes increased unemployment.

If the contributions are shifted into the manufacturers' prices, they are paid by the consumer in the end and their impact is regressive.

#### *Tax Base, Rates, and Payments*

Social security taxes are usually only based on earnings. Personal income taxes are based on income from most sources. Moreover, at least in the USA earnings over a threshold (or limit) are not subject to social security taxes. The base for calculating social security contributions is usually close to the base for calculating personal income taxes. The only difference is that the base of the tax is lowered by the contributions paid and other allowances (deductible items). The contributions are then calculated from a rather higher base although this need not be valid in all individual cases. There are some incomes from which the contributions are not paid, others are exempted from taxes so that bases can be different. The social security contributions are not paid from unearned incomes based on contracts for work, some incidental incomes, etc.

Any international comparison of the bases for calculation of the social security contributions is (like with the personal income tax) very difficult.

The rate levels in some countries are shown in Table 7.

Table 7: Rates of social security contributions in 1994

	employees	employers
Germany	19.4	19.4
Sweden	1.95	30.13
USA	6.2	12.4*
Czech Republic (1996)	12.5	35
Hungary(1992)	8	49
Poland	-	48

\* The employer pays also the contributions to work injury in USA to the States

Source: The Tax/Benefit Position of production Workers (1995)

Czech laws of Social Security Contributions

The contribution rates are mostly linear but they are often paid from the base up to a fixed limit. In some countries the work injury rates can differ by the level of risk in individual industries. In Norway the rates depend on the geographic location.

The taxable unit for the social security contributions is always an individual, not a family or a married couple, because the sickness benefits, pensions, welfare and health care are always directed to an individual.

The social security contributions of employees are deducted at the source in every pay period. Since the rate is linear, any accountings of the tax duty for a certain period is out of the question unlike the progressive income tax.

The contributions paid by employers instead of employees is paid per a certain period, usually a month.

The social security contributions of self-employed people are paid by advance deposits since the tax base is not known in the course of the year. At the end of the year the tax is accounted according to the real income attained in the given year.

In addition to the above, it is necessary to say that the health insurance contributions are paid by the state instead of some citizens; since every one must be insured, but some of the insured people do not have their own incomes. They are especially children, retired people, students, etc. In some countries, however, the contributions are paid by the parents.

#### *Revenue of Social Security Contributions*

As already mentioned above the revenues from this kind of tax considerably differ in individual countries. It should be stressed that in some countries the social security contributions have not been introduced and the needs of the system are covered either from the state budget or on a private basis. Of the OECD countries these are Australia and New Zealand. In the overwhelming majority of countries, including the post-communist ones, the social security contributions are paid by employees, employers, as well as by self-employed people, but their relative levels differ. A brief outline of the social security contribution amounts in the OECD countries including some of the transition economies is given in Table 8.

Table 8: Social security contributions as a percentage of GDP and of total taxation 1993

	as percentage of GDP	as percentage of total taxation
OECD*	10.2	25.7
Australia	-	-
Germany	15.1	38.7
U. Kingdom	6.0	17.8
USA	8.7	29.2
Czech Republic (1994)	19.0	40.1
Hungary (1994)	14.1	34.4
Poland (1994)	12.1	28.5
Russia	8.1	24.1

\*Unweighted average

Source: OECD Revenue Statistics, Czech Republic Ministry of Finance, Fiscal Policy of CIS Countries in 1993-1995 (1996).

It is obvious from the table how important a tax these social security contributions are in some countries. In several countries they represent the largest tax. The share of this tax in the GDP amounts to 20% in the OECD countries and in the total taxation up to 45% (in France).

### **Consumption Taxation**

Consumption is taxed indirectly since the tax is paid by manufacturers and sellers which have included the tax in the price. However, the full amount of the tax may not be shifted.

The taxes on goods and turnover paid by traders in marketplaces, on entering a country or in transit were popular with monarchs in ancient times. Recently, after the tax reforms in developed countries were made, efforts to shift a part of the tax burden from the direct to indirect taxes have appeared. Originally they were paid in kind but later on with the development of the monetary economy they gained a monetary form. Although these taxes should have originally covered turnovers and profits of tradesmen, they were often shifted into prices and paid in fact by consumers.

*Basic Concept*

The consumption taxes can be divided into two basic groups:

- General taxes (sales and turnover taxes)
- Selective taxes (excises)

The sales and turnover taxes including the newest value added tax should cover (with some small exceptions) all expenditures of consumers. They are always imposed “ad valorem” - the tax is a certain percentage of the price of the goods sold. They have a general character, in that they are imposed on all sales although there are some tax exemptions, (e.g. on basic foodstuffs, drugs on medical prescriptions). But always there exist at least two tax rates.

The sale taxes could be:

- Single-stage
- Multi-stage

The single-stage taxes are imposed on a particular product only once at a certain stage of processing. This tax can be further divided by the stages at which the tax is paid as follows:

- Tax on retail sales
- Tax on wholesale
- Manufacture sales tax imposed on the transfer of goods between the manufacturer and wholesaler

In these cases the tax base is formed by the gross turnover without deducting the inputs at the given stage of processing.

The sales taxes imposed at each stage of processing are:

- Duplicate
- Non-Duplicate

The duplicative quality of the tax emerges from the taxation of products with each of the manufacturers if the manufacturers cannot deduct the value of the inputs from the tax base. The number of duplicates depends on the number of the taxed manufacturers. It is common that with one commodity there are products with varied numbers of duplicates despite the fact that different commodities have a different number of processing stages. This feature is considered the main drawback of the duplicate taxes.

For the above reason the multi-stage taxes, so called value added taxes eliminating the duplicates were introduced. The characteristic feature of the value added tax is that the inputs are not further taxed and that it is only the value added by further processing with the given payer. If imported, it is only the value of the

imported goods or services that is subject to this tax. The importer's inputs are not included in the taxation.

The added value is the contribution of a manufacturer or service provider to the value of the goods and services at the given stage. From an economic point of view the added value corresponds to the sum of costs from the used production factor which are:

- wages and salaries,
- profits,
- rents,
- interests.

In each firm participating in the manufacture of the taxable goods or in providing the taxable service just this cost amount is added. Nevertheless, it is very difficult to find out the added value by the sum of individual components; since it would be necessary to determine the amount of the concerned profit, salaries etc. The most difficult are, however, the problems with possible exemptions or various rates on the output in one company (where, in addition, the added value components must be divided by their relations to individual products and services). Let us imagine manufacturers of two different products: Product "A" with the value added tax rate of  $x\%$  and product "B" with the value added tax rate of  $y\%$ . If the total profit is "Z" and total salaries "M" how much of these amounts is subject to rate "x" and how much to rate "y"? One worker can work on the manufacture of both the products simultaneously. Similarly, the profit is indivisible.

All the countries using the value added tax apply a so called indirect subtraction method. The method identifies the added value as a difference between outputs ( $o$ ) and inputs ( $i$ ) (materials, semi-products, services used, investments) of the taxpayer. The tax is determined indirectly by subtracting the total input tax per certain time period from the total output tax.

The tax on inputs is deducted by the payer on the basis of the confirmation he requests from his suppliers. The suppliers confirms the tax amount they have already paid on their outputs.

The value added tax has a great advantage: the tax share in the final consumer price is always the same provided that the rates are the same. This is not valid with the duplicate tax, the product tax or the wholesales turnover tax. The duplicate tax depends on the number of the processing stages, the more stages the more double-taxations of the base that has already been taxed.

With the one-stage taxes (except for the tax on retail sales) it is also valid that the tax proportion in the final price is different with different products and can even be different with the same product.

The consumer taxes (called “excise taxes”) have a selective character. They affect only some kinds of select goods (e.g. tobacco, alcoholic beverages and others). These taxes are specific, the tax base is expressed by pieces or other physical units (liters, metric tons, etc.).

They can, however, also be “ad valorem” when they are effective as selective sales taxes.

The consumption taxes are effective as the “in rem” taxes by being imposed indirectly since no property, income and social positions of taxpayers can be included. Thus they differ from the personal taxes imposed with regard to the taxpayer’s ability to pay the tax. The fairness of the impact of the sales and consumption taxes can be ensured only indirectly - by using various rates and exemptions with various goods according to the conditions and situations of the taxpayers who most often buy the given goods.

#### *Characteristics of the Value Added Tax*

The greatest change in the recent decades is the mass introduction of the value added tax in the countries with developed market economy and in the post-communist countries. The European Union committee has proclaimed the value added tax as one of necessary preconditions of the European Union membership. This influences those countries which aspire to become members and boosts the advocates of this tax in other countries. Since 1967, when the VAT was introduced in France, this form of tax has been enacted in many countries worldwide.

In the OECD countries the value added tax has not yet been introduced in the USA, Australia and in Switzerland. Apart from other reasons, the decisive factors in these federal countries are lower governmental levels which are afraid of a potentially regressive tax. This tax would also weaken the lower-level budgets. It would disrupt the balance of responsibilities between the governmental levels which is not in the interest of the lower levels. In another federal country, Canada, a compromise has been accepted. The tax was introduced but at a very low rate (7%). Also Japan has an insignificant rate (3%). Another large group of countries introducing the value added tax in the late 1980s and early 1990s were the post-communist countries after they cancelled the turnover taxes at that time. The first country to introduce the VAT was Hungary in 1988. As for the less developed countries, only a few of them consider introducing the VAT and in several of them the value added tax has already been introduced. A significant counter argument in these countries is the problem of a demanding and complicated paper handling process connected with this tax and the lack of skilled and qualified accountants to administer the tax.

There are many arguments for and against the value added tax but at the present time the arguments supporting this tax in the world prevail. They are:

- Neutrality
- A possibility of taxing services
- Advantages for international trade
- Resistance against tax evasions
- Reliability of revenues for the government

The tax is more neutral between the choice of taxing consumers and manufacturers and allows taxation of households with the exclusion of production inputs. The tax allows the final tax proportion in the price of goods to be always the same and it does not discriminate the commodities with a higher stage of processing or with different proportions of the consumer price in the wholesale or production price. The tax recovery at the input eliminates any further possibilities of further taxation of the turnover which has already been taxed, so called “taxe occulte”. It should be noted that not in all cases is the double taxation eliminated in full, especially if the taxpayer is unable to submit the taxation at input. In some special cases the law itself demands the “taxe occulte”. This often happens with some limited items at input, e.g. with the limits on prestige. Further distortions are caused by the impossibility of deducting the tax in connection with operating cars of business.

The value added tax considerably increases the effectiveness of the services taxation since in this connection there exists a bigger possibility of tax evasions. The one-stage taxes require distinguishing users of services. It is necessary to distinguish whether the given service is a final consumption or a means of further production. This makes the tax evasion easier. With the value added tax the problem of difference use between the final seller and the consumer does not arise. For example, when selling public transport tickets, the seller is not able to check whether the ride is for private purposes or for business in order to sell tickets with or without the tax.

The incorporation of services into taxation allows extending the tax base and to increase the tax revenue or to use lower rates than with the one-stage turnover taxes. The value added tax fails with those services where the identification of the value added tax itself is complicated (e.g. primary financial services which are not therefore subject to tax).

Especially in the recent decades the importance of limiting tax distortions in connection with the more intensive international trade has increased. The tax technique allows tax-free exports so that these distortions are eliminated to the highest possible extent. This is one of the reasons why the tax should be introduced



in those countries which do intensive business with the countries with this tax. Using the turnover taxes, whether the single-stage or the multi-stage, the determination of an exact tax amount of a given order is almost impossible beyond the state border and must be estimated. With the duplicate tax for example, it is impossible to determine the real tax rate of the goods if the number of processors are different with the same product.

An important positive feature of the value added tax is providing a higher protection from tax evasions. The system of tax refunds based on the proper evidence of the tax paid from inputs decreases the tax evasions since the payer is a mere link in the chain in which everybody is interested in confirmation of having paid the tax in the price of goods. The suppliers are aware of the existence of documents on their inputs and outputs accessible to the tax office. Even in the situation when the tax offices have lots of work and are unable to check all such documents, the taxpayers cannot afford to evade taxes since a potential control still exists. In spite of that, in some countries the tax has been ineffective against evasions when deducting it on exports.<sup>8</sup>

The argument for preventing tax evasions is less respected in the countries with insignificant tax avoidance and evasions such as Switzerland. While the value added tax is not a panacea for the lack of the taxpayers' discipline; A. Tait estimates the VAT evasions in the U.K. amount to approximately 2 to 4% of the revenues while in Italy the evasions are estimated up to 40%. (Tait, 1988)

The value added tax is generally thought to be able to obtain higher revenues from consumption taxation. In many countries the value added tax has been introduced or will soon be introduced for this reason. As for the time of the introduction of the VAT, it corresponds with efforts of the governments to decrease the disproportionate income tax burden. The value added tax seems to be a good change. The tax extends the consumption taxation of services, decreases distortions in the choice of consumers and is resistant against evasions which classifies it among the very remunerative indirect taxes. Comparison shows that where the value added tax was introduced to replace another turnover tax the revenues have increased. This is valid also for the countries of Central Europe.

The value added tax has some disadvantages if compared with the classic turnover taxes. The most important arguments against the value added tax which are strong enough to prevent the tax from being introduced in some countries are:

- The transition to the value added tax is demanding
- The tax is expensive for the paper handling necessary
- Fears of increasing inflation

The transition to the value added tax is politically and technically very demanding and in the countries with the stabilized economy strong political pressures are necessary to put it through. The change is big and the expenses are high. It is necessary to overcome the natural resistance of the public to any novelties, to carry out registration of the tax subjects and to train them how the value added tax should be used. Another important problem concerns the technical method of including inputs with formerly purchased production equipment, with continuous services (e.g. electricity). Some problems also stem from contractual prices with formerly concluded contracts.

If the tax is to function well, the paper handling must be very demanding both on the payer's side and on the government side. The demands are tied up with two factors. The first factor is the great number of payers, the second is the complexity of accounting. The number of payers is higher if compared with the one-stage turnover taxes. The legislation therefore enables smaller companies to gain some reliefs or even to be exempted from the tax or to utilize some simplifying processes (e.g. longer taxation period, simpler documents, etc.).

Some of the opponents point out that there is a real danger of the growth of inflation after the value added tax is introduced. This argument is supported by the increase of the tax revenue if compared with the turnover tax and by the threat of the increase of consumer prices. The tax performs in different ways in different countries although the threat of inflation does not seem to be very well-founded. The inflation pressures resulting from the introduction of the value added tax are caused by the increase of the tax revenue rather than from the tax itself.

In the Czech Republic in 1993, when the tax was introduced, the total growth of consumer prices of approximately 20.8% occurred. Of this, half is attributed to the single increase in prices caused by the tax itself and is not considered to be an inflation growth. Approximately 10% inflation is then attributed to the other factors including, of course, the inflation effect of the value added tax. In 1994 the inflation rate was again 10%.

The arguments for and against the value added tax are still being discussed and the opinions of economists and politicians are not always unanimous. The force of arguments differ from country to country. At the present time, the discussion concerning the replacing of the turnover tax by the value added tax takes place in many countries, so the list of the countries with this tax is not complete. For the time being, however, it should be noted that where the value added tax was once introduced alternative general-purpose consumption taxes were never reintroduced.

*Value Added Tax Rates*

There are only a few countries using a single tax rate although this system is comparatively less demanding than a system with two or more rates. The reasons for the existence of two rates can be purely practical, e.g. services which offer a better opportunity for tax evasions have usually a lower rate. The lower rate is, in a way, endured by service providers, and they are willing to pay it while the higher rate would encourage them to find ways of tax evasions.

A more important reason for having more rates is the effort to decrease the regressiveness of the tax impact. That is the reason why the lower rates are imposed on goods of basic need and services. In some countries there are even higher rates in connection with luxury goods.

Table 9. summarizes the tax rates in the OECD countries and in Slovakia. Individual differences are sometimes considerable although in the European Union countries low rates do not occur any more (the minimum basic rate is 15%). The differences among the European Union countries have decreased because of the harmonization efforts and this trend has influenced other (especially European) countries. The latest development of the value added tax policy has been most influenced by the harmonization within the European Union.

Table 9: VAT rates 1993

	zero rates*	lower rates	standard rates
OECD **	no	x	17.5
France	no	5.5	18.6
Germany	no	7	15
United Kingdom	yes	-	17.5
Czech Republic (1997)	no	5	22
Hungary (1995)	yes	12	25
Poland (1997)	no	7	22
Slovakia (1995)	no	5	23

\* zero rates are in fact applied in all countries on exports

\*\* unweighted average

Sources: various sources

*Selective Consumption Taxes*

The consumption taxes levied upon select kinds of goods (excises) rank among the oldest taxes. In the course of centuries they went through considerable changes as for the subject matter of the taxes and rates. In the present time these taxes are imposed on several kinds of products and services which are taxed at very high rates on mostly per units of production. The principal consumption taxes are on tobacco, alcoholic beverages, and gasoline. The high rates along with the low elasticity of consumption make these taxes very remunerative for the public budget. In the OECD countries the revenue amounts to an average of 23% of all consumption taxes.

The consumption tax revenue is even multiplied by the technique of applying the value added tax since the general-purpose consumption taxes are calculated from the price including the value added tax.

At the present time two reasons are mentioned to support the taxation of the select kinds of goods and services. They are:

- Discouraging people from “harmful consumption”
- Flow of money to the state budget

The explicit opinion expresses the “educational effect” discouraging people from “harmful” habits (a “sin” tax) or a kind of “fine”, “penalty” or “surcharge” to enable the government to cover the increased expenditures connected with treatment of ill smokers, etc.

Implicitly, the tax is considered to be very remunerative and stable enabling the government to hold the level of its expenditures. The mentioned arguments, however, are in mutual contradiction. If the tax discourages people from the consumption of the taxed goods it will not be remunerative and stable. The moderation of both the features is a matter of elasticity of the demand. Various researches show that the demand for alcohol and tobacco is not quite inflexible. Although the tax can partly discourage the consumers of tobacco and alcohol, the rates that are too high can reduce the public budget. As long as the elasticity value is less than one, tax revenues should increase as the tax is increased.

Regardless their profitability, opinions on these taxes differ. There are two problematic consequences that are mostly stressed:

- The distortion action of the selective tax resulting in ineffective allocation of resources,
- The regressive impact of the tax or relatively (sometimes even absolutely) higher tax burden for the taxpayers with lower incomes.

The selective consumption tax changes relative prices of taxed or non-taxed goods which in the case of the non-zero elasticity of the demand will cause substitution of consumers and manufacturers. The conditions are the non-zero elasticities. The higher the elasticities the larger the substitution and inefficiency. The substitution effect of the consumption taxes can also have a remedial action by decreasing over consumption and by not including external expenses into prices of products (e.g. the expenses for additional health care caused by consuming alcohol and tobacco, for the necessity to build and maintain the road network, for police services). In these cases the tax performs as the Pigouvian tax and as such it increases the efficiency of the tax system close to the optimum.

The regressive incidence of the selective consumption taxes in the present tax systems results from the fact that the tobacco and alcohol consumption is not proportional to incomes of taxpayers. In some countries, the absolute consumption of tobacco is even higher with the poorest social strata. In this way the high selective consumption taxes can affect the overall fairness of the tax system.

The selective consumption taxes imposed as unit taxes are not considered inflationary. With the price increase the nominal value of the tax remains constant which is actually an anti-inflation effect unlike the "ad valorem" taxes where the inflation growth impacts also the tax itself.

Besides the most common taxes in the world, which are the taxes on tobacco, alcoholic beverages and carbohydrate fuels and lubricants, there are also further traditional taxes in some countries such as the tax on sugar and sparkling beverages, cement, games; as well as some non-traditional taxes like tax on textiles, dyes and pigments, cosmetics, insurance, and tourism. In the less developed countries luxury goods are also taxed.

The selective consumption taxes (excises) as well as the value added tax are harmonised in the European Union countries since they affect the prices and can become a hindrance to the free trade between the countries of the Union. The original rates were considerably different in each of the European Union countries as a consequence of the business policy and national conventions. For example, wine rates are different in the countries of production (Greece, Portugal, Italy) where wine is one of the most common beverages and the tax has a regressive trend, compared to the countries of consumption where wine is consumed more often by middle and higher strata of population. It is also interesting that as late as in 1992 the differences of the rates on French cognac and Scotch whisky caused a postponement in concluding the integration agreements.

*Tax Revenues*

The importance of the sales and consumption taxes for the economy and public budgets is obvious from the tax quota (the share of the tax in the GDP) and from their share in the total tax revenues. If we use OECD statistics, we must highlight the “5000 GST (Goods and Service Tax)”. This group includes general taxes (sales taxes and the value added tax) and so called “specific” taxes on select goods and services. According to the classification, such taxes are import and export customs duties and taxes on investment goods. The latter taxes formed about 6% of the “5000” group in 1992. Soon afterwards their proportion in this group significantly decreased. In the OECD countries the general taxes outweigh the excises and the other taxes on goods and services and are roughly fifty percent higher as shown in Table 10. There can be considerable differences among individual countries. The highest dispersion of the general tax ratio and the select tax ratio is in the economies in the post-communist countries. Some of them (e.g. Ukraine) have an unusually high value added tax proportion.

Table 10 : Tax receipts as percentage of 5000 (1992)

	general taxes	taxes on specific goods and services
OECD* (1992)	56.2	37.5
Czech Republic (1995)	51.6	40.0
Poland (1994)**	76.5	n.a.
Hungary (1994)**	38.1	n.a.
Russia (1994)**	58.4	n.a.
Ukraine (1995)**	89.4	9.4

\*unweighted average

\*\*as a percentage of indirect taxes

Sources: OECD Revenue Statistics

Ukraine in Numbers, 1995

Dmitriev-Kartsev (1995)

Czech Republic Ministry of Finance

The consumption taxation represents one of the most significant sources for public budgets (see Table 11). The share of these taxes in the total revenue ranged from approximately 13% to approximately 47% in the OECD countries in 1992. The mentioned taxes then represent 4 to about 17% of the GDP. The proportion of the consumption taxes is relatively higher in the countries where generally

lower incomes are attained and where the direct taxation is lower (e.g. Portugal, Greece, Hungary, and Poland).

Table 11: Consumption taxes (5100) as percentage of GDP and of total taxation

	as percentage of GDP	a percentage of total taxes
OECD *	11.0	28.3
Germany	10.4	26.7
United Kingdom	11.3	33.7
USA	4.5	15.0
Czech Republic(1994)	14.4	35,5
Hungary (1994)	16,5	40,2
Poland (1994)	15,4	36,2

\* unweighted average

Source: OECD Revenue Statistics

Czech Republic Ministry of Finance

### Taxes on Property

In ancient times as well as the Middle Ages the taxes on property constituted a substantial part of direct taxation (especially the tax on land), but later they gradually made way for the other direct taxes. Today they can hardly be compared with the direct income and profit taxes and represent only a complementary source of incomes for state budgets. Among the property taxes the tax on real estates is often one of the most important sources of financing at the local level.

Maintaining taxes on property in the current tax system is considered to be a condition of fair taxation according to the ability-to-pay principle since property ownership is highly coordinated with the principal attributes of solvency ,i.e. the income and consumption. Taking into consideration that properties, especially real estate, can hardly evade taxation, the property taxes serve as a factor to decrease the inequity between the taxpayers paying the income taxes properly and those who evade taxes in another way.

In the property tax group (OECD classification 4000) there are taxes paid regularly (usually every year) like:

- The net wealth tax
- The real estate tax

Another group are the taxes paid irregularly, i.e. on property assignments during the owners' life or after death. They are:

- Inheritance tax
- Gift tax

These taxes are sometimes called “capital transfer taxes” since they apply to transfers without exemptions or deductions. Besides, transfers with considerations (transactions) are taxed as well. They are:

- The real estate transfer taxes.

With all the above taxes the base is calculated from the state of the given property.

In this connection, a special attention should be paid to the function of the taxes on capital gains. Capital gains represent the difference between the price of the capital acquisition (real property, securities, commercial instruments and others) and the price on its sale. Therefore, the subject matter of the taxes on capital gains is not the condition, but the increase in the capital during its possession. The capital gain itself is a flow quantity representing the income of the given taxpayer and in some countries they are included in the income tax base.

#### *Characteristics of the Taxes*

The property taxes take into consideration the solvency of the taxpayers and contribute to the increase of the horizontal and vertical fairness. Their importance, however, is not too high at present since the overall fairness of the tax system (especially its redistribution character) results from the structure of the income and consumption taxes.

Protagonists of the property taxes point out their following positive features:

- The property taxes consider the additional payment capacity resulting from the possession of property and increase the progressiveness of the tax system
- The property taxes do not have disincentive effects unlike the income taxes
- The property taxes make taxpayers utilize their properties in a more rational way
- The property taxes correspond to the benefit principle

Most of the property taxes paid by individuals have a progressive impact. The property taxes are paid also by legal persons and by business. These persons are allowed to shift a part of the tax to the consumer through prices and this tax burden will then be regressive.



Theoretically, the need for the property taxation actually does not exist because if the income expresses the taxpayers' solvency and if the income tax includes all forms of increased ability to satisfy the taxpayers' needs, the property taxes are a mere duplicity. It is also possible to extract the relation between the property tax and the income tax. In theory, with any given interest rate there exists an equivalent property tax rate for any income tax rate. In practice, however, not all incomes are subject to tax. Moreover, the income tax is never perfect and there are problems with the property tax arising from the accumulation of the income of a owner taxpayer which may be different from the current renter of the property. All these are reasons leading to the support of the property tax existence.

It is often emphasized that the income taxes which immediately reduce the yields from work have an undesirable disincentive effect while the property taxes affecting the same accumulated incomes have a minimum decelerating effect on the economic activity and influence the taxpayers' actions only indirectly.

The property taxes encourage proprietors to treat their properties in a more rational and more effective way. It is because they are paid from the current income and the proprietor must consider whether he unnecessarily "cuts off" the property as it is being used. Such a taxpayer can decide to lease the property instead of leaving it unexploited. In case of inheritance or gift the tax stimulates the inheritor or the gift receiver to a higher responsibility to the property he has no experience in managing.

With the real estate taxes paid to local budgets the argument is the benefit principle. The real estate owners pay by these taxes for the infrastructure services in the location of the real estate. Public services increase the value of real estates and the real estate owners pay for these services in an equivalent amount.

At the present time the property taxes are of little significance. Apart from the low yields from these taxes, there exists other reasons why their contribution to the fair taxation should not be overestimated:

- They affect property purchased from incomes that have already been taxed,
- The tax can clear out the property base of the taxpayer if they are unable to pay the tax

There is an inequality in the taxation of the movable and immovable property

The taxation of property can sometimes be considered unfair since any property originates from the accumulated incomes that were once taxed. It does not matter that they were incomes of the present owner, former owner or donor.

The criticism concerns especially inheritance and gift taxes. On this point the opinions are different. The protagonists of the inheritance and gift taxes consider

the property acquired by inheritance or donation to be acquired unfairly and call for its reduction by the tax. The opponents again assert that it is not fair to affect those who have saved up as well as their children who indirectly participated in the savings. The first opinion can be observed on the left side of the political spectrum. An opposite opinion corresponds to the views of the political right wing.

The property taxes are paid without any respect of whether the property generates any profit (e.g. rent) or not. Therefore, some taxpayers with lower incomes can get into difficulties and sometimes they are forced to renounce a part of the property to be able to pay the tax.

For practical reasons there is an inequality in the taxation of movable and immovable properties in all countries. The movable properties are often exempted from tax or the taxation does not affect all their forms while the immovable properties are taxed in all cases.

The property taxes are sometimes reproached for their trend to affect savings since they tax their accumulated wealth. It is because people do not realize that while they use their incomes for consumption they are paying the indirect consumption tax. They are, however, aware of the necessity to pay the tax on property they have acquired and also of the fact that their incomes in the future will have to be sufficient to pay the property tax.

In connection with the fairness of the property taxes it is useful to distinguish personal taxes from the “in rem” taxes. The property taxes have both these functions. If each object is taxed separately regardless of the overall income or wealth conditions of the taxpayer, the tax is “in rem”. This method prevails at the present time, especially with the real estate tax. Some of the property taxes have a form of personal taxes if they affect the whole net value of the taxpayer’s property or if all gifts and inheritances are received by one taxpayer. The taxation by the progressive rate then corresponds to the idea of fair taxation based on the taxpayer’s solvency.

In view of the fact that individual kinds of property taxes have different bases, rates and further technical and economic aspects, we will be discussing each of them separately.

### **Taxes on Net Wealth**

The taxes on net wealth are imposed on property assets, tangible and intangible, reduced by the liabilities related to these assets. The subject matters of the tax can be individuals and corporations. We will, however, concentrate on the taxes paid

by individuals since corporations include these taxes into their consideration of the profit taxation.

The subject matter of the taxes on net wealth is the condition of property but it is paid at the expense of the current incomes of taxpayers. While some kinds of properties generate incomes (e.g. commercial papers) from which the tax can be paid (after the income being taxed by the income tax) other kinds of properties (if they remain in the property of the owner) do not generate any income (e.g. works of art). In the latter case there is a problem of what to pay the tax from. It is quite obvious that the taxes on net wealth tend to stimulate taxpayers to acquire properties in a certain form. Thus the tax creates distortion and impairs the efficiency of the source although some economists consider this function of the tax on net wealth to be positive since the taxpayers transfer the wealth to “active” forms.

The taxes on net wealth exist only in a few OECD countries.

This tax also supports the income tax and supplements its yields in a certain way. People, being aware of their duties to declare the property to tax consider possible income tax evasions more carefully. The taxpayer may have difficulty explaining how they are able to pay their property taxes while reporting a small amount of income. In this way, information from one tax helps to administer the other tax. At the present time, the tax administration using detailed accounting methods and computers is able to limit the tax evasions.

To ensure that the excess taxation does not affect the taxpayer’s property there is a ceiling for combined taxation of the income tax and tax on net wealth. In some countries the ceiling is a proportion of the taxes on incomes and amounts to 70% - 80%. In most countries a relief based on family status is granted.

The tax on net wealth is usually paid every year, but may be paid once every two or three years on the basis of the taxpayer’s return.

### **Real Estate Taxes**

The subject matter of the real estate tax are land and buildings (houses). The history of the real estate tax is very long because something so visible and immovable (the owner of which is always known) could not escape fiscal attention of any sovereign even in the ancient times. In feudalism, the land property represented the principal part of the held wealth and best expressed the proprietor’s solvency. The property taxation was not only remunerative but also fair.

Today, real estate taxes provides the revenue for local budgets and their existence is derived from the benefit principle. It has already been mentioned that through this tax the taxpayers provide an equivalent compensation to the municipality for local services which increase the price of the given real estate.

The suitability of this tax as a subject of local taxation is obvious - all local people know who owns which real estate, the real estate itself is immovable, and cannot escape taxation by being transferred to the administration of another municipality. The services for the real estate owners are also provided by the decision of the local government.

The real estate taxes form a very diverse proportion in the local incomes. The highest proportion is in the USA - 75%.

### **Capital Transfer Taxes**

The Capital Transfer Taxes do not have a regular character because they apply to property transfers without deductions or exemptions (movable and immovable) among taxpayers. These transfers can occur during the life (gift taxes) or upon the death (inheritance taxes or estate duties) of property owner. The difference between inheritance taxes and estate duties is based on different subject matters of the tax. While the inheritance is understood to be the property transferred to one surviving dependent, the estate (hereditament) is understood to be the property devised by one deceased. The tax is paid from one of the above mentioned values. The inheritance tax is paid by the inheritor from his share, the hereditament tax is paid from the hereditament as such. The inheritance tax can therefore have a character of a personal tax. The estate duties are taxes "in rem". Distinguishing the taxes can be practically important in introducing progressive taxes.

The gift taxes can (like the inheritance taxes) consist of some elements of personal taxation (e.g. if the progressive rate is applied to a sum of gifts with one receiver). In practice compromises are used: e.g. in the Czech Republic the gifts for taxation purposes (with one taxpayer from one giver) are added up per two calendar years (the inheritance tax is not cumulative).

There is a close relation between the inheritance and gift taxes. For most of the OECD countries a common tax rate schedule for both taxes is typical. It is because the fundamental principle of the property transfer by inheritance and giving is the same: the property passes to another person's possession without consideration, no matter if the creator of the property is still alive or not. If the taxes affected a different property or if the gift tax did not exist, there would be considerable tax evasions by masking the real nature of the transfer by means of fictitious deeds of covenant.

The inheritance and gift taxes are for the central or federal budget; except for Switzerland where they flow to canton budgets. Their importance, however, is insignificant.

A higher proportion of the countries have the taxes upon the death of the owner. They exist in all the OECD countries; except for Australia and Canada where these taxes were cancelled at the end of the 1980s.

In connection with the capital transfer taxes (to simplify the paperwork) non-taxable minimums are used. The non-taxable minimum is necessary also because there are small inheritances and small gifts which are not declared anyway and the possible taxes on them would be so low that they would not contribute to dispersing the wealth among the society members.

The tax reliefs concern some persons who acquire the property (e.g. charitable organizations are exempted from the gift tax) and the persons the property is transferred from ( the persons in blood relation have lower rates).

### *Tax Revenue*

The property tax revenues and their structure in the OECD countries are shown in Table 12.

Table 12: Taxes on property as percentage of GDP and of total taxation in 1993

	as percentage of GDP	as percentage of total taxation
OECD*	2.1	5.7
Germany	1.1	2.7
United Kingdom	3.6	10.8
USA	3.4	11.3
Czech Republic (1995)	0.6	1.3

\*Unweighted average

Source: OECD Revenue Statistics

Czech Republic Ministry of Finance

The revenues of these taxes amount to only a few percent of the GDP and to maximum 11% of the total revenues (in four OECD countries). Their importance is, however, higher at the local level.

### **Conclusion**

In this chapter we have examined the most common forms of taxation and their characteristics and use in meeting public revenue requirements. The imaginative

nature of governments in devising and enacting taxes is a common thread throughout history. There has been a certain evolution over the centuries from a property and wealth based tax system to an indirect and income related base.

The VAT is widely used throughout the world while the property tax is less widely used as a major source of revenue. Tax systems have become increasingly complex over the years and the legal methods of tax avoidance have multiplied. In many countries the idea of a single tax system based on a flat or single rate has received attention. However, changing tax systems is very difficult politically since people tend to get used to their tax situation and resist any potential changes.

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- 1 OECD i.e. Organisation for Economic Co-operation and Development was founded in 1960 by 20 developed countries. In 1996 it had 28 member countries, included Czech Republic, Poland and Hungary.
  - 2 In Australia however, taxpayers are subject to 1.4% of the so called “Medical Levy” intended for the financing of basic medical and hospital care.
  - 3 The personal income tax was introduced for the first time in the U.K. in 1799 to finance the napoleonic wars. During the 19th century and at the beginning of the 20th century this tax was introduced also in other countries.
  - 4 But also progressive local taxes are levied.
  - 5 If there is a possibility of deducting interests on certain kinds of consumer credits from the tax base, it will be the credit providers and suppliers who will have increased profits.
  - 6 PAYE i.e. Pay As You Earn is a form of tax collection based on withholding the tax at source.
  - 7 The fact that part of the personal income tax flows to local budgets does not mean that the tax should be considered as “local”. Characteristic is that the level and collection of the tax are the same for taxpayers nationwide.
  - 8 These kinds of evasions proliferate especially in new market economies. In China for example the mass value added tax evasions amounting to US \$513 million in 1994 resulted in taking an unprecedented measure - the capital punishment not only for payers but also for tax officers if a higher evasion is found out. (MF Dnes, Oct. 31, 1995).
  - 9 The VAT is supposed to be automatically shifted forward so that it is finally paid by the consumer. This is not common with the turnover tax. The turnover taxes are sometimes ranked among direct taxes, i.e. it should affect traders

## Taxation and Revenue Sources

and therefore the automatic shift into prices is not presupposed. That is why in the above examples the final consumer prices are different

### Case Study: The Technique of the General-Purpose Consumption Taxes

*Kvĕta Kubátová*

The sales and turnover taxes are imposed on sales and turnovers at various stages of the production and sale. The movement of the product from the beginning of the production process to the final consumer can be shown as follows:

Manufacturer ----- Wholesaler ----- Retailer ----- Consumer  
                                 A                                  B                                  C

The A, B, C points show where and on which transaction the tax may be imposed. This can be done by two different ways: the tax is either imposed only on one stage of the process (i.e. only in one of the A through C points - the single-stage turnover tax) or the tax is imposed in all the points so that it is paid upon each transfer of goods (the multi-stage tax).

#### **A) Single-stage Tax**

At the ‘‘A’’ point the tax is paid upon dispatching the product from the manufacturer (so called ‘‘manufacturer sales tax’’). At the ‘‘B’’ point the product is taxed when transferred to retailers (so called ‘‘wholesale tax’’), and at the ‘‘C’’ point the product is taxed when sold to final customers (‘‘retail tax’’). The taxes in the ‘‘A’’ and ‘‘B’’ points are not neutral since the proportion between the manufacturers’, wholesalers’ and retailers’ price differs. For that reason a tax of the same rate represents the different ‘‘tax/final price’’ proportion (so called ‘‘effective tax rate’’). This proportion can even be different with the same products sold at the same consumer price as shown on the example of the 20% wholesale tax:

Sample	Wholesale Price	Tax	Retail Margin	Final Price	Effective Rate = Tax/Retail Price
X	100	20	50	150	20/150 = 13.33
Y	110	22	40	150	22/150 = 14.67

#### **B) Multi-stage Tax**

##### *Turnover Tax*

The multi-stage tax is imposed in all the three points (A,B,C). If the turnover tax is applied without subtracting inputs, it has a duplicate effect since the



turnovers taxed with one seller form a part of the second seller’s price and are taxed again. The number of duplications depends on the number of processors and, again, the effective tax rate can be different with different products of the same kind. This system stimulates the vertical concentration by having the whole production process within one integrated company and is therefore far from neutral. This can be shown on an example of a table manufacture which is provided by three firms. The turnover tax is 5%.

Process Stage	Output (Price)	Tax on Output
Saw-mill	5000	250
Joiner	25000	1250
Store	30000	1500
<b>TOTAL</b>	<b>x</b>	<b>3000</b>

The effective tax rate in this particular case is  $3000/30000$ , i.e. 10%. If there were more duplications the effective rate would grow. It is obvious that this turnover tax must have a very low rate.

*Value Added Tax*

*Additive (Income) Method*

The value added tax is a multi-stage tax which eliminates the undesirable duplication of the tax. At each stage of processing only the part of the price representing the added value is subject to tax. The tax base is the output after subtracting inputs (i.e. purchased raw materials, other materials and services). Economically, the value added tax is defined as the sum of salaries, profits, interests, and rents. The value added tax of the mentioned additive type is called the “income-type value added tax”. To impose the tax on the sum with each firm is impractical since it would be necessary to define profits and the other parts of the added value. Nevertheless, from time to time there are discussions about the introduction of this type of tax which should possibly replace the corporation income tax.

The following example shows the way this tax would be declared and paid:

A firm manufactures tables using only wood and one machine. It has manufactured and sold 50 tables per 500 crowns in a month. He has used 80 units of wood and paid salaries in the amount of 5,000 crowns. The firm had purchased 100 units of wood at the average price of 100 crowns and in the given month

purchased a machine at the price of 10,000 crowns (depreciations are 100). What will be the amount of the income-type value added tax if the rate is 20%?

Added value ... salaries = 5,000.00

Profit = incomes - material costs - salaries - depreciations =  
 = 25,000 - 8,000 - 5,000 - 100 = 11,900

VAT = 20% of 11,900 = 2,380

*Subtraction Method (consumption-type tax)*

In practice the value added tax is actually determined by the subtraction method since the added value is the difference between outputs and inputs. Mathematically, the result is the same. The only difference is that with the income-type tax the investment property is gradually subtracted by means of depreciations while with the subtraction consumption-type tax the whole investment property is subtracted on its acquisition. Another difference can arise in the firm which (under the accounting laws) includes the material expenditures (to calculate profits) not upon the purchase but upon the use of the materials during the production process. Nevertheless both taxes come to the same balance over time.

In the practice, so called “indirect subtraction method” is used. This method taxes the differences between outputs and inputs indirectly:

Tax on output - Tax on input = VAT

(this is identical to the tax on the difference between the output and input)

The value added tax for the mentioned joiner is calculated as follows:

Tax on output = 20% of 25,000 = 5,000

Tax on input = 20% of 20,000 (purchase of wood, 10,000 plus machine, 10,000) = 4,000

Remainder (VAT) = 1,000

Process Stage	Output (price) without Tax	Tax on Output	Price with Tax	Tax on Input	Tax to Be Paid (Remainder)
Saw-mill	5,000	1,000	6,000	-	1,000
Joiner	25,000	5,000	30,000	1,000	4,000
Store	30,000	6,000	36,000	5,000	1,000
<b>TOTAL</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>6,000</b>

If the tax on inputs is subtracted at each of the process stages when calculating the tax, the effective tax rate will always be equal to the statutory rate. This makes the tax neutral as shown on the last example:

The final consumer price is 36,000 crowns tax included. Taking into consideration that all the value added tax payers have altogether 6,000 crowns of tax, the effective tax rate is  $6,000/36,000 = 16.67\%$ . This tax rate will be, at the same statutory VAT rate of 20% (without tax), the same with all products<sup>9</sup>.

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**CHAPTER 6: CHANGING TAX SYSTEMS**

*Alena Vaněurová*

National tax systems are living organisms subject to continual evolution. The changes may be necessitated by impacts outside the economy. It is often stated that the increasing tax share (especially income tax shares) of the gross national product is highly affected by armed conflicts. Threats of wars or during wars the population is well-disposed towards the appropriate increase of the tax burden necessary for financing the national defense. After the end of the conflict it often happens that the tax burden decreases but not to the original level without protest from the population because it is accustomed to the much higher taxes in the past years.

The development of tax systems is a long history and some general trends can be noticed. In the Middle Ages, head taxes and indirect excise taxes prevailed. In the past century, income taxes were slowly introduced. After World War I, a relatively balanced tax system began to form in individual countries. As a new phenomenon, social security contributions along with payroll taxes began to appear.

A characteristic feature of the 1960's were income taxes which became an important part of the tax policy in the majority of countries. This was due to their flexibility and possibility of differentiation according to the economic and social position of the individual. The tax progression was usually very steep and was presented as one of the important instruments of the welfare-state policy. In the 1970's, it came to a new realization. It turned out that the high tax progression is also closely connected with disincentive effects on the economic efforts of the individual. The problems with tax avoidance became more important. The tax avoidance is made possible because of the extensive tax-exemption systems (concerning certain kinds of incomes) and because of exploitation rather than utilization of deductions. It was shown in practice that a higher tax rate may not make higher tax revenue.

Consequently, in the 1970's, considerations on limiting tax progression and extending tax bases began to grow. These considerations were incorporated into tax systems in the early 1980's. In some countries, these changes were accompanied with the decrease of tax quotas, in other countries with the strengthening of other budget incomes, especially the excise taxes. These are less visible, and have less affect on economic behavior.

In the area of indirect taxes, the most significant trend of the post World War II period was the introduction of the value added tax whether as single-lump-sum

taxes (collected only at a certain stage of processing goods) or multiple taxes (collected from the gross turnover at each stage of processing). The sales tax was replaced in the majority of European countries. These general taxes resulted in placing hopes on a new model of the multistage non-duplicable tax which would not include inputs into the tax bases. These considerations led to introducing the differential type of VAT. An advantage of value added tax is also the possibility to tax not only production and import of goods; but, as well, production of services.

The general consumption tax yield not only exceeds the selective consumption taxes in a considerable way but it is also very significant. The number of commodities burdened with excises generally decreases and the tax rates on selected commodities are generally increasing. Selective consumption taxes are generally accepted positively, because they concentrate on commodities (tobacco, spirits, fuels and so on) for which consumption is not advisable.

Since the 1970s a new phenomenon has appeared in the tax system in European countries: an effort to harmonize them. This process is an essential part of the overall economic integration within the bounds of the European Union. The tax harmonization is currently focused on indirect taxes and agreements on the elimination of double taxation. This process will be discussed more fully.

### **Changing Tax Structure in Transition Economies**

We can demonstrate the different developments in post-Communist countries. In the late 1980s, the communist totalitarian systems in Central and Eastern Europe began to collapse. The enthusiasm for attaining the freedom (both immediately and gradually) was quickly followed by disillusionment in the economic area. The economies in these countries were based on inflexible and non-competitive national enterprises which were in very poor condition. The entire economic policies in individual countries had to face extensive reforms requiring more or less radical interventions into the lives of individuals as well as into the lives of economic institutions.

The whole economic policy toward the civil sector and the state budgets were faced with a great turning point. An extensive reform of the current tax systems had to become an integral part of the overall transition and the reform had to offer a possibility of gradual integration into the European structures. The basic information about the development of the budget revenues in the transition economies is given in the following table.

Table 1:

Revenues of extended governmental sector (in % of GDP) and increase (+) or decrease (-) in GDP in relation to the proceeding year and cumulatively for the whole period

Country	revenues in % of GDP		increase or decrease in GDP		
	1989	1993	1990	1994	1989-1995
Albania	48,0	28,0	-10,0	+9,4	-16,6
Armenia	52,2	17,6	-7,2	+5,3	-59,7
Azerbaijan	22,3	36,0 <sup>b</sup>	-11,7	-22,0	-67,1
Belarus	47,5 <sup>a</sup>	43,6	-3,2	-20,2	-43,0
Bulgaria	59,6	37,4	-9,1	+1,4	-24,7
Croatia	14,9 <sup>a</sup>	20,1	-8,5	+0,8	-50,7
Czech Republic	42,8 <sup>c</sup>	48,5	-3,0	+2,6	-12,0
Slovakia	42,8 <sup>c</sup>	48,1	-2,5	+4,8	-15,9
Estonia	43,0	32,5	-8,1	+6,0	-28,7
Georgia	31,5	2,7	-11,1	-35,0	-83,4
Hungary	59,6	54,1	-3,5	+2,0	-16,3
Kazachstan	40,7	22,3	-0,8	-25,0	-56,5
Kyrgyzstan	38,5	14,2	+3,2	-26,5	-48,2
Lithuania	49,8	25,1	-6,9	+1,7	-58,1
Latvia	31,0	36,7 <sup>b</sup>	-3,4	+1,9	-46,0
Moldova	35,3	12,4	-1,5	-22,1	-50,1
Poland	41,4	45,5	-11,5	2,6	-2,4
Russia	-	35,9	-3,6	-12,0	-50,3
Romania	51,0	30,8	-5,6	+3,5	-28,4
Slovenia	48,9 <sup>d</sup>	49,8	-2,6	+5,0	-11,5
Tajikistan	40,3	27,2	-1,6	-21,4	-65,7
Turkmenistan	32,4	13,4	+1,8	-25,0	-56,5
Ukraine	26,4	42,4	-3,6	-23,7	-58,2
Uzbekistan	35,2	45,0	+1,6	-3,4	-14,5

Source: WEO (1994)

a - year 1991

b - year 1995

c - Czecho-Slovakia

d - year 1990

As shown in the above table, the preconditions in the individual states were very different. The Central European countries were found in a relatively better condition. These economies were never fully isolated from the rest of Europe and had not only a democratic but also an industrial tradition. These countries had a relative abundance of skilled labor. Their position during transition was also facilitated by their geographical location close to the West European countries.



Among these states, the quite specific position was occupied by the German Democratic Republic. The two German countries were quickly transferred into the existing German tax system which, after the reunification underwent only insignificant changes (e.g. increase of the basic VAT rate by one per cent). Certain differences, especially in the field of social security, have survived until today.

On the contrary, the states of the former Soviet Union and Yugoslavia, for instance have been struggling against the problem of political instability and ethnic strife. This is one of the reasons for the enormous decrease of the GDP, for example in Georgia. A further difficulty in these countries is still the lack of reliable and comparable statistical data and verifiable information. Another statistical problem is dividing the statistical data of the whole former Soviet Union.

Similar problems are with the states of the former Yugoslavia. Because of these situations the selection includes only a few new states to provide a general outline. The division of Czechoslovakia into two independent republics, i.e. the Czech Republic and the Slovak Republic, was made in a political/diplomatic way without breaking the economic transition processes. It is interesting to observe both states go their own different ways to the same goal - well-developed market economics.

In spite of the series of fundamental differences, some identical features can be found in the starting bases of the budgetary revenues in the transition economies. It is very important, that virtually in all the states the budget revenues amounted to 30 % to over 50 % of the GDP in the late 1980's. Therefore, one of the important goals of the fiscal policy transition has to be the further development of tax system. These efforts were complicated by high budgetary deficits and unsettled balance of trade (e.g. in Hungary) and by increased demands for budgetary expenditures. The demands for the budget expenditures resulted from the necessity for restructuring and updating the economy and from the need for building a new infrastructure and new information systems (including telecommunications) which was necessary for foreign capital to enter the economies. A great deal of budget expenditures are fixed in the short term on social security transfers. As a result of the pressure for increasing the nominal budgetary revenues, inflation developed in all the countries from the very beginning. The inflation in some countries and in individual years even exceeded 100%. There is another important problem when evaluating the proportion of the budgetary revenues of the GDP. This problem is that during transformation of the economies there was a decrease in the GDP. The decrease was registered in all the states over various periods of time. It follows from the above table that although the overwhelming majority of the states showed inter-yearly increase in the GDP, none of them achieved the real level of

the GDP from the 31st of December, 1989 (which can be considered the starting year of their transitions) until the end of 1994.

It is only natural that the actual increase in the GDP resulted also in the decrease of the real base for obtaining budgetary revenues. The fact that the real budgetary revenues in Poland decreased in 1991 to 59.6% of the revenues in 1987 cannot be explained only by the increase of the proportion of the budgetary revenues on the GDP.

One of the basic steps of the transformation - the privatization of the state property - offered these states a short-term and in some countries a very significant budgetary or quasi-budgetary non-tax source, i.e. the revenues from the sale of state companies and property. This fact could slightly improve the decrease in the tax revenues but it should be noted that the massive decrease in the level of the state property can either limit the future non-tax revenues from the utilization of such property or (on the contrary) to reduce the future pressures on providing funds for loss-making state companies. Another common problem emerging in all the states was the need to change the completely unsatisfactory structure of the budgetary revenues in the transfers from state companies to the national budget. In some states, the proportions of the state companies transfers were over 90% of the budgetary revenues. The non-state sector having a large base in agriculture (in some countries in retail sale and services) was usually subject to an unclear and confused package of income and property taxes. After World War II, these taxes should have helped to support liquidation of the private sector although the liquidation was then carried out by power politics. The tax reforms in the postcommunist countries have to be made in a very short time - within a few years and in coordination with other fundamental changes in the economies. "Tax reform" in this case is not the same as in standard economics. In transformation economics it means establishment new tax system and new tax code without continuity from the previous system. The administrations in individual countries had to face lack of experience with modern tax systems. For that reason they often borrowed or copied tax codes from neighboring countries. An important part of the whole process was also creating a regulating and administrative process for the tax system including the appropriate penalizations for the breach of the tax discipline.

Parallel to the building of the new tax systems it was necessary to establish a network of tax offices along with information and promotional systems for taxpayers. The basic knowledge of tax administrators was not well-developed. The very poor general tax culture required creating relatively simple tax rules. The speed at which the tax reforms had to be made resulted in a series of problems which had to be gradually remedied. This resulted in the confused nature of the tax rules. It was quite common for the rules on determination of the

tax base to be changed several times during one taxation period. This fact led to the uncertainty of the taxpayers and may have motivated them to try some methods of tax evasion.

The tax reforms concentrated on

- General reconstruction of the consumption taxation
- Introduction of the individual income tax
- Unification of the legal entity income tax

Some countries were incorporating the basic taxes into the tax system gradually (e.g. in Poland the individual income tax was enacted in 1990 through 1991 and the VAT in June 1993). Other countries (like the Czech and Slovak Republic) changed the whole tax system on one single date.

### *Taxes on Goods and Services*

A short outline of the evolution of the fundamental budgetary revenues can be started with indirect taxes which were represented by the **turnover tax** on consumption commodities in the majority of countries before the transition. The main purpose of this tax was creating a “cushion” or “buffer” zone between the retail and wholesale prices which were fixed by the government. Taking into consideration that the prices of the imported raw materials were increasing in the 1970s and that the government was proclaiming the stability of the retail prices (especially those of basic goods) the turnover tax revenues were decreasing and a series of commodities had to be subsidized. And so tax yield was satisfied by taxation of several, especially luxurious commodities or goods. It is quite obvious that the change in the consumption taxation was closely connected with the remedy of the price level. The change reflected the formation of the price level. This problem is even more obvious if the thousands of differential tax rates (which were often fixed separately for individual groups of products or for particular products) are considered usually on the base of actual cost production of the main, often monopoly, producer.

Most of the transition countries considered it to be appropriate to introduce the **value added tax** as a general consumption tax. This tax had already been introduced in a series of countries, e.g. in Hungary (1991), Poland, the Czech Republic and Slovakia (1993). Before we study the VAT in a more detailed way, it is necessary to say that another important goal was also increasing the proportion of indirect taxes on the total budgetary revenues because in the former systems the indirect taxes had only a complementary character. In most of the countries, the proportion of the indirect taxes on the GDP was decreasing at first (in connection with the primary decrease of the tax revenues) and after relative stabilization it slowly began to grow. This can be documented in the following table where only some states were selected.

Table 2:  
Turnover tax, value added value tax and excise proceeds in % of GDP

State	1990	1991	1992	1993
Bulgaria	9,0	7,4	6,1	7,6
Czech Republic	18,0 <sup>a</sup>	12,6 <sup>a</sup>	11,5	12,0
Slovakia	18,0 <sup>a</sup>	12,6 <sup>a</sup>	13,4	13,8
Hungary	13,8	13,9	13,6	14,3
Poland	6,3	7,4	9,0	10,6
Romania	11,8	8,3	7,4	5,0
Slovenia	-	10,2	10,7	11,7
Croatia	-	7,8	11,6	13,5

Source: WEO 1994

a - Czecho-Slovakia

The expectations connected with the introduction of the VAT can be summarized as follows:

- Increasing budgetary revenues (by extending the tax base to services, and by covering a much larger set of business transactions)
- Decreasing the number of tax evasions (because in the VAT mode everybody has to purchase with the tax regardless of purpose)
- Expected tax neutrality since the value added tax in the prices of goods is the same without regard to how many times the tax has been collected
- Effective support to exporting goods offering the possibility of tax deduction for exporters on entry. This form of support is desirable not only because the majority of the countries had a bleak balance of payments but also because the majority of the neighboring countries had already provided this kind of support to their exports. This increased the introduction of the VAT in many countries.
- The introduction of the value added tax was one of the necessary preconditions of joining the European Economic Communities and the necessary condition for becoming a member of the European Union.

The introduction of the VAT was a heroic deed because it had to be done very quickly. We will all the more appreciate this if we realize that the West European countries were preparing themselves for the introduction of the value added tax over approximately ten years. Let us mention some of the problems the introduction of the value added tax was connected with:

- The introduction of this tax means that services and intangible assets are also subject to the tax unlike in the previous system. This is, of course, a relatively strong inflation stimulus. This effect was shown in connection with some commodities such as groceries and those which contained a zero tax in the

past or the prices of which had to be subsidized. Some countries separated value added tax introduction and the removing or reducing of price subsidies. It is quite common that the entrepreneurs take this impulse into advantage and increase the calculated rate of profit by increasing the prices of goods and services. This effect is not only due to the actual introduction of the value added tax but because the expectations of enacting this tax itself is an inflation impulse. The inflation effect is one time and short-term.

- Unlike the turnover tax which was collected mostly from legal entities and not from natural persons; now the value added tax will be collected from all entrepreneurs without exception. All those who have exceeded a certain turnover level have to be registered. Many entrepreneurs were not prepared for the relatively complicated and unusual paperwork connected with this tax. Many countries tried to solve this problem by gradually decreasing the turnover level decisive for becoming value added taxpayers.
- It is generally known that the paperwork concerning the value added tax is very costly not only on the side of the taxpayer but also on the side of the tax administrator. It was necessary to train hundreds and thousands of employees in tax offices and to build systems eliminating tax evasions effectively. To cope with this assignment a perfect legal rule in the form of the appropriate Tax Act must be accepted. It was not humanly possible to create such legal rules at once and to foresee all the difficulties which could be taken advantage of by taxpayers. Moreover, cooperation with customs officers is essential because a considerable part of such tax evasions are connected with exporting and importing goods.
- There were no technical preconditions for tax registration especially for retailers. They were practically unable to register the tax included in individual sales transactions or in daily sales exactly since the tax was introduced at two or more different rates. For instance the duty to register the VAT on electronic registers in stores was accepted in the Slovak Republic only two years after incorporating the VAT into the existing tax system. The Minister of Finance said that this step had helped to reduce tax evasions. Many serious problems were caused by the transition from the turnover tax which was collected and paid only if the taxpayers sold goods to the persons who were not VAT payers. The taxpayers themselves were authorized to purchase their inputs free of the turnover tax. On the contrary, the non-payers had to purchase their inputs with the turnover tax but their production was not liable to this tax. To provide the same conditions to all the value added taxpayers, an extensive action had to be organized in order to enable VAT payers to balance the turnover tax on the goods in stock and property. This tax was usually returned to taxpayers in a lump sum. The

transition to the value added tax was in these terms very demanding and in spite of every effort to make the transition to VAT easier, even painful for many entrepreneurs.

Another burning problem was the fact that although the VAT payers had claim to crediting the tax paid in the prices of inputs, they had to pay the prices, including this tax, when purchasing goods and services. This fact immediately caused an increase in capital demands especially in those industries where the production is subject usually to the lower tax rate (building industry, agriculture, foodstuff industry). It often happens that their output tax is lower than their input tax. This results in tax overpayment. The VAT payers, however, had to wait long time for the first returns of such overpayments, usually for several months. That is why in the Czech Republic only a few months after the introduction of this tax the time for returning such overpayments had to be reduced to one third. The interval between filing a return and returning the overpayment can be considered from two different points of view. The shorter the interval the sooner the overpayment is returned but the shorter time for the tax administrator to check the accuracy and correctness of the overpayment. Slow return of excess deduction was connected with the ability of tax administrators to process and verify the payments.

The basic information on the value added tax in selected countries are given in the following table. It is obvious that the majority of the countries introduced the value added tax basically in conformity with the recommendations of the European Union. Nevertheless, as to the average current VAT rates fixed in the EU countries the standard VAT rates in the transition countries are relatively high. Another fact is (according to the recommendations of the EU) that the highest rate is not generally used.

The VAT proportion of the budgetary revenues was considerably different in these countries (ranging from 25 to 30%) even if the rates were similar. Considerable differences are to be noticed also in commodities with lower rate of VAT.

Table 3:  
Value added tax in several transforming economics

State	Standard rate	Lower rate	Share on GDP
Hungary	25%	15%	7,8%
Czech Republic	22%	5%	8,3%
Poland	22%	7%	3,4%
Slovakia	25%	7%	10,8%

Source WEO 1994

The introduction of the value added tax is usually accompanied with introduction of **selective consumption excise taxes**. The commodities subject to these taxes are the same as in most other countries - tobacco, alcohol and motor fuel. The first two commodities have been object of taxation at high rates for many years all over the world. High taxation of these commodities is usually based on political reasons for discouraging consumption. Alcohol, tobacco and motor fuel are commodities with low price elasticity of demand and so their taxation brings considerable revenue. The rates are fixed on unit of production or import but usually lower than in standard tax systems. Any single increase of the tax could, in the final consequence, result in the decrease of the tax revenue depending on the elasticity of demand. Sharp increasing of these rates could be politically unacceptable, because these commodities are demanded by inhabitants at all income levels. For this reason, these countries prefer a gradual increase in the tax rates which should be equalized with the tax burden in the West European countries in approximately 5 to 10 years, depending on the general development of the economy.

*Income Taxes*

The reform of the income taxes is only a little more dramatic than the reform of the indirect taxes. As already mentioned the tax transfers from national companies formed a substantial part of the budgetary revenues. On the other hand, the taxes paid by citizens formed a very low proportion of the budgetary revenues amounting to a little over 10%.

*Corporate Income Tax*

The reform of the corporate income taxes concentrated on the unification of taxation conditions for all entrepreneurs, and on the activities connected with a gradual decrease of the tax burden for legal entities. The lower importance of the corporate taxation can also be seen in the decrease of the proportion of these taxes in the GDP. This is clearly exemplified by some selected countries in the following table.

Table 4:  
Proceeds from tax on enterprise profits (in % of GDP)

Country	1990	1991	1992	1993
Bulgaria	17,9	17,4	8,3	5,6
Czech Republic	12,2a	13,7 <sup>a</sup>	11,1	7,5
Slovakia	12,2a	13,7 <sup>a</sup>	10,3	6,5
Hungary	7,6	5,7	2,6	2,2
Poland	14,0	6,1	4,6	5,3
Romania	7,3	5,1	5,3	3,5
Slovenia	-	0,6	0,6	0
Croatia	-	0,1	0,5	0,5

Source: WEO 1994

a - Czecho-Slovakia

The changes in the legal person taxation were usually made in close connection with the changes in accounting systems. Close attention was paid to depreciations since in the planned economy the depreciations as a rule did not serve as sources of financing but were dependent upon allocations from the central budget. The tax rate was linear and as a novelty there was a possibility of deductions of tax losses in conformity with very strict rules. This possibility performs generally a kind of tax advantage by which the state reduces risk by taking a share of revenue losses.

In spite of a considerable decrease of the tax burden, the corporate income tax proportion is still much higher if compared with the European average or the OECD average respectively. Many countries, however, economy permitting, try to decrease the corporate income tax gradually. In the Czech Republic for instance the corporate income tax rate decreases every year. From 1993 to 1996 the rate came down from 45% to 39% of tax base.

To have a complete idea of the relation of individual companies towards the state budget it is necessary to say that although the state budget in planned economies siphoned off most of the state companies' sources, the highest expenditures of the state budget were directed back to the companies in the form of investment and non-investment subsidies. From the macroeconomic point of view the decrease of tax burden to companies was compensated more than enough by the decrease of budgetary subsidies. Many countries introduced tax allowance for capital investments for new technology.

### *Individual Income Tax*

The change of the individual income taxation was the second most important and most visible change in the tax systems. There were a series of taxes paid by citizens but they were insignificant from the budgetary revenue point of view. The highest and most important tax was usually the **tax on salary** (income tax) which was collected by employers. Individual income tax as universal tax did not exist. The progression of the tax was very low and the tax burden was significantly differentiated by various social factors ( number of dependents, disability of the taxpayer or a member of his family, etc.). There were, of course, some incomes from small businesses. Many such incomes were exempted from taxes (for example yields of interest, especially returns on deposit-book accounts as the main form of individual savings) or, more often, were not subject to taxes.

The insignificance of the taxes paid by citizens can be documented by the fact that some countries considered cancellation of the income tax although it was the



highest tax paid by citizens. In Bulgaria the tax was really cancelled and in other states, like in Czechoslovakia, incomes of some groups of citizens were not subject to this tax, e.g. members of cooperative farms.

The newly outlined individual income taxes substantially extended the range of taxable incomes and, at the same time, they considerably increased the tax progression. Individual income tax was drafted as universal tax which included tax progression on most taxable incomes. It was completely new to many citizens of these states that they had to file returns although the payroll tax is paid by the employer.

The tax systems were then extended by the property tax which has only a small fiscal effect and by the social security payments which are, as a rule, paid (in full or in part) by the employer instead of the employee.

#### *Property taxes*

Although many advisers from international organizations strongly recommend that the transition countries should rely more heavily on property taxes, the role of them is very small. They are only complementary resource of tax revenues. It is connected with rapid changes of property structure. Property taxes are very unpopular in these countries. And so the share of property taxes in transition countries is even lower than in other countries.

In conclusion we can state that the rough framework of the tax systems in the transition economies are beginning to stabilize and the tax systems in these countries are quite similar to those in the West European countries. They still shown a series of specific problems resulting both from the lingering transition and from the fact that the quickly transformed tax systems are still new and imperfect.

#### **Harmonization of Tax Structure in Europe**

The integration process within the European Union is making rapid progress in increasing the number of members of the Union and, last but not least, with the efforts of many other European countries to become members of the European Union. The harmonization of the European tax structure becomes more and more important. The unification of taxes on goods and services is also enhanced by the fact that European Union has a share of yield of these taxes.

The recommendations and guidelines accepted by the European Union influence the countries that are not members of the European Union. This is caused by the fact that many such countries, including the transition economies either desire to

join the European Union now or in the near future. Even the countries whose economic strategies do not include joining the European Union attempt to adapt to the EU recommendations. This is caused by these countries being smaller and open economies for which export competitiveness is very important.

The European Union has already reached the free movement of labor, capital and services among its member states and the privileged position among various taxes in the process of tax structure harmonization is taken by indirect taxes which includes the value added tax and selective consumption excise taxes.

Incorporating the **value added tax** as the only universal tax into the existing tax system is one of the conditions to be met by countries before they join the European Union. Since the 1st January, 1993 the following principle has been in force: Any citizen of any member state is allowed to purchase anything (without any quantitative or price limits) for his personal consumption in any EU state and the value added tax is paid in the state of purchase. This regulation actually means cancellation of custom houses for citizens within the European Union. Since the subject tax is similar in the majority of countries, the closest attention to the European Union directives is paid to tax rates. The existing rules of the tax structure harmonization can be summarized as follows:

- The standard rate of value added tax should range from 15 to 19%. This rate range is applied to the overwhelming majority of goods and is dominant in the system
- The directive determines that reduced rates amounting to minimally 5% may (but need not) be used. The maximum number of such rates is two. The cut rates are usually for services and applied for technical/administrative reasons. Since the services escape from taxation more easily, the applying of the reduced rate is more acceptable for the entrepreneur who, as a result, resorts to tax evasions less often. Moreover, the reduced rate is used with some basic consumer goods (e.g. foodstuffs). In these cases the application is often justified by lowering the impact of the regressive consumption taxation.
- On the other hand, it is determined that the increased tax rate must not be generally used. Some countries use this tax with some kinds of select luxury goods such as fur coats, yachts, etc. The use of these rates can also limit the regressivity of the consumption taxation. The commodities however should be selected very sensitively taking into consideration various differences in consumption among various ethnic minority groups and their consumption of products.
- The directives admit the existence of “zero” rate or a rate below 5 %. This rate is used in connection with exports and for some social services.

To get an idea of how individual states cope with the given rules, see the following table:

Table 5:  
Value Added Rates in EU Countries

State	zero rate	lower rate	basic rate
Austria	no	10	20
Belgium	no	6, 12	19,5
Denmark	no	no	25
Finland	no	no	22
France	no	5,5	18,6
Germany	no	7	15
Greece	no	8	18
Iceland	yes	14	24,5
Ireland	yes	12,5	21
Italy	yes	4, 9	19
Luxembourg	no	3, 6, 12	15
Netherlands	yes	6	17,5
Norway	yes	no	22
Portugal	yes	8	16
Spain	no	3, 4, 6	15
Sweden	no	21	25
Turkey	no	1, 3, 8	13,5
Great Britain	x	x	17,5

Source: OECD Revenue Statistics

The Table clearly indicates which of the states have problems with observing the directives. In Portugal an increased value added tax rate (30%) still exists and in Turkey there are even several rates ranging from 15 to 100%.

If we want to appreciate how transition economics accomplish limits for tax rates of value added tax, we must state that most countries go over the basic tax rate. In a few years they will want to decrease gradually the basic rate, maybe by increasing lower tax rates or transferring some commodities from lower tax rate to basic one.

At the existing stage of the tax structure harmonization in the European Union countries the highest attention is paid to indirect taxes. Also reflected in the attention paid is selective consumption excise taxes because these become evident in prices of goods and can become an obstacle to the free European market. Just because the selective taxes concern only a few commodities, finding a compromise

for their harmonization is very difficult. The rates and the recommended commodities are shown in the in the following table:

Table 6.  
Minimum Rates of Consumption Taxes in the European Union

Goods	Rate
Cigarettes	57% of selling price
Unleaded Gasoline	337 ECU/t
Lead Gasoline	287 ECU/t
Methane	0 - 100 ECU/t <sup>a</sup>
Beer	0,748 ECU/hl per each single percent of alcohol
Wine	0 ECU
Sparkling Wine	0 ECU

Source: Markte W. 52/1993

a - according to purpose of application

The minimum rates are based on the low purchasing power of inhabitants and the generally low level of these taxes in past. They will likely increase gradually. A quick increase would be off set by decreasing tax yields unless the taxable commodities have very low elasticity of demand.

Like the consumption taxes, the basic rules for their harmonization are clearly given and form the conditions for the possible applicants to the EU membership.

At the current stage the attention is paid preferentially to the **corporate income tax**. The member states are especially interested in creating conditions for smooth capital flow between companies and individuals, who are residents of one of the contracting states. That is the reason why the accepted directives concentrate on restricting international double taxation by preferring corporate income taxation in the state the company does its business. The conditions on assessments of revenues and expenditures in supranational companies and on the international double taxation problem are just being developed. When paying dividends or shares of profits the major part of taxation should be transferred to the member state the receiver of dividends is domiciled in. In the state of the income origin the maximum tax of 25% can be collected.

The tax structure harmonization process in Europe is still in its beginning but it is receiving considerable attention. The process will certainly continue in the years to come.

**Conclusion**

This chapter has examined the changes in tax systems in the transition countries with information on the broad range of changes in the various countries. There are many differences in these countries with respect to the structure, rates and application of the tax codes. For this reason an examination of the tax code in the Czech Republic should prove helpful in furthering an understanding of the many elements of the tax code.

**CASE STUDY: TAX CODE IN THE CZECH REPUBLIC***Alena Vaněurová*

The basic Acts creating the Tax Code in the Czech Republic came into force the same day the independent Czech Republic was established, 1st January 1993. The new Tax Code represents one of the basic components of the transformation of the Czech economy. By accepting this Act the tax reform effort culminated from launch in 1990 by a gradual adaptation of the budget revenues system which definitely was not compatible with the multi-sector economy, with the start of private businesses and the gradual privatization of the economy.

Until the “Velvet Revolution” in November 1989 the system of budgetary revenues was based mainly on the state enterprises’ transfers to the national budget. The centrally planned investments were (in considerable part) covered by budgetary subsidies. The **income taxes** were combined with **payroll taxes**. For non-governmental organizations the common income taxes were replaced by special income taxes with a rather complicated structure.

The taxes paid by citizens formed only a complementary income of the government budget. The most important of them was the **tax on salaries** with a different structure from a standard individual income tax. Its progression ended far below the level of an average salary and for that reason the average tax rate was, in view of the taxpayer’s age and number of dependents, dependent on the social condition of taxpayer rather than on the level of his income. Salaries were taxed separately which resulted in the fact that several parallel smaller incomes were taxed less than one income equal to the sum of the smaller incomes. The tax payments were the responsibility of the employer.

Different kinds of incomes were subject to additional taxes but their total revenue was very low. Very confusing was the indirect taxation represented by the **turnover tax** which had thousands of different tax rates and which ensured a separate existence of wholesale and retail prices rather than any budgetary revenue. The tariff of turnover tax rates was, even with the reduction of the number of rates which had been carried out since the 1960s, a pretty thick book. The tax was collected only on the consumer goods prices in a lump sum and was further complicated by the existence of the so- called “negative turnover tax which was a form of a subsidy on select products such as basic foodstuffs, energy for homes, and for many years on clothes and footwear for children.

The tax reform was divided into three consecutive steps. In the first stage the reform concentrated on basically “cosmetic” alterations in the existing system of budgetary revenues in order to better meet the changing conditions in the economy.

These changes should have promoted the emerging private businesses. At the beginning of 1991 the turnover tax rates were unified by introducing three basic rates. The second stage was actually a preparation for the new tax system. When developing this tax, six principal goals for the new tax system were set:

- Improving the level of the tax fairness expressed by the same approach towards all taxpayers regardless of their legal status and the source of incomes of individuals.
- Increasing the proportion of the consumer tax as a proportion of total tax revenue (while simultaneously decreasing the proportion of the products with higher consumer taxation). The consumer taxation instrument was the value added tax, common in the countries of the European Union.
- Increasing the significance of the individual income taxation while simultaneously unifying taxation of the overwhelming majority of taxable incomes as well as unifying (and gradual decreasing) the legal entity income taxation. This process should result in a significant decrease of the legal entity income taxation.
- Creating utilization of the fiscal system as an instrument for macroeconomic regulation.
- Preparation for integration of tax system with the tax systems of the European countries and for future joining the European Union.
- Dividing the insurance system into the general health insurance and the social security insurance and the contribution to the government employment policy so that individuals can realize their responsibility for their social security and their rate of effort to ensure this security.

The third stage of the tax reform was launched by introducing a newly outlined tax system in 1993. It is necessary to note that the new system was not represented only by new names and conceptions of taxes but also by a brand new tax administration. It was necessary to train thousands of new financial and tax clerks in many tax offices and to ensure their material and technical equipment.

It may seem strange, that the fundamental legal rule determining the following list of the taxes which may be collected in the territory of the Czech Republic is the Act approved by the Federal Assembly of the former Czech and Slovak Federal Republic:

- indirect taxes (GST)
  - value added tax
  - selective consumption excise taxes
    - tax on fuel
    - alcohol tax
    - tax on tobacco products
- direct taxes
  - income taxes

- individual income tax
- corporate income tax (legal entity income tax)
- property taxes
  - real estate tax
    - land tax
    - tax on constructions
  - road tax
  - tax on inheritance
  - tax on gifts
  - real estate-transfer tax

To get an idea of the rate of profit of individual taxes and tax-like budgetary revenues see the following table:

Table 7  
Revenue Collections in the Czech Republic in 1995

Revenue Category	Proportion in the b. revenue sum
Consumption excise tax	32,48
including:	
Value added tax	20,63
Consumption tax	11,85
Income tax	28,00
including:	
Individual income tax	15,18
Corporate income tax	12,82
Property tax	2,11
including:	
Road tax	0,79
Real estate tax	0,66
tax on inheritance, tax on gifts, real estate-transfer tax	
Customs	3,59
Social security	33,83

Source: Outline of budget sums for 1996 and own calculation.



It is quite obvious from the above table that the most substantial budgetary revenue is the social security insurance and the contribution to the government employment policy. This is worth mentioning in our brief outline in spite of the fact that, from the legal point of view, this is not a case of tax revenue. However, the insurance yield is in a common budgetary revenue, and so this budgetary revenue can actually be considered a tax. The social security benefits (of which the most important are retirement pensions) is several percent lower than the insurance collected. The social security insurance and the contribution to the government employment policy forms a new part of the public legal revenues.

It is provided by the law that all employees as well as self-employed persons must be insured. In case of the employees the tax base is their gross salary (including all incomes in kind from the employer). The insurance rate is linear. Nearly one quarter of the insurance is deducted from employee wages, the rest is the employer responsibility. Both parts of the insurance are transferred by the employer. For the entrepreneur, the base is 35% of the income tax base on business and the resulting rate is a sum of the employee's and the employer's rates.

Both for individuals and entrepreneurs a part of the overall taxes is also a general health care insurance even though its revenue is an income for special purposes - health insurance companies - and is not a public income in the true sense of the word. The general health insurance premium is based on the same base as the social security premium. With payrolls again the premium rate is divided between employees and employers in the ratio of one to two. This premium is paid also by other individuals providing that they are not among the social groups (like retired people, children, students, mothers without own incomes with small children, etc.) which are exempted from paying insurance premiums because they do not have any payroll incomes or other incomes from business.

The overwhelming majority of taxes go to the national government budget but the whole revenue of the real estate tax and the overriding part of the individual income tax forms an income base of local government budgets.

Starting from the budget year of 1996, a rather lower part of the individual income tax goes to local budgets. This is compensated by the small but relatively stable corporate income tax. The general health insurance, which also represents a compulsory payment collected from the entrepreneurs, is an income for the General Health Insurance Company and consequently for other health insurance companies.

### *Individual Income Tax*

**The individual income tax** is a universal tax. Almost all taxable individual incomes are subject to the payroll tax and other taxes paid from the incomes of

individuals. Its share in the budgetary revenues has been increasing in the last few years. The higher importance of the individual income tax was an intention of the tax reform. Great emphasis was laid on not increasing the tax burden for those with low incomes even if the two newly introduced insurances were included. The share of the individual tax in the overall budgetary and tax revenues is, however, growing from year to year. This is caused by inflation (which showed approximately 10% in individual years) with the absence of the tax indexing on the one hand and by the increase in real salaries. A tax subject is consistently understood as each individual. Splitting is not used except for a possibility of dividing incomes (in a limited way) between husband and wife if they have joint income from business. The main principles of the tax calculation are demonstrated on the following chart:

Chart 1  
Individual Income Tax

All incomes of taxpayer				
- separate tax bases				
- exempted incomes				
Payroll incomes - social security and general health insurance premium.	Incomes from undertaking and from other gainful employment - recognized expenditures necessary for attaining profits	Incomes from possession of capital property	Lease incomes - recognized expenditures necessary for attaining profits	Other incomes - limited circle of expenditures
= Tax base				
- Deductible items				
Loss on undertaking and/or property lease	Proportion on input price of the select property in the year of acquisition		Donations for purposes beneficial to the public (max. 10% of the tax base)	
- Personal, non-taxable amounts				
per taxpayer	per his dependents (children)	per his dependents (wife without her own income)	per his disability	special deduction for students
= Tax base after deduction				
* progressive tax rate				
- Tax reduction for the employers employing disabled people				
= Tax after reduction				

The individual income tax does not apply to excluded items (e.g. the items subject to tax of inheritance and tax on gifts as well as the incomes from acquisitions by restitution). Also to exempted incomes of a social character such as retirement pensions. A series of further incomes are exempted from tax for economic reasons, e.g. governments yields, building savings, mortgage certificate yields, etc., and a majority of accepted insurance recoveries and incomes on sales of properties (provided that these transactions were not made in connection with business).

Another part of incomes are subject to income tax but not included in the (yearly) tax base (likewise the corporate income tax) and forms separate tax bases using proportional tax rates through deduction-at-source arrangement. Following are examples of this kind of incomes including the rates used:

- Small contributions to media - 10%
- Interest on deposits (except for deposits on current and entrepreneurial accounts), dividends, benefits of additional retirement-pension insurance, etc. - 15%
- Rewards from sporting and public competitions - 20%
- Interest on debentures, dividends, shares on the profits of capital companies, etc. - 25%.§

The tax base for the individual income tax divides into five sectional tax bases:

- Wage & salary incomes, the payroll tax is paid by employers from monthly salaries usually by tax advances.
- Incomes from business and independent activities (including copyrights and industrial-law incomes)
- Incomes on capital (mostly separate tax bases)
- Incomes on property lease (especially real property)
- Other miscellaneous and incidental incomes

This rather complicated step is necessary because of the diversity of individual incomes. That is to say that this step allows fixing specific rules to determine which part of the incomes are recognized by the law to be spent in order to obtain profits. The rules determine every single tax base separately. For example, with the independent activity incomes (which are especially wages and salaries) the partial tax base may be reduced by the general health insurance premium, the social security premium and the contribution to the government employment policy. The rules to recognize the expenditures (within the bounds of business) are identical for both natural and legal persons.

The tax base is then formed by the sum of the partial tax bases. This tax base may be further reduced by the non-taxable parts of the tax base (BE deductions) which partly respect the social position of the taxpayer. The single person's

allowances which can in fact be considered as the “zero” tax rate band are, like the others, relatively low and is reevaluated every year. For 1996, it was fixed to CZK 26,400.00 (approximately US\$ 950.00), or to approximately 20% of the average yearly taxable income. Another part is determined for each of the children maintained by the taxpayer. This part equals 50% of the single person’s allowances. The reduction may also be made per the wife (or husband) who does not have her (his) own income exceeding the single person’s allowance for each taxpayer. Special single person’s allowances (non-taxable amounts) are also determined for those taxpayers who are entitled to full or partial disability benefits. If they are seriously physically handicapped, the single person’s allowance is increased. The last part is determined for the tax bases of those students who are obliged to tax their incomes.

Besides the single person’s allowances (non-taxable amounts) the tax base can be also decreased by the deductible items which are related to the economic policy of the government and their use is very similar to the corporate income tax. Each taxpayer may lower his tax base by maximum 10% provided that he shows that he has given a gift in the same or higher amount to an operator of a select humanitarian organization (health care facilities, schools, environmental organizations, science, churches, etc.). Entrepreneurs as well as the persons who have property lease incomes are authorized to lower their tax bases by 10 to 15% of the price of some new investments into tangible property in the year of acquisition. And finally, the same persons are entitled to deduct the tax loss in the seven subsequent taxation periods. The individual income tax rate is considerably progressive. Since 1996 when the tax bands were extended and one canceled for the first time, there are now five bands. The limiting rates are shown in the following table:

Table 8:  
Marginal Individual Income Tax Rates in 1996

Annual Taxable Income (in CZK)		
Over	To	Marginal Rates
0	84 000	15%
84 001	144 000	20%
144 001	204 000	25%
204 001	564 000	32%
564 001	-	40%

*Corporate Income Tax*

The legal person income tax has a key position among tax revenues in the Czech Republic. It should be emphasized that the share of the tax revenues has significantly decreased after 1993 and the linear rate of this tax decreases slightly every year which should lead to the relative decreasing of its share of the budgetary revenues. Between 1993 and 1996 the tax decreased gradually from 45% to 39%. This tax replaced the unclear and confusing transfers from the state enterprises' profits and a series of other taxes paid by various forms of legal persons (especially income tax). The taxpayers of this tax are all legal entities, i.e. not only companies but also cooperatives, and (on a modified level) also non-profit organizations. With for profit organizations the tax is levied upon all incomes of the company. With non-profit organizations the tax is levied on the incomes from the activities carried out in order to obtain profits and on property leases. With legal entities, there are also a series of incomes exempted from tax practically identical with natural persons. The list of the exempted incomes is, however, much shorter (governments, mortgage certificates. etc.). For simplification the following chart can be utilized:

Chart 2:  
Corporate Income Tax

All corporate incomes (except for inheritance and donations)		
- separate tax bases		
- exempted incomes		
- recognized tax bases		
= tax base		
- deductible items		
tax loss	share in input price of the select tangible property in the year of acquisition	donations for the purposes beneficial for the public (max. 2% of the tax base)
= Modified tax base		
* Tax rate (in 1996: 39%)		
- Tax reductions		
Fifty-percent tax for the legal entity employing at least 60% disabled people	Fixed deduction per each of the disabled employees	Deduction of one half of the tax on dividends and tax on shares on profit paid to owners during the taxation period
= Tax (after reduction)		

Legal entities use the expenses necessary to obtain taxable incomes under practically the same conditions as natural persons (individual entrepreneurs). Among such expenses, apart from other expenses, the expenses for social security contributions, for the government employment policy and the expenses for the general health insurance paid by employers and property taxes.

An important role in tax expenditures is played by tax deductions. The tax subject is allowed to choose one of the following two deduction methods: regular or degressive in the same deduction period. The deduction base remains unchanged for the whole depreciation period and therefore does not reflect the quickly increasing expenses necessary for acquiring property that are affected by inflation.

The tax base fixed in the above manner is then lowered by the deductible items. These deductible items reflect the preferences determined by the economic policy. The deductible items are: the tax loss showed in the tax return, donations for the purposes beneficial for the public (limited to 2% of the tax base after deduction) and the 10% proportion in the input prices of the determined tangible property (usually in the year of acquisition of such property). The modified tax base may be further lowered by tax reductions. One type of reductions relates to employing disabled people, the other limit double taxation of shares on profit and dividends paid out by legal entities to proprietors. This reduction represents one of the few built-in instruments to limit the internal double taxation (shares on profit and dividends are subject to 25% deductive tax on pay out).

### *Property Tax*

In general, property taxes have basically a marginal, supplementary importance to the tax system. A relatively high yield among the property taxes is the **real property tax**. The real property taxes are levied not by the taxpayer's place of residence (or by the registered office of a company) but by the real property location. That is because the real property tax yield is an income for the given town or village. The real property taxes include tax on land and buildings. Both taxes have an extensive exemption system motivated by the statutory limitation of property disposal and by environmental and social reasons. Lands which cannot be utilized in any way are exempted from the tax automatically.

**Tax on land** applies to agricultural land, building lots and some other lots. The tax is based on the area of the given land or lot in square meters. The tax rate is differentiated by the kind of land and is fixed. With the building lots the tax rate is further multiplied by a coefficient according to the size of the given municipality. The coefficient ranges from 0.3 to 4.5. The tax on building is based on the built-up area expressed in square meters. This rate is fixed and differentiated by the type of building and the purpose of building. The tax rate increases with

each floor. With residential houses the tax rate is differentiated by the size of the municipality similarly to the building lots.

**The road tax** is a yield of the central budget. This tax is paid by the motor vehicle holders if the vehicles are used for business purposes. (i.e. all legal entities and from natural entities only those who use the vehicles for their own business purposes). The rate is fixed and differentiated depending on the cylinder capacity (with passenger cars) or on the total weight and the number of axles (with utility vehicles).

**The tax on inheritance and tax on gifts** are single taxes paid on free-of-charge transfers of properties. The tax is based on the inheritor's portion (or the sum of individual gifts from one donor). To assess the property the prices that were fixed (according to the experts' opinions or appropriate public notice) during the inheritance proceedings by the court or a notary public are used. A certain amount of the movable assets and finances are usually exempted from this tax but the amount considerably differs according to the blood relations between the donor and receiver. For parents, children and grandchildren the exemption level is fixed to CZK one million separately for movable assets and financial assets. For that reason the overwhelming majority of the inheritor's portions within a family is not subject to tax. The tax rate is progressive depending on the blood relations between the donor and receiver. Among the closest relatives the tax rates on gifts (in individual tax-rate bands) are in the range from 1% to 7%. Among other relatives the tax is within the range from 3% to 20% and among other people from 7% to 40%. The tax rate on inheritance is 50% of the tax rate on gifts. Due to insignificant importance of this tax (the majority of inheritor's proportions are within the range of the tax exemption) some consideration of its cancellation have already appeared.

The real estate-transfer tax is also a single tax paid upon charged real estate transfer. The tax is based on the estimated value (according to the legal assessment rules) or on the selling value provided that the selling value is higher than the estimated value. The tax rate is uniform and linear. At the present time this rate is 5%.

### *Taxation of Goods and Services*

The indirect taxes or Goods and Service Taxes (GST) are a very productive budgetary revenue. If summarized they represent the most productive revenue of all. They include both the general tax (value added tax ) and the selective consumption excise tax which is currently represented only by the consumption tax. The tax burdens final consumers in spite of the fact that the tax is, in the Czech Republic, levied from the business subjects.

The value added tax is a general consumption tax. It is quite new in the Czech tax system. This tax is applicable (as usual) to delivering goods, providing services, real estate transfers, and transfers and utilizations of rights in order to run businesses in the Czech Republic. The value added taxpayers are business subjects which are obliged to burden their productions with the value added tax and which are entitled to reduce their tax bases by the sum of the value added tax which they had to pay for taxable incomes.

The value added tax is also applicable to the goods imported from abroad. Import of services is not subject to this tax. Upon exporting goods, an exporter (provided that he is a payer of the value added tax) is entitled to a refund of the tax paid in connection with the acquisition of the exported goods. The taxation of goods in the country of consumption corresponds to the usual international routine. If goods are purchased in the Czech Republic by foreigners, the returning of the tax is almost impossible since they may not bother to file for refund.

The tax is based on the taxable price without tax (but including the consumption tax if the particular goods are subject to such tax and including customs duty if the goods are imported). Note that the turnover tax was based on the selling price including tax. The VAT rate is linear and differentiated having two basic rates. The basic rate used with the overwhelming majority of goods and with select services (e.g. hotel accommodations, restaurant catering, etc.) has been fixed at 23% and decreased to 22% since 1995. The reduced rate on services (including transfers of rights and real estates) amounts to 5%. This reduced rate applies for basic foodstuffs, energy, drugs and miscellaneous supplies, books and periodical printed materials, and a series of aids for disabled people.

The introduction of the value added tax on the 1st January 1993 represented the most progressive and the most noticeable intrusion upon the tax system. The introduction had also far-reaching effects upon the whole economy. To understand the importance of this step it is necessary to go back into the past. There is no need to stress that any change (especially a system change in the consumption taxation) results in deep intervention into the price level in general as well as in individual commodities. From this point of view, this process was started as early as in 1990 by the cancellation of the "negative" turnover tax followed by the price liberalization which was one of the most painful primary transition measures. The introduction of the value added tax therefore represented one of several inflation impulses during a short period of time. Although the majority of the problems connected with this step had been assumed the Value Added Tax Act had to be significantly amended during the first year of its being in force.

The consumption taxes are selective taxes on consumption applicable to several different commodities of goods (production and import of these commodities).



The tax is based on the number of physical units of the produced or imported goods. The rates are fixed and differentiated by the type and kind of the goods. When exporting the goods, the exporter is entitled to refunding the tax paid.

This tax is applicable to the following commodities:

- Tax on fuel(especially gasoline, oil and heating oils). It is interesting that since 1996 the reduced rate on unleaded gas has not been used.
- Alcohol and liquor tax
- Tax on wine - this tax is very low in order to protect domestic production.
- Tax on beer - if converted into alcohol units, the tax is rather higher than the tax on wine but it is still very low. Beer is a traditional Czech drink and any changes of its prices have always been resisted by the population. This might be the reason why the rate of this tax has not yet been increased (unlike alcohol and liquor tax rates). In 1995 the tax rate was differentiated according to yearly beer production. This differentiation should encourage the beer production as a traditional national drink and as important export commodities.
- Tax on tobacco products - the rates increase a little each a year but are still lower if compared with the majority of West European countries.

The tax system in the Czech Republic is crowned by the Tax Administration Act which determines the rights and obligations of both the taxpayers and the tax administrators. In this connection it should be noted that the taxpayers have a duty to have themselves registered in connection with individual taxes which is quite unique in the OECD countries. The very high tax sanctions (the penalty for tax underpayment can amount to over four times the amount of the tax itself) should also be noted. The tax subject is also usually not allowed to lower his tax if he finds out that he has paid more than he had to pay.

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## **CHAPTER 7: NON-TAX REVENUE SOURCES**

*Zeljko Ševiač*

This chapter will examine non-tax sources of revenue. We begin with a discussion of state-owned enterprises and privatisation as they relate to governmental revenue sources. These are important areas for the transition countries and there are many complex issues involved. Then we look at the more traditional non-tax sources; such as user charges and fees. Finally, we discuss public borrowing as a revenue source.

The government's role in the contemporary economy is quite important. Although a very popular wave of privatisation in the 1980s reduced the size of public sectors, government participation in the overall economic performance in most developed countries cannot be neglected. For transitional economies in Central Europe, South Asia and elsewhere the reduction of governmental involvement in the production of goods is imperative for reform. Privatisation and charging for publicly provided services (usually garbage disposal, electricity supply, water supply, and sewerage) are seen as important requirements for the overall structural and institutional changes which lead towards a market-oriented economy.

Taxes are still the most important revenue source for government. However, since the beginning of this century there has been growth in the number of so-called non-tax revenue sources, in particular user charges and fees. Although there are very significant distinctions between taxes and user charges, it can be claimed that basic taxation principles should be followed in the case of user charges. Namely, simplicity, equity, ability to pay and efficiency principles should be, in general, respected in charging for products and services provided by the government. There is, however, a key difference between taxes and user charges. When citizens pay taxes they cannot see immediate benefits; but, when a user charge is paid the user directly benefits from the publicly provided good or service.

### **Public Enterprises**

#### *Definition and Types*

Public enterprise means public production for private consumption (Jones, Tandon, and Vogelsand, 1990). Public enterprise can offer private, quasi-private, or public goods for sale. Theoretically, there are no limits to what can be produced in the public enterprise. The wave of deregulation has increased the number of enterprises which are in private hands, but which are closely regulated. These enterprises are also treated as public enterprises (Boes, 1994). The most important

characteristic of a public enterprise is that it is incorporated by a government. The product produced can also help in the identification of public enterprises, but it is not the crucial element. Public enterprises have the characteristics of private enterprises with some modifications. Public enterprises, in general, are entities which produce or distribute goods and/or services, and sell them to producers and/or consumers, at price which may or may not cover costs.

There are several types of public enterprises. Public enterprises can perform duties in the form of: 1) departmental agencies; 2) public corporations; and 3) state-owned companies (Boes, 1994). In governmental agencies, it is important to notice that they are not separate legal entities, but they have a so-called extended legal personality of the government. A majority of employees are civil servants, and the agency's accounts are part of the government budget (Kavran, 1991). Public corporations are separate legal entities incorporated by a law or governmental act which defines the legal status of the company. State companies are, in fact, private-law institutions which are directly or indirectly controlled by the government (Boes, 1994). The government controls this type of public enterprise by using its stock of shares, powers to appoint member(s) of the Executive Board (Sevic, 1996a), or using immediate regulatory powers.

Public enterprises represent the largest part of the public sector in many countries, even some Western developed economies until the early 1980s. With the wave of privatization the number and influence of public enterprises has diminished. Public enterprises are the prime target of advocates for the privatization of the public sector. Public enterprises have always had a series of unique management problems involving accountability, regulation, social and industrial policies, investment policy, financial control, and so forth (Hughes, 1994). Accountability and control problems are especially important. Governmental control can be too tight or too loose, in both cases causing management to perform below an efficient level. This problem provides one of the strongest arguments for privatization. Contemporary public enterprises require new methods and techniques for governmental control and supervision (Sevic, 1996a). Privatisation, in the Western context, has most often occurred in areas where natural monopolies exist. Nevertheless, due to political reasons no government can totally disassociate from public utilities, although they can use other instruments of control besides ownership (Hughes, 1994).

Public enterprises usually appear in the following industries (Boes, 1985): 1) public utilities; 2) basic goods industries; 3) finance; 4) agriculture and 5) education and health. Public utilities include: electricity, gas, water supply, telephone, telegraph and postal services; radio and television; transport services (airlines, railways, city public transport, bridges) stockyards, sewage, garbage collection,

refuse collection, etc. Even after privatisation public utilities are usually under the close control of government. Economically, public utilities tend to be 'natural monopolies'. For most of these services it is easy to attract new consumers once the network is established. Due to high new entry costs, it is unlikely that new entrants would challenge the government's monopoly position. Since these services are of the highest importance to the population, provision of these services is highly sensitive politically.

It is possible for government to be involved in some 'monopoly' activities which cannot be in any way covered by the list that has been presented here. In developing countries, some regional and local government authorities are involved in fishing and sericulture (India), plantations and sawmills (Tanzania), crop planning, marketing and processing (Malaysia and Sudan), handicrafts (some Asian countries), sugar distribution (Sudan), etc. In some Asian countries, the best resorts are in public hands. In Zambia municipalities are involved in beer production, while in Indonesia local authorities run brickyards and printing presses. In Turkey, the city of Istanbul is involved in the commercial bottling of water (Davey, 1983). In the U.S., sixteen state governments operate a monopoly on liquor wholesaling as an alternative to levying excise taxes. In Germany, local governments profit from organizing recreational facilities as well as from other supporting programmes (restaurants, theatres, etc).

#### *Social Reasons for Public Enterprises*

*Government should seek to maximize social welfare.* If this is the real aim of the government, public enterprises will be organised in order to contribute to increases in social welfare. It is also possible that the government wants to provide an additional source of revenue, as well as to improve social welfare. These two reasons can help social welfare indirectly since an increase in alternative government revenue can lead to decreases in tax rates.

There are a number of different reasons why government organises public enterprises. These can include the following: 1) an inadequate private supply of goods and services; 2) rescuing private firms if their closure is against the public interest; 3) improving competition; 4) reducing social costs such as environmental externalities and 5) protection of national sovereignty (Hughes, 1994). Often nationalisations are completed for purely political reasons. This may be the case in developing nations where the enterprises were owned by the former colonial power. From an economic point of view, public enterprises are organised to: 1) correct market failures; 2) alter the structure of payoffs in an economy; 3) facilitate centralised long-term economic planning and 4) to change the nature of the economy, from capitalist to socialist (Rees, 1984).

It is believed that public enterprises facilitate long-term centralised planning. This is the reason for the establishment of public enterprises in some countries. Behind this behaviour is a hidden reason for development. It is easier to make plans for development if the government controls a large system and infrastructure network. It is argued that governmental ownership allowed France to offer services ahead of demand. This development function of public enterprises is especially important with the respect to public utilities and the further spreading of infrastructure. In immigrant countries, like Australia and Canada, public utilities were in public hands from the very beginning. Due to the high costs of establishing the necessary infrastructure, the private sector could not lead investments. In practice usually no source, other than government, had the resources to carry-out the development of key services (Hughes, 1994). A choice was made by the government to provide development funds for parts of the country not being served. Development was the best policy option. Once the infrastructure is developed or at least semi-developed, public utilities can be privatised since the private capital can provide sufficient resources to maintain and upgrade the system as necessary.

The creation of public enterprises and the nationalisation of large national systems after World War II were completed with political implications. The 'left' oriented parties which took political power after the war wanted to transform the capitalist systems by introducing some elements of socialism. The creation of public enterprises was understood as the building of 'soft' socialism, as a kind of transitional phase to 'real' socialism. Placing the most important industries in the hands of the government was seen as an indirect transition to a socialist state. Nationalisation was completed in many areas, including; transport, steel, coal, railways, airlines, etc. Nationalisation and the spreading of the public sector caused the influence of trade unions and other workers' organisations to increase significantly. Since these organisations have been natural allies of the parties of the left, enlargement of public sector had another political implication. In this way the government could provide itself with political support through the use of economic policy tools.

### *Social Efficiency and Public Enterprises*

Public enterprises served an important function in the early economic development of public utilities. Only the government could provide the necessary amounts of money to create the wide national infrastructure for public utilities. The debate over whether and to what extent the government should be involved in the economic sphere started again in the early 1980s. Thanks to the very successful privatisation program in the U.K. in the 1980s and 1990s, it is now

commonly believed that government should abandon the practice of organising public enterprises. However, it is obvious that if the public enterprise is a loss-maker then nobody will be interested in purchasing it, while if the public enterprise is profit-making, it is difficult to believe that the government would be interested in selling it.

It is quite difficult to perform high quality controls in public enterprises. Government is a poor manager (Sevic, 1997), since the public assets can be seen as endless. In principle, managers in public enterprises are controlled by ministers, but in practice, there can be silent agreement between a 'politician' (minister) and manager in order to maximise their mutual private welfare, or to provide special financial support for the next general elections. The goods of public enterprises can be underpriced, especially on the eve of parliamentary elections. The public always supports, at least initially, the "socialisation of commodities". This should be understood as a situation where every consumer is given equal access to the consumption of the good or service regardless of their income or wealth. In socialist countries, the government tried to make very long lists of "socialised commodities." Thus, a number of pure private goods were supplied at a very low price (Sevic, 1997). The desire to make long lists of "socialised commodities" was behind all nationalisations in this century. Whether we agreed with it or not, nationalisation and privatisation have quite similar origins.

The belief that public enterprises significantly contribute to economic stabilisation was slowly eroded. All arguments on the allocative, distributional, and stabilizing advantages of public enterprises have now fallen into disrepute. Change in policy and abandonment of subsidization of public enterprises, forced these enterprises to reconsider internal organisation and improve the internal efficiency. It is noted that technical progress can eliminate an 'advantage' of the natural monopoly, especially in the field of telecommunications (Liston, 1993). It became clear that typically only parts of production exhibit those economies of scale which actually make them natural monopolies (Boes, 1994). The experience in a few European countries has shown that the systems that were previously believed to be pure natural monopolies can be disintegrated, both vertically and horizontally. In case of vertical disintegration some countries practically ignored the informational and transactional disadvantages of separating upstream and downstream firms, while in the case of horizontal disintegration they practically ignored economies of scale (Perry, 1989; Boes, 1994). The best examples are privatisations of the coach and rail industry in the U.K. The National Coach Company was separated in to a large number of small companies that were mainly geographically grouped. After 10 years or so, some of them again started to serve the entire nation.

Eliminating state owned enterprises has political and social implications. In the process of privatisation, a number of civil servants will lose their jobs. Public enterprise managers will be replaced and trade unions will lose their power. All of these issues require thorough consideration by the government. After, or just before, the privatisation it is necessary to provide a sound regulatory framework and personnel capable to enforcing these regulations. Privatisation revenues should be used for the retraining of staff and the establishment of new regulatory bodies.

### *Public Enterprises in a Transitional Economy*

Reducing or eliminating state owned enterprises is a very important part of the transition process. It is advisable to group enterprises into a few groups, such as: 1) group of small and medium enterprises (SMEs); 2) large key-sector enterprises (banks, wharfs, mines, transport companies, etc.) and 3) enterprises in public utilities sector. SMEs sector is quite easy to privatise, since they do not have large capital and they are typically labour intensive firms. Key-sector enterprises cannot be sold fast, since there is no purchasing power in the former so-called socialist economies. Also, due to different accountancy techniques, it is difficult to define real value of the enterprises. The property rights are also unclear, and privatisation of large enterprises requires institutional support to have large enterprises successfully privatised (such as stock exchange, etc.). However, general auctions or bilateral negotiations between a government and potential investors might be considered superior to the stock-market approach, although their implementation will typically be part of a gradualistic policy, such in Hungary (Bager, 1993; Dervis and Condon, 1992; Estrin, 1991, Hare and Revesz, 1992; Sevic, 1997). Privatisation of large enterprises, including public utilities, requires also specialised human capital which is difficult to find in these countries. Public utilities sector will attract attention of the foreign investors. A large scale privatisation of public utilities cannot easily be completed. Foreign investors may play a role in certain areas, such as communications, railroads, etc, but the government will often want to maintain a controlling stake. In the transition process the role of public enterprises will continue to decrease, but they may still perform quite important functions in shaping the economic policy of the government.

Due to more than forty years of communist rule it is almost impossible to evaluate a company according to the dominant market criteria. It is possible to compute the accountancy value of a firm, but this does not reflect the real value of the firm. The socialist firm has no “*good will*” since it was not important for the firm to have a defined market position. It only sought to meet the demands of the central planning body. Often socialist firms have “negative value” due to the widespread practice of using ‘soft budget constraints’. However, it is possible to



estimate the value of the socialist State Owned Enterprises (SOE), and establish a price. The next problem in transitional economies is the phenomenon of an illusion of marketability (Sevic, 1997). The market formally exists, the price is evident, and theoretically the good could be sold, but - the market is illiquid, there is only fake demand and supply, and nobody can buy newly issued shares. Formally, everything is perfectly in order, but in practice this is not the case. It can even be said that to a certain extent the financial market in the first phases of the transition is one of 'Potemkin's villages'. It is evident that a new method must be established to evaluate SOEs in Central Europe. Reformers are more interested in methods based on accountancy value (Pejic, Radovanovic, and Stanisic, 1991), while Western investors show interest in recognised real market value. In the process of privatization (in developed countries), public companies are underpriced, while in Central European countries they are usually overpriced (Sevic, 1997). Inter-enterprise debt amongst SOEs is another important issue. Although it was formally forbidden in the early socialist period (1950s), later it became a very common phenomenon (Sevic, 1997). The problem of bad debt is even worse in the banking sector (Sevic, 1996b), but there is, as yet, no final solution to this problem.

#### *The Future of Public Enterprises*

Advocates of privatisation and decrease of the public sector primarily target the public enterprise. Although, during 1980s and early 1990s, the public sector significantly decreased, a number of public enterprises were eliminated. However, it cannot be said that the public enterprises will disappear soon. The public enterprises in some countries will 'survive' because they are natural monopolies, or because many governments still believe that public enterprise can achieve allocative, distributional and stabilization objectives, or simply because of ideology. In some countries, it still can be a way to minimize foreign ownership or to demonstrate governmental hostility towards privatisation.

However, even if the public enterprise is fully privatised, the interest of government will not disappear. The government will extend its control through the regulation. Regulation influences prices, quantities of production, rate of return, organisational issues, etc. Using legal act, new established governmental agencies try to protect customers and their welfare. Opting to move from public enterprises to the regulation of crucial industries, the government improves its own efficiency. The government can now devote itself to perform the better '*stricto sensu* public functions', leaving the commercial activities to the private sector. Keeping the controlling function, the government can influence the social welfare and meet its social function responsibility.

## **Privatisation As Revenue Source**

### *General Issues in Privatisation*

The term “privatisation” has many different meanings. It can mean, for instance, returning publicly-owned assets, i.e. selling out public assets. In a narrow sense, privatisation can mean a process “where control of an activity is passed from the public sector to the private sector by means of an issue of shares” (Ohasi and Roth, 1980). Although privatisation is similar in many countries, there are significant differences in privatisation techniques and the environment amongst developed, developing, and transitional economies. In developed economies privatisation is a process started in order to increase efficiency, reduce the budget deficit and shift the supply of public and quasi-public goods from the government to a private supplier. In developing countries the main aim is more likely to raise additional revenue for the government. In transitional economies privatisation serves political purposes more than economic, such as revenue raising, and is often the most important part of the transitional programme.

Privatisation, as a governmental activity, is supported by a several arguments. First there are economic reasons for privatisation. Second, there are arguments based on social efficiency and management improvements. Third, there are some ideological standpoints relating to the position of government in the economic life and its influence on economic activity. The latter should not be understood as a difference between socialist, communist and capitalist concept.

Economic reasons for privatisation include: 1) reducing taxes by using the proceeds from the sale, 2) exposing activities to market forces and competition, and 3) reducing both government spending and government’s participation in GDP (Hughes, 1994). Revenue from the sale of public assets can result in the reduction of Public Sector Borrowing Requirements (PSBR). Competition is seen as the best result of privatisation. Increased competition forces market participants to produce and price in accordance with the principle of economic efficiency. If a market participant does not follow the requirements of the public, quite soon it will lose the market share and will experience an adverse financial situation. With privatisation it is usually necessary to establish a new regulatory framework (although this is often not done in practice). It should be noted that selling public assets (primarily public enterprise) improves competition only if the entity is already in a competitive environment, as the sale of the monopoly without changes in the regulations does nothing for competition (Hughes, 1994). Indeed, the basic economic argument against privatisation is based on the possible misuse of the new private monopoly position, which ultimately may lead to a worse position for the consumer. However, it is sometimes the case that monopolies cannot behave in a completely predatory fashion because of the potential entry of competitors, as

suggested by '*contestable market theory*' (Baumol, Panzar and Willig, 1982). Thus, pricing must be reasonable or new competitors will enter.

Because they are natural monopolies, privatisation of public utilities is the most controversial issue in the privatisation process. Even after being privatised, public utilities must be subjected to controls on prices and standards of service. The privatisation of public utilities has shown that it is necessary to provide a sound regulatory framework prior to privatisation. It is particularly difficult to set up the framework after privatisation has been executed. If there is no effective competition, there will be a clash between privatised public utilities and regulators over prices.

Privatisation serves to reduce cross subsidies. Privatisation can be seen as a way of charging for services based on full real costs. Cross-subsidies can hide inefficiency and losses, and they should be eliminated as much as possible. Cross-subsidies assume mutual assistance amongst public enterprises (profitable enterprises assist other loss-making enterprises because of the social need for services supplied by the latter). There are other more efficient ways of supporting public service providers to which the assistance is to be given. Usually, these entities can be funded directly from the government budget through money transfers.

Privatisation reduces public borrowing. Revenue from privatisation can be used for several budget purposes or for servicing particular obligations. In the majority of cases, privatisation income is used for servicing public debt, such as in the U.K. and Hungary (Sevic, 1996a). The reduction of the Public Sector Borrowing Requirement is a very important part of the economic policy of governments. The level of PSBR influences the behaviour of the financial markets, as well as other institutional financial organisations (IMF, WB).

Second, support for privatisation is based on the assumption that the government is a very poor manager. Political influence on public management can seriously affect its performance. Managers in the private and public sector operate in different environments. Their immediate objectives can be quite different. For instance, a private manager has to maximize a company's profits, while public managers often must take into consideration various political factors. In some small-scale operations, it has been proven that the private sector is more efficient. For example, Savas (1982) found that private contractors tend to be cheaper than public enterprises in such areas as the collection of garbage and sewage. Other studies (Milward and Parker, 1983) suggest that there is no evidence that public companies are less cost-effective than private firms. The question is do both academics and practitioners idealise the concept of private provision of public services? It seems so, but there is no conclusive proof (Kay and Thompson, 1986).

*Privatisation Techniques*

There are many different approaches to carrying out privatisation, depending on the level of economic development, economic structure, and level of development of market forces. In the countries with developed market structures, or at least a minimum level of institutional development, privatisation can be carried out in four main ways: 1) charging; 2) contracting-out; 3) denationalisation and 4) liberalisation (Steel and Heald, 1984).

We consider charging as a method of raising governmental revenue later in the text. User charges represent a public price for a particular service offered. Charges are seen as a substitute for taxes. Contracting-out means entrusting service provision to private companies. This is instead of the establishment of public entities, or the replacement of public suppliers by contracted private providers. In general terms “contracting-out represents the substitution of private contractors for in-house production” (Steel and Heald, 1984). Denationalisation usually means a large scale sale of public assets, along with the abandonment of government monopolies. Denationalisation means a change of government functions in the market, and the decrease of government’s share in the direct production of goods and services. A distinction must be made between deregulation and denationalisation. Deregulation means only a weakening of governmental regulation and the creation of a wider regulatory framework for market competition. Deregulation increases competition, primarily because it allows more entrants to step into the market. Liberalisation means the removal of the legal prohibition on the private sector competing against the public sector (Steel and Heald, 1984). Although these activities are seen as four ways of privatisation, some of them usually go “hand in hand”. Thus, denationalisation is, as a rule, followed by deregulation and liberalisation. Liberalisation (by means of reducing regulation) is a critical part of privatisation, while contracting-out and charging are occurring across the public sector (Steel and Heald, 1984).

Privatisation can take three principal ownership forms: 1) stock market flotation; 2) sale to incumbent management and employees, (management or employee buy-out, or a combination of the two) and 3) sale to an already existing company. Stock market flotation means that the shares of the enterprises are offered for sale on the stock market. This process requires considerable preparation activities and the engagement of an investment bank as a financial advisor. Investment banks play a central role in determining the cost of capital. They provide advice to the company about appropriate interest rate levels, offering prices, and an estimate of the demand for new shares. The quality of this advice impacts the success of the money-raising process. In the case of denationalisation, the money received for the new shares will become revenue for the government. In some sense, the

pricing of shares for the offered public enterprises is both a science and an art. Financial data should be thoroughly considered, but it is also necessary to “feel” how the market will respond to the new offer. This subjective side is where investment bankers prove particularly valuable to companies in the privatisation process. Since the investment bank bears the risk, it earns a fee and commission. The more risk perceived by the investment banker, the higher the fee will be for the underwriting services. In this respect, an initial public offering is more costly than a primary or secondary distribution for an established company. This is because the investment banker cannot be certain of the price the new issue will fetch from investors. Although the public enterprise is an established entity, it has characteristics of a new economic entity that concerns the financial (stock) market. Privatisation by a share flotation has an aim to reduce agency costs of control through the clear specification of profit objectives, the introduction of a bankruptcy threat, the transfer of monitoring from the political process to the stock market, and the potential for improved managerial incentives (Fama and Jensen, 1983). It should be noted, however, that flotation by itself cannot cause “miracles”, and that evidence suggests that the newly privatised companies can have many internal problems. If the share disposal leaves equity ownership widely dispersed, there may be few pursuers for internal improvements (Vickers and Yarrow, 1988).

The second privatization option is to offer the company to the management or employees for purchase. In this case, debt and quasi-debt instruments are used to produce a concentration of equity in the hands of management (or employees) and their financial supporters. This type of privatisation, which is known as management/employee buy-out, can be combined with other privatisation types, or this can be just a step towards the privatisation of a public enterprise. The government might offer only a part of the enterprise for sale to managers and employees. The government in this case maintains some equity retentions and “golden share” provisions. Named instruments can protect the enterprise from take-over or acquisition. Financial engineering of management buy-outs is very complex and often must be done in small steps. In the case of buy-outs from the public sector, the government can give some assistance to employees or special privileges. In the West, buy-outs are known as a leveraged buy-out (LBO). In such cases, financial support is provided exclusively by the financial institutions. This technique is not the best for privatisation in East Central Europe because there is not a sufficiently developed financial structure (Sevic, 1996a). In the situation of nascent market-oriented financial systems, it is necessary to develop other techniques for buy-outs, such as vendor financing or seller-take back financing (STB). In the latter method, there is no need for additional money since the STB has credit in goods.

The third way of privatisation is through the sale of an enterprise to another company. There are many reasons why the prospective buyer may be willing to buy a state enterprise. These may include strengthening its market position, developing new programmes, diversification of activities and so forth. Usually in such a sale, the buyer obliges itself in the contract to follow certain requirements concerning employees, production, and so forth. In developed economies, there is no reason to distinguish between domestic and foreign buyers, since the economic structure and market, as well as the regulatory framework, are well developed and efficient. In Central European countries, this is not the case. Due to the lack of financial assets in the hands of domestic economic entities and households, the government must opt to sell enterprises to foreigners, both individuals and companies. The first steps in restructuring must be taken prior to the sale of the enterprises. In this way, the total value of the companies increases and the revenues for the government increases.

In a transitional economy, there are two main types of privatisation: 1) sale of enterprise, and 2) the giving-away method. If the government decides to sell enterprises, all three above presented modes ways of privatisation can be applied. Giving-away privatisation means dispersing privatisation securities (vouchers) to individuals. This kind of privatisation is not common in the West.

Well-organised financial markets are required to pursue an efficient privatisation. The real asset price can only be achieved in the capital market. Practice in developing economies has shown that the development of financial markets usually starts with trading in short-term instruments. In most cases, this means governmentally issued securities. The introduction, however, of a money market is just the first step. Privatisation requires the introduction of a capital market, which must be sufficiently large to accommodate the supply and demand for shares. However, practice in transitional economies has shown that all these markets face relatively serious illiquidity problems. Nevertheless, it can be concluded that financial markets support the execution of privatisation efforts, while privatisation increases the volume of shares listed on the market. Even giving-away privatisation indirectly supports financial development through the development of unit trusts, mutual funds, and other financial institutions specialised in securities pooling.

There is no best way for privatisation. In each case, the government and its financial advisors should assess all *'pros and cons'*. The privatisation method which will be publicly supported and economically efficient and raises the highest revenue for the government should be selected. In practice the government often must harmonize different conflicting interests in order to pursue privatisation.

*Fiscal Implications of Privatisation*

One aim of privatisation is the raising of revenue for the government. As a rule, privatisation always brings some revenue to government. It is almost impossible to find an example where a government has suffered a loss in the privatisation process, although strictly speaking, the classic problem of opportunity cost regularly appears.

If charging is considered as a way of privatisation (such as in Steel and Heald, 1984), the user charges can be considered as a particular revenue from the privatisation process. The same can be said for the contracting-out. This is an alternative to tax financing. The most important revenue, however, comes from the sale of public assets (denationalisation). This is one-time revenue which comes from the transfer of public assets to the private sector. Experiences in the 1980s and 1990s showed that this money was used for servicing public debt, and as collateral for new issue of securities (Veljanovski, 1989; Sevic, 1997). In the United Kingdom, the proceeds of privatisation are treated as 'negative' expenditures, instead of revenue. This accounting approach means that they reduce the amount of governmental expenditure in official figures and the public sector borrowing requirement (PSBR) which measures the public debt. In the period 1979-1984, receipts were less than 500 million British pounds in each year, and 1.8 billion British pounds in total. During all of these years, the government revenue from privatisation amounted to 0.4 percent of the total central government expenditure and grew slightly in relation to the public sector borrowing requirement from under 3 percent to over 5 percent. By 1986/87 the effect of privatisation grew rapidly. In that year privatization, reduced total central government expenditure by 2.6 per cent and the PSBR by more than half. The British government used a special way of managing of assets received from privatisation. The government spread its cash receipts from the privatisation of British Telecom (BT) and British Gas (BG) over a number of years. Privatisation receipts for 1987/88 include 2.5 billion British pounds of installment payments for shares and from the repayment of debts from the previous years' privatisation. This particular ability to spread receipts enabled the British Government to monitor effectively the level and timing of very large demands on the U.K. capital market (Hyman, 1983).

Studies of privatisation issues in Central European countries have given direct attention to the role of privatisation revenue in the total revenue of governments (Frydman and Rapaczynski, 1994; Bird, Ebel and Wallich, 1995). Local governments have been particularly attracted to revenue from privatisation or sale of municipal property. It is stressed that the local governments need revenue immediately and they cannot wait, even though they may receive a higher yield

later on. They pursue privatisation sales even though other sources of governmental revenue might be available which would offset these needs (Bird, Ebel and Wallich, 1995).

Revenue from privatisation is nonrecurring and this does not represent a permanent source of revenue. The revenue can be used as the basis for special funds, invested in special capital projects, or even used to finance current day-by-day expenditures. Although in principle there is no restriction on the use of revenues from privatisation in any country (Bird, Ebel and Wallich, 1995), this is not usually the case in practice. In most of the Central European countries privatization revenue is used for repayment (or servicing) of public debts (Newbery, 1991). In Hungary, revenues from privatisation have been largely used to repay that nation's external debt. Some believe that Hungary will soon use privatisation revenue to finance its deficit (Bird, Ebel and Wallich, 1995). In Russia, where privatisation was mainly internal, there were proposals (Lieberman and Nellis, 1994) to use privatization revenue to reduce the domestic governmental debt. In Poland, privatisation revenue has been used to finance recurrent operations and to compensate for inadequate tax yields (for financing the government deficit). This pattern is similar in the Ukraine and the other European republics, as well as in the former Yugoslav republics. In the former centrally planned economies the most important source of revenue is from the sale of housing to individuals and the sale of state-owned enterprises (SOEs) to foreign partners. Privatisation policy also reflects the relationship between central, regional, and local political factors in transition nations. Often it is necessary to supply local governments with revenue from privatisation in order for them to effectively fulfill their functions. They need a source of up-front, start-up money in the early years of the transition which can provide them the time to strengthen their own sources of revenue based on taxes, user charges, and fees.

#### *Privatisation in Transitional Economies*

The fall of socialism in Central Europe has opened the question of property rights and property transformation in these countries. While in developed countries, privatisation had more economic than political reasons, in Central European countries privatisation is a political priority. All of these countries have undertaken some steps towards privatisation.

In the U.K. privatisation had two principal objectives: 1) denationalisation, and 2) liberalisation (Vogelsang, 1994). The latter goal stemmed from the need to transfer *de facto* monopolies from public to private control (Moore, 1988). Successful privatisation programmes require that certain conditions be met—for example: 1) government must have clear objectives; 2) government must assist in



solving problems with fired workers as a result of post-privatisation restructuring; 3) since competition drives innovation, the risk must be shared; 4) government must provide a sound regulatory framework prior to privatisation; 5) the privatisation process must be supported by the public and 6) public enterprise reform must be only a part of broader structural reforms (Douglas, 1994). Although some may consider privatisation a separate phenomenon, this is not the case. Successful privatisation is always a part of wider economic structural reforms.

Privatisation in Central Europe must be seen as a tool with which the centrally planned economy is to be dismantled. Privatisation provides not only ownership changes, but also significant institutional changes. The appearance of private property requires the establishment of social institutions capable of sustaining this change. Privatisation may improve the efficiency with which socially available resources are used. Recall that wherever the use of these resources is not restricted, there arises the 'problem of the commons'. There are two ways to deal with the 'problem of the commons': regulation and the introduction of property rights. In the former case, a communal decision is reached on the common resources, while in the latter case the resource are assigned to an individual economic agent for their private use. Privatisation in Central European countries is not only a means for the transfer of property from the public sector to the private, but also for the creation of an efficient system of property rights.

The privatisation process in Central European countries must meet the following requirements: 1) privatisation must be accomplished quickly; 2) privatisation must be socially acceptable; 3) privatisation must assure effective control over the management of privatised enterprises by the new owners and 4) privatisation must assure access of foreign capital and expertise (Frydman and Rapaczynski, 1994). Although the first requirement can be seen as a political one, this may not be the case. Slow, piece by piece privatisation opens again the 'problem of the commons', i.e. free-rider problem and rent-seeking behaviour. While in Western societies there is, as a rule, a clear distinction between economic and political leadership, this is not the case in transitional economies. The firms' managers and government ministers are the members of the unique social '*nomenklatura*'. Thus, by using different methods, they collude to attract the largest shares of privatised companies. The officials in charge of privatisation require "their share" and other favours when the most prominent companies are to be privatised. However, it should be noted that most of theoretical privatisation models assume adverse interests of firms' managers and governmental ministers.

Since, in Central Europe, whole economies are to be privatised, improving competition is only a secondary objective. The primary objective is to change ownership structures and to improve efficiency. Only after privatisation has been

completed can the regulatory framework be established. Since in the command economy, the manager was just a representative of the state, he/she could not perform any real management function. The privatisation process must assure efficient control over the management of newly privatised enterprises. If the economic reform is planned thoroughly, the costs of the transition should be spread over all social strata. In Central European countries, there is evidence of income and wealth inequality. (See Part II Introduction) Privatisation influences social (re)distribution. People with political power are likely to appear as a new 'capitalist class' using social privileges. Practice has shown that privatisation in Central European countries results in a very high concentrations of property landing in the hands of a select few. If comparisons are to be drawn with 'advanced' developing economies (after the initial phase of privatisation), the share ownership of privatised companies will be quite centralised in the hands of a limited group of people.

In transitional economies, the sale of public assets through the privatisation process is by law an act of economic policy. Due to the privatisation process, governments in these countries may acquire extraordinary sums of money which they may use to service public debts or to cover current a budget deficit. In developed countries, increasing competition and economic efficiency are the main policy objectives. In transitional economies global economic policy and fiscal reasons are important objectives.

## **User Charges**

### *Definition of User Charges*

A user charge is a specific price ("public price" (De Viti De Marco, 1936)) charged by a governmental entity for a service or product whose production and distribution is under governmental control. The user charge is paid by the final recipient, the beneficiary of the product or service.

User charges exist when the government (the public sector) provides goods which are not pure public goods, but goods which have some characteristics of private goods (quasi-public goods). User charges introduce in the most direct and efficient way the benefit principle, so that the general public usually is not against their imposition. The recipient is responsible to pay for a good or service received. There is some similarity between the earmarked taxes and user charges. However, while earmarked taxes are still taxes (generally levied), a user charge is a price paid directly for received products or services. Therefore, earmarked taxes can also be seen as an indirect form of levying user charges (Hyman, 1983). In this sense, earmarked taxes are special taxes designed to finance a specific service. If these taxes are well planned and implemented, they might link tax contributions

with benefits received by a tax payer. The best example of earmarked taxes is the gasoline tax in some countries, such as the U.S.A., Yugoslavia, and the U.K., which are directed toward highway construction and maintenance.

User charges are utilized to serve a number of quite different functions. These include raising revenue, covering costs, satisfying the need to meet financial targets or required rates of return on assets, checking the abuse of a service, and meeting the need to target a subsidy and pursuit of equity (Bailey, 1995). They, like market prices, serve to ration the demand and supply of public goods and services.

Since user charges are analogous to prices charged in the private sector, they can finance government production and the distribution of goods and services only if it is possible to exclude individuals from enjoying the good or service if they do not pay for it. This is the “free rider” problem which must be dealt with by excluding those who do not pay, but enjoy the service. Thus, these goods or services must not be “pure public goods”, which are non-rival and non-exclusive in character. There are services which do not have both features of a public good. They are *rival* in consumption, so they can be rationed by price. As a rule, if the service or good is non-rival in consumption a user charge cannot be applied.

We have reached the point where it is necessary to distinguish the requirements for user charges. The necessary conditions for the application of user charges are (Mikesell, 1982): 1) benefit separability and 2) chargeability. User charges are only feasible if it is possible to identify the beneficiary of a good or service. Classic public goods, such as national defence, and general public security cannot be subjected to charges, since the whole community benefits from them; and there is no way to exclude anyone. In this case user charges are not feasible, nor are they socially desirable. Clearly, “benefit separability” is derived from the “rivalness” characteristic of a quasi-public good, while “chargeability” can be seen as a technical requirement for the design of a proper charge collection system.

Advocates of user charges usually stress the role of government in supplying private goods or quasi-public goods to its citizens. It is accepted that the government should use charges when involved in a commercial activity, i.e. services which can be equally, if not better, provided by a private entity. They see them as both efficiency instruments and an alternative to taxes. Charges may be imposed in such a way to exceed the cost of service, so that the surplus can be collected in a general revenue pool, or conversely they may cover part of the cost, while the remaining costs are covered by specific or hidden subsidies which come from general tax revenues (Davey, 1983). The former case can be called quasi-taxation, since a part of the charges are to be used for general purposes and in the government

budget. The latter case is also a non-specific situation since the cost of providing the service will not be completely covered from the collected user charges and the government will make up the shortfall.

We have considered a few controversial issues such as the difference between private and public goods, and charging for quasi-public goods, but, in practice, these distinctions are often murky. Consider, for instance, education. Social development has increased the level of “compulsory” education. Society defines the minimum levels of desired education, while higher education is socially desirable but not necessary. Hence, it can be argued that society (taxpayers) should pay for basic education, while higher education should be subjected to user charges. This is the trend in some developed economies, especially Anglo-Saxon countries.

Taking the above into account, it can be concluded that there are services for which governments usually charge, i.e. for which direct user charging is almost universal. These services are: 1) piped domestic and industrial water supply; 2) public transport (at least partially); 3) postal and telephone services; 4) gas and electricity (energy) supply; 5) public housing and 6) public recreational facilities. To some extent charges can be introduced for: 1) education; 2) public roads and bridges; 3) medical services; 4) irrigation assistance; 5) environmental health; 6) fire services; 7) special police protection; 8) airport services, etc. (Strachota and Engelbrekt, 1992). In all of these cases, pros and cons for the introduction of user charge can be found. If the user charge meets criteria of economic and social efficiency, it should be sustained. The experience of developed countries, especially the U.S.A. in post-WWII development, shows a significant increase in the share of governmental revenue coming from user charges. (Tax Foundation, 1988).

### *Rationale of User Charges*

User charges along with privatisation have been viewed as a *panacea* for chronic budget deficits in the second half of this century. However, simple budget shortfalls are not the only reason for imposing user charges. User charges have also helped governments to delegate some activities to newly established agencies, created on a purely management (read ‘entrepreneurial’) basis.

There are a number of political and economic reasons to apply user charges. If a user charge, properly applied, is really analogous to a price, it can serve accordingly as a signalling device. It can tell producers (i.e. government) what to produce and how much to produce. The question of “for whom” to produce is by definition solved, since “the service must be constantly demanded by individuals” (De Viti De Marco, 1936). Prices perform the function of generating income and rewarding the elements which go into production. User charges should perform

the same function, if they are established properly. They also ration output, as people look at it and decide whether they will pay the price (user charge) for the service. If they decide not to pay, they will consequently restrict the consumption of the product or service.

Resource allocation as a function of user charges is very important, because it almost entirely eliminates politically arbitrary behaviour. If something is to be financed by taxes, the log-rolling process in the government or Parliament is unavoidable. With user charges the output is adjusted to the amounts purchased at the set price. At the same time in a situation where the demand for a particular service is highly elastic, the introduction of user charges, as a rule, prevents excessive utilization of the service. In the case where the demand for a service is inelastic, in contrast, it will not be important because the failure to set out a high user charge will not lead to as much overutilization of the facility. The system of user charges provides “a tangible way for citizens” to express their preference for a publicly provided service, along with some funds for provision of the services (Mikesell, 1982). It should be kept in mind, however, that often the programme does not cover all the costs it generates, resulting in the need for subsidies from the government budget. Government provision has a positive advantage over other forms of production because it reduces transaction costs, solves the problem of sunk capital cost and makes the market contestable (Baumol, 1984; Rashid, 1988). Contestable markets assume no barriers to entry. It should be noted that a perfectly competitive market is necessarily contestable, but many markets which are not perfectly competitive, including a monopolistic market, may also be contestable (Reid, 1987).

User charges can impose “operating efficiency”, since government employees must respond to the requirements of consumers (service users). The concept of user charges demands that a governmental agency provide the services according to client’s preferences or they “will not survive” (Mikesell, 1982). Earlier in the text, qualities of user charges as market signalling devices were mentioned. However, user charges can also have a reverse effect on the private market. Namely, user charges might correct costs and price signals provided in private market. Properly priced user charges must reflect the true social cost of the action. The question of efficiency is a very important issue, since the introduction of the user charge for a particular publicly provided service must be justified before the legislative body (Parliament) in most of the countries. Even if the Government (executive power) is allowed to impose a user charge, it must be authorised to do so by the law.

User charges can equally improve the equity of financing selected services. It is obvious that in the absence of user charges, service beneficiaries will be

subsidized by other taxpayers. The introduction of user charges also solves the problem created by non-resident service users and tax-exempt entities. Some locally provided services can be consumed by non-residents in the absence of user charges. This consumption will be paid for by residents of the local community (municipality or town). By imposing user charges, the local government collects revenue from the immediate beneficiary, which is good for the local budget. Services are also used by tax-exempt entities, so the introduction of user charges helps to provide fiscal revenue from these entities. The logic for the charge is the following: the tax exemption does not exempt institutions from paying for goods or services obtained in the open market (Mikesell, 1982). User charges allow local governments to extract some revenue from entities that are otherwise out of its “fiscal jurisdiction”.

### *Pricing Policies*

The majority of user charges are connected closely with the government provision of services within public utilities. In such cases marginal cost pricing is to be applied. In the case of public utilities, it is often the case that marginal cost is less than average cost. If so, marginal cost pricing will require subsidies by the government. The economic analysis of pricing policy is closely related to the determination of prices of public utilities and public enterprises. Since every reasonable provider in the service sector must (re)cover the full cost, user charges must be reasonably priced, i.e. to be equal to the costs incurred in connection with the provision of the service. From an economic standpoint, the participant in the private market must at least cover their costs (*break-even point*), if they cannot make a profit. Profit maximisation is an aim of every private entrepreneur, while the aim of a provider of a public service is full cost recovery. Marginal cost pricing maximises welfare. Other options for the government are profit maximising and average cost pricing.

Public utilities are in the realm of natural monopolies. Firms are subject to sufficient economies of scale relative to the market, so that their average costs (AC) fall over the entire range of potential usage. It is assumed that only one facility is needed to provide the required service since the introduction of other entities would be very expensive, i.e. costs will be much higher than benefits. Or said in Khan’s words: “... a natural monopoly is an industry which the economies of scale - that is, the tendency for average cost to decrease the larger the producing firm - are continuous up to a point that one company supplies the entire demand... their costs will be lower if they consist in a single supplier” (Khan, 1988). Graphically such a situation can be presented by Fig. 1:

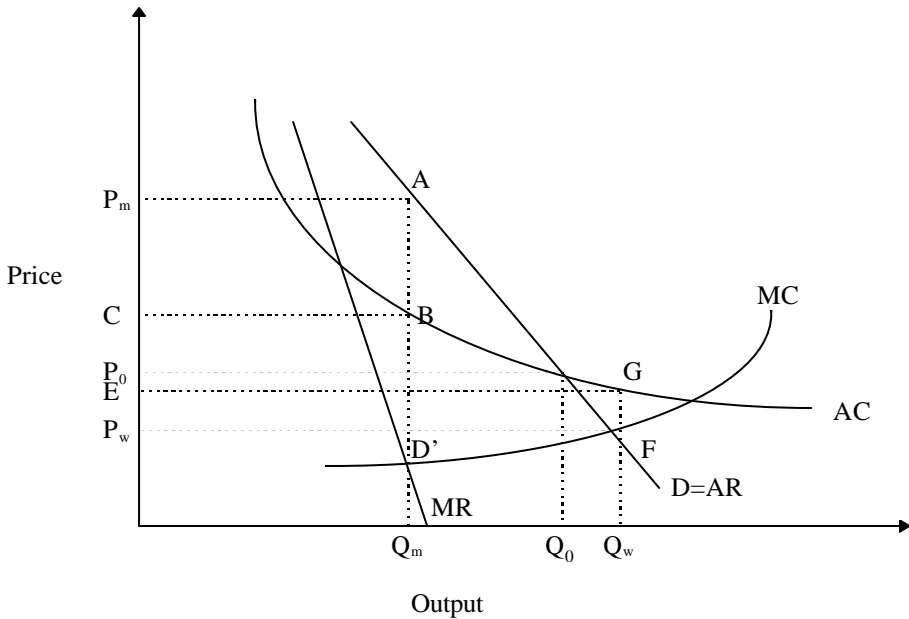


Fig. 1: Economics of scale

In this monopoly situation the government (the producer) can choose amongst three charge options: 1) profit maximising price (user charge); 2) average cost pricing and 3) marginal cost pricing. It should be noted that the firm's demand curve (D) is at the same time the market demand curve (since the monopolist is the sole supplier). Consequently, the demand curve is at the same time the average revenue curve (AR). If the monopoly is not regulated it is likely that the producer would charge profit maximising price ( $P_m$ ), and produce a profit maximising quantity ( $Q_m$ ), that corresponds to the intersection of the marginal cost (MC) and marginal revenue (MR) curves. Thus, profit ( $p$ ) as maximised when the marginal cost equals marginal revenue, (in the mathematical form  $(p)_{max}$ , if and only if  $MC=MR$ ). Profit is graphically presented as a quadrangle  $P_mABC$ . However, in the case of monopolies this kind of pricing is considered unethical (taking into consideration the specific monopoly market structure). If resources are to be allocated efficiently, price must equal marginal cost in all sectors. The latter is only a theoretical presumption since, in the absence of regulation, it is very difficult to achieve the situation where the price is equal to the marginal cost. This particular position of a monopolist is the reason for

government intervention either in the form of regulation or the involvement in the production of a particular service within the monopoly framework.

The second option for the government is to charge prices based on average cost pricing. Thus, the government will charge price  $P_0$  with output  $Q_0$ . In this case, there is no exploitation of the consumers, but in that the marginal cost is not equal to the price, and *vice versa*, the marginal rate of substitution diverges from the marginal rate of transformation. This affects Pareto optimality and efficiency, since the criteria for these are not fully met.

Marginal cost pricing maximises welfare, since the largest quantity of goods will be produced at the lowest price. Enterprises should charge a price equal to  $P_w$  and produce an output equal to  $Q_w$ . Compared to the profit maximisation point, the output will rise from  $Q_m$  to  $Q_w$  (production with maximised welfare); and the consumer surplus will increase to include the deadweight loss of monopoly allocation. This is represented by the area of triangle ADF. It should, however, be noted that at this level of output the firm suffers a loss since the average cost (AC) continues to fall, meaning that the marginal cost (MC) will be higher than the average cost (AC) at the level of output. A loss can be seen on the graph as the area of quadrangle EGFP<sub>w</sub>. In this situation the cost to the firm must also be covered somehow, either by means of a deviation from the efficient price equating the marginal cost with demand or by means of a financial contribution that covers the loss at marginal cost price settings. Since we assume that this is *not* a regulated monopoly, but that the government is the direct producer of a service, from the welfare point of view, the optimal solution is to charge a price equal to the marginal cost and to cover any losses from the revenues of general taxation. Finally, the marginal conditions needed for efficiency will be met throughout the economy and Pareto optimality will be achieved. Nevertheless, some economists argue that average cost pricing may be preferable to marginal cost pricing because it provides an *ex post facto* check upon whether the facility should have been built or its capacity expanded (Little, 1960).

The government can take into account the willingness to pay when deciding how to price public services. This, of course, can cause some problems from the technical (operational) point of view, because the government itself usually cannot act as a discriminatory monopolist in the situation where political power represented by social interests offset this action by government. In Western countries higher prices are usually set for households, while in transitional economies user charges are higher for industrial users. In this way, the government supports the standard of living of households and extracts the additional necessary money from industry (this can be seen as a special form of quasi-taxation). However, there are social arguments for some discriminatory user charges, i.e. to favour low-income



individuals and households (in the case of public utilities). The reader should note that only a simple monopoly model has been presented and discussed.

The main idea of charging is cost recovery. In the private sector market forces are crucial in determining a price, while what concerns the pricing of user charges are political factors. Thus, the political factors can decide to charge full costs, or below or above full costs. Regardless of which decision is made, “full costs” must be determined. First of all, what expenditures are to be attributed as costs to a particular publicly provided service? The question arises of where to draw the line between the costs of a particular service (which should be charged) and those for general public services or the general administrative overhead of the government providing the services. There is no correct *answer to* this question. In every particular case it is necessary to perform a separate assessment. A decision is usually achieved through establishment of marginal costing. User charges are usually based on the principle of charging the marginal cost, that is the public expenditure which arises specifically for the provision of a particular service.

A second problem arises as to whether to calculate costs based on the actual expense for the provision of the particular unit of service or on a “*pooled average basis*”. “Pooled average basis” pricing assumes a classification of users into groups and charging an average price for all customers. In this case some of the customers will be better-off and some worse-off, but the social standing should remain the same. Depending on the nature of the service provided, the costs can be covered differently. If the service is treated as a pure private good, the consumer should pay the *true cost* of providing the particular service. This encourages a rational use of services and an optimal distribution. The distribution of electricity is probably the best example for the majority of developed countries. In case of developing economies, a consumer may be charged a linear fee for the development of electricity infrastructure in remote areas (African countries, Yugoslavia, etc.). In contrast, it can be argued that the prevalence of the public nature of a service, and if the service is seen as a basic human need, all the strata in the society should be allowed, as much as possible, to be in a position to consume a particular service. The “new right” approach is more in favour of the former, while “leftists” are more for the latter option. In a transitional economy, the government is more typically in favour of a “*pooled average basis charging*”, because of strong political factors. It is believed that in this way that the living standard of the population can be protected to a certain extent.

The third problem is concerned with whether to include capital costs and on what basis. However, unless the marginal price is equal or greater than the average price, the inclusion of capital costs cannot be accomplished if the marginal cost pricing approach is used as the basis for financing. Most services offered are

declared as self-financed, but in reality only operating and maintenance costs are charged to the consumer. This occurs most often with natural monopolies with very high entry costs. In these “industries”, the initial capital costs have been covered from the general public revenues or from loans which have been fully repaid. In practice, if the debt charges are still present they will be included in the chargeable costs, although it is possible for the government to subsidize these. However, there are arguments to include capital costs in the estimation of user charges, since the capital investments are regarded as having opportunity costs, (this money could have been spent on some other things useful for the public or not have been extracted from the taxpayers). In this sense, capital investments which provide a particular public service are to be justified if they earn a rate of return comparable with alternative forms of public or private use. It can be argued that there is no reason to charge current consumers for true costs, since they have been met by the previous generation of taxpayers or consumers, or by another public body. Within this approach, consumers should be charged for regular maintenance and replacement costs, but not for the costs of initial capital investment. Marginal cost pricing goes in this direction. Marginal cost pricing charges all consumption at the unit cost of meeting any additional demand and if extra demand would necessitate new capital investments, its unit costs would be reflected in the price of the whole existing supply. Thus, every consumer must be faced with the full cost implication on the grounds of increasing demand.

There are few political perplexities with reference to the pricing policy for user charges. Chargeable cost may include the average of operation and maintenance costs, or can include amortization of capital costs in different manners (interest free or submarket costs or at full commercial costs). Capital investment can be included in user charges on the basis of depreciation over the defined time, or on a commercial rate of return. It can be valued at the historical or current costs. The choice is highly influenced by the political positions, the ideologies, the current school of thought, the economic situation in the community, etc. However, from the economic point of view, marginal cost pricing is the most socially sustainable.

There is also an option to charge for services provided the cost is incurred. In this case, the provision of service must be subsidised from general revenues. This is the case when marginal cost pricing is used and the marginal cost is less than the average cost; government subsidies are needed. Usually, advocates of this approach stress that the services are offered because of the collective benefits for the society. Besides the individual benefits reaped by the consumer, there may be some social benefits as well. Consequently, society should bear part of the costs of a quasi-public good and/or “common pool” good (Paul, 1985). Finally, due to the fact that user charges are under great political influence, the service which

provides a private good, should be subsidized if it is regarded as a *basic human need*, and where low-income groups cannot meet the full cost of consumption. From the pure economic point of view, subsidies can be counterproductive since they can increase inefficiency and distort resource allocation. Subsidies question the ground of the user charges as “public prices.” However, if user charges are prices; price discrimination can be applied. In this manner, lower (subsidised) user charges can be applied to certain social groups (low-income consumers), and second, the subsidies can be applied to a socially defined minimum level of consumption. Above this level, full market charges should be applied. In transitional economies political factors advocate for subsidised services. In transitional economies subsidised service can be a significant advancement, since in the communist time most of the public services were supplied free of charge. Thus, there is a great gap to bridge between the free supply of services to the full cost pricing in the formerly centrally planned economies. In the majority of Central European countries, housing services, water, electricity, and sewage collection are underpriced in order to reduce the costs of transition imposed on citizens. This policy, however, often results in chronic budget deficits and unsound public finances.

It is also possible to charge above the full cost of service. In this case, provider of a service will gain some profit. This happens rarely in practice. Usually, it is the case with user charges which are imposed for basic regulatory purposes and have low direct costs. This is often the case with licences and fees. Charging above the full costs can be introduced in order to reinforce the disciplinary effect of charges upon consumption. This can be seen in Central European countries (particularly Serbia) for the consumption of electrical energy by households beyond approved levels. Excessive costing is viable in market situations where there is a very high demand for a service, and consumers are ready to pay above costs. This is the case with very popular or important services or where the service is in short supply. The best example is the new communication service (mobile phones) in transitional economies. Charging above the full cost is rationalized by explaining that extra revenue will be used to extend services to a wider number of consumers. From the pure public finance point of view, charging above the full cost is very similar to taxation, and incidence and equity of such an act should be considered. Charging above the full cost is usually discriminatory towards low income groups (due to income elasticity of public demand). It should not be imposed in the case of services which have a wide consumer base which would penalize the less wealthy.

*User Charges Efficiency and Financial Adequacy*

Although “convenience and efficiency are not the primary objectives...or the hallmarks...of democratic government” (INS v. Chade, 422 U.S. 919, 914 (1983)) experience has shown that democracy is the basic institutional requirement for an efficient market economy. Consider the efficiency of user charges and their financial adequacy. Theory makes a distinction between pricing to recover costs (the fairness concern) and pricing to manage use (the efficiency concern). Fairness is understood as a requirement of consumers to pay for services (Rosen, 1988). In terms of economics, efficiency basically focuses on how pricing influences allocative decisions. “Efficient use results when the person deciding whether or not to use a given service values it at whatever it costs to provide the specific increment of service he or she asks” (Congressional Budget Office, 1986). Hence, the government must subsidize the producers which apply marginal cost pricing (where marginal cost less than average cost), leaving the taxpayers a heavier tax burden. Thus, the government must find the most appropriate solution in both regulatory and fiscal terms.

The introduction of user charges can promote four gains in efficiency: 1) more cost effective governmental programmes; 2) better allocation of private resources; 3) better use of facilities now in place; 4) assured funding for most of economic projects (Congressional Budget Office, 1983). User charges give consumers an incentive to demand suitable choices of government services. Facing financial constraints, they will redefine demand for public services, and the government will pay more attention to the services favoured by the public. The second advantage stresses that if there are no significant public subsidies from general government revenue, user charges may, in some cases, improve the allocation of private resources. Thirdly, user charges usually support the efficient use of existing capacity, and in this way can reduce the need for new construction. Finally, planned revenue from the user charges can be an important element in deciding whether to start a new project.

The financial importance of user charges has been seen as a tool for deficit reduction. For instance, in 1984 the U.S. federal government projected 6.2 billion USD from federal user charges., (Congressional Budget Office, 1983). It is generally true that user charges increase participation in the government budget process in most countries (not only in developed ones). In the transitional economies, the trend of the use of user charges is somewhat erratic, since there are unexpected declines in monies received in some years. However, the general trend is positive, i.e. the amount of money from user charges in the government coffers constantly increases.

Finally, consider some limitations of user charges. There are four commonly discussed limitations. These involve: 1) existing subsidies to competitors within the concept of the “Second Best Solution”, 2) infant industries; 3) previously invested capital and 4) legal constraints (Congressional Budget Office, 1983). Public subsidies to all competitors can from the economic standpoint be sustainable. Continuing subsidies on the “second best” basis cause less distortion than requiring an industry to support itself when competition is likely to create problems, such as the collapse of an industry and creating unemployment. To enhance an infant industry, government may decide to significantly underprice the user charges. In such a situation subsidies can reach high levels so that the service will be almost completely financed, in effect, from general revenues. The user charges in the industries with high previously invested capital can be somewhat problematic if the government wants to include in the charge so-called “*sunk costs*”. This can explode user charges to the point that there is no use of a facility which may be capable of providing additional service at a low economic cost. This issue was mentioned previously in connection with doubts about whether or not to include the capital investment cost in a user charge.

#### *User Charges vs. Taxes*

The opposite of taxes are user charges which are the public price for a particular service consumed. The service can be withheld if the consumer does not pay. For chargeable services the consumer must have a choice whether to consume the service, and how much to consume. Although there are some exceptions. There are so-called “*class charges*”. These charges are made to a class of consumers who benefit from the service, unrelated to the specific level of consumption of individuals within the class. In this particular case, consumers can choose to enter the class, but once a member of the class they must pay a flat user charge imposed for the whole group.

Since the user charge is a price, it is important how consumers value it with respect to other things that they purchase (Brownlee, 1961). This involves the application of the *opportunity cost* concept. Government cannot deliver “free” goods and services with relatively elastic demand. Attempts to produce and distribute these goods “free” and to finance production from general revenue (taxes) will result in a serious shortage or waste of resources, i.e. too many resources will be devoted to the supply. The government must understand that “*there is no such a thing as a free lunch*”. Somebody must always pay directly or indirectly. When consumers pay directly it will be in the form of a user charge, while indirect payments will be made through taxes.

User charges are superior to taxes in all cases when the requirements for charging can be met, and charging is technically feasible and not excessively costly. User charges definitely provide a more adequate supply amongst users, even though some of the services may have the important elements of a collective nature. They are much more applicable tools of fiscal policy and are politically much more sustainable than taxes. It is easier to charge people when they can “feel in their hands” what they get for their money (‘value for money’).

## **Fees And Duties**

### *Definitions and Use*

Fees are monetary charges for immediate services made by government entities, where these services are mainly of non-material nature, i.e. services provided by the government organs and agencies in performing their public duties. Theoretically, it is quite hard to make a clear distinction between user charges and fees. Often, especially in American literature, user charges are referred to as *user fees* (in Congressional documents, for instance). It can be said that fees are special charges imposed for government provided services which are required by law when the government acts as a regulator. The services for which fees are charged can be rationed without direct influence on citizens’ well-being.

Fees do not involve the direct sale of goods or services, but involve payment for some privileges granted by government (Mikesell, 1982). Fees are often voluntary as are user charges, but the user is relatively less free to choose not to have a particular service. Citizen can choose not to pay for a car licence, but without the licence they cannot drive.

Fee amounts depend primarily on the various costs of services. If the service is mainly providing advice and consultation, it is more difficult to estimate its real cost. Also, when the services for which fees are charged are part of the main activities of the government agency, the public should be involved in both the production and consumption of these services. Often high fees have an aim to change the behaviour of users. This is the case, for instance, with high court fees for some legal cases before the highest courts in a nation. If the government charges fees above the costs which can be estimated precisely, the revenue from these fees has some characteristics of general revenue (taxes).

Fees can be charged as a percentage of the value, or as a fixed sum. They cannot be charged for all government services, but only for those listed in a particular legal act. There are, however, usually personal exemptions or exemptions based on the use of service. Personal exemptions can be introduced based on social welfare reasons—for example, for impoverished citizens. Other exemptions

can be introduced because there is a public interest in providing a service for free. Taxes can be introduced by the central or federal governments, and by local authorities (regional, district, city, municipal). Fees can be classified as administrative and court fees. During the time of absolute monarchies, it was possible for civil servants to charge fees that were not governmental revenue, but income for the civil servant. In current practice the fees are always governmental revenue, at least de jure. Fees can be paid for in cash or with special fee stamps. Some of the fees can be charged in advance, while others are collected upon receiving the services. The revenue from these fees can be used for general or specific purposes.

A duty can be understood as a payment levied by the state, particularly on certain goods and transactions. Examples include, customs duty, excise duty, and stamp duty. Customs duty is a charge or toll payable on certain goods exported or imported into a country. These duties can be charged *ad valorem*, that is as a percentage of the value of goods, or as a specific duty charged according to the volume of the goods. The goods that are subject to custom duties are listed in the Customs Tariff or in other legal acts. Often custom duties are called customs tariffs, or just a tariff. Excise duty is a charge or toll payable on certain goods produced and consumed within the country. In some countries (the U.K., for instance), payment for a licence to sell spirits is classified as an excise duty. The stamp duty is a specific charge (someone would say tax) payable on the certain legal documents specified by law, i.e. statute (Whitworth and Mackenzie, 1956). Stamp duty can also take the form of a fixed duty or *ad valorem* duty. In the former case, the same amount is payable on all documents of a particular kind, while in latter the amount of duty varies according to the value of the transaction effected by the document.

A specific kind of service for which a fee is charged is *licence issuing*. The government can issue a variety of licenses to regulate and to obtain revenue. Charging for licenses is a way to reduce the net costs of regulation. Licenses can be required for businesses, professionals, occupations, marriages, hunting, fishing etc. When governments decide to regulate something, usually there is a possibility to employ a licensing system. Without licenses, some activities cannot be legally performed. From a fiscal point of view occupational licenses are the most important. Permits to sell cigarettes, alcohol, or organize gambling are usually expensive, while the costs of issuing the permits are quite low. The fees are a useful means to tax individuals beyond the jurisdiction of a particular authority. In this respect, fees have the same role as user charges. Some licenses, such as the building permits, should be linked with appropriate taxes. For example, building permits should be linked to property taxes since the building permit would normally

indicate a prospective change in the assessed valuation which should appear in the assessment after construction is completed. Licensing is very useful for certain professions and for budget planning. If records of issued licenses are properly kept, the fiscal authorities should have precise information on economic entities in certain branches of industry. Licensing not only controls the start-up performance of a business, but also provides useful information for regulatory control.

The revenue received from fines and forfeits is similar to the revenue received from fees. Revenues from fines are collected from individuals who commit forbidden acts or for neglected duties. Forfeit revenues are those revenues garnered from amounts held as security against loss or damage to public property, collections from bonds or securities placed with the government for this same purpose, and penalties of all sorts, except for those levied on delinquent taxes (Hay, 1980). It is very difficult to anticipate revenue from fines, as it is not feasible to foresee how many individuals will break the law, neglect their duties, and so forth. In terms of accountancy, fines are more readily recognized on a cost basis, although they might be recognized on an accrual basis as well (Lorenson, 1980). Penalties for the delinquent payment of taxes are not included in this category of revenue, because they are considered part of tax revenues.

#### *The Importance of Fees and Duties*

In levying fees, it is necessary to meet three conditions simultaneously. First, there must be an identifiable individual or group of individuals, which directly benefits from the provision of a particular service. Second, it must be possible and feasible to exclude individuals from using service benefits, if they fail to pay. Third, individuals must have the right to choose whether to benefit from the service or not. (Strachota and Engelbrekt, 1992).

In the best situation, fees cover incurred costs, but as a rule this is not the case. Fees can also be an instrument for regulation. In this manner extremely high fees can be used to reduce the demand for a particular service. In the U.K., this is the case with a pub licence, where the fee increases in relation to the number of operating hours.

Customs duties, also known as tariffs, can also be understood as an *excise tax* levied on imported goods (Rosen, 1988). Taxes can be imposed on both imported and exported goods. In the early years, tariffs were the single most important revenue source in the U.S. As late as 1902 tariffs accounted for 37 percent of U.S. revenue (Rosen, 1988).

Custom duties are sometimes used as an important tool in foreign trade policy. Although custom duties are important revenue raisers in developing countries



(Rosen, 1988), tariffs today are mainly a tool of protectionist's industrial policy. However, the share of tariffs in governmental budgets is higher in developing countries as compared to developed countries. Therefore, trade liberalisation in these countries is difficult to pursue, because it is then necessary to find alternative sources of revenue. Shifting the revenue function to a domestic indirect tax is usually recommended (Rajaram, 1992). On the policy side, the reduction of tariffs is designed mainly to lower the level and structure of protection afforded domestic industries and to reduce the corresponding bias against exports. The World Bank's recommendations for tariff reform are: 1) the introduction of a uniform duty rate of no more than 15 percent, and 2) exempting from duties imported inputs that are part of goods produced for export. The implementation of a value-added tax of the consumption type, which is applied at a uniform rate to domestic production and imports, but exempts agriculture (especially non-marketed food consumed by the poor), can also be very useful (Rajaram, 1992). Excise taxes should be applied to luxury products instead of tariffs.

Customs duties, as a rule, are the exclusive revenue of federal governments. Fees are collected at all levels of government. Municipality, district, city, federal units or federations can charge fees for their services. It is very unusual that revenue from fees would amount to more than one half to one percent of revenue. From the economic point of view, fees should cover only *variable costs*, not overhead or fixed costs. The reason for such view is that the government maintains a certain level of activities anyway, and this level is financed from general revenues.

#### *Introduction of Fees and Duties*

In the decision-making process governments must consider issues relating to administration and coordination of fees. In order to introduce fees, governments must envisage low costs of administration, and fairly simple collection procedures. Both direct and indirect costs must be fully considered in order to establish a fee which can cover these costs. The government must also assess the behaviour of the public and its response to the imposition of fees. Although it is possible that a fee will be charged for a service from the time when the service becomes available, usually the service was formerly offered by the government free of charge. This is the reason why every new charge can produce a hostile reaction from the public. The public's acceptance of new fees may depend largely on the extent to which fees already are used by their jurisdiction.

The introduction of fees has both fiscal and regulatory effects. The regulatory effects are probably greater. Admittedly, permission to behave in a particular way can be regulated without the use of fees. However, the revenue motive of

government can also be met with fees. The collection costs of fees are usually low, while the revenue productivity can be quite high. As fees are uniform for all citizen, they do not follow the “ability-to-pay” principle of tax equity.

In developing and transitional nations tariff are composed of a complex set of customs duty and stamp-duty. Thus, in these countries tariff reform must lead to a simplification and rationalisation of the tariff structure. There are many arguments to support the introduction of tariffs, but customs duties should be lowered and coordinated internationally through bilateral agreements and the WTO. In most cases tariffs can be efficiently replaced with appropriately designed taxes, such as a Value-Added Tax (VAT).

### **Other Non-tax Revenues of Government**

Non-tax revenue of government also comes from surplus revenue of public enterprises and from different credits. Revenue from the “printing press” and public property are often also considered (Dalton, 1930). The government can also obtain revenue from interest earnings, rents and royalties, from the sales of fixed assets not under the auspices of privatisation, escheats (in the U.S.A.), contributions, and donations. The government can obtain maximize interest earnings from effective cash management. In the past revenue could only be obtained from long-term securities, but today interest can be obtained from both short-term and long-term investments. Governments can also obtain revenue from lending its property to the private sector. This revenue is forecastable and may constitute a significant source of revenue. The main objective of all administrators is to obtain the maximum revenue from each source.

### **Defficit Financing**

Referring to the post of Finance Minister Professor Miroslav Petrovic, a leading Yugoslav fiscal expert, once said that in the nineteenth century a good finance minister was a person who could provide a surplus in the budget, between the two World Wars a good finance minister was asked to maintain a balanced budget, while today the Minister of Finance is found to be successful in performing their duties if they are capable of keeping the budget deficit tolerable and under control. This story probably best describes the current attitude towards deficit financing in practice. Public debt finance has become an important item of revenue sources from the late 1950s, and it seems that it will remain so in the future.

### *Definitions*

The government can finance its activities from the current revenue (taxes and other revenues) and/or to borrow money from the public. The government debt is

a legal obligation on the part of a government to make interest and/or amortisation payments to holders of designated claims in accordance with a defined temporal schedule. The government can borrow from individuals, enterprises (commercial sector), financial institutions, other governments, international financial organisations, etc. Lenders transfer funds to the government, while the government issue particular instruments which represent claims on governmental revenue in the specified period of time. The debt is liability of the government.

Public debt results from borrowing money from an individual or institution with the promise of repayment at a later date (Mikesell, 1982). The government debt arises from the situation in which there is a discrepancy between revenue inflow and duties to finance. The government with the independent monetary system can provide revenue from: 1) taxation; 2) money issuing and 3) public debt. Only central government, i.e. body with the central monetary authority, can create money and though inflation provide specific way of taxation through inflation. Taxes are collected at this very moment, and will be spent to finance obligations within the current fiscal year. On the other hand, the public debt is spending of “the future revenue” at the present moment. Method of government debt as a way of finance government activities involves the replacement of present taxes with future taxes, with the future taxes being necessary to pay interest on the debt as well as perhaps to amortize it.

Government debt comprise voluntary agreement between government as a borrower, and the lenders. Taxes are compulsory and tax evasion is a serious criminal offense. However, if an individual does not want to buy government bonds, nobody can force him/her (at least in the democratic countries). Public debt also has another particular political weight. Namely, money is borrowed during the rule of one government, while servicing of the debt may be done during the rule of another government.

Public borrowing generally cannot affect the wealth, but this is not always the case. It is true when the source of borrowed funds is from domestic entities. If the source for the public borrowing is external (foreign), and if this money is spend in consumption (as in the previous Yugoslavia in the mid and late 1970s), people can systematically underestimate the future tax payments that the public borrowing entails, and they will perceive themselves wealthier than they really are. The possibility known in general theory as a *debt illusion*. Debt illusion is a common phenomenon, but it should be really connected to origin of borrowed money and purpose for which money is used. It is also very similar to other “prejudices” as how money will be spent by private users and public sector, i.e. for consumption and investments, respectively. The main ‘trigger’ for debt illusion is the governmental policy, and its choice of expenditure priorities, as well as revenue

sources. The fact that governmental securities can be held by both domestic and foreign citizens and legal entities should be taken into account. So, in this case, there is a special kind of transfer and inter-country distribution. But, if in both cases benefits surpasses costs, the social efficiency is increased.

### *Institutional Requirements for Public Debt Financing*

There are legal and institutional requirements for the public debt. There are a few common features of the institutional arrangements, such as: 1) legal (statutory) limits on public debt; 2) budget inclusion of annual provisions for interest and payment principal, but without requirements to vote; 3) public debt is administered by specialised (governmental) agency, and 4) central bank is in charge for daily management of public debt.

In the U.S. there are the legal limits on public (national) debt. At the moment the limit includes all debt issued by the U.S. Treasury, agency debt in the form of participation certificates and other debt issued by federal agencies. In the period prior to 1979 the debt limit was set out in separate legal procedure, but at the moment it is part of the regular Congressional budget procedure. Similar practice can be also found in Denmark where there is no general debt limit, but the external borrowing should be approved by the Parliament. It is possible to set out the particular limit on external borrowing up to the certain per cent of expected budget appropriations. The most strict limitation is to fix limit on borrowing approved by the legislature. In Yugoslavia, for instance, there is a limit, stipulated by the Law on the National Bank of Yugoslavia on the borrowing in the course of a fiscal year.

In the U.K. and its former colonies, outlays and related debt charges are included in the budget and treated as expenditures. This does not require parliamentary approval. In France, debt payments are included in the estimates for treasury operations. Although included in the Budget Law, the amounts are only indicative of needs, and the Treasury can take action, if necessary, without additional parliamentary action. The Parliament votes on the Budget Report and Final Accounts of the government.

Thirdly, the management of public debt can be entrusted to the autonomous special organisation. For instance, in Sweden debt management is in hands of the National Debt Office (Riksskuldkontoret), which is fully responsible for all governmental borrowing in the country and abroad. In the U.K. the National Loans Fund (NLF) is to handle public debt, and to which all money raised through the creation of debt are to be payable. The NLF handles debt offered to the public, the proceeds of national savings, treasury bills and ways and means advances from the Bank of England (BoE). All debt repayments and interest

payments are to be conducted through this agency, although appropriated through the budget.

The central bank can be in charge for debt management. Usually in all countries the central bank fulfills the function of a banker, agent and advisor to the government. It administers the accounts of the government. It could be concluded that the central bank operates as a governmental banker for several reasons. First, it is more convenient and economical to a government to centralize its operation in accounts kept with the central bank. Second, such arrangements are also preferred because of the (supposedly) close relations between monetary and fiscal authorities. Also, it should be kept in mind that in every country the government is the largest receiver of revenue and invariably is the biggest borrower, as well as that governmental expenditures play an important role in the entire economic life. On the other hand, the central bank is responsible for influencing monetary conditions in the economy, and carrying-out overall monetary policy. It is believed that the centralization of government accounts with the central bank at least gives to the central bank better opportunities of judging the general financial situation at any time, especially after some disturbances in the financial markets (Schieber, 1994).

It has been seen recently that government also opts to put some money in commercial banks. In such a situation the central bank can opt to reduce the access to central bank refinancing facilities for these banks, because the part of stock funds previously kept with the central bank are now with these new banks. The central bank acts also as an advisor to the government, or they closely cooperate in defining global national economic policy. The central bank can be entrusted, for instance, to manage public debt. In particular it can handle new issues of governmental bonds. Often, the central bank sells these securities in a primary market, or acting as an agent sells them on the money (i.e. secondary) market (Sevic, 1996a). Also, it is possible that the central bank keeps the registrar of government issued securities, or to act as an foreign exchange control agent. Special and important issue in inter-relations of the government and the central bank is the financing of the government by the central bank. Legislation limits this ability quite strictly accepting that direct credits to government can spur inflation. These legal limitations faced by the central bank in financing budget deficits incurred by the government are justified in terms of avoiding large monetary stimuli (Sevic, 1996b).

It can be argued that the government should be largely, if not completely, prevented from using central bank credit instead of taxing or borrowing from the private sector. Taxes make the cost of government expenditure more explicit to the public, which in turn contributes to a more optimal allocation of a nation's

limited resources, while inefficiencies in the tax collection system are also more likely to be reduced if the resource to central bank credit is limited. Likewise, borrowing from the private sector rather than the central bank makes the cost of borrowing more explicit, because the government will have to pay a market determined interest rate, while the interest charge will be reflected as current government expenditure in the annual budget. In that way the pressures to curb governmental expenditures could be stronger. Without exception, in Central European countries the central bank performs the function of a governmental (state) banker. But, on the other side effective legal constraints prevent excessive central bank finance to the government, which could endanger the entire implementation of monetary policy. These ties can be stronger (Moldova, Belarus), or weaker (all the other countries). In all these countries governmental accounts are usually kept with the central bank, almost without exception. Also, the central bank is entrusted with the duty to service, as an agent, public debt or manage foreign exchange reserves for the government, observe repayment of a foreign debt, and so on (Sevic, 1996b).

*Debt Financing: Inflation or Debt?*

As it has been previously said, the government has the choice to finance its activities from taxes, public debt or 'issuing money'. In the first half of this century, when the debt financing was regarded as 'extraordinary revenue' (De Viti De Marco, 1936), revenue from money issuing (*seigniorage*) was presented as "*income from the public printing press*" (Dalton, 1930). But, it was understood as a type of the public enterprise activity. In that time it was stated that the "printing press" may be used directly or indirectly to create inflation. It is used directly when a public authority pays its creditors with new paper money specially printed for the purpose.

Inflation has all the characteristics of taxation. Namely, it is the same result for an individual whether the government introduce taxes of 50 per cent or when the inflation rate is 50 per cent. In both cases, the repurchasing power of the stock of money in hands of an individual will be the same. The same influence is on the banking sector when a very high level of non-interest bearing compulsory reserves is imposed by central banking authorities. Money issuing reduces the value of the money stock in hands of the population. Whether money is issued by private individuals (what is criminal offense) or by the government, its value declines as each unit of money is able to command fewer goods that it could before the money expansion. So, inflation, as a primary monetary phenomenon, is characterised by sustained, constant rise in (the level of) prices, which is also seen as decline in value of money.

At the present time, the government usually does not issue the money directly, but the central bank issue notes on behalf of the government (the State). In the U.S. in order to avoid pure inflationary finance by the government the money is created by the Federal Reserve System - FED (the U.S. central monetary authority, central bank), as the System increases its ownership over national debt. The U.S. process of monetary expansion is referred to as debt monetization. In economic terms, this means that the government is immediately responsible for borrowing, but not for money creation (inflation). Debt monetization and “money printing” influence directly the market for loanable funds and financial markets. This directly shows mutual connection and influence between fiscal policy led by the government, and monetary policy executed by the central bank (Sevic, 1996a). For instance, if the government pursues policy of governmental deficit, demand for loanable funds will increase. In contrast, high required reserves imposed on the banking sector, reduce the supply of loanable funds.

The public deficit always crowds-out a certain amount of private investment, so the private borrowing must be reduced. The government will choose the budget deficit policy because the government (ruling) party thinks that the deficit will strengthen its political support more than a reduction in expenditure or an increase in taxes (Wagner, 1983). However, the money creation diffuses the cost more generally amongst the population. With debt monetization, the supply of loanable funds is not limited only to those people who save. Money creation shifts outward the supply of loanable funds, creating an excess supply. Debt monetization reduces the extent of crowding-out because the inflation in the stock of money is used to provide the resources necessary to finance the additional private investments. The inflation, consequently, provides the means for reducing the extent of crowding-out (Wagner, 1983).

Monetization, i.e. printing money to pay for the inputs and transfers necessary to supply public goods, is always the last-resort choice of government. It will use this way of financing only if other means of finance cannot work. Planned inflation, governmentally induced can work only in the short-run. When the government loses its accountability and credibility, inflationary finance will not work efficiently. A second alternative, parallel currency, will be used in the country for all inside payments, or barter trade will appear. This was demonstrated by the Yugoslav experience from 1993, when the (hyper)inflation was 313,565,558.2 per cent at the yearly level. It should be kept in mind that an increase in the monetary base by the central bank is the equivalent to printing money. Amongst the various factors influencing the effect of increased borrowing on the price level are: 1) the extent to which the monetary reserves are increased by the central bank; 2) the maturity structure of the debt; 3) the extent to which

citizens substitute new government debt for the existing private debt and consumption and 4) the effect of government borrowing on the velocity of circulation of money (Sevic, 1996a). It is evident that the impact of increased government borrowing (to finance deficits) on the rate of inflation is quite complex. Thus, the activities between fiscal and monetary authorities must be co-ordinated so as to avoid the mutual annulation of actions.

### *Public Debt Relevance*

It is an eternal question as whether the public borrowing creates burden for the population in the future? According to English economist David Ricardo (Ricardo, 1817 and 1820), it will not be the case. The *Ricardian theorem* on the equivalence between taxation and public borrowing demonstrates that there is no difference between these two ways of the government financing. In his way it does not matter when somebody will pay taxes, at the moment or in the future to finance the repayment of public debt. When the public debt is issued, there is an obligation to collect taxes in the future to make the payments of interest and repayment of principal, but there is no personalised liability assign to specific person. For the textbook purposes it is demonstrated by a numerical example. Namely, there is a choice between to pay an *extraordinary tax* (recall classical terminology such as De Viti De Marco, 1936) of 1,000 US\$ at this very moment or to issue a perpetual bond that pays 100 US\$ per year. With anticipated interest rate of 10 per cent yearly, these two methods of finance are equivalent, as both have present values of 1,000 US\$ (See for useful managerial concepts in public finance: Mikesell, 1982, Appendix A). But the public finance obligations under debt finance do not become part of taxpayer's estate. With lower or higher discount rates, debt finance and tax finance would diverge. The possibility to shift the public debt burden from present members of society to future members need not arise from illusion. It can also arise because of systematic difference in constraints confronted by people of different ages (Wagner, 1983). In the models with overlapping generations, it is sometimes demonstrated that the wealth can be shifted from people in the future to people in the present. Some empirical studies have suggested that present taxpayers act to some extent to increase their savings in response to the creation of public debt, but it also suggests that to the larger degree they push the burden of public debt onto future taxpayers, (Holcombe and Zardkoohi, 1981; Crain and Ekelund, 1978). It is assumed that the future generations will be wealthier, so the public debt can be an instrument of wealth capture by a current generation at the 'expense' of the 'wealthier' future generation.



*Public Debt as a Policy Variable*

The public sector borrowing requirement (PSBR) measures the extent to which the public sector borrows from other sectors in the domestic economy and from foreign sources to finance the gap between expenditures and receipts (Bailey, 1995). It should be noted that PSBR is not only the difference between central government's spending and tax revenue. This is logical consequence of the fact that government is not only financed from taxes and issued public debt. Government also acquires revenue from user charges, fees and other non-tax charges, as well as from trading surpluses, interest and capital receipts. For instance, in the U.K. in 1980s and early 1990s the taxes amounted to 90-94 per cent of total government revenue, while other receipts amounted to 6-10 per cent.

The size of public debt is very important feature of the overall health of the economy. It can be measured in a number of ways. The total amount of government debt is probably least meaningful measure. Consider other ways of assessment, such as: 1) debt per capita, and 2) debt to personal income ratio. Per capita debt shows the amount of public debt per a citizen of a country. But, this also can be illustrative. For instance, in the U.S., total public debt (federal, state and local government borrowing) rises faster than the population. It seems that all finally turns to the economic power and prospectives of the national economy. In the late 1980s and early 1990s the growth of public debt per capita was greater than earlier decades.

The other approach is debt to personal income ratio. It relates the public debt and personal income. Calculating total debt outstanding per 1,000 US\$ of personal income is one way of assessing whether debt is to be an unreasonable burden. It is important to observe as whether ratio value raises, falls or remains stable. In most developed countries, the ratio value has been remaining stable for the last thirty years.

It is also important to measure debt capacity. The main three factors which influence debt capacity are: 1) resources availability; 2) expenditure needs and 3) willingness of lenders to purchase the debt (Berne and Schramm, 1986). When the government assesses resource availability it must analyze all potential resources of revenue and types of self-financing (user charges, fees, and similar). The government must assess also other elements of importance to measure debt capacity, such as population growth, changing economic conditions, present state of infrastructure and capital assets, as well as other socio-economic characteristics which can shape the future potential expenditures which are to be met.

The two measures of debt size mentioned above can show to the certain extent debt burden, but no wholly. Widely accepted overall measure of debt burden is

the ratio of debt to debt carrying capacity, which reflects the extent to which revenue are sufficient to cover debt service in addition to operating expenses (Bahl and Duncombe, 1993). As indicators of the ability of a government entity to incur additional debt, the World Bank Group usually looks at: 1) ratio of debt services to current revenues; 2) the ratio of capital expenditures to total expenditures and 3) the excess of current revenues over ordinary operating expenditures. It is more important to observe revenue base, rather than current revenue itself.

It is useful to have some economically sustainable information on public debt. But, this is only a half of the whole story. The assessment as whether the government is capable to repay debt and eligible for new credits is much more art than economists think. It is feasible to use quantitative data, but it is difficult to rank them and to set out the tolerable limit(s). Also, there is a problem as how to include quantitative data (for instance socio-economic variables) in the model specifications (excluding dummy variables method). It is here that the experience and expertise with country risk assessment can help significantly.

### **Conclusion**

The non-tax revenue sources of government are becoming a very important fiscal source. Modern government is currently in the permanent budget deficit so it is very important to develop a revenue system which will keep deficit under control. Because government budget are often short of revenues, the citizens, i.e taxpayers, face an increase in the tax burden. The other solution is to force the government to seek for alternative sources of revenue. Non-tax revenue sources are usually easy to implement, as citizens can see what are the services for which they pay. This is the reason why some public finance authors (Petrovic) consider a non-tax fiscal obligation as “painless since it has been paid under anesthesia”.

The government is strongly advised to follow the rule: “Whenever possible charge” (Bird, 1976). In order to achieve efficiency, charges are to be levied on those who perceive the benefits when these benefits are indentifiable. Sometimes, there are different political reasons, which argue in opposite direction. Although, the public finance literature stresses the fiscal (budget) importance of charges and fees, we believe that the advantages go much further. Namely, if the services are properly priced (*roughly* marginal cost), the amount and type of services required by the public will be provided. In this way, the charge has the role of a signalling device, the same as regular price. It helps the government to plan delivery of services and to accommodate rising demand. However, many authors observed that public sector pricing is one area in which little has been done in most of the transitional economies. The reasons are usually political, since the change in charging policy or the initiation of charging can significantly increase costs of

living of the population. This is particular reason why this aspects of fiscal reform must be carefully co-ordinated with the other reform moves.

Anyway, although the government in transitional countries do not use charging on the desired level, some progress has been made. In a few transtional economies (Croatia, Albania, the Czech Republic), principle of marginal pricing has been recently introduced and showed first positive results in regulating demand. It is expected that other governments in the region will also follow the path. All these changes require carefully designed institutional framework and changes in the real sector. With the increase in production real governmental revenue is to rise, so the investments in social services can increase. At this moment, much remains to be done in Central European countries, but switching to alternative (non-tax) revenue sources ("whenever possible charge") and careful management of public debt with the sound monetary policy certainly can help this area of Europe to bail itself out of financial difficulties. Finally, it should be said that most decisions which should be made on the fiscal issues are of a very sensitive political nature. The same applies to revenue sources. Often something politically desirable is not economically sound. It is the responsibility of public finance professionals to inform public policy makers of the consequences of their actions.

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**CASE STUDY: Bulgarian Revenue Sources***Gueorgui Smatrakalev*

Governments encourage or discourage particular forms of social behavior by manipulating the incidence of taxation. Tax incentives in a particular area will promote expenditure: for example, tax deductions to farmers will prompt them towards greater productivity. The reverse also applies: a heavy sales tax on luxury goods will reduce public demand and shift productive resources to other areas. By such actions, taxation can be used to control and direct economic development.

The lack of interest in the use of tax policy in almost all socialist countries is valid also for Bulgaria. Under state planning, it was physical output that was the object of policy-making. The financing of government policy through taxation and the impact on economic incentives through wages and prices received little, if any, attention.

The revenue system in Bulgaria does not greatly differ from the other European revenue systems. The tax system, basically, contains the same taxes as those in the OECD list of taxes, although some of them were developed during the socialist planning era (Brown and Jackson, 1990). The reform of the tax system started with the amendment of the existing system and implementation of some new tax laws in order to bring the revenue system in harmony with the requirements of the market economy. (see Table 1)

Feldstein (1976) proposes that “optimal tax reform must take as its starting point the existing tax system and the fact that actual changes are slow and piecemeal.” This means that reform of the tax system is to basically change the existing tax structure.



Table 1. The Bulgarian Revenue Sources

OECD - code	Tax	Elaboration	Revenue source %
	<i>Tax revenues</i>		76.9
1000	<i>Taxes on income, profits and capital goods</i>		
1100	Individual taxes on income, profits and capital gains		
1110	On income and profits - Law on personal income (LPE)	old-amended	11.4
1200	Corporate taxes on profits and capital gains		
1210	On profits - Law on corporation tax	new - 1-st July 1996	14.6
2000	<i>Social security contributions</i>		
3000	<i>Employers' payroll or manpower taxes - included in LPE</i>	old-amended	
4000	<i>Taxes on property - Law on local taxes and charges (LLTC)</i>	old-amended	
4300	Inheritance and gift taxes (LLTC)		
5000	<i>Taxes on goods and services</i>		
5111	Value added tax - Law on Value-added tax (LVAT)	new - 1-st April 1994	37.3
5121	Excises - Law on excises (LE)	new - 1-st of April 1994 amended	17.5
5123	Customs and import duties - Customs tariffs	amended	14.5
5200	Taxes on use of, or permission to use, goods or to perform activities in connection with specified goods		
5211-5212	In respect of motor vehicles - LLTC		
5213	In respect of other goods - LLTC		
	<i>Non tax revenues</i>		23.1
	Revenue from charges		9.1
	State taxes in the Ministry of Finance in the other ministries		
	Fees and sanctions		7.8
	User charges		

In the Bulgarian case this means that it should be a combination of tax design and tax reform because over the past six years of changes certain opinions on the Bulgarian tax system have been formed. For income taxation, a new law was passed by the Parliament in June 1996 on corporation tax, but the 1950 personal income tax is still in effect with numerous amendments. The existing laws are still under the influence of a raging fiscalism (an obsession with high tax rates) and

not related to the regulatory use of taxes. The creative vision for the tax system of Bulgaria that should be created during the transition period must take into account the clarifying and designing of a new method of income taxation that will be close to the Western type and to the future tax harmonization with the European Union.

The system is divided by the present laws into national and local taxes that contain all types of user charges. Basically, the national taxes are those related to the income taxation or taxes imposed on transactions of goods and providing services. The lack of a law for establishment of local budgets makes the Law for Local Taxes and Charges a national law and fails to work in an appropriate way as a local regulating force. It is not a framework law by which each local authority can levy its own fees and charges, but is applied across the whole country with equal effect.

Most of the tax laws have been created piecemeal and they do not fit into a real tax system suitable for managing economic development. The result is a need for a new bill on personal income taxation and a serious amendment of the law on corporate tax and income of legal entities.

In the existing legislation there is considerable confusion concerning user charges, fees, taxes and sanctions. Generally, they are found in the Law of Local Taxes and Charges. There are several taxes - tax on buildings and inheritance tax and several charges - gift charge, charge for vehicles, charge for trading, charge for usage of materials (sands, rocks, stones etc.), charge for resort usage, charges for technical servicing, documentary fees, etc. In Bulgaria the centralist approach in local taxation is still in effect and this creates difficulties in implementation and enforcement of any kind of new tax or charge.

For example, the tax on buildings does not identify the area and use of the building but just its construction and life of use. This is inappropriate since it fails to identify the situations where someone lives in a large city or in a small town and pays the same tax even though the value of the building is likely to be different. The same applies for the inheritance tax. The situation in Bulgaria has changed in the last few years and some of the real estates and wealth that were accumulated are undertaxed which makes the tax burden uneven in relation to the lower income taxpayers.

All the charges in the Law for Local Taxes and Charges have a different base for accounting and should be amended according to a new tax philosophy which emphasizes a localist approach. This will increase fiscal decentralization in the revenue system and will establish a new relation between the capital and work force resource allocation.

Some charges are levied by ministries of the government, other than the Finance Ministry. For example, there are several charges, fees and sanctions from the Ministry of Environment or Ministry of Labor and Social Welfare that can easily distort the behavior of the economic agents in the market since they are levied despite their economic potential. Most of these charges are based only on requirements for greater revenues and can undermine the market economic relations in the country by driving the private business into forced bankruptcy.

In 1996, due to the budget deficit the socialist government and parliament majority voted into law a license tax for certain services and put it into the income tax law. Bulgaria used to have a tax on handicrafts and it was a local tax paid and divided into two parts - one part to the municipality to receive a permission for practicing a business and a second to the union of the certain handicrafts to receive a master degree. The second part is for a practical exam. This is a user charge that could be imposed while the accountancy system is not strong and the central and the local government are limited in their auditing activities.

Some user charges in Bulgaria are levied directly by the central government on the fiscal monopolies of certain services. In the beginning of May 1997 the government liberalized the prices for petrol in the country but still holds its monopolistic position in electricity, central heating and telecommunication services (mainly telephone services).

Many of the problems in taxation arose because of the large state sector in the economy and inability to solve the problems of the property rights. It is nearly impossible to reconcile the system of taxes, fees and charges. The difficulty is that most of the revenues should come from the big industrial consumers or polluters. But they either do not care or do not pay what they owe and in this situation the state is forced to rely for its revenue on the smaller taxpayers which most of the time are sanctions levied for different law violations. This is why the non tax revenues are close to or sometimes even greater than the tax revenues in the state budget.

In the operation of the tax system the private and public sector incur operating costs of taxation that affect both. The greatest problem of the Bulgarian tax system is not only the lack of a systematic approach in taxation but also the enormous transaction costs in implementing the tax system. All these costs are elements of the tax system and are taken into account when making any decision on a market transaction.

It is clear that relatively high compliance costs may put a national economy at a competitive disadvantage with other countries. A comparatively high price level will hamper exports and high compliance costs may discourage foreign enterprises to invest or set up subsidiaries. It is not the tax itself that turns the investors away

but the high compliance costs and the economic consequences of them. In the Bulgarian case it is very difficult for any foreign investor to keep up with the changes occurring in the tax system and this increases compliance costs no matter whether professional help is used or the business attempts to make do on its own. Although most of the administrative and compliance costs cannot be measured exactly some evaluations show that one can easily lose one and a half months annually in dealing with the tax authorities.

These costs cannot be considered revenues to the state but according to cost-benefit analysis they are a pure loss for the budget. The whole system of local taxes, user charges, fees and sanctions should be reviewed and adjusted according to the requirements of the market economy in order to make them more effective and to increase revenues in the local budgets as well as in the state budget.

#### *Questions for discussion*

1. What is the difference between the centralist and localist approach in the local taxation? What are the advantages and disadvantages of each approach?
2. What should be the basis for the tax on buildings?
3. Should a tax on new real estate or wealth be imposed and for what reasons?

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## **Case Study: The Economics of Garbage and the Garbage of Economics**

*Glen Wright*

The application of economic policy does not always have the consequences intended. What seems perfect in theory breaks down in practice. There is some evidence of this in applying the user charges to garbage collection in American cities. An analysis of the effects of charging for garbage collection and the economic, environmental and human behavior consequences are briefly examined.

The economic rationale for charging for garbage collection is very straightforward. First, if it is a free service to the garbage producers they will have no incentive to limit the amount of their garbage to be collected. The more garbage produced the greater the collection costs and fees for landfill disposal (tipping fees). This is true even if they actually pay for the service through the general taxes levied on them. By charging for the garbage collected based on the volume, according to economic theory, the garbage producer will have an incentive to produce less garbage and recycle more garbage, if recycling is available.

Also, equity can be established if those who produce more garbage pay more for the additional garbage produced. It is not fair that a family that produces two bags of garbage should pay the same as a family that produces four bags of garbage. The extra amount of garbage should lead to a higher charge for the service.

The ideal situation from economic theory is that each user of the service will pay the marginal cost of that service and will adjust the level of service to meet their economic circumstances; just as they do when they purchase services in the private sector. Many American cities have applied this ideal by requiring that citizens buy stickers or tags to be placed on the garbage bag or container to be collected by the garbage service. The cost of the tag represents the marginal cost or price for the service. Those who have more garbage will have to pay more through the stickers.

But has this worked in practice? A study of the application of the theory in practice has produced some surprising results.

The city of Charlottesville, Virginia, USA charged \$0.80 cents for each sticker. However, it was found that this did not cover even the administrative costs of operating the sticker system. Determining the full costs of the operation and the appropriate charge for the stickers proved difficult.

However, there was a positive effect noticed in the number of garbage bags that were being collected. There was a 37 percent decrease in a five month period after introduction of the system. But, this did not result in a significant decrease

in the volume of garbage. People were simply putting nearly the same amount of garbage in fewer bags. While the number of bags decreased by 37 percent, the actual weight of garbage decreased only 14 percent. This was attributed to the “Seattle Stomp” effect. In Seattle, Washington, USA people were using their feet to compact more garbage in the bags for collection after a charging scheme was introduced for each garbage bag.

A further effect was that some people stopped putting out their garbage and apparently were disposing of it by dumping in prohibited areas. Consequently, some negative effects of disposing of garbage in public areas produced more cleanup costs for these areas.

A positive effect though was that there was a significant increase in the volume of recyclable materials. This increased by 15 percent which indicates that some people became more environmentally conscious in buying products. But even this effect was minimized by the fact that generally those citizens willing to pay for their garbage removal tended to be more environmentally conscious to begin with. So, even this effect on recycling of materials may be more of a factor of the citizen values than the economic effects of charging.

A broader study of American cities of the effects of charging for garbage collection revealed differences based on wealth. Richer communities produced more garbage and the charge had less effect because the richer citizens did not want to spend the extra time to separate the recyclable garbage or cared much about the cost of garbage collection. The effect of charging for garbage collection had less effect on the amount of garbage collected in these communities.

The conclusion of this extensive analysis was that charging did reduce volume of garbage, but not by very much. The elasticity of the charging scheme was that for every 10 percent increase in the charge the quantity of garbage was reduced by only 0.3 percent. Therefore, is it really worth the effort to introduce the charging scheme? Free disposal is probably a worse option than some charge even though the charge may not always produce the intended result.

*Questions for Discussion:*

1. Would you say that economic policy failed in this situation?
2. How does this situation illustrate the interaction between economic policy and human behavior?
3. What changes would you make in the charging system that could overcome the negative effects of the economic policy and human behavior?

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## **PART 3**

# **PUBLIC EXPENDITURES**



## INTRODUCTION

From Part II where we focused on the collection of revenue, we proceed to Part III which concerns how to spend all that money collected. This is a more enjoyable task, but as difficult, if not more difficult, than the collection of the money. As E.S. Savas (1987) writes: "It's fun spending other people's money. Anyone who has ever served in government and has been in a position to make expenditure decisions will admit to the satisfying thrill and the regal sense of power and self-worth, to say nothing of the flattery from grateful beneficiaries, that comes with dispensing tax moneys. And all this is realized at no cost to one's own pocket."

In Chapter 8 we take a historical look at expenditures of governments over the course of this century and examine some trends in the post-communist era of Central European countries. Measures of expenditure growth generally rely on GDP or GNP and per capita changes over time. These changes will be identified to illustrate the growth of government in the twentieth century. We will also review some of the theories on why government grows or seems to continually usurp an increasing percentage of GDP.

We will examine some methods and processes for making expenditure decisions in Chapter 9. This is an area directed at the heart of public administration values as we will discuss in a section of this introduction. For those readers with a greater interest in public administration than economics this should be more relevant.

### **The Goals of Government Expenditure - Equality and Efficiency**

There are many tradeoffs, or compromises, to be made in the made economy which come down to the conflict between equality and efficiency. The two economic systems that competed in the twentieth century chose one or the other of these two values. Jeffrey Straussman (1997) in referring to the work of Arthur Okun, states: "The tensions between these two competing values was recognized many years ago by Arthur Okun in his book entitled *Equality and Efficiency: The Big Tradeoff*. Okun viewed this tradeoff as a central feature of policy choice in democratically controlled market economies. In post-communist regimes, the tradeoff is accentuated by a legacy where socialist ideology promulgated the claim that social policies would produce egalitarian outcomes."

As alluded to in Chapter 1, the capitalist and socialist systems were oriented toward two different goals. Capitalism toward wealth creation through efficiency of output; socialism toward equality through equalization methods of wage controls,

taxation of profits, providing housing, health, and education services at less than full cost in most instances.

The difficult transition of the socialist economies is embodied in the conflicts between these two competing objectives. Kornai (1992) examined these difficulties in an article describing the process in Hungary. The essential transition difficulty is how to institute the market economy reforms oriented toward efficiency and productivity while providing some basic level of public and social services. It is there that we have to look at the government expenditure decisions and the institutional values of public administration.

### **Differing Values in Public Administration—American and European**

This section will be of more interest to those readers focused on government institutions and the role of the public service in the expenditure decision process. The economic policy dilemma of equality versus efficiency is also a dilemma for those in public administration.

Public administration has developed certain values or norms throughout its development. In this section we will compare these values in terms of the American versus European approaches and how the values of equality and efficiency are viewed in these different systems. Jeffrey Straussman (1997) has stated the problem of public administration very well. He writes: “How can political institutions become more efficient while retaining adequate social protection? The challenge for post-communist regimes is to manage this tradeoff.”

The American approach to public administration takes as its starting point an 1887 essay by Woodrow Wilson entitled “The Study of Administration.” In searching for the dominant values of a public administration profession, Wilson discovered these in the field of business administration. This provided a convenient basis for developing the profession by removing it from politics as well as law. Wilson saw in the late 1800s the rise of a managerial profession whose purpose was to serve the interests of the business owners. This profession had as its goal the maximization of profits, but also the management of human and financial resources in the most efficient, economic, and productive manner. Economy and efficiency became the holy words of American public administration. The numerous budgeting methods developed in the U.S. over the past century identified in Chapter 9 have as their motivation the ideal of determining a rational choice for public expenditure decisions. The use of cost-benefit analysis and other methods are designed to provide an economic basis for decisions.

The European approach presents a different perspective on public expenditure decision-making. We will primarily rely on the German model as representative

of this viewpoint. Public administration is a sub-field of law in the classical European approach. The German public administrator acts from a different basis as described in the following passage: "The administrator can act differently from a businessman without being guilty of irrationality. Given the rule-of-the-law tradition of the Federal Republic of Germany the rationality of public action is primarily assured by bringing together norms and facts and citing precise authority for each act" (Konig, 1983).

The basis for decisions then comes from a legal investigative process that reconciles the particular facts to the authority to undertake such actions from legal statutes. This process is strictly defined within the statutes. Accordingly, "The rationality of all administrative decisions is determined in Federal and Lander Constitutions which incorporate strict and binding fundamental decisions referring to (1) the rationality of the system, (2) the rationality of procedure, and (3) the rationality of the courses of action" (Becker, 1983).

We can take this discussion one step further by using cost-benefit analysis as an example of the differences attached to the functioning of public administration decisions between the American and German systems. The formalized mandatory use of cost-benefit analysis has been placed in the decision making process in the U.S. Government. President Reagan in 1981, by executive order, imposed a requirement that a cost-benefit analysis like study be completed for all regulatory actions being proposed by government agencies. The U.S. House of Representatives in 1995 passed legislation requiring the development of cost-benefit analyses prior to regulations being issued and that the cost-benefit analyses could be subjected to challenge in the courts (Boardman, et. al. , 1996).

The utilization of cost-benefit analysis in the German public administration takes on a different character. Becker (1983) writes: "At stake is the relationship between the benefit of the administrative decision and the required costs. Benefits and costs as interpreted by German budget law are social (macro-economic and societal) benefits and costs. Cost-benefit analysis is obligatory, but rarely used."

### **Budget and Finance Methods**

Chapter 9 provides an excellent discussion of the developing methods in public expenditure decision making. We will briefly provide some comparison of the different budget methods identified and highlight the difficulties experienced in budget and financial management in developed, as well as transition economies.

The four budget types identified in Chapter 9 are based on different orientations of control, management and planning functions. These orientations have developed over a period of time from the control to the planning or management function. In

the U.S. the control orientation dominated in the early 1900s as a means to eliminate the corruption that prevailed in the use of public funds for the purchase of supplies, equipment, land and buildings by public organizations. This was the basic approach until the 1960s when a program budget method called Planning Programming Budgeting System (PPBS) was introduced in the U.S. Department of Defense. This initiated a new emphasis on budgeting methods that continued into the 1970s with Zero-Based Budgeting.

A very good comparison of these four types is provided by Mikesell (1986) and is adapted in the following table:

Type	Characteristic	Orientation
Line-Item	Expenditure by commodity or resource purchased	Control
Performance	Expenditure by workload or activity. Unit cost by activity	Management
Program	Expenditure related to public goals. Cost data across organizational lines	Planning
Zero-Base	Expenditure by workload or activity. Cost centers differ from organizational lines	Management

Source: Adapted from Mikesell, (1986)

Budgeting is one of the most complex tasks in public management, and the difficulties are too numerous to fully discuss in this introduction. Some of the problems have been identified by Premchand (1990) and are listed in the following table.

#### *Major Problems in Government Financial Management*

##### Public Expenditure Planning

- Absence of expenditure priorities
- Lack of a link with macroeconomic framework
- Inadequate review of programs
- Absence of budgeting guidance to spending agencies
- Poor preparatory work in spending agencies
- Absence of contingency plans
- Inadequate attention to operation and maintenance expenditures, public debt budgeting, and government lending programs
- Inadequate guidance on price factors
- Separation of personnel determination from annual budget determination
- Lack of attention to volume and productivity factors

## Public Expenditures

### Resource Planning

- Absence of detailed estimates of revenues and receipts over the medium term
- Lack of convergence between resource and expenditure budgets during budget formulation

### Budget Structures

- Inconsistent practices in clarifying current with capital items
- Program and object categories inconsistent with National Income Account classification
- Classification practices unsuited to management requirements
- Excessive number of extra-budgetary accounts
- Inadequate links between development plans and annual plans

### Budget Implementation

- Rigidity in release of funds
- Excessive reliance on central controls
- Inadequate financial management capability in spending agencies
- Lack of efficiency indicators
- Absence of cost data
- Poor cash management

### Government Accounting and Financial Reporting

- Absence of commitment accounting
- Extended lags in consolidation of accounts
- Difficulty in reconciling with monetary accounts
- Outdated payroll systems
- Lack of differentiated focus in fiscal reporting for policy purposes
- Long delays in submission of periodic reports

This extensive list of problems in budgeting demonstrates how complex and difficult public financial management can be and the uncertainty with which decisions are made with public funds. These problems are symptomatic of budgeting and financial management at all levels of government both in market economies as well as in transition or developing economies.

## **Reform in Public Management**

The focus of public management has taken many twists and turns over the years. Very often these constitute “fads” rather than genuine long term institutionalized methods. One has only to look at the history of the budget and management methods, such as PPBS, ZBB, MBO, etc., to see that none of these have survived over the years. A further examination of these methods is not relevant for our purposes in this text, but some comparison of approaches is useful and is provided by Rabrenovic (1997) in an article titled “New Public

Doctrines and Public Sector in Yugoslavia.” This essay is devoted to determining if these new management approaches can be applied in a transition period. Rabrenovic examines and compares two management approaches, Performance Management Doctrine (PMD) and Strategic Management Doctrine (SMD). The comparison by Rabrenovic is as follows:

<b>Performance Management Doctrine</b>	<b>Strategic Management Doctrine</b>
Internal organizational focus	External organizational focus
Goals created by the organization	Politicians provide goals and objectives
Relevant to operational level managers	Relevant to top level managers.

The New Public Management (NPM) initiated in Great Britain contains elements of both the PMD and SMD doctrines, but places a greater emphasis on the “accountability” and “responsiveness” of public servants to the citizens. These are largely unrecognized and/or undeveloped in the transition countries as the bureaucrats still maintain their old control mentality. In fact, according to a study done through focus groups in the Czech Republic, Slovakia, Bulgaria and the Ukraine, the responsiveness of public servants is worse now in all of these countries except the Czech Republic (Miller, et. al, 1997). In order to deal with officials the citizens were turning to bribery or some form of personal enticement in order to get what was required. When the focus groups were asked what solutions should be proposed to improve public management there were varied responses from the respondents in these countries. In the Ukraine, the respondents tended to want a “better quality of officials” which meant a psychological change of the official’s attitudes. In the Czech Republic the solutions were improved administrative efficiency. The respondents in the other countries thought improved pay for public servants would get the desired results.

The quality of public expenditure decisions bears a direct relationship to the capacity of public administration professionals to perform their tasks. Their understanding of public finance and budgeting is an essential requirement for this capacity.

### **Capital Improvement Budgeting**

The importance of a capital improvement budgeting process at the local government level can not be overemphasized. The high cost of infrastructure with the limited tax resources makes it imperative that capital improvements be carefully selected and financed. The linkages with debt financing are very important. The introduction to Part IV and Chapter 11 provide more on the methods of debt financing. In this section we will briefly examine two aspects of the capital improvements budgeting procedure.

The World Bank, in a 1994 report, makes the connection between capital improvements and economic development with the following: “Good infrastructure raises productivity and lowers production costs, but it has to expand fast enough to accommodate growth. The precise linkage between infrastructure and development are still open to debate. However, infrastructure capacity grows step-for-step with economic output—a 1 percent increase in the stock of infrastructure is associated with a 1 percent increase in gross domestic product (GDP) across all countries.”

We should begin by defining what is generally accepted as a capital improvement. Their characteristics are (1) a long useful life (beyond one year), (2) initial cost to purchase or build is not a recurring cost each year, and (3) they are high cost items and generally require debt financing. Capital improvement items are land, buildings, improvements such as streets, bridges, water and sewer lines and, also, such items as automobiles, desks, computers or other items that will be available for use longer than one year.

First, we need to examine some criteria by which to judge whether a capital improvement is necessary or not. Capital improvements must be based on more than just the economic rationality of the project. Factors to consider in developing criteria include the extent and quality (accuracy) of data on the project, the costs of obtaining the data for analysis, the level of citizen interest and participation in capital improvements decision making and the political influence of community interest groups and preferences of politically elected leaders.

The following details one ranking system for evaluating capital improvement projects from high to low priority.

1. Repairs or construction to ensure safety of persons or property
2. Construction to complete projects already undertaken
3. Major renovations or additions to provide fuller use of existing facilities
4. New facilities to reduce overcrowded conditions or relieve obsolescence
5. New facilities to meet increases in demand
6. New facilities to provide for improvements in programs
7. New facilities for new programs or services (Vogt, 1983)

This criteria provides a basis for determining the selection of projects from a health and safety basis (highest ranking), to completion of projects or renovation of existing facilities (second and third ranking), to requirements for new facilities not yet begun (fourth through seventh ranking). This provides an overall scheme for selecting among the capital improvements projects. Weights can be applied to the economic factors to further define the value of these projects.

Another criteria used by the city of Fitchburg, Wisconsin, USA is based on timing the need for a capital improvement. The rankings go from immediate to deferrable. This evaluation criteria with explanation is presented below.

**Immediate:** A need is apparent for health and safety reasons, project will correct a hazard to people or property; or project must be implemented prior to other projects in a specific sequence

**Required:** Mandated by higher level of government or by local law, or to comply with previously approved agreements, actions, or projects

**Desired:** Projects would improve the efficiency, maintain a standard of service, be of economic advantage, or enable the provision of improved/new service

**Deferrable:** Project could be postponed to a later year if necessary.

Any number of ranking methods, both qualitative or quantitative, could be utilized in developing an evaluation and priority system to assist in the capital improvements decision making process. Factors other than the costs and benefits must be included in the decision.

A study of criteria used by U.S. cities in making capital improvement decisions revealed the top four reasons to be:

1. Effects on operating and maintenance costs
2. Availability of funds from higher levels of government
3. Health and safety effects
4. Conforming to adopted plans, goals, and objectives of the city. (Evans and Miller, 1982)

The second area for discussion of capital improvements is methods utilized to develop the economic rational for the project. Chapter 9 focuses on cost-benefit analysis and this is the main capital improvements budgeting technique.

Some other methods to consider are based on business-like investment analysis methods. These include payback analysis, net present value, and internal rate of return methods. The payback method is recommended for revenue producing projects. This is because cash flows are an important part of this method and can be an important factor in determining the financial feasibility of projects.

Where possible more than one method should be used to evaluate the financial requirements of a capital improvement project. Some evaluation criteria can include additional weights for those projects that produce a positive return or cash flow to the government treasury.



## Conclusion

In Chapter 8 we look at some historical trends in the twentieth century of government expenditures as percentage of GNP and look at various theories or reasons for this development. In Chapter 9 we examine in more detail some of the issues discussed above.

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## CHAPTER 8: PUBLIC EXPENDITURES

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In this chapter we will examine public expenditures as one of the basic areas in the study of public finance, the growth of public expenditures in this century, some theories that explain this growth, and review research on the cost/efficiency of private versus public expenditures and service delivery. Public expenditures is one of the government's main tools to implement its public finance purposes of allocation and redistribution. Also, public expenditures are one of the main methods of equalizing the fiscal capacity of units of government within the political systems discussed in Chapter Three. The growth of government and public expenditures is at a turning point as we end this century due to the effects of budget deficits, privatization, deregulation and decentralization that have forced governments to change their expenditure decisions and methods of delivering services.

### **Definition and Rationale for Public Expenditures**

There is an increasing interest in the expenditure side of the public budget as demonstrated in the interest in New Public Management in Great Britain, Reinventing Government in the U.S. and a number of public management initiatives of the OECD. Through expenditures governments influence the scope and activities of the public sector, the size of the public and private sector as part of the GDP, and the behavior of individuals by supporting changes in the income and substitution of certain goods or services for another. The main components of public expenditures are:

- government expenditures(G) subdivided into consumer/consumption expenditures( $G_c$ ) and investment expenditures ( $G_i$ )
- transfers (Tr).

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(1) According to their function and part in aggregate demand, the transfers(Tr) and government expenditures (G)differ considerably (Hamerníková, B. et al., 1996). Different participation in aggregate demand follows from their different functions:

$Y = C + I + G + NX$  , where  
C - private consumption  
I - private investment  
G - purchase of goods and services  
NX - foreign trade balance. .

Transfers increase people's income and allow them to buy more and so to consume more. We may thus consider transfers as a form of income redistribution or of the right to consume. Transfers do not serve directly to purchase common goods and services but are effective in items (C) private consumption and (I) private investment. The government must take into account not only government expenditures on purchases of goods and services (G) but the transfers ( $T_R$ ) as well: The public expenditure equation is:

*overall* public expenditures = government expenditures on purchases of goods and services (G) + transfers ( $T_R$ )

Public budgets are always a relation of two variables - revenues and expenditures. Within these calculations there are two conflicting tendencies at work:

- pressure for public expenditure growth (citizens want more services or equality of incomes)
- pressure for tax reduction (citizens seek to reduce their tax burden and keep more money for themselves)

Mathematically, there are three possible relations between public income and expenditures:

- income equal to expenditures
- income exceeds expenditures (margin/surplus)
- income does not cover expenditures (deficit)

According to Wildavsky and Webber (1986) in their book *A History of Taxation and Expenditure in the Western World* there are a number of possibilities that governments face in managing expenditures to the revenues available:

1. Neither expenditures or revenues are controllable by the government. This is the case with many local governments and in the developing countries where sudden changes make their budget situation extremely unstable. Many local governments in the transition countries have little control over the expenditure requirements placed on them by the central government or sufficient and estimable own source revenues and central government grants to balance revenues and expenditures.
2. Expenditures can be managed but not revenues. This situation may arise where the functions and activities of governmental units are prescribed and costs can be accurately estimated. However, own source revenues, debt financing or other tax and revenue sources are unstable.
3. Revenues can be managed but not expenditures. In this case the governmental unit has stable and relatively inelastic revenue base (property taxes, etc) but

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unforeseen circumstances, such as natural disaster, economic collapse or influx of immigrants or refugees, create new and unpredictable expenditure demands.

- Both expenditures and revenues are manageable. This circumstance exists in the situation of relatively fixed, stable economic and political situations where there is an adequate and relatively elastic tax base and the economy can absorb new entrants without disruption from high unemployment or social welfare transfers.

It is vital to stress that if revenue does not cover expenditures, it is necessary to consider the method by which the public budget deficit will be met and the potential impact on the economic system through higher interest rates or greater inflationary pressures. If public expenditures are financed on the basis of increased taxes there is a political impact (taxpayer revolt) that could thwart the government's ability to unreasonably increase public expenditures. In the case of financing through borrowing to finance this budget deficit there is the danger of rising interest rates which could choke private sector economic growth; or inflation could result by the government pouring too much money into the economy.

### Growth of Public Expenditures

In analyzing the comparative research, the choice of a particular classification of public expenditures is vital in terms of what indices we select to analyze these expenditures. The two most widely used types of public expenditure classifications are: functional classification (according to the purpose of allocation) and economic classification (according to economic characteristics of public expenditures as a kind of government transaction).

One commonly used index of public expenditure dynamics is elasticity of (public expenditure)/GNP defined as the percentage change in public expenditures (VV) divided by the percentage change in the gross national product (GNP) :

$$E = \frac{\frac{VV_{t+1} - VV_t}{VV_t}}{\frac{GNP_{t+1} - GNP_t}{GNP_t}}, \text{ where}$$

VV.....overall public expenditures, in period t+1 and t

GNP.... gross national product, in period t+1 and t

It is possible to use ratios depicting the development of individual types of expenditure (for defence, education, health care, etc.) to get a more detailed

analysis of public expenditures. We may analyse their elasticity in relation to the GNP or to overall volume of public expenditures (e.g. elasticity of expenditures on education, health care, defence, etc.):

$$E = \frac{\frac{VVS_{t+1} - VVS_t}{VVS_t}}{\frac{VV_{t+1} - VV_t}{VV_t}}, \text{ where}$$

VVS.... public expenditure for education (or any other functionally specified government intention) in periods t and t+1,

VV.....overall public expenditures in periods t and t+1.<sup>1</sup>

In understanding public expenditures the elasticities of partial expenditures are more important than overall expenditures in relation to the GNP. They make it possible to recognize changes in the structure of expenditures, and, at the same time, show the range of changes in expenditure policy.

At this point it is useful to review the trends of public expenditures, and by implication the growth of government in the twentieth century. We can examine the growth of public expenditures by looking at several countries and the relationship of government expenditures to GNP as the measure of this growth in these countries.

Perhaps the growth of government expenditures in the U.S. from the beginning of this century provides an illustration of the change in scope and magnitude of government activities. The following table is adapted from Holcombe (1988).

Table 9-1  
Government Expenditures as Percent of GNP in United States for Selected  
Years

	All Governments (Federal, State, Local) % GNP	Federal Government % GNP
1980	35.4	21.9
1970	34.0	21.3
1960	30.0	19.3
1950	24.7	15.7
1940	20.5	10.1
1932	21.4	7.4
1922	12.6	5.1
1913	8.1	2.5
1902	7.7	2.7

Source: Holcombe, 1988

Some analysis of these numbers illustrate the change in the government involvement in the economy as well as change in the activity of the various levels of government. In 1902, all levels of governments expenditure accounted for only 7.7 percent of the GNP, but beginning from the 1960s this level had increased to 30 percent or more. This expansion in the 1960s is attributable to several factors, among them the Vietnam War, the war on poverty and inequality by President Johnson which dramatically increased social spending for housing, education, and welfare services; as well as the recognition of environmental problems which began to emerge. The demands of both the war and the social unrest made a heavy burden on public expenditures relative to the overall GNP measure of the economy.

What is also interesting is the increasing share of U.S. Federal Government expenditures from 1950. Up to 1950, the Federal Government expenditures ranged from 30 to 50% of all government expenditures. But in the three decades of 1950-1980 the percent of overall government expenditures coming from the Federal Government accounted for approximately 60%. This is an indication that during

this period there was an increasing level of activity in the public sector by the Federal Government. The state and local governments were limited in their fiscal capacity and increasingly the Federal Government became a source of finance and regulation of these units. This continued until the 1980s with President Reagan beginning a reversal of this flow of power to the Federal Government. This has continued into the 1990s as the U.S. Government is now in the process of downsizing and more authority is flowing back to state and local governments. The political forces for a balanced budget at the Federal Government level are now dominant and we should see a smaller Federal Government and less expenditures as percentage of GNP in coming years.

Continuing our analysis of the growth of government expenditures we can examine the changes in recent years among several countries of the world. Long-term analysis of public expenditures (in most developed countries) shows their continuous growth in this century. Table 9-2 details the level of government expenditures as percentage of GNP for several countries of Europe, the USA, Australia and other countries. The highest level is in Sweden with 61% of GNP coming from the public sector. This is indicative of the social welfare orientation of the public system which provides for a substantial level of social insurance benefits and equalization of incomes. The Western European countries are in the mid-range of 40-50% indicating the mixed orientation of public and private sector involvement in these economies. The USA, Australia, Japan and Switzerland have a more private sector economic orientation with less social protection and income equalization influence.



Table.9-2: Percentage of Government Expenditures of the GNP for Selected Countries

country	1971	1975	1980	1985	1990
Japan	20,9	27,2	32,6	32,3	32,3
USA	31,6	34,7	33,7	36,8	36,1
Australia	27,5	33,4	33,8	38,8	37,6
Great Britain	38,1	46,4	44,8	46,2	42,1
France	38,1	43,4	46,1	52,2	49,9
Italy	36,6	43,2	41,7	50,9	53,0
Netherlands	45,0	52,8	57,5	59,7	55,6
Austria	39,7	46,1	48,9	51,7	49,6
Germany	40,1	48,9	48,5	47,6	46,0
Sweden	45,3	48,9	61,6	64,7	61,4
Switzerland	21,9	28,7	29,3	31,0	30,7
Overall OECD	32,9	38,1	39,4	40,7	43,4

Source: National Accounts, OECD 1992

Our interest here is more concerned with the changes in the transition countries of Central Europe. We can examine the changes in public expenditures for several of these countries by looking at pre-1989 and post-1989 expenditure levels. In this examination we utilize the GDP figures so that comparison with the GNP in the above table should be taken with caution. The following data is taken from Bird and Wallich (1993) paper on fiscal decentralization in transition economies.

Table 9-3  
Change in Government Sector Pre-1989 and Post-1989

Countries	Total Expenditures as % of GDP Pre 1989	Total Expenditures as % of GDP Post 1989
Hungary	62.7	57.4
Poland	49.7	40.1
Romania	45.1	24.6
Bulgaria	55.2	43.0
CSFR	58.4	60.1

Some evidence of a decline in government expenditures can be seen in these figures although the reasons may be very different. For example, the reason for the greater decline in Romania and Bulgaria may be due to continuation of economic collapse without any economic reforms undertaken until the mid-1990s. In the period examined there was little private sector development which could provide support for the tax and revenues expenditures policy of these governments. While the economies may have continued to develop, largely the hidden economy, the government share through taxation and expenditures declined. Poland, Hungary, and CSFR, at this time, had initiated privatization, economic reforms and attracted investment and were able to capture this growth through taxes and maintain some level of government expenditures to provide for government programs and a social safety net.

It is evident from all of the above data that governments in the twentieth century have increasingly played a large role in the economic systems. The role and responsibilities of governments, primarily central governments, has continually increased. The question is whether we are now on the threshold of a decline in government involvement in the economies of these countries.

#### *Factors Influencing Expenditure Growth*

Analysis of the growth of public expenditures should take into account long-term factors such as demographic development, demonstration effect, political influence, technological changes, inflation (Hamerníková, B. et al., 1996).

Demographic factors have considerable impact on public expenditures growth and so are vital for analyzing their changes. Demographic factors influence public expenditures by:

- the absolute growth of a population
- the change in a population's demographic structure (Hamerníková et al., 1996).

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More important, perhaps than these population changes, is the fact that services included in the public sector and financed from public budgets, e.g. public health care systems, education, or library systems, are tied to population, and thus are very sensitive to demographic changes. As far as transfers to populations, such as the social insurance, are included in public expenditures, we should not underestimate the impact of demographic changes on the changes of public expenditures in the coming years as a result of the aging population in most Western and Central European countries. This is beginning to be recognized in the pension system reforms. Consequently, both population growth and demographic changes affect public expenditures growth.

The number of people of retirement age is rapidly increasing in many countries. Claims for public expenditures are higher for this group than for the younger age groups because of higher sickness rate and the need for social security and health care. These changes are illustrated in Table 9-4.

Table .9-4: Changes in Demographic Structure (%)

country	age-group	1950	1980	2 000
France	0-14	22,7	22,2	18,1
	15-64	65,9	64,0	67,1
	65-	8,3	13,5	17,3
Japan	0-14	35,4	23,6	18,3
	15-64	59,6	67,4	63,7
	65 -	4,9	9,0	18,0
Sweden	0-14	23,4	19,6	14,9
	15-64	66,3	64,3	66,3
	65 -	10,3	16,2	18,8
USA	0-14	26,9	22,5	20,5
	15-64	64,9	66,2	67,4
	65 -	8,1	11,3	12,2
Czech Rep.	0-14	25,9	24,0	21,8
	15-64	66,5	63,3	65,8
	65 -	7,6	12,7	12,4

Source: Statistical yearbooks, Czech Statistical Office Prague 1990, author's own calculations

Another factor affecting public expenditures growth may be significant technological changes. Their impact is in changing the areas of needs which the government should provide expenditures. For example, the invention of the combustion engine and its wide use brought about an increase in public expenditures for the construction of roads and highways; changes in armament technology causes an increase in expenditures for defense and security; and the development of telecommunications and information technology may be an argument for the government to participate in their advancement and to secure infrastructure conditions for their operation.

Another factor for public expenditure growth occurs when citizens of one country compare both their living standard and level of provided public revenues and services with those in other countries. This behavior is called demonstration effect. Each country provides a different amount of public expenditures and a different level of services. There is evidence of a tendency to follow other countries in the level of public revenues and services provided stemming from public pressure as well as government initiative. This is reflected in the demand for higher public expenditures.

### **Theories of Expenditure Growth**

Many economists believe that the most important influences on public expenditures growth are political and social factors. The impact of these factors can be explained in terms of changes in the social welfare strategy of the state, the strengthening of fiscal functions (mainly redistributive function), and the copying of the social policies of the most developed countries (demonstration effect), which is the very basis of collective decision-making. We will briefly examine a number of the better known and tested theories on why government expenditures grow.

#### *Wagner's Law on Increasing State Activity*

One of the more popular theories was proposed by Adolph Wagner. Wagner's Law, or the Law of Increasing State Activity, is based on examination of the industrialization and urbanization occurring in this century. As explained by Wildavsky and Webber (1986) "Wagner believed that the density of urban living would exacerbate social frictions. As in all industrializing countries during the nineteenth century, government eventually would step in to ameliorate dissension, either by exercising its police power or by adjudicating differences." This would lead the governments to have to spend more per capita as the per capita real incomes of individuals increased due to the process of industrialization and urbanization. The effect of this rise in income and relationship to governments

services was described by Borcharding (1985) who wrote: "As income rises the demand for all goods and service consumed (including future consumption in the form of current savings) rises by the same amount. Governmentally financed services are not exceptions to this rule." As a result of incomes rising the level of government expenditures should rise at a faster rate or greater than an elasticity of one. However, the empirical studies testing the Wagner Law indicate that the elasticity is closer to 0.75 than to one (Borcharding, 1985).

*Peacock and Wiseman Displacement-Effect Hypothesis*

Another leading theory on why government expenditures tend to increase is the Peacock and Wiseman "displacement-effect hypothesis." Their theory is based on an examination of the tax level in Great Britain before and after the First and Second World Wars. They noticed that the tax levels did not return to their pre-war levels. The theory proposed by Peacock and Wiseman is "that major crises expand public tolerance for higher levels of taxation, after which spending floods in to make up the difference between older and newer levels of revenue. In finer detail, Peacock and Wiseman believe that spending expands to use up available resources" (Wildavsky and Webber, 1986). Economists A.T. Peacock and J. Wiseman in their work "The growth of public expenditures in Great Britain in years 1890 -1955" stressed two basic government activities leading to public expenditures growth in a crisis. First, the inspection process, in which in a crisis, the government takes under its control all key industries. Secondly, the concentration process, in which the national government takes over some functions and activities from local governments (Peacock, Wiseman 1967). These economists also assert that government expenditures are restricted by the maximum tax burden that the population is able to bear. This is known as a bearable fiscal burden, which jumps in periods of crisis (Bénard, 1989).

*Wilensky's Theory of the Welfare State*

Harold Wilensky offers a cultural ideology argument for the increase of government expenditures which relates to the idea of a welfare state. Wilensky's argument is that as long as economic growth continues the government will be under increasing political pressure to equalize the distribution of wealth and services. This impulse will come from those who do not feel that they have had their fair share of the economic opportunities and that wealth is concentrated in a small number of people. Through political means, or otherwise, the cultural ideology develops that the state must provide an equal level of services as those who are well off in the society. This reaches a high level as economic growth continues and at some point a "welfare state" level exists. It is only when economic

growth begins to decline that the hard choices must be made by the population via government to reduce the level of state expenditures. There is some evidence supporting this theory from the Scandinavian countries in the 1990s where the high level of public expenditures and social welfare benefits are no longer sustainable and the “welfare state” is being reduced.

### *Peltzman's Theory on Equality of Wealth and Income*

A theory contrary to those oriented toward economic growth is proposed by S. Peltzman. In this theory the inequality of wealth from one period to another is sustained by those who have the wealth and political influence to maintain the inequality. This is essentially an argument that a rich elite control the politics and wealth of a society. In this situation, they would not want the government to increase expenditures because this would have to be done by redistribution from the wealthy to the poor. Consequently, government expenditure growth would not occur. Peltzman argues that it is where there is more equality of wealth and income that the pressure for increased government expenditure takes place as everyone wants to maintain their position relative to others in the society. As certain groups start to lose equality they place political pressure on government to expand expenditures to maintain their levels. Wildavsky and Webber (1986) link Peltzman's law to the political culture and public choice theories in that “Peltzman's general argument is that the size of government responds to the articulated interests of those who tend to gain or lose from politicization of the allocation of resources. This is political culture. So Peltzman's law may be broadened to say that cultural changes precedes and dominates budgetary change: The size of the state today is a function of its political culture yesterday.”

### *Fiscal Illusion*

The idea of fiscal illusion is also proposed as a reason for growth of government expenditures. This is a situation in which ignorance or lack of interest makes taxpayers unaware of the fiscal burden of taxation on their income or wealth. In situations where pay is withheld the taxpayer only realizes the net pay and is often not aware of all deductions. The less visible the tax, such as payroll, consumption, VAT, etc, the more unaware the taxpayer is of the total overall burden. They are also unaware of the public expenditure decisions. So that a government facing increasing demands applies a less visible tax bite to the taxpayers and the taxpayers are under the illusion that their situation is the same as before.

An interesting example of fiscal illusion is provided by Savas discussing the Soviet Union. Writing in 1987, Savas provided the following: “The ultimate fiscal illusion may be found in the Soviet Union, where sophisticated individuals will tell

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a foreign friend in all sincerity that they pay little in the way of taxes and that only a very modest amount is withheld from their pay. A moment's reflection is needed to realize that when everyone is an employee of the state, all he knows is his take home pay—he knows neither his true wages nor the amount withheld" (Savas, 1987). This has led some to characterize the command economy as in reality the pretend economy, that is the workers pretend to work and the government pretends to pay them. However, when the day comes that all costs must be accounted for, as illustrated in the change in Russia today detailed in the discussion on user charges in the Introduction to Part II, then the illusion turns to a painful reality.

## *Public Choice Theory*

Politicians and bureaucrats also come under scrutiny as reasons for the growth of public expenditures. We will examine the more well known of these theories to give some background to discussion in the later section on the cost and efficiency character of public and private service delivery.

Public choice theory proposed by James Buchanan applies economic theory to political science. Dennis Mueller (1989) provides the main points of this approach as follows:

1. Politicians behave in the same way as proposed in economics (rational and utilitarian)
2. Votes are analogous to prices in the market
3. An equilibrium must be achieved by equating public service demands with citizen desires (supply with demand at certain price)

Public choice theory then holds that politicians act to obtain votes much as businesses act to obtain customers and each engage in activities of gaining loyalty and adherence to their product.

Buchanan characterizes politicians into three types—the ideologue, the pure politician, and the profiteer. Each approaches their public decision making from a utilitarian point of view and maximizing of their own utility functions. We can describe briefly the approaches of these types of politicians.

The ideologue is directed toward changing society into a certain way and government is the instrument for making these changes. Therefore, the ideologue is by nature a person who sees an increasing and expanding role for government and wishes to provide public expenditures to attain these social goals. It is unlikely, according to Buchanan and Flowers (1987), that a person who wants limited government would necessarily seek to become a politician, so the natural tendency is that more of the social change ideologues will become politicians.

Given this nature of the politicians there is a common agreement among those elected who share these values that government should expand services and utilize public expenditures as the means to accomplish this.

The second type is called the pure politician. This person lacks an ideological basis for decision making, but likes being in public life and the power and prestige that is associated with the positions. These politicians see that the way to obtain and retain office is through the provision of public services which the citizens seek, but wish that the tax burden would not be placed on them for such services. Consequently, the pure politician emphasizes the public works and monuments brought to the election constituency while demonstrating that there was no increased tax bill on the residents for the securing of these benefits.

Finally, Buchanan and Flowers describe the profiteer. Accordingly, the profiteer “seeks political office largely for monetary benefits. Political profits, available through kickbacks, payoffs, contributions, by-product deals in the private sector, and so on, are much more likely to be available through large programs. Furthermore, these opportunities are more likely to appear under newly enacted public spending programs, before standards are established, than under old and continued programs. The political profiteer tends to urge new and larger programs” (Buchanan and Flowers, 1987).

Most politicians demonstrate some characteristics of all three in their activities. That is at any one time there may be opportunities in the public finance decision making process to be an ideologue by demonstrating some fundamental values, pure politician by seeking to obtain votes through the provision of public services with no tax burden on the electoral constituency and, also, be a profiteer through providing favors to those who can assist in financing their election campaigns or contribute to their personal wealth.

Buchanan and the public choice theory demonstrates a view of government other than that of being a benevolent provider of the public good. This is contrary to the popular perception or the one that is utilized in most public finance texts in which government is either benevolent or neutral in its actions. Buchanan refers to government as a Leviathan which exploits the citizens for its own support and utility maximization. The government seeks to maintain its own activities at the expense of the taxpayers who would not have to pay such high taxes if the government was not so greedy in pursuit of its benefits.

### *Bureaucratic Theory*

The bureaucracy is also to blame for the growth of public expenditures according to theory proposed by William Niskanen in his book *Bureaucracy and*



*Representative Government.* The motivation of the bureaucracy according to Niskansen (1971) is to increase its power and prestige, just as the politicians described by Buchanan. The bureaucracy has one additional advantage in that for most public services it is in a monopoly position. Savas (1987) supports this idea by writing: “In the first place, a principal function of government is to provide services that by their nature are monopolies. Second, in the name of administrative efficiency and rational management, bureaus with partially overlapping functions have generally been combined, leaving the surviving agency with monopoly status. The net effect of government’s monopoly is pressure for more government growth.”

We have looked at a number of theories concerning the reasons for the growth of public expenditures by governments in this century. However, in the 1980s and 1990s a new emphasis is being placed on having the private sector deliver certain public services. We turn in the next section to a comparison of public or private delivery of services in terms of cost and efficiency between the two public expenditure choices.

#### **Comparison of Public and Private Service Delivery Cost and Efficiency**

A very complicated problem is the analysis of the cost and efficiency of public expenditures. In Chapter 9 we will identify some methods of determining the effectiveness and efficiency of public expenditure decisions. Here we want to look at the particular issue of whether the public sector or the private sector is more cost effective and efficient in delivering public services through the expenditure of public monies. There has been extensive analysis of this issue in the Western countries particularly relating to the privatization and contracting out of public services. We will examine the results of these analyses in this section.

Economists vary in their opinions on public sector effectivity; there are some who prefer to speak of inefficiency, and there are others who believe that the problem of effectivity within the public sector is one of politics rather than economics. The very term of “effectivity” invites various explanations. This is due to the following reasons:

- The use of the terms productivity, cost, efficiency and effectiveness may not be clearly understood and
- the difficulty of specifying the services and products of the public sector with the same private sector services makes comparisons difficult.

The public sector struggles with problems of inefficiency because of:

- inappropriate inclusion of projects in the public sector which often results from politicians or the bureaucracy wanting to maximize their power and utility functions
- allocation inefficiency which is based on poor or improper methods of expenditure analysis to justify inclusion in the public budget
- production inefficiency which is based on decision whether the public or private sector is the best choice in providing the service

How can we determine whether a program should be included in the public sector. Generally speaking, market failure (namely a microeconomic one) is a motivation for government expenditures. Of course, there are public goods, externalities or some forms of imperfect competition which may influence the allocation activities of government. These reasons, however, are not always unequivocal, and this may be one of the reasons why over time there may occur two diametrically opposed processes of privatization and nationalization.

Determining an optimal public budget involves a number of problems. One of them is the assessment of public goods and externalities. Public goods which are connected to public expenditures are basically non-market goods which means that we are not able to calculate the cost of their provision. To develop a budget means to assess all relevant public projects and to choose the most efficient and highest priority expenditures.

The aim of the economic analysis of public expenditures is to clarify the economic costs and benefits of public projects in terms of need. Such analysis is always based on the criteria of efficiency, but other factors may be considered such as equity and fairness. A decision is thus a matter of compromises in the decision making process.

There has been much debate regarding the comparison of efficiency and effectiveness of the public or private delivery of services. A substantial amount of research has been done on particular services to determine whether government or private delivery is less costly and of equal or greater quality. The first area of argument is whether the public sector by the nature of its activities is subject to the same cost and efficiency factors that characterize the private sector. Professor William Baumol has linked the growth of government expenditures to the difficulties of improving productivity in the delivery of these services. This is an interesting point and deserves some discussion.

James Buchanan describes Baumol's theory regarding the relationship of public service productivity to the growth of expenditures. He writes: "If the forces of economic growth are such that productivity grows more rapidly in the private

sector than in the public sector, the costs of public services will increase. If this differential growth of productivity in the two sectors is combined with a low 'price' elasticity of demand for public services, total outlay on these services will rise in relation to national product" (Buchanan and Flowers, 1987). Baumol also argued that because government services are by their nature not as subject to technological improvements as private sector activity that the comparison of productivity between the two would be difficult to make. Hirsch and Rufolo also lend support to the idea that public and private sector productivity comparisons are difficult to make. They write: "Several arguments exist about why government production tends to show relatively minor increases in productivity. For example, government provides goods and services that are inherently unsuited for productivity improvements. Most of the services provided by government are labor intensive. Further having one person serve more people is almost equivalent to a reduction in service" (Hirsch and Rufolo, 1990). This latter point is very important. There are some public services where we would like to have more public employees relative to the population served. For example, we consider it to be a better situation if the teacher to student ratio is low, doctors and nurses to patients is low, and the number of police in crime areas is high relative to the population served. To reduce the number of public employees in these areas is felt equivalent to providing less of a service than the citizen might desire.

The argument against the above position is that even if there are good ratios of public employees to the population served that does not necessarily mean that improvements in productivity or efficiency can not be made. There may be methods which can still improve the level of efficiency and productivity in the delivery of these services.

We should now examine some of the results of the analysis comparing the cost and efficiency of delivery of certain services by the public and private sector. Hirsch and Rufolo describe the results of a study by Borchering regarding the comparative analysis done in a number of countries including the United States, West Germany, Switzerland, Australia, and Canada. Over fifty studies comparing the cost of nineteen different services after the government contracted out the service to private firms demonstrated that the private sector delivery was more cost effective. According to Hirsch and Rufolo (1990) "In forty of the fifty case studies private supply was less costly than government supplied services. In only three cases (electric utilities, veterans hospitals, and garbage collection) private firms were more costly than public ones."

What could be the reasons for the more costly approach to delivery of services by the public sector. There are a number of differences between public and private sector managers that may account for this. Generally, public managers do

not have the same financial incentives that the private manager has to perform at a more cost efficient level. Private managers may be given rewards or bonuses for their cost reductions while the public manager does not have such a reward. Also, the pay system in the government services is generally based on number of years employed rather than on performance indicators. Consequently, the separation of productivity and efficiency rewards from pay incentives in the public sector creates a situation where the public manager looks mainly for job security and continuing pay increases based on longevity in service as the main motivations.

### **Distributional Factors of Public and Private Delivery of Services**

The above would seem to indicate that private delivery of services is the more cost efficient method. If this were the only consideration in the decision between public and private delivery of services then the decision would be an easier one to make. However, there are some other factors, particularly, the distributional factors of taxation and wages incomes that should also be considered in determining if the private delivery is the more sound public expenditure decision. There are a number of reasons that the public sector might want to deliver the service even though it is more costly.

The first of these is that government must provide services to the total population to be served rather than to those that can be efficiently served. For example, providing services to rural areas may not be cost effective and if left to private sector would not be delivered because to do so would result in a loss. Therefore, in order for the government to insure that certain people are served it has to bear the burden of costly delivery to those who might not otherwise be served. Also, certain service areas such as regulatory activities involving employment, race, sex or other discrimination, have to be entrusted to government agencies rather than private sector. The legal or judicial system is also one that most people would prefer to be provided by public sector institutions.

Another area where public sector delivery may be more advantageous is that the public sector, in the Western countries, will pay public employees a higher wage than the private sector would pay them. This is generally the case in many of the manual or clerical areas of employment where the private sector may not be willing to pay a wage sufficient to attract and keep these employees. To the extent that the government wants to maintain a fairer wage system in the society it may further this by providing a higher level of wages that the private sector would have to pay as well to attract similar workers. The reverse situation may also occur where the government uses its monopoly position and holds down the wages of workers below their productivity level. This is a complex situation to

analyze but the impact on wages and incomes may differ based on whether the public or private sector delivers the service.

A tax consideration should also be factored into the decision. A private firm will have to pay taxes on the income it receives for providing the service. Therefore, the government may benefit by having a service delivered at a low cost and also have some return from the taxes paid back to the government. The public delivery of services may be more costly and have to be subsidized while the private delivery of services may not be subsidized at all or by as much. This is a difficult area to make any comparative analysis concerning whether the public or private sector has an advantage.

Hirsch and Rufolo (1990) have summarized the factors involved in the public versus private delivery of services with respect to contracting out or privatization. They write “In summary, contracting out, though often invoked as a remedy to alleged inefficient governments and rising public expenditures, is not necessarily always more efficient; and if it is, it may not assure constituents that appropriate quality levels are attained. Moreover, the distributional implications of moving from public to private production must be taken into consideration. This evaluation is affected by value judgments and politics” (Hirsch and Rufolo, 1990).

### **Conclusion**

In this chapter we have examined the growth of public expenditures by governments in the course of the twentieth century, discussed some theories as to why government expenditures have increased in this period and, finally, examined the issue of whether the public or private sector is more productive, efficient and cost effective in delivering services. In the next chapter we will examine some of the methods of analysis by which we can make public expenditure decisions.

**CASE STUDY: Public Expenditure Programmes in the Czech Republic**  
*Bojka Hamerníková, Alena Maaytová*

For a detailed examination of the present situation of public expenditures in the Czech Republic, the analysis can be divided into two time periods. The first from the 1970s to 1989 and the second from 1989 to the present year. Dividing the analysis into these two periods is important since it makes it possible to distinguish between the transition period in the development of the Czech economy and the previous period. Also the break-up of the federation in 1993 has to be considered.

Tab. 3: Structure and development of the expenditures of government and national committees budgets in 1970 - 1988 (in billions of CZK and % out of total expenditures)

	1970		1982		1988	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Total expenditures</b>	194,3	100,0	314,0	100,0	401,2	100,0
<b>1. Social security expenditures</b>	14,1	21,2	75,9	24,2	93,8	23,4
<b>2. Social services</b>	46,5	23,9	89,1	28,4	119,4	29,8
out of which:						
- investments	21,2	10,9	27,3	8,7	32,7	8,2
- social services expenditures	25,3	13,0	61,8	19,7	86,1	21,5
<b>3. Economic sphere</b>	83,0	42,7	100,7	32,1	130,7	32,6
out of which:						
- direct investments	14,3	7,4	15,7	5,0	13,8	3,4
- allocations, subsidies and grants	68,7	35,4	85,0	27,1	117,4	29,3
<b>4. Science and technology</b>	4,5	2,3	7,5	2,4	9,8	2,4
<b>5. Financial and technical services</b>	-	-	8,6	2,7	10,0	2,5
<b>6. Defence and security</b>	14,9	7,7	24,6	7,8	29,2	7,3
<b>7. Government and administration</b>	4,3	2,2	7,6	2,4	8,9	2,2

Source: Goulli, R.: Úvodní ekonomická analýza politického chování, EÚ CSAV, Prague 1988

As shown in the table above, total expenditures of the government budget from 1970 until 1988 grew by 206 percent. This growth of total expenditures was caused primarily by transfers to economic sphere. Despite a certain decreasing trend, this share was still very high when compared with other developed economies. The reason for this high share was closely connected to the massive

## Public Expenditures

subsidies for corporate enterprises and redistribution of resources from effective companies to ineffective ones.

The second largest share in total expenditures is represented by social services which included, among other things, items now included to public consumption. This comprises education and health services.

Another important item was expenditures for social security comprising expenditures for old-age pension scheme and health insurance. In 1988, these expenditures totalled to 23.4 percent of total expenditures. It is relatively small when compared with the shares in developed countries. It illustrates the relatively low level of old-age pensions and social security benefits which were not recalculated regularly according to the development of cost of living and inflation.

The following are the most important growth factors of expenditures in public budgets:

- (1) “coming up” with the level of wages and salaries received in other sectors of the economy, the so-called demonstration effect
- (2) increase in prices of semifinished products necessary for the production of collective goods
- (3) demographic shifts influencing the size of expenditures both as a result of absolute increase in the number of the population and the changes in its demographic structure.

The demographic situation in the Czech Republic is specific. Beginning with the so-called First Republic (1918 - 1939) the demographic development has been unbalanced. In addition, this unbalanced development was supported by government policy in the 1970's. As a result of the decreasing birth rate on one side and the increasing mean length of life on the other side, the share of people over 60 in the total population is increasing.

The low birth rate results in the narrowing base of the population; large groups of individuals born in the same year keep moving towards the apex of the age pyramid. Demographic aging appears when such large groups of individuals born in the same year reach the pension age; in the Czech Republic, such effect is expected after 2010 culminating in 2030 as the age groups from the 1970's reach the pension age. If we reflect on the present system of old-age pension scheme in the Czech Republic, it becomes obvious that the present system will be experiencing serious problems.

After the political shift in 1989, the government budget and fiscal policy became a picture of the transition economy. The government budget represented one of the first complex documents determining the economic policy of the

government. In the area of basic macroeconomic targets, the aim of this policy was to sustain the growth rate at the level reached in previous years, re-establish the balance in the economy and to fight against the inflation process, stabilise the balance in foreign economic relations and solve the issues related to unemployment connected with the restructuring of the national economy. The following two principles had to be observed in making the government budget:

- First, the budget had a significant anti-inflation effect. Anti-inflation orientation of the budget resulted in the reduction of the increasing rate of expenditures which should have caused a restriction on aggregate demand by the government and helped re-establish the economic balance. An integral part of this restriction was the creation of a budget surplus.
- The second basic principle was that the government budget started the transformation process of the Czechoslovak economy towards a market economy. This process was initiated by the reduction of redistribution processes based on the decrease in budget expenditures and the total volume of the government budget. The shift in the structure of the budget in favour of expenditures aimed to “rescue” the social network (unemployment benefits, revaluation of old-age pensions, etc.), reduce the share of expenditures for corporate subsidies and for public government consumption as well as to support the development of private enterprises.

The transformation of fiscal relations was a difficult task for the budget policy by reducing the share of public expenditures in the GDP even when such a reduction turned out to be extremely demanding in relation to the large pressure on the budget expenditures for social benefits. The following table and chart detail the levels of public expenditures and the overall balances of the various budgets during this period. The reader should note the increases in public consumption and budget deficits during this period.

Tab 4: Development of the expenditures of public budgets in 1989 - 1992 (in billions of CZK)

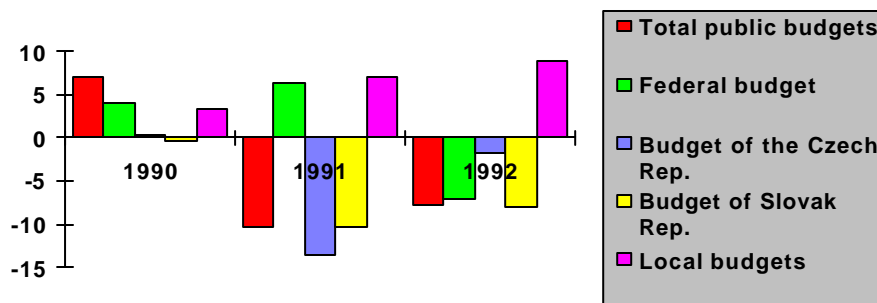
	1989	1990	1991	1992
<b>Total expenditures</b>	413,1	453,3	510,7	564,9
<b>Transfers to companies</b>	83,7	84,1	64,6	58,5
<b>Transfers to households</b>	97,0	113,8	156,2	168,1
<b>Public consumption</b>	232,4	255,4	289,9	338,3

Source: Statistical year-books, Czech Statistical Office, Prague 1994



Public Expenditures

Graph 3: Development of the balances of public budgets in 1990 - 1992



Source: Statistical year-books, Czech Statistical Office

1993 was a turning point in the budget of the Czech Republic. For the first time, the budget was for an independent country.

Public budgets were greatly influenced by tax reform. Three funds were established: social security fund, general health insurance fund and employment fund. These funds were established on the principle of solidarity and the principle of continuous financing of expenditures. The social security insurance, being the main source of income of these funds, was set to an amount covering the continuing expenditures. The health insurance fund was separated from the budget in 1993.

Along with tax reform, the system of financing of local budgets was changed. Government intervention aimed to decrease the historic differences in the economic levels of the individual regions was reduced. The following tables detail the changes in the income and expenditures for the years 1993-94 and 1995-96.

Tab 5: Development of public budgets in the Czech Republic in 1993 - 1994 (in billions of CZK)

Indicator	1993			1994		
	Total public budgets	Government budget	Local budgets	Total public budgets	Government budget	Local budgets
Total income	422,0	358,0	91,0	472,2	390,5	111,0
Total expenditure	420,1	356,9	90,2	462,9	380,1	112,1
<b>Income/expenditure balance</b> <sup>1</sup>	1,9	1,1	0,8	9,3	10,4	-1,1
Off-budget sources	10,3	-	10,3	15,8	-	15,8
<b>Income from operations</b> <sup>2</sup>	12,2	1,1	11,1	25,1	10,4	14,7

Tab 6: Development of public budgets in the Czech Republic in 1995 - 1996  
(in billions of CZK)

Indicator	1995			1996		
	Total public budgets	Government budget	Local budgets	Total public budgets	Government budget	Local budgets
Total income	535,8	439,9	129,1	- <sup>3</sup>	482,8	- <sup>3</sup>
Total expenditure	531,8	432,7	132,3	- <sup>3</sup>	484,3	- <sup>3</sup>
<b>Income/expenditure balance<sup>1</sup></b>	4,0	7,2	-3,2	- <sup>3</sup>	-1,5	- <sup>3</sup>
Off-budget sources	19,8	-	19,8	- <sup>3</sup>	-	- <sup>3</sup>
<b>Income from operations<sup>2</sup></b>	23,8	7,2	16,6	- <sup>3</sup>	-1,5	- <sup>3</sup>

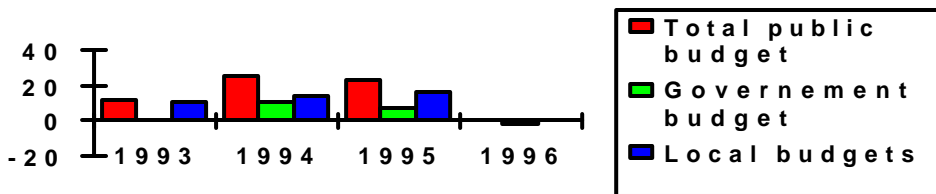
<sup>1</sup> Balance of income and expenditures of the public budgets

<sup>2</sup> Income from operations of the public budgets using off-budget sources

<sup>3</sup> The respective data were not available at the time of the printing of this report.

Source: Statistical year-books, Czech Statistical Office, Prague 1996

Graph 4: Development of the balance of the public budgets in 1993 - 1996



<sup>1</sup> including off-budget sources; the data for 1996 are as expected

Source: Statistical year-books

The analysis can be elaborated in greater details by reviewing the structure of expenditures of the government budget of the Czech Republic:

Public Expenditures

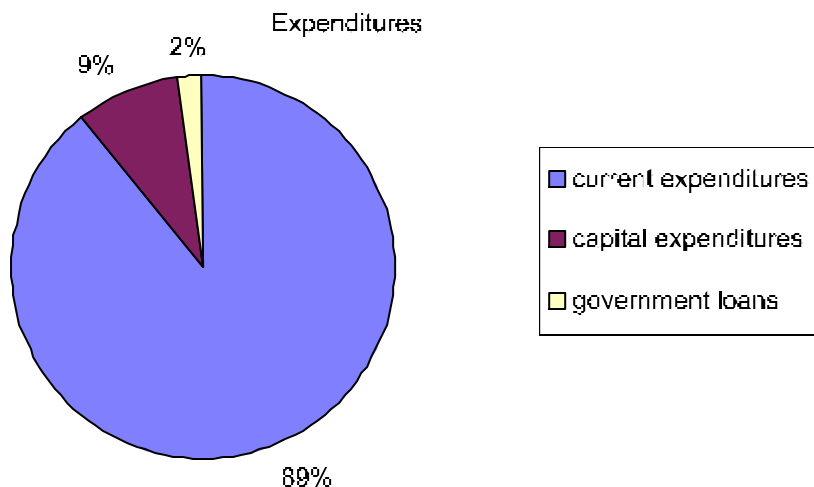
Tab 7: Development of the structure of expenditures of the government budget in % (for the Czech Republic)

	1993	1994	1995	1996
Total expenditures	100	100	100	100
Current expenditures	89,1	88,3	88,6	88,5
- non-investment subsidies for entrepreneurs	8,5	7,3	6,4	5,7
- transfers to households	34,4	36,5	37,2	31,9
- public consumption of the population	18,0	17,8	37,9	37,2
- public government consumption	18,2	21,2		
- debt servicing	4,4	0,0	1,0	2,8
- subsidies to district authorities and municipalities	4,8	3,7	5,6	10,4
- other	0,9	1,4	0,4	0,5
capital expenditures	8,9	9,5	9,4	10,8
-investment subsidies to enterprises	1,5	1,7	1,4	1,1
- transfers to the public sector	7,3	7,7	8,0	9,7
government loans	2,0	1,9	2,1	0,7

(Note: Since 1993, the Czech Republic began to use the classification of expenditures implemented by the International Monetary Fund; in 1994, the expenditures related to the debt servicing were paid by the National Property Fund).

Source: Finance a úver, No. 1/1994, No. 1/1995, own calculations

Graph 5: Expenditure side of the government budget in the Czech Republic in % (1993)



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## CHAPTER 9: EXPENDITURES ANALYSIS

*Juraj Nemec*

### Methods of Expenditures Analysis

Economic analysis in the Western developed countries and the countries in transition indicate that it is essential to reduce the impact of government bureaucracy and expenditure levels on the economy by cut backs, restructuring, and increasing efficiency of the public budget. Because it is a very complex political process to reduce the total amount of public expenditures due to increasing demand for transfer programs (aging population, major health problems due to longer life expectancy and for education) the focus on efficiency is the dominant target of current changes in public expenditures. Efficiency means the expectation that the resources used in the public sector which are transferred out of the private sector, should yield a return greater than what could have been realized in the private sector. As explained by Baumol (in Haveman and Margolis, 1970) using the following example: “If the resources in question produce a rate of return in the private sector which the society evaluates at  $r$  percent, then the resources should be transferred to the public project if that project returns are greater than  $r$  percent.”

A careful evaluation of public expenditure programs is one very effective tool to stop waste of public resources that are scarce and costly to obtain. Methods of expenditure analysis are available to help governments in the market and transitional economies to use resources more efficiently on the basis of a careful evaluation of the purposes and the use of the public resources.

Stiglitz (1988) proposes an 8-part framework for the analysis of public expenditures: (1) assessing the need for a program; (2) assessing the market failure addressed by the program; (3) identifying of the workable alternatives to the program; (4) assessing the efficiency consequences; (5) assessing the distributional consequences; (6) assessing efficiency-equity trade-offs; (7) general evaluation of the program; and (8) assessing the political consequences. These can be simplified into 4 steps as follows:

1. Clearly define goals of the program.
2. Clearly define the need this program proposes to address.
3. Search for all practical alternatives of how to reach the defined goals of the program (or a portion of them).
4. Scientifically evaluate the defined alternatives based on existing subjective and objective methods of qualitative and quantitative analysis.

*Goals of the Program*

It is impossible to begin the evaluation of a public expenditure program without knowing precisely its goals. It is not a simple task to determine the goals of the program. Goals or objectives setting procedures in the public sector are very complicated because of the many diverse activities which produce hard to measure results (health care) and because some programs are only provided by the public sector with no private sector counterpart to make comparison. It is very complicated to set quantitative goals and often only qualitative goals can be defined.

In this chapter we shall introduce several methods of evaluating qualitative goals with the limitations of these methods. It should be stressed that quantitative goal setting is not simple and straightforward. It is very complicated to set quantitative goals of public expenditures programs. We cannot simply set the goal of a transfer program to be a decrease of poverty by 10 %, because the expected results of such program will not be clear or perhaps even measurable over many years.

*Evaluating the Needs of a Program*

According to Stiglitz (1988): “Some of the demands for public provision arise from an inadequate understanding of the market and of the possibilities that the government has for making things better. Identifying whether there is or is not a market failure is an essential step in identifying the appropriate scope for government action.”

As explained in chapter 2, in principle only two microeconomic arguments can be used to support a government expenditure program:

- a/ market failure arguments
- b/ (re)distributive arguments

In the transitional economies a third argument may be added:

- c/ temporary and necessary government interventions in the transitional period connected with specific market failures or welfare maintenance (social safety net).

Price controls in competitive industries may not be a target in a developed economy, but it may be necessary to some extent and some economic sectors in the first phase of the transition. State support for public energy sources for households is common in the transitional countries, though this would be taken as inappropriate in a developed market economy.

As a rule, no resources should be transferred from the private to the public sector in market economies if the competitive private sector can provide the service through its own resources.

*Search for All Practical Alternatives*

Generally, there exist several alternatives to reach the defined goals of the expenditure program. The set of possible alternatives is given by defining the purpose of the expenditure program through which a basic framework of possible remedies will become evident.

We can explain this by the example of the pollution of the environment by private cars. The purpose of government intervention is clear; the negative externality created by pollution from cars. In the case of a negative externality, economic theory provides for the following possible government actions:

- a/ government expenditure program in the form of subsidies, such as subsidies to car makers to develop a car with lower pollution emissions into the environment; subsidizing the price of unleaded petrol; and subsidies to car owners to buy additional pollution abatement equipment. The range of possible forms of subsidization is great. As you can see several kinds of subsidies are available. The designer of the program can propose subsidies to producers or to consumers, subsidies in cash or in kind, or direct or indirect subsidies.
- b/ taxation - in our case cars without pollution abatement equipment or the petrol may be taxed in various ways.
- c/ government regulation by established pollution limits and enforcement means by the government.

Market failure may also be addressed without any kind of allocative government action. In our example some conservative economists may prefer less government intervention methods, such as the establishment of ownership rights. There are several kinds of market failures where no government solutions (the government will not take any action to correct the existing market failure) are acceptable. In the case that all possible alternatives to correct the market failure are undesirable we must choose the lesser of the evils, that is between an ineffective government action and an ineffective private sector solution. The decision in such a case may be the lesser of several evils or to do nothing. We have to be aware of the decision for “no action.” Very often the private sector or non profit sector can solve a defined problem with greater efficiency than the government.

*Evaluation of Alternatives*

This step is the most complicated one. On the basis of the evaluation we have to choose the best alternative, or a set of supplementary measures, or to decide on the “no government action” alternative.

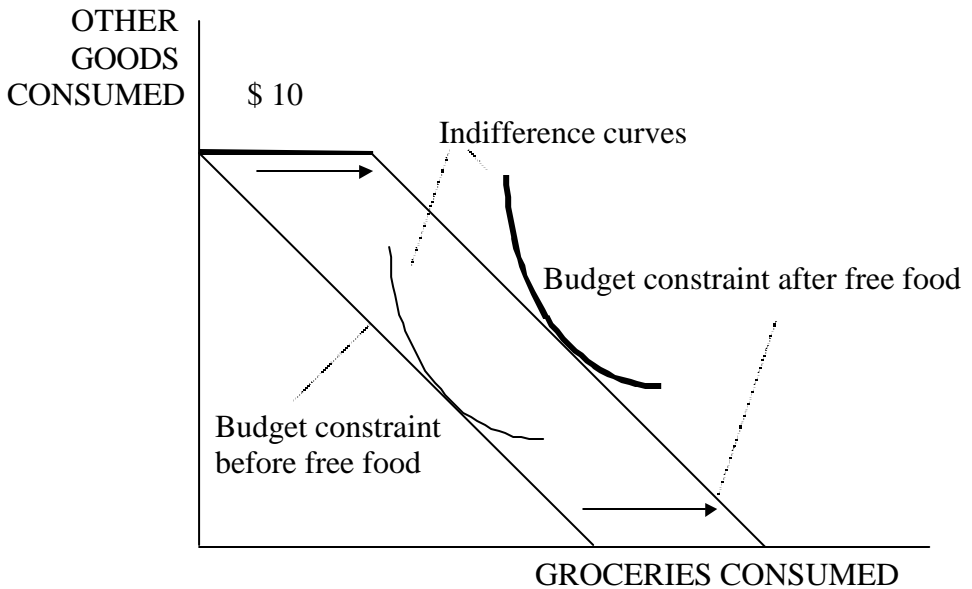
Many factors should be taken into the account during the evaluation, such as:

- efficiency considerations
- equity considerations
- political considerations
- national habits and cultures

Two important elements of economic theory may be helpful during the evaluation of the efficiency and equity effects of the selected solution. These are theories of income and substitution effects and of the distributional consequences.

*Income and substitution effects.* Government intervention may change the prices of some commodities because of substitution of a cheaper good for another good; the substitution effect. From the viewpoint of economic efficiency we should prefer solutions where government intervention may make an individual better off without altering prices. This is an intervention with a single income effect. The change of the individuals expenditure pattern is not a result of substitution but of a new higher indifference curve chosen by this individual. The income and substitution effects are demonstrated in the following diagrams from Stiglitz (1988).

Figure 1 Income effect

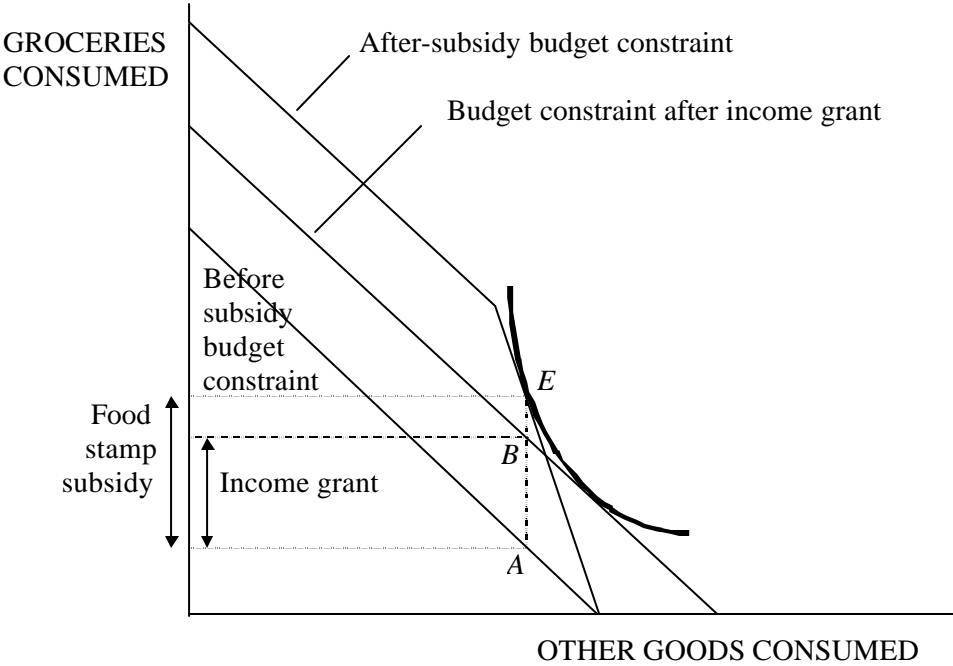


Source: J. E. Stiglitz: Economics of the Public Sector



**INCOME EFFECT** Giving free food has an income effect but no substitution effect: its effects are identical to giving an individual extra income.

Figure 2 Substitution effect



Source: J. E. Stiglitz: Economics of the Public Sector

**SUBSTITUTION EFFECT** When the magnitude of the subsidy depends on the amount of food consumed, there is a substitution effect and a resulting inefficiency. The poor individual could have been made just as well off with an income grant (or an equivalent food grant) of  $AB$ .  $BE$  measures the cost of inefficiency.

Equity (distributional) consequences deal primarily with the question of who benefits from the program. It is not a simple task to increase the welfare of an individual with a government expenditure program. Important questions can arise, such as the following:

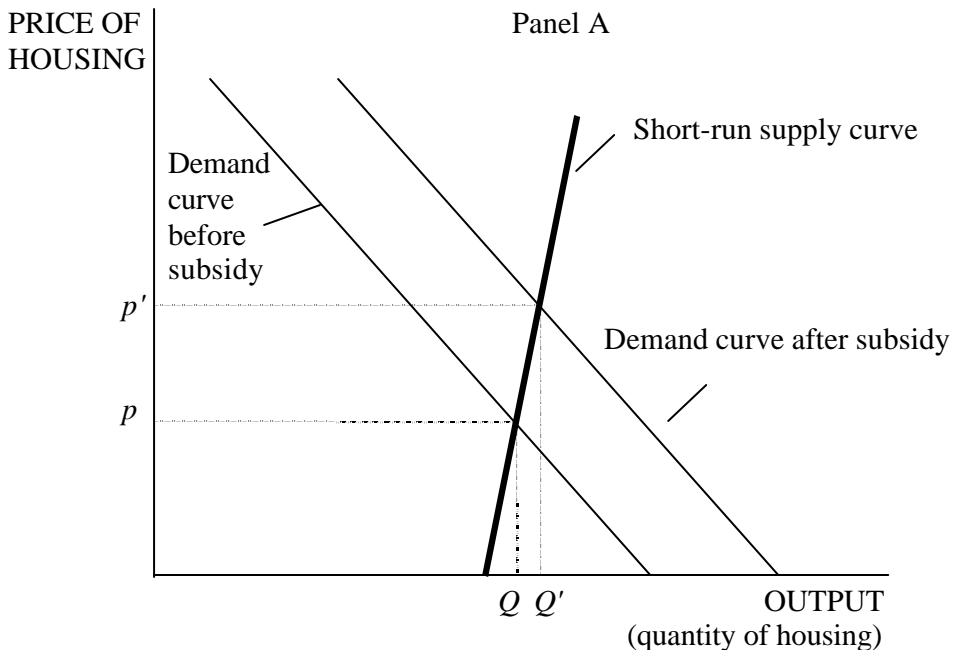
- (1) What proportion of the expenditures of the program will be for the benefit of the concerned individual and what proportion will benefit other subjects?
- (2) Will the concerned individual use the subsidy as expected?

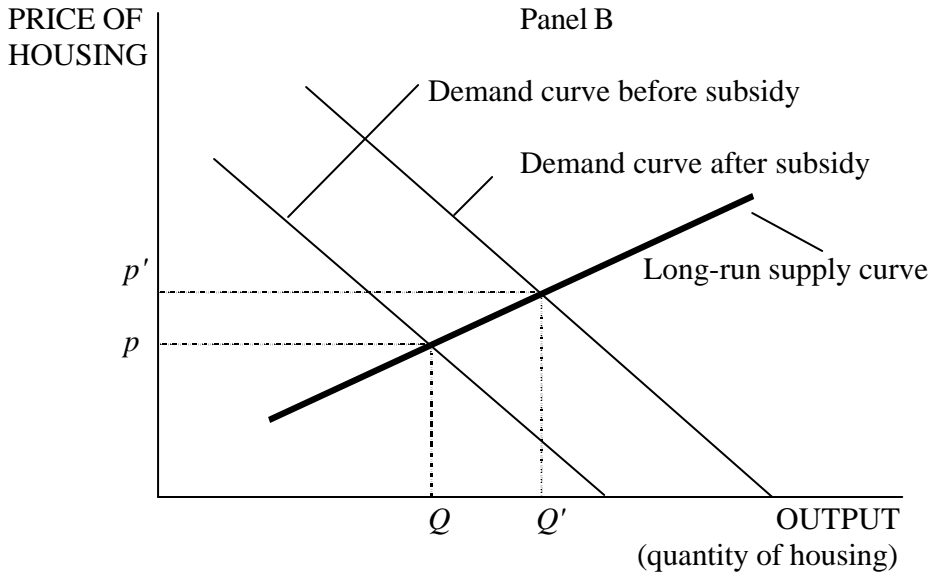
It is common that government expenditures benefit not only the direct addressee but a number of other subjects as well. From the theory of taxation we know the effects of tax incidence. The same, but in a reverse process, is a feature of expenditure programs. Subsidies may shift the demand curve up and prices will follow this move.

The changes in prices depend on the short and long-run elasticity of demand and supply. Under certain conditions (like inelastic supply) it may arise that all of the subsidy amount will be eliminated by the increase in prices in which case the producers will benefit, but not the individual from such a program.

Stiglitz's (1988) example concerning housing may also apply for the transitional economies. In the short run, if the state or municipality gives money to young families to get a new house (flat) we can expect that the prices of rental housing will dramatically increase. And if the prices of rental housing are regulated with an upper limit a "black market" may be established. In this situation it would be much better to subsidize the supply of communal housing where the rents and other features are controlled directly by the community. However, in the long run the supply of housing will adjust and prices may fall relatively as shown in the following diagrams.

Figure 3 Short-run and long-run incidence of expenditure program





Source: J. E. Stiglitz: Economics of the Public Sector

**SHORT-RUN AND LONG-RUN INCIDENCE OF EXPENDITURE PROGRAM (A)** In the short run, a subsidy may increase price more than quantity. Thus landlords may benefit from a housing subsidy given to help the poor acquire better housing. **(B)** In the long run, the output response will be large and the price response smaller.

A group other than the expected targeted group may benefit from an expenditure program if the wrong policy option is chosen. Friedman (1968) and Hansen and Weisbrod (1969) analyzed the distributional impact of free higher education. They argued that this policy option resulted in a negative redistribution in favor of better off families and suggested that another possibility of government subsidies is student loans to this sector.

The failure of expenditure programs is very often connected with the unexpected behavior of the final recipient. We should not expect that cash benefits will necessarily be used for the purposes earmarked. For example, cash payments for child payments for benefits in families might be spent on alcohol, cigarettes, or other goods by the parents. If in-kind transfers are used the free clothing may be sold in the market and not given to the children. The decisions about the type of benefit and the means to distribute benefits may determine the success or failure of the expenditure program.

Bonnen (in Haveman and Margolis, 1970) suggests the following questions should be asked concerning the distributional impacts of public programs:

For benefits:

1. Who should benefit from the program?
2. Who actually benefits from the program?
3. How much are the total benefits of the program?
4. What is the distribution of program benefits among beneficiaries?
5. What is the current distribution of incomes and assets or relevant dimensions of welfare among (a) actual beneficiaries and (b) intended or potential beneficiaries?

For costs:

1. Who should pay the program costs?
2. Who actually does pay the costs of the program?
3. What are the total program costs?
4. How are the program costs distributed among the burdened groups?
5. What is the current distribution of incomes and assets among (a) the actual burdened group and (b) the intended or potential burdened group?

The final question is:

1. Through integrating the above information, what are the alternatives in achieving the same program objective and which alternative attains the same desired distributional impacts at lowest costs?

There could exist solutions that are effective without important distributional consequences, but cannot be adopted because of several political factors. Limiting the pollution of the environment by private cars may involve stopping the use of old cars, permitting only use of “green petrol”, or other solutions by the government. However, such decisions may not be taken because of the strong opposition by those concerned. Such opposition may arise because of the uncertainty of the program impact on several groups of individuals, or because of several side effects of the program. A government will not adopt a program that will decrease its popularity, especially close to an election (Downs, 1957).

Many argue that efficiency, distributional and political consequences of a proposed government program cannot be assessed in all aspects given the reality of daily life. This may be partially true as we will see in the efficiency evaluation problems described in the following section. However, some attempts to search for all possible alternatives and to choose the most appropriate combination of measures in adopting the program is necessary and may be demanded by citizens as a necessary precondition for their acceptance.

## **Performance Measurement**

Public expenditures must be evaluated on at least two levels. As described in the previous section we have to decide the why and the how to spend public money. We need also to evaluate how public sector organizations manage funds given to them after a decision. In this section we shall begin with the examination of the performance of public bodies. In the next section we shall introduce some basic methods of evaluation of public programs.

One of the most important problems in the public sector is the measurement of the performance of organizations. The global performance indicator in private activities, profit, is not suitable for service activities prevailing in the public sector. In order to assess the appropriateness of public expenditure programs and to evaluate the performance of public sector organizations, some more or less objective methods are necessary.

Performance measures that are commonly used in OECD countries can be grouped under the following general categories (OECD, 1994): (1) economy measures, (2) efficiency measures, (3) effectiveness measures, (4) service quality measures, and (5) financial performance measures.

This approach further develops the value for money auditing method proposed by General Auditing Office in USA in 1972 which was further developed and evaluated in the UK in the early 1980s (Tomkins, 1986, 1989) and in many other countries. This method is based on auditing of three constituent elements of the performance of organizations - economy, effectiveness, efficiency (the so called 3 E approach).

*Economy* may be defined as obtaining inputs of appropriate quality at the least costs. An economy measure is the ratio of the cost of inputs or resources to the expected value of those costs.

*Efficiency* may be defined as a relationship between outputs and the resources used to produce them. We can use average or marginal figures to measure efficiency, such as the ratio of output to input or the ratio of the change in output to a corresponding small change in input.

*Effectiveness* is related to a different level of the management of organizations than are efficiency and economy. An organization can work economically and efficiently, but at the same time be ineffective. Effectiveness may be defined as the degree to which the goals (objectives, outcomes) of the organization are achieved. It is very difficult to measure effectiveness in the public sector mainly because of problems in defining objectives and in measuring of final results. With the current state of knowledge in measuring or evaluating social welfare, there will be many areas where it is difficult to specify goals (especially at higher level)

and extremely difficult to identify impact of the government program on social welfare (Grinwood and Tomkins, 1986).

*Quality of service* may be defined as the extent to which the nature of output and its delivery meets requirements of the consumer (society). Quality is generally used in a narrower sense than effectiveness. It is used in terms of meeting more immediate or direct needs of users, such as accessibility, timeliness, accuracy, level of comfort, and courtesy in obtaining the service. Possible quality criteria may be divided into three groups (Narsavage, 1996):

- a/ criteria related to structure (what?) - Is the organizational capacity to provide a service and establish administrative standards, personnel policies and procedures, as well as staffing, well developed.
- b/ criteria related to process (how?) - Are appropriate services provided as prescribed, are standards of provision of services maintained, and is an appropriate management of the provision of services accomplished.
- c/ criteria related to outcomes (results) - What level of achievement of goals, and negative events avoided, and clients satisfaction in receiving services met.

*Financial performance and compliance evaluation* is an examination of financial transactions, accounts and reports; including an evaluation of compliance with applicable laws and regulations. This is sometimes called the “ex-post audit”. There are some tendencies in relationship to the “New public management” concept to decrease the scope of this form of auditing in favor of accrual (“ex-ante) accounting based on effectiveness considerations (Joustie, 1996). This will be examined later.

There is not a single dimension to unify all levels of performance measurement. Some of these levels interact with or may conflict with each other. For example, increase in quality is very often accompanied by cost inflation. The current approaches tend to concentrate on effectiveness considerations and basic financial discipline to indicate compliance in operation of the organizations with relevant laws and regulations that have a more general rather than detailed character.

#### *Output - Outcomes Relationship*

To follow the updated methods of public sector management, we have to distinguish between output and outcomes indicators. More and more the weight is being given to outcomes that can be the best indicators of an organization’s performance. To present the difference between outputs and outcomes, we can use an example from the health care environment.

The output for health care institutions are based on the number of patients treated, the number of days patients spend in hospital beds, and other services provided. The outcomes for health care institutions are the improvements in a patient's health.

### Program Analysis

If a private firm decides to undertake an investment action many decision-making procedures are utilized to evaluate a proposal. The possible ways to invest and possible results are compared on the basis of private cost-benefit analysis. To evaluate projects with costs and benefits in very short periods, simple cost-benefit figures may be used. To evaluate projects with costs and benefits in future years the "net present value" concept based on a discount factor is used. This is based on the assumption that one dollar today or in the future has different values based on interest rates and inflation.

Because many readers in transitional economies are not familiar with "net present value" we shall briefly introduce this concept and its impact on public sector investments. To calculate receipts and expenditures in future years, we have to multiply those receipts and payments by a discount factor that makes them equivalent to current receipts and payments. The principle involved is logical. If I have \$1 today, I can take it down to the bank and with an interest rate of 10 %, I will have \$1.10 in one year. Thus \$1 today is worth \$1.10 next year. Reversing this process \$1.10 next year is worth only \$1 today.

The discount factor for one year is  $1/(1+r)$  ( $r$ =rate of interest), for year  $t = 1/(1+r)^t$ . Using the discount factor we can calculate net present value of future receipts (NPVR) using following formula (under the assumption of no inflation and perfect competition):

$$NPVR = B_0 + \frac{B_1}{(1+r)} + \frac{B_n}{(1+r)^n} = \sum_{j=0}^n \frac{B_j}{(1+r)^j}$$

and of future costs (NPVC):

$$NPVC = C_0 + \frac{C_1}{(1+r)} + \frac{C_n}{(1+r)^n} = \sum_{j=0}^n \frac{C_j}{(1+r)^j}$$

The same approach is used in public sector project analysis. The discount rate is a critical factor for the evaluation of any proposed government project. The choice of an acceptable discount rate may mean the difference in choosing between the private and public sector of the economy, or the choice between two programs

X and Y. Under certain conditions we may prefer program X based on a 2 percent discount rate or program Y with a 4 percent discount rate.

The discount rate is an important arbiter of the allocation of resources between the private and the public sector. The key problem is choosing an acceptable discount rate. The discount rate for public sector activities is a social opportunity cost. If the resources taken from the private sector to finance public program produce rate of return  $r$ , then they may be transferred only if this public project yields more than  $r$ . The correct discount rate for the evaluation of public investments is the percentage rate of return that the resources utilized would otherwise provide in the private sector. This approach is very important because it states the minimal requirement of efficiency. That is, never take resources out of a use where they realize a 9 % gain in order to utilize them in a manner which yields only a 6 % gain. Economy in most situations does not allow for “free resources” to be used for public expenditure programs. These resources have to be reallocated from another economic activity. If they are used effectively in the private sector it will be very costly for the society to reallocate them to a public project with uncertain benefits as often occurs because of government failure.

#### *Methods of Program Analysis*

Several methods are used for program analysis purposes in the public sector to overcome difficulties connected with output/outcome measurement. These are:

- cost-minimalization analysis (CMA)
- social cost-benefit analysis (CBA)
- cost-effectiveness analysis (CEA)
- cost-utility analysis (CUA)

All of these methods use costs as a basis for comparison. However, the measurement (valuation) of consequences of alternative programs is different as summarized in the following table:

Method	Measurement of costs	Measurement of benefits
CMA	monetary value	none
CBA	monetary value	monetary value
CEA	monetary value	natural units
CUA	monetary value	utility

In the next section we shall briefly describe the basic principles of CBA, CEA and CUA, as well as their strengths and weaknesses.



### **Cost-Benefit Analysis**

As indicated, most of problems in social cost-benefit analysis arise from the fact that we have to evaluate non-marketable commodities. Generally, the CBA method cannot be used as a direct decision-making procedure but as a more considered and sound information base for policy decisions. As indicated by Weisbrod (1978) this technique will never make decisions, but if it is vigorously pursued it will make “better informed” decisions.

Cost-benefit analysis is very simple in principle. It requires a comparison of the costs and benefits of each project. Projects with net positive benefits should be adopted within the constraints of the budget.

CBA may be a relatively simple method for private profit-making firms to use. However, it is very complex when public expenditure programs and their alternatives are compared. Knapp (1984) proposes the following steps for CBA:

1. Separate or define the alternatives to be analyzed.
2. List the costs and benefits.
3. Quantify and value the costs and benefits.
4. Compare the costs and benefits.
5. Qualify or revise that decision in the light of risk, uncertainty and sensitivity.
6. Examine the distributional implications of these alternatives.

We shall not go through all of these steps, but we will first briefly describe the most important and difficult stages, the identification and evaluation of costs and benefits.

#### *Identification and Evaluation of Costs*

It is not easy to evaluate all costs of programs. There are several levels and possibilities of where and how to measure costs. The purposes of the analysis may reveal that many types of costs could be used, like direct and indirect costs, monetary and non-monetary (tangible and intangible) costs, absolute, opportunity and marginal costs, discounted or non-discounted evaluation costs of future years discussed earlier.

*Direct costs* are the resources directly purchased to operate the activity. Indirect costs are resources indirectly consumed in the production process and may be less obvious. An example of classification of direct and indirect costs is given by Knapp (1984) as follows:

## Classification of the costs of services for the elderly

		Cost incurred by		
		Direct care agency	Other agencies	Clients and other
Direct Costs	Expenditure on residential homes		Expenditure on sheltered housing	Expenditure on food and housing
Indirect Costs	Expenditure on field social workers		Expenditure by National Health Service on district nurse visits	Lost work and leisure opportunities by relatives

*Monetary and non-monetary (tangible and intangible) costs.* Monetary costs are, or could be, depicted in monetary terms, such as the costs of medications in hospital for one month. Some other costs are relatively intangible or are not quantifiable. Techniques for reliable and valid measurement of pain or fear must be deemed no more than a remote prospect in the future.

*Absolute, opportunity and marginal costs.* Many CBA studies use absolute costs (in market prices) as a basis for evaluation. In economic theory the principal concept is opportunity costs. The opportunity costs of a resource are its value in another use. Thus, the true costs of a resource are not necessarily its market price tag. Many analysts take a rather cavalier approach to the conversion of quantities of inputs into dollars of cost by directly relying on market prices. In a theoretical world of perfect competition market prices do reflect the true opportunity costs of resources. But, in the real world the uncritical use of market prices may lead to large gaps between costs estimates and true costs. A typical illustration of this is the use of hospital charge data to reflect the costs of hospital care because the deviations from marginal costs pricing in hospitals could be enormous.

Marginal cost is the exact cost of obtaining one additional unit of resources (one more hour of work) and is the basic concept used in economic analysis of the market.

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It is necessary to distinguish between these three dimensions of costs because they represent completely different concepts. The difference in results of CBA when using absolute and marginal costs has been highlighted by Jacobs (1980) in the following example on vaccination:

V	I	C	B	MC	MB
0	500	1000	0	-	-
1000	400	3000	3000	2000	3000
2000	325	5000	5250	2000	2250
3000	275	7000	6750	2000	1500
4000	250	9000	7500	2000	750

- where: V - number of vaccinations
- I - number of illnesses
- C - absolute costs
- B - absolute benefits (30 \$ per no illness)
- MC - marginal costs
- MB - marginal benefit

When using B/C ratio for total program evaluation, this program might not be adopted. The marginal analysis, however, provides that with 2,000 vaccinations there may be realized a positive benefit; if there is no alternative with a higher MB/MC ratio.

It is very complicated to define all costs, especially indirect costs, and to measure the intangible costs. A common mistake in program evaluations is to use only the direct costs of an organization providing the service - like material, energy, labor, and capital costs. The actual structure of costs is much more complicated as we can see in the structure of costs of a health program as proposed by Drummond, Stoddan and Torrance (1990):

1. Organizing and operating costs within the health sector
2. Costs borne by patients and their families costs
  - out-of-pocket expenses Direct Costs
  - patient and family input into treatment
  - time lost from work
  - psychic costs Indirect

### 3. Costs borne externally to the health sector by patients and their families

### Costs

Some costs are relatively intangible or are not quantifiable (i.e., pain). Sometimes these costs are simply eliminated from the analysis, but such an approach may change the results of the evaluation very dramatically. There are several approaches to measure such costs in monetary amounts through shadow prices of costs/inputs to reflect social values by aggregating individual valuations. The process of establishing shadow (non-market) prices may use several methods like the consumer's willingness to pay approach, the experts analysis approach, or it may be determined by a political decision. The process of establishing shadow prices to express the costs of the program are often very similar to the processes of valuation of public outputs as described later.

Most of the difficulties with defining and evaluating costs in monetary terms are apparent when reading the checklist for assessing economic evaluation by Drummond, Stoddan and Torrance (1990). They propose the following question concerning the appropriateness of costs analysis:

- Were all the important and relevant costs for each alternative defined?
- Were costs measured accurately in appropriate physical units?
- Were costs valued credibly?
- Were costs adjusted for different timing?
- Was an incremental analysis of the costs of alternatives performed?
- Was a sensitivity analysis performed?

#### *Identification and Evaluation of Benefits*

The benefits of any expenditure program are numerous, diverse, often obscure, and often hard to measure (Warner and Luce, 1982). Margolis (1970) proposes the following estimation procedures to assign values to public outputs as efforts to simulate market outcomes:

1. The intermediate good approach.
2. The cost-savings approach.
3. The direct estimation approach.

A public product may be considered as an intermediate good. It is then possible to estimate the value of the marginal product of this good in continued production by assuming the user is a producer and asking by how much does the public product increase the users income. Some public outputs are easily treated in this way. Illustrations can be found in the natural and human resources development. The human capital approach is the best-known example that relates outputs in the number of days not sick because of vaccination, or improvements in education to

increase the earnings of an individual. The human capital method is used not only for program evaluation, but also to calculate the relationship between public outputs and economic growth.

The cost-savings approach uses estimations of what individuals are willing to pay to realize the costs savings resulting from a public service. This method is very often used in the fields of transportation where the major sources of savings are private carrier costs and in energy power attributes where the private generation of energy is the alternative. Both approaches are very often based on questions to an individual based on his willingness to pay. Some questions given to the individual may be:

- What is the reduction in your costs that you would incur if the public service is not supplied?
- How much do you value a small reduction in the risk of death?
- How much extra income do you need to compensate for an increased risk of death?
- How much extra income do you need for an additional hour of work?

Both methods face a number of conceptual and practical problems and could lead to unacceptable results. The value of human life of a retired person may be calculated as zero using an income perspective. The results for risk-averse and risk-taking individuals will be significantly different. It is very complicated to value time, or to value life, however, some attempts have to be made.

The direct estimation approach tries to estimate directly the users prices by appealing to market information. It is very often a difficult task, but private markets for several public products do exist, such as private education and private health care. An extensive study of private markets may provide the needed price for public outputs. In the case that private and public service are comparable (quality, access, etc.) then the results could be very fruitful. Further steps in CBA are described in the following paragraphs.

### *Discounting of Costs and Benefits*

Cost and benefits have to be adjusted for different periods as in the private sector investments decision-making procedures. The basic principles of discounting are the same for the private and public sector and were described in the beginning of this section. In this section we provide an example of discounting of a public project and of the impact of the discount rate on program ranking.

Table : Example of the Effect of Discount Rate on Program Ranking

	Year			Sum (\$) at Discount Rate		
	0	5	20	0%	2%	4%
	<i>Program X</i>					
Benefits (\$)	0	125,000	0	125,000	113,216	102,741
Costs (\$)	100,000	0	0	100,000	100,000	100,000
Net Benefits (\$)				25,000	13,216	2,741
	<i>Program Y</i>					
Benefits (\$)	0	0	200,000	200,000	134,594	91,278
Costs (\$)	100,000			100,000	100,000	100,000
Net Benefits (\$)				100,000	34,594	-8,722

*Evaluation of Risks*

The standard tool to incorporate risk factors in evaluations procedures is the application of a risk discount factor that deflates the expected benefit by some amount according to the degree of uncertainty of achievement of this benefit. The principle is apparent - if one project generates highly uncertain value of 50 monetary units and second of 45 units that are certain, the second should be adopted (real value of first projects is say  $0,5 \times 50 = 25$ ).

*Allocation of Overhead Costs*

Overhead costs in accounting means those resources that serve or support many different consumers, departments, functions, and so forth. If individual programs with these shared costs are to be fully costed, shared costs have to be distributed to each of the programs.

There is not one standard method of how to allocate overhead costs. For practical reasons marginal analysis is not used for this purpose and very concrete direct or step-down methods based on defined allocation basis are taken as appropriate. Using direct allocation the overhead costs produced by general administration of hospital can be allocated to clinical departments on the base of ratio of patient-days using the following formula:

$$\text{total overheads (TO)} = a_1 \times \text{TO} + a_2 \times \text{TO} + a_3 \times \text{TO} + \dots + a_n \times \text{TO}$$

where  $a_1 \dots a_n$  is the proportion of patient-days of each clinical department.

*Sensitivity Analysis*

Every evaluation contains some degree of uncertainty or methodological controversy. Drummond, Stoddan and Torrance (1990) propose the following steps in a sensitivity analysis:

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1. Consider which of the estimates made in the analysis are:
  - a/ subject to debate because no estimates were available and informed guesses were made
  - b/ subject to debate because of known imprecision in the estimation procedure
  - c/ subject to debate because of methodological controversy or the potential for different value judgments.
2. Set upper and lower bounds on possible ranges of estimates.
3. Calculate study results based on combinations of the best guess, most conservative and least conservative estimates of the variables concerned.

**Cost-Effectiveness and Cost-Utility Analysis**

In this part we shall briefly describe the differences in evaluation of outputs/outcomes when using CEA or CUA.

*Cost-Effectiveness Analysis*

In CEA analysis do not attempt to value program effectiveness in monetary units. In this form of economic evaluation the consequences of programs are measured in the most appropriate natural or physical units (years of life, cases correctly diagnosed).

“The CEA technique aims to show how a given level of benefit can be achieved at minimum costs (or the maximum benefit from a given costs)” (Knapp, 1984). This principle looks very simple. However, there are several difficulties when choosing a measure of effectiveness. Problems arise when more than one benefit can be achieved if benefits are not mutually exclusive or they are not systematically or consistently related to each other. An example by Warner and Luce (1982) can demonstrate the circumstances under which a CE ratio is meaningful and those under which it is not. We consider four programs with following parameters:

Program	Cost	Effectiveness	CE ratio
S	100,000	10	10.000
T	100,000	12	8.333
U	200,000	12	16.667
V	200,000	15	13.333

Effectiveness = number of lives saved by the program

Without any substantial problems we are able to compare programs S and T, U and V. However, we cannot simply say that the ratio 8.333 of program T is the best one. The marginal cost per life saved by program V (13.333) is relatively high, but who is to say that those lives are not worth more money?

That is why in order to carry out a CEA, one or the other of the following conditions must hold according to Drummond, Stoddan and Torrance (1990):

- a/ that there is one, unambiguous, objective of the intervention and, therefore, a clear dimension along which effectiveness can be assessed
- b/ that there are many objectives, but that the alternative interventions are thought to achieve these to the same extent.

In the first case the question is what is the most effective way to achieve this objective. For example, what is the most effective way to decrease the number of accidents on a certain road over hilly terrain?

An example of the second case is when two surgical interventions give similar results in terms of complications and recurrences. This form of CEA is often called *cost-minimization analysis*.

When beginning a CEA study one can never be sure of its final form. In the early stages only one dimension of effectiveness may be taken as a dominant objective, however several unexpected effects may be discovered in the evaluation processes. Where possible it is recommended to record the effectiveness of alternatives as judged on these extra dimensions.

### *Cost-Utility Analysis*

This method is normally connected with evaluation of health care programs. It focuses particular attention on the quality of the health outcome caused or averted by several kinds of treatment. This method is used when quality of life, morbidity and mortality aspects have to be assessed together, or the programs being compared have a wide range of different kinds of outcomes.

In CUA the incremental costs of a program are compared to the incremental health improvement attributable to the program and the health improvement is measured in quality-adjusted life-years (QALY) gained.

Mooney (1995) describes three ways of measuring QALY, each of which is directed toward bringing together in a single measuring scale both mortality and morbidity (quantity and quality) aspects of health.

The "Time trade-off" method of estimating QALY is also of importance. This method involves a series of questions put to respondents along the lines of "Would you prefer ten years in state X or twenty years in state Y ?", where state



Y is a worse state of health than state X. If state X is in perfect health and the respondent is indifferent between ten years in state X and twenty years in state Y, then one year in state Y is valued at 0.5 year in state X (state of perfect health) and weight of one year in state Y in evaluation is 0.50.

Another method is the “analogue (rating) scale” of estimating QALY. A typical rating scale consists of a line on a page with clearly defined endpoints. The most preferred health state is placed at one end of the line and the least preferred at the other end. The remaining health states are placed on the line between these two, in order of their preference. Preferences for chronic states can be measured against the weight of defined health state as given by their placement on the line.

“The standard gamble” is another method of estimating QALY. This method is the classical way of measuring cardinal preferences. The subject is offered two alternatives. Alternative 1 is treatment with two possible outcomes; either the patient is returned to normal health and lives for an additional  $t$  years (probability  $p$ ) or he dies immediately (probability  $1-p$ ). Alternative 2 has the certain outcome of chronic state for  $t$  years of life. Probability  $p$  is varied until the respondent is indifferent between the two alternatives which yield the required preference value (weight) of chronic state  $p$ .

There are many objections against all three methods of evaluating QALY which are very often connected with the question “Whose utility values are appropriate?” All three methods used may produce different results for the same case or they may actually measure different aspects of the same case. To overcome (at least partly) these objections it is necessary that the choice of values and of the method be the one which best relates to the problems.

### **Managerial Reform in Public Financial Management**

A situation of tight resources coupled with increasing demand for service quality in developed countries triggers major reactions through all levels of the public sector. Citizens simultaneously call for “less government” and for “better government” which causes an increased attention to improved responsiveness of the public sector to these demands from the public. In response to this demand managerial reform of the public sector has been introduced in most, if not all, OECD countries. The public sector has to cope with the heightened awareness of its size and cost and increasing demands and expectations concerning the general quality of public services (OECD, 1993).

Public sector reform in Central European countries should be an integral part of the overall transition process. It must incorporate new trends in public

management developed in Western countries, despite the insufficient demand by citizens for a responsive public sector environment. Politicians and bureaucrats in Central European countries may decide on the following:

1. To maintain the old policies of non-responsive political and administrative power based on centralized decision-making procedures as probably a successful short-term policy, but an unsuccessful policy in the long-term, or
2. On their own initiative to start managerial reform of the public sector as soon as possible to meet future citizens expectations.

It is doubtful which policy of public sector reform will be adopted in any of the Central European countries because of the internal political situation, habits, traditions, and quality of human resources. Some theoretical conclusions suggest that because of a risk-averse electorate, conservative politicians and bureaucrats in most Central European countries, the ability to conserve the bureaucracies powers in the old way of centralized public administration; the new managerial approaches in public sector will be postponed into the future. Several features of current performance based financial management were experimented with in some of the Central European countries in the late 1980s. But no apparent trends towards new managerial forms of financial management are incorporated in real practice in most Central European countries by the mid 1990s. It is a hope that the transitional countries will be able to utilize the new methods of public management directly in current reform measures, and to introduce an updated system of public management based on current international developments and the countries internal development.

In this section orientated to issues of efficiency of public resources, we shall briefly describe current trends in public budgeting, public accounting and audit.

#### *Developments in Budgeting*

The demand for better public service and pressure of tightened resources have made an important impact on financial management in the public sector, and on all parts of its cycle (budgeting, accounting and auditing). Reform of budgeting is not new in this or the last decade because as the public sector evolves the budget, accordingly, has to fulfill new functions. The consecutive budgetary reform movements in the USA document this fact and is an important source of inspiration for budgetary innovations.

Several steps in budgeting reform can be described based on developments in the USA (Van Reeth, 1996):

- line-item budgeting in the late nineteenth century
- performance budgeting in the 1950s

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- program budgeting (PPBS) in the 1960s
- management by objectives in the early 1970s
- zero-based budgeting in late 1970s
- performance budgeting again in late 1980s and in 1990s

Mikesell (1986) describes the different budgeting methods in the USA in the following manner:

*Performance budgeting* - performance budgets emphasize agency performance objectives and accomplishments, not the purchase of resources used by an agency. The budget process then has the dual role of providing funds and establishing performance objectives. The principles of performance budgeting have been formulated as:

1. Budget choices and budget information should be structured in terms of activities rather than individual line-items.
2. Performance measurements should be collected, associated cost should be reported for those performance categories, and efficiency in use of resources should be evaluated.
3. Performance reports comparing deviation of actual cost and accomplishment from planned levels would be monitored for each agency to focus management attention on problems which might arise.

Performance budgeting is still prone to incrementalist budgeting practices. It focuses more on technical efficiency rather than on effectiveness (Van Reeth, 1996). According to Mikesell, (1986) "Performance budgets consider whether the activity is being done at low costs; it does not consider whether the activity is worth doing."

*Program budgeting (PPBS)* - the program budget format organizes proposed expenditures according to output or contribution to government objectives. Programs are constructed on the basis of contribution to those objectives. The budget places together programs which contribute to a similar objective so that competition for funds occurs among real alternatives. Program budgeting identifies agency products, it does not focus on inputs used by the agency. This may create important complications in that budgets in program forms must have an accompanying "crosswalk" to translate program cost to administrative unit appropriations. Without it, the program format yields numbers which are not usable by budget decision makers and choices continue to be made in the familiar setting of the traditional budget (Mikesell, 1986).

*Zero-based budgeting (ZBB)* - this system annually challenges and requires defense of all agency programs. This system does not presume that an agency will

receive at least its prior year's appropriation level. The following objectives are connected with zero-based budgeting:

- involve all managers at all levels in the budget process
- justify the resource requirements for existing activities as well as for new activities
- focus the justification on the evaluation of discrete programs or activities of each decision unit
- establish, for all managerial levels in an agency, objectives against which accomplishments can be identified and measured
- assess alternative methods of accomplishing objectives
- analyze the probable effects of different budget amounts or performance levels on the achievement of objectives
- provide a credible rationale for reallocating resources, especially from old activities to new activities (Office of Management and Budget, 1977).

Zero based budgeting continued some principles of PPBS, but the major difference was that ZBB formatted expenditures in decision packages and ranked them in order of priority. In this way ZBB tried to relax the burdensome all encompassing program structure which proved difficult to link with the organizational structure.

Common to all these reforms was the shift of focus in the budget format from mere categories of inputs to activities, outputs and outcomes for which these expenditures are to be made and use of analytical techniques which had their roots in the private sector. Analytical techniques had to be applied in order to relate public expenditures to public accomplishments. In spite of the limited impact of all reforms in public budgeting (Halachmi, 1996), there exists a general consensus at the OECD level that the concern has to be switched from inputs to performance and results actually achieved. The basic problem to be overcome may be illustrated by a concrete example from public procurement procedures (based on legislation in the Slovak Republic):

Background: Public body intends to buy a new car with a price about 600, 000 Sk (20,000 USD).

Preference for input budgeting and ex-post audit environment (current Slovak environment): Open tendering procedure for a decided car type (by chief executive) with costs approximately 20,000 Sk and 6 month duration. The savings from competition on the price of the car are about 0, because car prices are very similar among all sellers. Result= inefficient (total cost 600,000 Sk + 20,000 Sk + indirect time costs) but "safe" use of public resources (representatives of auditing bodies control the procedure and not the efficiency of results).

*Expected (and efficient) preference under performance management system: Public body will use single source procurement based on cost-benefit analysis of all appropriate car types. It will decide on best bid on the base of information collected in the market and buy the most appropriate car (in terms of consumption of petrol, guarantee, access to repair services, etc.). The price of car bought will be the same as when using competitive tendering (or lower), but the costs of time and advertisement during procurement will be saved (expected total cost less than 600,000 Sk).*

Many Western people may not understand this example, but it is typical for countries with high bureaucracy and insufficient competitiveness in the market. Single source procurement in this concrete situation is prohibited in the current legislative environment in Slovakia. The Law on Public Procurement prescribes the use of competitive tendering procedures. The arguments of legislators are that this simply prevents the misuse of public resources. The choice between ex-post and ex-ante auditing is in this concrete example the choice between a bureaucratic and managerial approach to management in public sector, between confidence in power of bureaucratic control forces or confidence in managerial behavior of public servants in appropriate (incentives) environment.

### *Budgeting for Results*

Budgeting for results is not only a change of the budgeting method, but a part of the general changes of how public tasks are implemented and how performance and results are measured (OECD, 1995). The main aim is to promote a new management style in public officials and to make them more concerned with and committed to achieving results rather than merely implementing spending procedures (Zapico, 1996).

The interest of many OECD countries for such developments are present in the rhetoric of many current programs for improving spending, such as the Financial Management Initiative (UK), the Increased Ministerial Authority and Accountability and the Expenditure Management System (Canada), the Government Performance and Results Act (USA), the Financial Management Improvement Program and the Program Management and Budgeting (Australia), triennial budgeting (Sweden), and aggregated productivity targeted budget (Denmark).

As an example of current reform programs towards performance and result oriented financial management in public sector we can describe reform of the budget economy of the Finnish state (Joustie, 1996). Central elements of the reform are the following:

1. The introduction of budgetary ceilings on a larger scale. Top-down thinking has replaced the drawing-up process which has mostly been based on the

bottom-up model. It has emphasized the role of the Cabinet as a definer of the financial policy and moved jurisdiction of the detailed drawing-up of the budget from the Ministry of Finance to line ministries.

2. The Ministry of Finance and the Cabinet have to a large extent given up the ex ante procedure in the implementation of the budget. The appropriations of the civil service departments are collected into one lump-sum and they can decide for themselves on the appropriate use of resources. Possible savings may be used in the following year.
3. As a balance to increased resource power the civil service departments are to agree upon a quantitative and qualitative profit plan in the profit agreement. The profit plan will also bind the economy and productivity of the service production. The intention is in part to bring net budgeting alongside traditional gross budgeting. Net budgeting is used in those civil service departments which produce services that can be charged. In practice this means that the civil service department will only receive funds in the state budget either to cover the deficit, or it will recognize the income surplus of the activity in the way specified in the profit agreement. Net budgeting can include all the activity of the department or only the activity which is subject to charge.
4. The ministries and departments that are independently accountable draw up an annual report in which they report on their profit plan achievements. The review of the accounts has been developed in such way that special attention will be paid to the achievements of the profit plan and to the reliability of the surveys and the follow-ups.
5. The powers in connection with the personnel administration have largely been delegated to departments. They have free reign over the number of posts and their levels, and also over their individual employment within the boundaries of collective wage agreements (negotiated with trade unions). Only a small number of the top posts in the ministries and the posts of managers in civil service departments will be decided on at the budget proceedings and will be appointed by the Cabinet and the President. The departments choose the employees.

There are apparent theoretical and practical limits of budgeting for results schemes. No OECD country currently practices a form of budgeting in which quantified performance is the sole basis for resource allocation (OECD, 1995). New Zealand probably comes closest to this model. In the USA, Canada and Australia the prevailing view is that performance measurement is more useful in determining how to make best use of resources than in determining what the allocation should be. Many considerations induce governments to shy away from a strict link between resources and performance. However, this cannot be taken as a failure of the new managerial approach to financial management in the public

sector. Performance orientation is not a simple revision of the budgeting processes. It is a process of changing management style and behavior in the public sector.

Budgeting for results includes, or is connected with such elements as, budget decentralization, performance monitoring, business-like spending style (flexibility on spending), multi-year budgeting, ex-ante control, accrual accounting, contractual approach, and managerial autonomy and responsibility. We shall discuss the most important of these in next sections of this chapter.

#### *Accrual Accounting*

Performance based accountancy is appropriate for public utilities, service production units and in cases where a civil service department, with the main function of producing services free of charge or to cost price, decides to start producing services subject to charges as in the free market. The price fixing of these products that are produced for the market should be based on cost estimates from commercial accounting. In addition to the immediate expenses caused by cash payments due to the production, sales and marketing resources should be taken into account, as well as the share of costs created by the prices of capital and property. Also the share should be included in the price of the civil service department's overhead costs (Joustie, 1996).

Commercial like activities in the market or semi-market activities of public bodies have both theoretical and practical consequences. Many economists, such as Hayek, object to any kind of public provision in favor of the free market. Traditional public accounting does not uncover the full costs of public production and can make public production of goods and services more acceptable than it really is. Commercial accounting methods for private sector pricing may be used as a benchmark of efficiency of public production and as an argument for allowing several delivering methods for production of public services.

#### *Contractual Approach*

The origins of the contractual approach may be seen from agency theories. These addressed the problems of getting agents to pursue the interests of their principals. A contract defines the ground rules of who is responsible for what, the scope of activities, its limits, what the objectives are to be achieved, what are the resources, and what control mechanisms will be used to verify whether results have been achieved (OECD, 1994). A budget process in the contractual approach is very often treated as a formal negotiation to reach an agreement in which resources and spending autonomy are provided in exchange for promises to achieve performance targets (Zapico, 1996).

The allocation of resources is realized in accordance with the level of performance of providers. The basic features of the contractual approach are described in the following:

- a/ contractual approach introduces clarity and responsibility, it stipulates the rights and obligations of each contracting party;
- b/ contractual approach modifies hierarchical powers, there cannot be contracts without mutual understanding;
- c/ contractual approach acknowledges the principle of negotiation, the provision of a contract presupposes consultations and dialogue; and
- d/ contractual approach is a means of guaranteeing the balance of mutual undertaking (OECD, 1994).

Contracts may be realized in various forms. First, as a general framework document or set of principles governing the operations of all autonomous units. Second, as framework documents for each unit with a hierarchy of contracts having a greater degree of specificity at lower levels. Third, as contracts that cover particular aspects of performance, and, fourth, contracts within or outside the public sector.

There exist many practical approaches by governments based on the contractual principle. The market reform of the public sector in the UK, as an example, introduced compulsory competitive tendering procedures for all public bodies for support services such as catering and cleaning that compared efficiency of internal and external provision of services (Ovretveit, 1995). It introduced contracting for health care services as a basic principle of quasi-market reform of health care (Le Grand, 1994). It required public agencies of government to work on prevailing private principles (Highway Agency). Of these reform measures, compulsory competitive tendering has to be counted as a major improvement with an important positive impact on the efficient use of public resources.

### *Capital Budgeting*

Capital budgeting is a standard private sector method of financing non-current projects with long-term service flows. It should be used in the public sector not only for production of free market services (accrual accounting), but, generally to attain a higher degree of transparency of public financial flows.

There is no doubt that capital budgeting may improve all aspects of efficiency of public budgeting. Maintaining two different budgets certainly seems to make a substantial contribution to improved fiscal choice. For example, at the state and local level that contribution is substantial, according to Mikesell (1986). Capital budgeting can improve both the efficiency and equity of provision and finance of



non-current projects. Separate considerations in a budget where deficits may be financed rather than balanced provides important opportunity to improve equity between generations and between local citizenry pools. Capital budgets can stabilize tax rates when individual capital projects are large relative to the tax base of the host government. Capital budgets are valuable tools for management of limited financial resources, particularly in light of the special care required to plan activities which necessitate long-term drains on those resources. Government and its bodies that do not use capital accounts may for example sell public property to obtain additional revenue to balance the budget and to realize additional inappropriate expenditures.

The non-existence of capital accounts at all levels of government is probably a typical feature for all transitional economies with important negative consequences. The privatization process creates a number of opportunities to sell assets to cover current expenditures of government that are costs of future governments. Bratislava (the capital of Slovakia) provides an example of inappropriate policy in that a huge proportion of its budget incomes in 1994 and 1995 resulted from the sale of municipal property (buildings and land).

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## **Case Study: Reform of the Hungarian Pension System.**

*Janos Hoos*

### **History and theoretical background**

A pension system is one of the basic elements of a social insurance and welfare system in a state. The society and the state have to deal with this issue because of several conditions that may arise. These include:

- (1) the fact that some people earn an income over their working years, but do not save or save enough of their income for their retirement years;
- (2) an imperfect market may exist due to the high risks associated with pension insurance companies, and the premiums or fees for obtaining a retirement annuity may be too high for people to afford;
- (3) a period of hyper-inflation may have reduced the value of savings; and
- (4) many people do not earn an income during their life due to disabilities or other factors by which to have a retirement and these people must be cared for by the state.

Therefore, a proper pension system has to be developed in order to minimize the burden of individuals on the state. This is the basic function of a pension system.

A state sponsored pension system was first developed in the 19th century in Germany by Bismarck. Since then very elaborate and complex pension systems have been created, especially in the developed industrialized countries. But in all countries, including Hungary, these systems have problems. These systems must be changed to meet new requirements of society. The main issue is how much of a role the state and the individual should play. There is consensus that a more transparent combination of three distinctive pillars is needed for old age security to meet two basic objectives: the saving insurance objective and the redistribution objective. One pillar can not fulfill both requirements. The reason for this is that the design of every pension system which consists of both public and privately provided funded sources have built-in conflicts of interest. These are:

- to save money for retirement and
- to provide a basic minimum pension to support everyone's standard of living in retirement regardless of what they actually earned and contributed to the pension system.

Different forms for solving the dilemma include:

- a *Citizen's Pension*, for those not earning an income, providing a more or less flat minimum level of benefits to those who reach old age;

- a transparently earnings related *mandatory retirement saving plan*, which could take many forms,
- *a voluntary pension plan*, prudently regulated and tax-assisted.

### **The Hungarian Case**

In Hungary, until 1993, only the single pillar pay as you go (PAYG) option existed. This was based on the amount a citizen contributed to the system. The first concrete step towards a multiple approach scheme was taken in November 1993 with the passage of the Act on the Voluntary Mutual Benefit Funds. This law regulates the optional retirement savings plans in addition to the mandatory national PAYG scheme. People with higher earnings, such as those in white collar occupations in their middle age have been attracted to this scheme. It is not a mandatory plan, but instead a voluntary scheme. It is savings oriented and effectively uses resources. The state supports it through preferential tax treatment (it permits a deduction from one's taxable income). It is regulated in order for it to be safe and to avoid high risks. However, this system is not well developed yet. Since 1993 more than 200 voluntary mutual benefit funds have been established; and they have collected about 24 billion HUF.

The real challenge in modernizing the Hungarian pension system lies in the choice of the second pillar which is the earning related mandatory savings plan. The reform has to solve the present crises in the Hungarian PAYG scheme. These are currently problems of (1) financing the scheme, (2) evasions of payment contributions and (3) the difficulties caused by the early retirement of individuals and the payment of their pensions.

The demographic process of population aging has continued in Hungary. The aging index was in 1920 29,1%, in 1995 106,2. In Hungary, one out of five people in the total population has reached the retirement age. One of the special problems in the Hungarian situation is the high system dependency ratio (this is the number of pensioners, including under retirement age disability pensioners divided by the number of contributors to the pension funds). This figure was 0.66 in 1993, one of the highest in the world, rising from 0.50 in 1990. This ratio rises when:

- formal sector jobs are lost due to business or factory closures or failures and/or business employment goes underground and evasion occurs,
- pensions are awarded to those under 60 for men and 55 for women (these ages are considered to be consistent with early retirement);
- explosive growth of new disability pensions takes place (for example, in 1993 27% of all pensioners received benefits originally awarded on disability grounds), which is largely a function of soft dismissals to escape the situation of unemployment.

The real value of pensions has decreased very sharply in the last decade. The average amount of a pension (in US dollars per person per month) was \$100 in 1995 while ten years ago it was about \$200.

All of these factors lead to unsustainable expenditure growth. The deficit of the Social Security Funds has been increasing every year. For example, in 1997 the central state budget had to provide more than 100 Billion HUF.

### **How can the existing mandatory pension scheme be reformed?**

The main policy objective should be to enable the existing PAYG scheme to survive well into the next century without becoming an intolerable burden on public finance.

Three different actions can be taken. These are:

- increasing the effective retirement age,
- broadening the tax base to include taxation of pensions,
- changing the price index in such a way that it creates some savings from the growth of pension expenditures.

In 1996 the decision has been made to increase the retirement age and according to this by 2000 the retirement age will be 62 years for both men and women.

Broadening the tax base is also under consideration, but due to the very low level of pensions, it is less probable that this will be accepted in the near future.

Regarding price indexation, a new procedure has already been accepted by all interested social forces including the political parties and trade unions. The ministries of government will use a mixed indexation scheme. This is a combination of the indexes of real wages and the consumer prices. The base of the indexation will be the 1st of January of every year. Until the year 2000 only the index of real wages will be used. According to this plan the real value of pensions will grow at the same rate as the rate of real wages of the active population up to the year 2000.

In addition to these actions there is a need to create a new system which will still be mandatory, but which would offer a clearer link between an individual's own actual contribution and the return obtained. It can be less generous than the system which now exists. It can be arranged on the following conditions:

- starting from the base of the PAYG where the annual contribution revenues are equivalent to the annual pension spending and
- adding a base fully funded which accumulates assets equivalent in value to all outstanding pension liabilities and utilizing a capital market with effective regulation.

The design and implementation of a well articulated transition from a public PAYG system to a new system lies at the core of successful pension reform. The new system should be able to generate some efficiency gain, even in the transition period, and at the same time prove acceptable from a fiscal point of view.

The speed of the reform also has to be taken into consideration. There can be two main strategies, a gradualist one and an accelerated variant. Both have advantages and disadvantages which must be examined before a decision is made regarding which is to be chosen.

The main features of a new Hungarian system - in addition to the existing Voluntary Mutual Benefit Funds - were enacted by the Parliament in 1997 to take effect in 1998. According to this scheme the pension system will be based on:

- (1) 3/4 of the total pension system funding will function on the basis of a PAYG system and
- (2) the remaining 1/4 of the total pension funds will be arranged on a basis which is fully funded by investments growth and savings.

The requirements of a Citizen's Pension for those without earned income and who must be supported by the minimum pension guaranteed by the government will be taken care of within the framework of social welfare assistance. The reason for this is that the pension system is to be based on a principle according to which the amount of one's pension will be proportional to the number of years worked and payroll contributions.

Thus, the **new Hungarian pension system will have only two pillars:**

- (1) an earnings related mandatory retirement savings plan and**
- (2) a voluntary pension plan.**

The new PAYG system provides a financial savings mainly due to the higher retirement age, the increased eligibility period (20 work years are needed to become eligible for a pension while in the old system it was only 10 years) and to the restrictions on the possibilities to become a disability pensioner (only those who have become permanently disabled can get a disability pension while in the old system a large number of pensioners were judged as temporarily disabled, and this gave a relatively easy access to becoming a pensioner.)

The fully funded part of the pension system can channel progressively large sums into a whole new generation of institutional investors, with very long-term investment horizons and relatively low liquidity needs in the short and medium terms. This would be a major boost to the stock and bond markets. It would also spur investment and potential economic growth.

Only new labor market entrants will be forced to move into the fully funded part of the system, but all other employees will have their choice to select between the two options. Those who select the system having a fully funded part will have to pay 6% of their wage bill as a payroll contribution. This contribution can be deducted from their tax base, and till 2000 it will grow annually by 1.1 percent. Once this rate reaches the 8% level it will not grow further. The payroll contribution will be transferred to pension funds that invest these savings in the capital markets, and will pay annuities on retirement. Those who select the system having only a PAYG part will have to pay the contribution into those pension funds (and this fund of course does not pay annuities on retirement,) in which the annual contributions are equivalent to the annual pension spending. This contribution can not be deducted from one's taxes.

The first pension based on mixed financing, that is according to the PAYG and fully funding system, will be paid in 2009. This means that it will take more than 10 years to introduce a completely new pension system.

These calculations are based on using a special pension model of the Finance Ministry in order to calculate the impact of the reforms on the fiscal sustainability of the pension system. According to the result of these calculations the new pension system will be able to provide a surplus to the Pension Fund. This surplus will be equivalent to about 500 million USD, which is 0.8% of the GDP in 2010 (the same data is -0,6% in 1998). This means that this reform pension system will become financially solvent in the long run. Without this reform the financial crises of the pension system cannot be avoided.

The success of the new system, however, requires:

- (1) sustainable economic growth of the Hungarian economy at a minimum of 3-4% annually, or the necessary contributions to the Pension Fund can not be realized due to low levels of economic activity;
- (2) further development of the capital market in Hungary to provide investment opportunities and tight government regulation of the pension funds to avoid fraud and bankruptcy without which the risk of the system can be high and the functioning of it can be costly for both the government budget and the future pensioners as well.

**Questions for discussion:**

1. What are the reasons that reform of the present Hungarian pension system was necessary?
2. What are the main features of the new Hungarian pension system?

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## **Case Sequel: Reaction to Hungarian Pension Reform Law**

*Glen Wright*

There is a saying that there are two things you never want to see being made—laws and sausages. This seems to reflect the opinions of some of the people as the Hungarian Parliament passed the pension reform law after nearly two years of debate.

Laws dealing with public finance issues produce winners and losers. These laws take something from one person or group and give to another person or group. This seems to be the case with the pension law.

Criticism of the law came from several directions. The proponents of an emphasis on private sector managed pension funds were not pleased with the final law. At the other extreme, those who wanted complete control of the pension funds by the state were equally disappointed. The law, as finally passed, represented a compromise among the many interests with stakes in the outcome.

The financial implications for the national budget are immense. The social security fund deficit is projected to be 70 billion HUF by the end of the 1997 fiscal year. This is five times greater than the original estimated deficit. The longer term projections of deficits are tenfold over the present estimates unless changes are made.

The new law provides for a redistribution of the 700 billion HUF pension contributions between the state pension fund and privately managed associations. The associations will have one-fourth of the total contributions taken from the 30% payroll tax.

Many of the issues over the pension reform plan concerned the creation of the private sector management of the funds and the percentage of the total funds available that would be managed by these funds.

The private sector involvement will be through non-profit associations rather than profit-oriented investment management funds. Two aspects of this pension fund management approach could have consequences for the future solvency of these funds.

First, the non-profit associations can be formed with a minimum membership of 2,000 rather than the 10,000 members previously proposed. This could produce many more associations from which to choose and, ultimately, increase the administrative costs and overhead to be charged against the contributions and investment returns.

Even the incentives for the associations to be successful have been limited. For example, associations which make investment returns over a range set by the government will have these returns redistributed to the lesser performing associations.

Even the requirements for the number and positions of employees in the pension fund associations is specified in the law. It requires eight full-time employees to include an actuary and a lawyer.

The above presents some of the major elements of the pension reform law. The following represents some of the opinions expressed about the law by individuals quoted in article entitled "Pension Fund Compromises Irk Reformers" in the Budapest Business Journal of July 21-27, 1997, as well as opinion expressed on the editorial page of the paper.

Lazlo Gerencser, National Pension Fund Deputy Director: "I wanted to puke when I heard the Finance Minister [Peter Medgyessy] on the radio this morning saying this compromised plan is good for everyone."

Gyorgy Nemeth, a sociologist and former pension reform adviser to the Free Democrats: "This is not capitalism, this is the '50s. The only difference is that people can choose which kolhoz to join. What they have created in the end is an inefficient, money-draining system. This is a circus."

Marianna Lukacs, Head of Hungarian Insurance's Health Insurance Division and a former member of the pension reform drafting group: "But in the end, this law was written by government employees, and the private sector had no say in it."

Budapest Business Journal editorial: "With politicians crying 'European values', Hungary chickened out of market reforms. The once-promising prospect of a competitive pension model has become a lame, centrally planned, semi-private system with brakes on the winners, and cushions for the losers."

Sandor Burany, Deputy Caucus leader of the Socialist Party: "The system is still market-conforming. Workers will be able to choose between pension associations."

Marianna Lukacs, previously identified: "Maybe it's not the best, but at least it channels some money to the private sector. With real returns on the capital markets as favorable as they are, it's a good time to do it."

#### **Questions for Discussion:**

1. Does this case validate that saying about laws and sausages?

Public Expenditures

2. How does this case illustrate the tradeoffs between equity and wealth creation, equity and efficiency, and the size and scope of the public and private sector involvement in the economy?
3. What is your assessment of the advantages and disadvantages of the pension reform law?
4. Do you think the new law will solve the long term pension fund financial requirements?

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## **PART 4**

# **SPECIAL TOPICS IN PUBLIC FINANCE**

## INTRODUCTION

Part IV provides an examination of some of the emerging issues involving public finance in the transition. The issues addressed in this part are not normally major topics of public finance texts. They do, however, focus on the two major changes of public finance analysis in the 1980s and 1990s. The first concerns new methods of delivering services previously provided by public organizations. The second involves the decentralization of authority to lower units of government. Some Western public finance texts are now including greater coverage of alternative service delivery methods such as privatization, etc. However, the scale of privatization is much greater in these transition countries since it encompasses the development of a private sector and a market economy.

In Chapter 10 we look primarily at alternative service delivery methods which seek to alter the provision and production of formerly publicly provided services. We will look at the basis for this development, identify the options or alternatives available and some practical approaches to utilizing these methods at the local government level.

Chapter 11 presents essentially new knowledge and ideas about the role that local governments should play in the new decentralized systems. This chapter addresses the second major theme of change in public finance in the past decades, the decentralization of authority to local governments along with the granting of fiscal responsibility.

These are three major concerns we will address in this brief introduction relating to the topics of chapter 11. The first is the structure of local government finance. There is substantial confusion over what sources of taxes or revenues the local government should utilize to fulfill their responsibilities and functions. A brief discussion of this should hopefully clarify some of these issues.

We briefly address tax competition among local units to determine whether there is any indication from research and data analysis that this is occurring. This would be a productive area for further research by local government finance specialists.

Third, and finally, we look at the progress in establishing debt financing. This is an emerging, but potentially dangerous, area for central and local governments. The requirements of a bond market system with regulations and safeguards are an important issue in this area. The need for some basic fundamental elements of a municipal bond market need to be developed. We will identify some of these.

### **Alternative Service Delivery**

Alternative service delivery includes a myriad of methods by which services can be delivered. Some of these are addressed in Chapter 10. A report by the International City Management Association (1989) identified seven alternative service delivery approaches. These are:

1. Purchase of service contracting
2. Franchise agreements
3. Subsidy arrangements
4. Vouchers
5. Volunteer personnel
6. Self-help
7. Regulatory and tax incentives

This report went on to detail these methods and provide case examples of how each method was being used in American cities. As the report stated: “these are techniques that use private firms, neighborhood or other nonprofit organizations, volunteers, or individual citizens to deliver or assist in the delivery of local services” (ICMA, 1989).

Alternative service delivery begins with examining two aspects of the public policy and public finance decision that must be made. This is the need to distinguish between the “provision” for a public service and the “production” of a public service. Government must decide on these two separate issues.

We should define these terms “provision” and “production” more clearly. Provision is the policy decision by the political authorities that a public good or service should be provided. The production of a good or service is the actual administrative action to implement or activate the policy decision.

From these two actions four alternatives are available by which public goods and services can be delivered. The following illustrates the situations and alternatives.

Case 1: Both provision and production are provided by the public sector. The local government determines that improved health services are needed and hires medical personnel to deliver the services.

Case 2: Provision is by the public sector, but production is by the private sector. The local government decides to provide health services and contracts with a private firm to provide the services.

Case 3: Provision is by private sector, but production is by the public sector. A privately operated hospital needs ambulance service and contracts with a local government to use their ambulances to transport patients.

Case 4: Provision is by private sector and production is by the private sector.

A privately operated hospital decides it needs ambulance service and provides its own personnel and ambulances to transport patients.

The above are essentially the options in making the privatization and alternative service delivery decision. The key point is to recognize that in determining alternative service delivery methods, a two-fold decision is made on the provision and production components.

### **Political Versus Economic Basis For Alternative Service Delivery**

The development of the privatization process in Central Europe is based on the political transformation of the state. The rationale for privatization is based on the decision that the state sector, which dominated the socialist period, must give way to dominance by the private sector. In Western countries, the privatization of public services began with the economic rationale and then became a political issue. The issue is whether public or private production is more economical and efficient.

There have been many economic analyses of various industries and services to determine the economic rational choice between public or private delivery. Holcombe (1988) details several such studies dealing with comparison of public and private airline services in Australia, Veterans Administration (US Government) hospitals versus private hospitals, and government-owned versus privately owned water utilities in the US. In all of these cases and others, according to Holcombe, "Private sector profit-making firms tend to produce more efficiently than government-operated firms" (Holcombe, 1988).

There has also been extensive analysis of public versus private delivery of services at the local government level. The US government undertook to study eight services provided by municipalities to compare the cost of these services between public and private delivery (Stevens, 1984). The eight services compared were street cleaning, janitorial services, residential refuse collection, payroll processing, traffic signal maintenance, asphalt laying construction, turf or grounds maintenance, and street tree maintenance.

The results of this comparison were described by Stevens (1984): "The general findings were that the municipal service delivery is on average significantly more costly than the private contractors service delivery. For seven of the eight services, the study found municipal provision to be between 37 and 96% more costly." Only for payroll service was a small difference in average costs found. These differences were not found to be caused by differences in the quality of services provided or from wages provided. Instead, the differences appear to develop from differences in the use of labor and capital.

There is a need, which is not presently being met to develop similar analyses of the alternative service delivery (privatization) decision in the transition countries of Central Europe. It is not apparent that this is being done or that any published analyses are available.

### **Service Delivery Alternatives For Local Governments**

Not all of the service delivery alternatives identified above are necessarily feasible in this transition period. The non-profit sector is still underdeveloped in many countries and citizen volunteerism is not widely practiced. Citizen participation in local governments needs to be developed in order for more volunteer and self-help methods to become a reality.

Bird and Wallich (1993) have identified the following as alternative methods that can be developed in some of the countries of the Central European region. These are:

1. Contracting with private firms
2. Developing standards for service delivery to be met by private vendors with the citizen/consumer selecting the vendor.
3. Vouchers
4. Contracting with or creating municipal associations among local governments to deliver services
5. Neighborhood associations established voluntarily to deliver some services
6. Creating special districts to cover more than one jurisdiction to provide services across boundaries
7. Special tax districts within local government units to provide additional services based on additional taxes to pay for these services.

### **Local Government Finances**

Fiscal decentralization is one of the fundamental requirements for local governments to be independent and viable units of government. The continued dependence on central government tax sharing, transfers and infrastructure financing effectively eliminates the capacity of local governments, and their citizens, to make appropriate decisions on what services they want and how these services will be delivered. The implementation of alternative service delivery methods can be constrained by the fiscal capacity to implement these changes.

Much attention has been given to local government budgeting and finance through conferences, workshops, seminars, and publications of the international donor community in the Central European countries. Still, there is a tendency to focus on the details of techniques without providing an overarching concept of local government public finance. The result is that local government finance



officials see many pieces of the puzzle, but not all the pieces which might reveal the complete picture.

The discussion here will attempt to connect the concept of public goods and services to the appropriate financing mechanisms. Greytack (1994) has provided a succinct analysis in connecting certain public services to their appropriate revenue generation option. He writes: “First, general municipal services, such as street lighting, traffic control, and police and fire protection, serve the general population and differ from others in that specific beneficiaries and the costs of serving them individually are difficult to identify and measure. Services with these characteristics are most appropriately financed by general taxes on the local resident population. Second, those goods and services with easily measurable benefits provided to identifiable consumers residing in the municipality (e.g. water, electricity, heat) should be financed by user charges to beneficiaries. This allows users to signal the strength of their desires by their willingness to pay. Third, locally provided goods or services that are directly beneficial to residents of other jurisdictions, such as pollution abatement and preventive health care, should be financed, at least in part, by transfers from higher levels of government. Fourth, infrastructure that yields benefits over many years should be financed by credit. Spreading payments over time avoids large initial sacrifices, and allows costs to be matched with benefits as they occur over time.”

The following diagram provides a very simplified illustration which relates the concepts of public, private, toll, and common pool goods to some appropriate alternative revenue sources.

Collective Goods	Infeasible	<u>Common Pool Resources</u> User Charges Revenue Bonds Grants	<u>Public Goods</u> Broad Based Taxes: Income, Sales, VAT, Property General Obligation Bonds Grants
Market Goods	Feasible	Private Goods	Toll Goods
		Alternative Service Delivery, Contracting, Franchising Vouchers, User Charges	User Charges Revenue Bonds Grants
		Individual	Consumption
		Private Goods	Public Goods

This diagram highlights the relationship of the public/private goods concepts developed in the chapters of this text with financing alternatives. This simple illustration is intended to provide the overarching concept of the decision alternatives available to local governments in financing services.

### **Tax Competition**

With increased fiscal responsibility by local councils we should expect that certain policies for taxing residents, businesses, tourists and other taxable objects would ensue. This should lead to some differences among local governments and provide either incentives or disincentives for people or businesses to locate in those jurisdictions.

Chapter 11 examines the idea of tax competition among local units of government. Unfortunately, no empirical evidence is provided to illustrate this concept. This is another fruitful area for research by local finance specialists.

However, some research has been undertaken in Hungary which does attempt to identify if tax competition is occurring among several cities studied. Mihaly Lados (1995) analyzed the tax policies of four similar cities in Hungary. These cities are Győr, Szekesfehérvár, Szombathely, and Veszprém. The cities are similar in that they are located in the western part of the country, each is a county seat of government, their expenditure structures are very similar, and they were governed by members of the same political party at the time of the research. The analysis looked at the various policy reasons for introducing or increasing certain individual and business related taxes by these cities. By looking at the different taxes and the variations in the rates among the cities studied, Lados concluded that “the number and the type and rates of the levied taxes establish a competition situation among these cities” (Lados, 1995).

This study is a good illustration of how issues of local government finance can be studied and provides policy making information to local councils. As further strengthening of local fiscal capacity occurs and differences emerge we should expect that tax competition will be an area needing further research.

### **Debt Financing**

Finally, we briefly examine debt financing and its potential use by local governments in Central Europe. The legacy of the communist period is a massive need for infrastructure improvements in water, sewer, energy and transportation areas. The lack of any savings from this period and economic collapse make any present funding from tax resources on the scale needed impractical. The only alternative is debt financing by local governments, just as US cities and other cities around the world utilize the bond market for these purposes.

A thorough and comprehensive report on debt financing in the Central European transition countries was prepared by Juliana H. Pigeay (1994) in collaboration with George Peterson. The greatest amount of activity in developing municipal debt financing appears to be in the Czech Republic. The banking system there responded to the credit needs of local governments. Prague in 1994 issued bonds worth 250 million USD in the international market in London. Another city, Pilsen, went through a rigorous debt financing process and issued bonds for local infrastructure improvements in 1995. Progress has also been made in Hungary and Poland in the past several years toward local government debt financing. However, most of this debt financing is in terms of short to medium term loans and not municipal bond issues of longer term debt.

There are two basic approaches to financing capital and infrastructure needs. These are either pay-as-you-go or the use of debt financing. Local governments in Central Europe are largely limited to the pay-as-you-go approach meaning financing from current own source revenue and transfers to meet their infrastructure needs. As Pigeay (1994) indicates this method means “many projects take longer to complete and are more expensive.” Many cities have hospitals, schools and other public institutions structures or services that are not completed after beginning construction more than a decade earlier.

The pay-as-you-go approach is not economically reasonable based on other considerations described by Mikesell (1986). These include:

1. The burden is placed on present taxpayers while future users of a long term capital structure will not pay their share of the costs.
2. The high costs of capital improvements mean that local taxes cannot be raised sufficiently in one year to cover such costs.

There are many creative financing methods to promote economic development and capital infrastructure improvements. These generally breakdown into general obligation and revenue bonds, special assessments, user charges, negotiated exactions and impact fees, grants, and bond banks. The potential for these is quite large given the progress being made toward stable economies and lower inflation rates in the transition region.

There are, however, still substantial obstacles to the use of debt financing in the form of long term bonds. These obstacles include:

1. Failure of central governments to facilitate the use of long term debt through regulations and laws
2. A viable banking and capital markets sector that can make funds available to local governments
3. Lack of financial evaluation and accounting systems to assess risk and payment on bonds issued

4. Lack of a bond rating system to make independent ratings of bond risks
5. Lack of tax advantages and bond guarantees to make local government debt financing an alternative investment.

These are formidable requirements, but are necessary in order to avoid dangers that local governments will utilize debt financing beyond their capacity to pay. This would result in loss of financial solvency by the local government and financial disaster to those who purchased the debt instruments. These are dangers to be avoided in using debt financing.

### **Conclusion**

In this final part of our text we examine some particular issues of public finance relating to the transition period in Central European countries. These issues of alternative service delivery and local government finance are part of the larger themes of privatization and decentralization occurring in many countries in the 1980s and 1990s. These are, however, more difficult to manage in the Central European countries because they are occurring during a time of political and economic transition as well. Other countries, particularly Western countries, do not have to face the same level of challenges of political and economic transformation which greatly complicates this process.

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## **CHAPTER 10: ALTERNATIVE SERVICE DELIVERY**

*Gábor Péteri*

In the past, the public sector and public services in Central European countries were rarely considered economic entities. Under the socialist-communist regimes sources of infrastructure financing and the provision of public services were mostly central budget revenues. A high level of income redistribution was driven by the need to accumulate capital in the manufacturing sector and to restructure the agrarian and non-urban labor force. This characteristic of the economy was based on the monopoly of state property and undervalued labor costs. Public services were “free” for the consumers, so there was a lack of direct measurements for efficiency and effectiveness.

The new economic and political environment is based on the private sector, which nowadays already creates a majority of domestic production. Decentralization of the socialist state created new government structures, where the former public sector mechanisms could not survive. Thus, the rationale for changing methods of financing, allocating and delivering public services was complex: economic and political factors initiated systematic changes jointly.

For a better understanding of these changes the characteristics of goods and services should first be identified. The changing environment of these services will explain why alternatives to public service delivery arrangements were born and how they spread in time and space.

### **Characteristics of Goods and Services**

Public finance theory explains the existence of public services by market failures. There are certain fields of the economy, where private sector mechanisms do not work properly, simply because the provider is not able to receive all the returns from the purchase of the service. (Mikesell, 1991) This is the borderline between private and public goods. In the case of private goods (and services), consumption is personal as others could be excluded from the benefits of the service. This rivalry in consumption makes the production of one group of goods and services efficient.

As it is discussed in the previous chapters private sector mechanisms lead to monopolistic positions which raises the need for government intervention. In some sectors where the need for initial investment is high, private involvement is low, so government regulations are required to counterbalance the affects of decreasing costs. Access to information on goods and services produced by the private sector is also a government responsibility. Rationale for government

intervention can also be based on non-efficiency explanations, like fairness (e.g. equal access to services for citizens being in similar positions).

Public service consumption is joint by nature and the exclusion of other consumers is impossible or very expensive. The non-rival character of the service means that getting the benefits from the service is not really influenced by the others, who at the same time also benefit from the use of the same service. Here the best examples are the radio broadcast, national parks, public transportation, etc. The other characteristic of public goods is that exclusion is simply not feasible. Examples are fire protection, national defense, lighthouses, etc., where services are collectively used. Separation of consumers who paid for the service and those who did not is very expensive and sometimes technically impossible.

In the Central European countries there are additional features to these classical characteristics of public services. The unified public property of the socialist state has restricted the organizational forms of public service delivery. For many decades only public (budgetary) institutions or government controlled public enterprises were the only organizations producing public services. As these economic entities were not influenced by market mechanisms and they were under strong political control, they were the least efficiently run organizations.

Another characteristic of public services in Central European countries is their close relationship with the public administration. As the socialist state was the owner of the assets and through political mechanisms public administration was highly influenced by the single party in most of the countries, allocation of public services was also strictly controlled and “over-politicized”.

Ownership and political mechanisms jointly forced the centralization of the government, both at national and local levels. In most of the Central European countries the intermediate level of government was the transmission between the national state and the indirectly controlled, Soviet-type local governments. These structures did not help to establish flexible, need-driven public service organizations. Service producing units were directly managed from the centers, or sub-centers, which has resulted in a mixed system of administrative and service delivery decision making.

All of these characteristics of public services in the Central European countries resulted in the failure of government actions. The measurable efficiency criteria were never met, and the government was not able to correct market failures. The market allocation method was simply replaced by political mechanisms which did not reflect the citizens' priorities, and established a centralized structure of power.

## **Changes in Traditional Public Services**

The transformation of traditional methods of public service delivery began with changes in the market environment. This was a relatively short period in the Central European countries. Not only was the learning period (the transformation) different in these countries, but so too were the existing market institutions. There are four main elements of the market environment, which have influenced public services:

- private organizations provide services;
- private organizations are involved in the production of public services;
- market mechanisms (user charges, tenders, contracts, etc.) are more often used in the public sphere
- need for establishing a civil society: decision making processes and the institutional setting of public administration and government structures have been modified.

### *Private Provision of Services*

Government expenditures are continuously increasing as the national and local governments take over more and more responsibilities. This is especially true in the Central European countries, where the socialist state centralized most of the public services. In the 1950s government expenditures reached 80% of the GDP, which is almost twice as high as the present level of public expenditures in economically developed countries.

Obviously, it was impossible to finance this level of public expenditures, so public sector reforms started to transfer various government functions to the private sector. Privatization of public enterprises, development of private pension funds and other welfare schemes, including private education, are all examples of the fundamental changes in the public sector. In the 1980s many public functions were transferred to the private sector. Transfer of public ownership to private entities was completed in order to correct government failures and to reduce government spending.

In many Central European countries this privatization process has changed only the legal character of service providing entities. Direct influence on state owned enterprises was changed by indirect methods of ownership control. This privatization created new relationship between the government (politics) and the commercial units. The real privatization occurred only during the second wave when capital was raised by the sale of these state owned commercial units.



*Private Production of Public Services*

Private entities are involved in the production of public services. That is the government takes the responsibility of providing the public function, but the actual delivery of the service is done by private organizations. There are a variety of schemes through which private organizations may participate in public services. This chapter on alternative service delivery arrangements will describe many of these. The best examples are from the public utility sector, but many communal and human services are also run by private or non-profit organizations.

*Development of Market Mechanisms in the Public Sector*

The transformation of traditional public sector mechanisms is pushed by the methods developed in the private sector. The purposes of these changes are to express the costs of public services for the consumers, to introduce higher levels of motivation in the public sector and to increase the responsibility and transparency of public bodies' decision making processes.

The costs of public services are indicated by user charges. Fees, user charges and tariffs work as price mechanisms for public services, where the actual costs are not always calculated, so they are not expressed towards the consumers. "Free" services are never utilized efficiently, which results in increased public expenditures. Pricing services not only makes consumers' decisions more rational, but also increases public revenues.

As most public goods and services were heavily subsidized in the past, the introduction of charges was not easily managed. There were a variety of mechanisms used to reduce controls over prices. The most frequently used method was a simple decentralization of charge setting authority. As public services were transferred to local governments, charges on water, sewage, district heating, waste collection, rents, etc. were also decentralized. There are nationally defined regulations on calculating the prices (e.g. maximized percentage of profit) and national government subsidies still exist (in the water sector, or for capital investments).

Cooperation with private entities has modified the operation of public organizations. First of all political mechanisms should be adjusted to the requirements of the public sector. In order to have clear contracts with private service providers, the objectives and specifications of the services should be carefully designed. Sometimes this was not easy for the governments to manage, as service characteristics were simply inherited from the former rules. Transparency of public decisions raised the claim for proper selection of private contractors, so tendering procedures are also crucial elements of the changing market environment.

*Third Party Government*

This term is used for those independent regulatory bodies, which take over the functions of traditional public administration. (Salamon, 1988) There are various organizational forms (agency, council, board, etc.), which work as regulatory bodies, incorporating professional and public elements of decision making. These quasi government organizations try to make public control more efficient, but at the same time maintaining high professional standards.

Together with other private sector mechanisms, these independent regulatory bodies have transformed the traditional public administration and regulatory mechanisms of public services. There is a tendency to destroy the rigid borderline between the public and private sectors. This third type of government (neither public nor private) is a new example of communication between the two spheres.

With a third party, government involvement in providing public services can be assured, without increasing the state's administrative apparatus. (Salamon, 1987) If there is an existing institution, the government can rely on their activities. Their expertise and organizational structures can help to provide more efficient and diverse services on a competitive basis. Third party government raises the problem of accountability to the public and requires new methods of audit and control.

All of these changes in traditional public services slowly developed the environment for alternative forms of service delivery. Lessons in privatization, slowly spreading market based mechanisms for financing services, private organizations with their promise of managing services more efficiently, and greater public control by the civil society; all led to innovations in public services. The following section will summarize the factors driving alternative service delivery arrangements (ASDA).

**Factors Behind the Development of ASDA**

The most important factor pushing new forms of service delivery is fiscal stress on public budgets. Cutbacks in expenditures and increases in public revenues did not provide sufficient sources for financing the traditionally accepted level of public services. Thus, government entities were forced to increase the efficiency of their services. One potential means of achieving higher efficiency is to utilize the advantages of private sector entities, that is to develop alternative service delivery arrangements.

The spread of ASDA in the public sector has coincided with the general trend of privatization. Ideological movements starting from the late 1970s have emphasized the advantages of privatization. In the period of economic crisis,

when public budget deficits were high and quickly increasing, one of the feasible solutions was the restructuring of public services. The transformation of public enterprises into joint stock companies, and the transfer of services to the market were the clearest examples of privatization. Less visible change in the public sector occurred when national and local governments began to extensively use private producers and market incentives to provide public services. ASDAs are examples of this type of privatization.

The motivation to privatize was based on a desire to extend the market environment, especially in the Central European countries, where no market incentives were used in the public sector. It was first necessary to introduce fees, user charges and to have a private sector which is able to provide public services. Privatization or “municipalization” of public assets helped the transformation of public property. As soon as ownership rights were changed, there was an immediate need to establish other market mechanisms and regulations.

Very quickly the national subsidies on public services disappeared and the price setting mechanisms were decentralized or transferred to public bodies. In the field of communal services, public utilities and in the social housing sector most of the local governments were authorized to determine the user charges or rents. National services (e.g. energy supply) were under the control of public bodies. This process of decentralization and the introduction of private sector mechanisms varied considerably in the Central European countries.

On the consumers side a higher demand for individual choice in public services was the main incentive pushing ASDA. Public services are always directed towards the most common needs of the typical consumer. Variations in the level and form of public services were very much constrained by the available resources. In the period of budget restrictions and increasing demands for services, there is a great pressure to adjust public services to individual needs.

This does not necessarily mean better performance of services, but the adjustment process might produce new types of public services. Within social services, education, and the health sector there are variations of individual needs which can be satisfied only through more diverse forms of services. When governments provide grants for these non-profits or sign contracts for taking over public functions, they increase individual choice through alternative forms of service delivery.

Another factor pushing ASDA is the inefficient operation of public service delivery institutions. Traditionally budgetary or contributory organizations are managed through their inputs (labor, materials, etc.), while the environment of these public entities is under a strong output control. Politicians and individual

consumers are interested in the level of the service and the benefits achieved through government actions.

Properly designed performance indicators of service quantity and quality can be easily used for contracting with private organizations. As soon as the requirements on the service level are defined by the government, the organizational forms of production may become unimportant. Under well designed service level agreements and contracts both public and private entities are able to satisfy the needs of the clients.

There are also changes in political culture which have helped develop new and innovative methods in public service delivery. (Clark, 1983, Miranda, 1991) The traditional dichotomy of conservative (republican) and liberal (democratic) political values have been changed. As social classes slowly disappear and the economy goes through major restructuring, the political mechanisms also change dramatically. Social and fiscal issues are prioritized differently and this new combination of values creates new types of political culture. New fiscal populism, which stresses a high responsiveness to social problems, but at the same time seeks new measures in fiscal policy. More efficient forms of service delivery do not necessarily mean less effective public services.

Alternative service delivery arrangements are, thus, a phenomena of the complex social and economic transformation. Privatization and responsiveness to individual needs forced these innovations in the traditionally slowly changing public sector. As ASDAs are developed and become more widely known, internal rules and procedures of the public sector are modified. This process very much depends on the values of the society and the economic environment in the country.

### **Types of Alternative Service Delivery Arrangements**

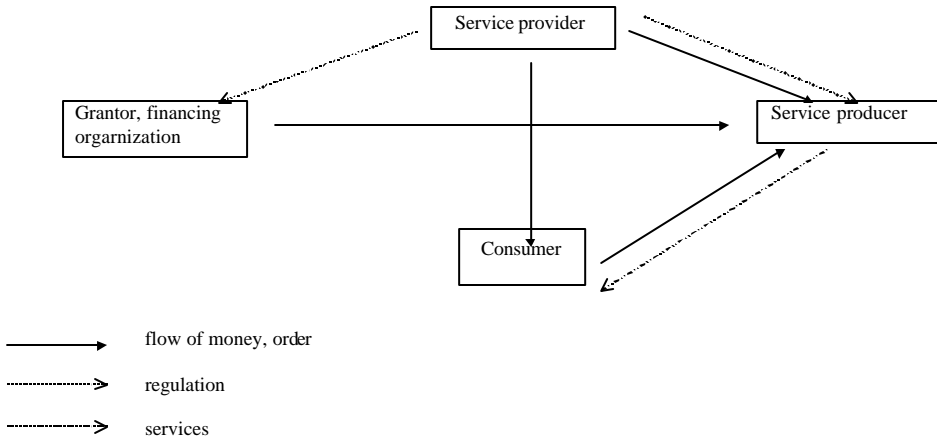
In order to understand ASDA, two main characteristics of services should be clarified:

- separation of service provision and production;
- development of intermediate groups of goods and services.

#### *Provision and Production of Public Services*

There are four main actors of public service delivery: the service provider, the financing organization, the producer of the service and the consumer (See Table 1).

Table 1.  
Alternative Service Delivery Arrangements



The service provider has the legal or political obligation to ensure a sufficient level of services within its jurisdiction. This does not necessarily mean, that this client organization will finance the service. Financing the service may come from another government level (e.g. welfare services, unemployment benefits). Sometimes the service provider only manages the service or creates the required regulatory environment for the service (e.g. defining standards, procedures).

The third actor is the service producer which is responsible for delivering the service to the consumer. Traditionally public services are provided and produced by government entities, but the noted recent changes have modified this pattern. Private and non-profit organizations are now involved in service production.

Relationships with the consumer under these structures are varied. The consumer does not always know about the separation of provider and producer (e.g. contracting out of public cleaning). In some cases, the consumer even selects the service producer (e.g. voucher schemes for welfare services).

Alternative service delivery arrangements include various combinations of these four actors. There are many techniques and manners through which the services actually reach the consumers. As shown in Table 1, flow of money (grants, subsidies) might come from the financing organization (central budget, social security funds, private foundations, private investors, etc.) or from the service provider, while the actual service is produced by yet another entity.

These institutional forms and contractual relationships will be discussed later. Below, however, a list of the main types of ASDA:

- contracting out a public service (e.g. collection of solid waste by a private entity);
- build, operate and transfer (BOT) schemes (e.g. construction and management of a landfill owned by the municipality);
- concessions (e.g. transferring the rights and duties to provide a service within the jurisdiction of the locality for a given period);
- non-profit organizations (e.g. involving charity and voluntary organizations in local service delivery);
- vouchers (e.g. food stamps, or other indirect forms of subsidies directed towards consumers).

The most important characteristic of the alternative service delivery arrangements is that the character of the service does not necessarily define the organizational form of service production. Thus, public services can be produced by private organizations under various forms of alternative delivery schemes.

#### *New Groups of Goods and Services*

These new forms of ASDA are based on those intermediate types of goods and services which were identified between the large groups of public and private goods. The privatization wave of the 1980s has highlighted those new types of goods and services which do not necessarily fit into these broad categories. Savas, (1987) has introduced two new groups of goods: common-pool goods and toll goods. This is based on the characteristics of goods and services, that is whether the exclusion might be feasible or not; and the consumption is individual or joint. Savas has argued that there are goods and services where excludability is infeasible, but the consumption is private (common-pool goods); and also that exclusion can be feasible even in that case when consumption is joint (toll goods).

Table 2.

Characteristics of goods and services<sup>4</sup>

<i>Characteristics of goods and services</i>		<b>Excludability</b>	
		<i>Feasible</i>	<i>Infeasible</i>
<b>Consumption</b>	<i>Individual</i>	private	common property
	<i>Joint</i>	toll (club)	public (collective)

In the case of common-pool goods (like the rivers, air, natural parks, etc.) the property is owned by the community at large, but public consumption is limited. The economic rationale behind the constrained consumption is to avoid exhaustion of the public goods and to accumulate funds to reproduce these goods.

Toll goods (cable TV, library, mass transportation, etc.) are consumed jointly by the public, but the service can be provided by market organizations. Governments may interfere in the private provision of these natural monopolies through various actions such as price regulations and competitive tendering.

Alternative service delivery arrangements are generally based on these two forms of goods and services. Various contractual relationships and organizational forms are developed by the governments and the private sector for combining the advantages of public and private spheres.

### **Most Common Techniques<sup>1</sup>**

In this section the most important techniques of these innovative methods are discussed. There are many slight modification under each main type, as national legal and financial regulations force the development of new methods. Also, there are sectoral differences, as some techniques are usually connected to certain types of services. Main types of ASDA vary by country as public functions are also different.

#### *Contracting Out*

The government, as a client, signs a contract with a private entity to provide the service for a group of consumers. These services are purchased from the contractor and they are paid for directly by the government or the consumers. In the latter case the price is mostly controlled by government decisions. There is an obligation on the public bodies to monitor and control the service delivery. There are various forms of contracting out, as the time horizon of the contracts vary, as methods of payment change and the risks and assets are shared between the client (service provider) and the company (service producer).

Typically, contracting out is used for operation and maintenance work, so the contracts cover relatively short periods. The length of contracts should be long enough to finance the capital used during that period. Depending on the type of assets required for the service, contract periods may differ: in capital intensive sectors, like solid waste collection may be 5-7 years, while cleaning office spaces may only be one year. Sometimes national regulations do not allow local governments to sign contracts longer than a fiscal year.

Prices are crucial points of contracts, especially for public services where costs are not usually accounted properly. There are two main types of contracts: fixed priced and cost contracts. In the latter case the local government takes the risk of a cost increase. Usually contract prices are fixed, but as some cost elements or profits are uncertain, indices can be used. It is extremely important to agree on the price adjustment indices in Central European economies, because the rates of

inflation are so high. Otherwise, private contractors will not invest within the contract period, so the potential efficiency gains are not realized.

There are various schemes which allow risk to be shared between the client and the contractor. The agreed price mechanism, the ownership of the fixed assets, and the replacement costs of various elements of the capital are all subjects of negotiations during the contracting period. Typically local governments keep the ownership of the basic assets (e.g. the landfill), but the contractor should provide the equipment or other smaller capital (e.g. compactor at the landfill). If the local government wants to maintain direct control over the service producing company, a management contract is simply signed. In this way the management of the public enterprise shares the risk of running the company with the municipality.

### *Build, Operate, Transfer (BOT) Schemes*

Public services and public utilities are capital intensive sectors of the economy, so national and local governments are always faced with a lack of sources to finance capital projects. Usually capital costs can be recovered over some decades or the assets are used for generations. In this case private capital should be involved in financing government projects.

If the construction is financed by private investors, the government can pay back the capital and the interest on the capital by contracting with the private company. The sources for financing the projects are user charges and other payments made by the users of the utilities. Thus, lenders and investors in these projects mostly depend on cash flow generated by the investment. The transfer of the right to operate the infrastructure keeps the ownership rights at the public body. When the project costs are totally covered (depending on the type of the project this may be 20-25 years), the government takes over the assets and the right to run the service.

Typically BOT schemes are used for those physical infrastructure services which generate revenue through user charges. Examples are found in areas related to the energy sector (power plant, refineries), transportation (toll roads), water and wastewater plants, landfills and solid waste management.

Capital investment projects using build, operate and transfer schemes involve three main actors: owners (government), the project company and the investors, and lenders (banks). In a typical BOT investment, the local or national government together with the other owners or sponsors establishes the project company. This company starts negotiations with potential investors and other participants. These other interested parties include the contractor who will do the construction work and the operator of the future facility. The determination of who the future



purchasers of the service or product are and what the conditions of this supply (fuel, waste, cars, etc.) are very critical. These roles are very often mixed, so BOT schemes are based on complex arrangements.

### *Concessions*

Contracts for public service delivery with the requirement to implement capital investments are called concessions. These are different from the BOT schemes as the service is not based on a new investment. In most countries the determination of which services can be operated through concession agreements is constrained by the law. The concession agreement also defines the legal form of operation, so the contractor (lessee) will be responsible for the capital assets financed by the concession. This separation of assets helps to measure the capital and current costs, so the financing sources can also be identified.

The government transfers the right to set and collect the user charges or tariffs paid for the service. As concession agreements cover very long periods (in Hungary maximum 35 years), there need to be clear regulations on service performance and agreements on termination of these contracts.

The best examples of concessions are infrastructure services and public utilities. When the government has the right and the mandate to provide a service, but very often lacks the financial resources for capital investments and service delivery such as in the water sector or in solid waste management, concession agreements are often signed. In this way advantages of more efficient commercial entities can be combined with the public responsibility for the service provision.

### *Non-profit Organizations*

Voluntary, charitable and other not-for-profit organizations are widely used for providing public services. They work in parallel with the governments, representing the third sector between the public and the private. In the Central European countries, where all types of voluntary organizations were prohibited or controlled, non-profit organizations started to develop with great speed after the political changes in the late 1980s. For example in Hungary, where sports clubs were once the only organized forms of voluntary activities, 8,396 clubs were registered in 1989 (Alapítványok, 1992). Later as the legal environment has changed other types of non-profit organization (mostly foundations) were established. By 1994 the total number of non-profit organizations in Hungary had reached 40,323 (Nonprofit, 1994).

The most important characteristics of non-profit organizations involve the facts that they are:

- institutionalized,
- independent from the government,
- non-commercial organizations, using their profits for their basic activities,
- managed by self-governing bodies and
- partly run by volunteers<sup>2</sup>.

In order to separate non-profit organizations from other voluntary groups they should be registered which is an advanced level of institutionalization. They are not parts of the government which provides them with political independence. They are not, however, typical private organizations, as the profits are not shared among the founders or managers. The most important condition for independent operation is that non-profits should be managed by self-governing bodies. Non-profits are based on voluntarism, but in many cases services provided by non-profit organizations are quite complex, so the staff is paid.

A comparative study of seven countries, show that non-profit organizations operate in education and research (24% of total expenditure), the health sector (22%), welfare, social services (20%). (Salamon, 1994) According to this data, non-profit organizations also focus on public functions. Thus, governments with good relationship with this “third sector” are able to utilize the advantages of the non-profits to provide public services. The statistics show that 43% of the revenues at non-profit organizations are government grants. (Salamon, 1994)

In Central European countries these grants are lower, because national and local governments have not established good relationships with non-profits, yet. There is a tendency to treat non-profits equally with public institutions (e.g. in Hungary non-profit organizations receive the same amount of general grants, as other local government institutions). The basis of cooperation is the contractual relationship with the government which specifies public service being taken over from the public sector.

Transfers and donations to non-profit organizations are regulated by tax codes. As donations are deductible from national taxes, very often these are quite significant. These limits are expressed in the percentage of turnover, profit or taxes. In addition to the tax deduction after paid donations, in Hungary, a new law was introduced in 1997, which allows the transfer of 1% of personal income tax to specific purposes. (See the related case study at the end of this chapter.)

Government contracts and regulations on non-profits are mostly aimed to counterbalance the failures of the voluntary sector. Salamon’s (1987) theory of the voluntary sector emphasizes four characteristics: philanthropic insufficiency, particularism, paternalism and amateurism.

Non-profit organizations are not able to generate sufficient sources to provide collective goods and services. This insufficiency is reflected in the fact that economic

fluctuations might stop voluntary actions when there is the greatest need for these services. This could also happen in the spatial dimension, where the available resources and the problems or needs geographically cannot be matched.

Philanthropic particularism is a negative consequence of the issue oriented character of non-profit organizations. As non-profits focus on some problems of the community, the target groups may not be properly represented or their needs may not be expressed well to the voluntary sector. Consequently, some groups are in a more favorable position; frequently those which are able to attract communal or individual pride. This failure of the voluntary sector can also be expressed as philanthropic paternalism. Those who have greater influence on the available resources in the voluntary sector, define the preferences and needs for these services.

Especially in the Central European countries, where non-profit organizations do not have a long tradition, there is a lack of professional capabilities in service management. This philanthropic amateurism in the field of some services, like health care and social services, might cause some losses in financial terms. The whole sector, however, is still in a better position than the public sector as they can employ more qualified staff. As non-profit organizations focus on urgent needs, through higher charges and lower operational costs, they are able to pay higher salaries and in this way maintain the employment of good professionals.

### *Vouchers*

Vouchers are coupons with value which can be used for purchasing goods or services defined by the issuer of the voucher. This alternative service delivery mechanism combines public decisions with market incentives. The government provides grants for the eligible citizens in the form of a voucher and these consumers buy the services on the market. In this way only the targeted population enjoys the benefits of the service. Individuals having vouchers can follow their own preferences when they make a choice of a service producer. This is the most efficient way of maintaining quality control over the service producer.

There are various uses of vouchers, mostly for welfare, social sector, recreation, public utilities and cultural services. Vouchers can be used only in those areas where the supply of services is available and individual choices are important conditions of service quality. Vouchers have some traditions in the Central European countries from the socialist times. In the previous era people became accustomed to using coupons and vouchers as substitutes for money. Earlier, vouchers were used to influence the activities of people in the desired directions. Now vouchers might give people the freedom of choice within the market environment.

### Sectoral Differences

There are many variations among financial, management and organizational characteristics of alternative service delivery arrangements. Special needs of services have resulted in different types of models in each sector. Also, the legal and financial environment of a country has influenced the development of ASDA. In general, the closer the public service is to the market (the service is financed by charges, demand is specific, measurable performance, etc.), the higher the possibility is to use some form of alternative service delivery mechanisms.

Public services and certain types of service delivery methods are connected to each other. Contracting out, BOT and concession agreements are most often used in communal (urban) services: refuse collection, water supply and sewerage, public transport. Common areas for the work of non-profits were described in the previous section. Voucher schemes can be used for housing, social assistance, and welfare benefits.

Based on the British example, ASDA and urban services are matched in Table 3.


Table 3.

<b>Model of service delivery</b>	<b>Urban services</b>
1. Public supply	Sewerage, refuse disposal
2. Local (community) supply	Slum improvement, drainage, paths
3. Licensed competition	Markets, bus transport, taxis
4. Leasing, franchising	Water supply, gas, electricity, public transport, car parks
5. Service and management contracts	Refuse collection, road maintenance, vehicle maintenance, billing, construction
6. Public-private partnership	Land acquisition, infrastructural development with residential and commercial development
7. Voucher schemes	Education, social services, food, housing
8. Direct user involvement	Neighbourhood drainage and water systems, area improvement schemes

Service delivery options give a list of potential arrangements, starting from direct public involvement to more privatized forms. Urban services can be matched with these typical service arrangements, as revenue generating services with low externalities are more often managed through privatized models.

As each public service involves various types of activities, the elements of the service can be produced through different delivery methods (Table 4). The most important factor differentiating techniques is whether capital investment is included in the delivery arrangement or not. Current (operation and maintenance) activities are more easily contracted out than those services where capital investment components are involved.

Table 4.  
Models by types of urban services<sup>5</sup>



*Country Specific Forms*

As government structures, functions and finances vary in each country so too do their uses and types of ASDA. Market based service delivery arrangements are more frequently used in the Anglo-Saxon countries. Here the necessary requirements for separating provider and producer roles are more developed. There is a long tradition of self-government with institutions promoting transparency, strong traditions of contractual relationship, and advanced market mechanisms in public utilities.

In the US and Great Britain, privatization of public utilities and communal services helped to develop extended forms of ASDA. In Great Britain the legislation on compulsory competitive tendering forced local government entities to compare their efficiency with the private sector. This practice has significantly changed the management of local governments, as tendering regulations, service level agreements, and performance controls have placed new burdens on the local administrators.

In the centralized French government structure new forms of contractual relationship with the monopolistic public utility companies have slowly developed. Local governments have more guarantees as the tendering process is regulated and various forms of mixed ownership were established. In the public utility sector there are some specific widely used institutions which were developed by the French system. Lease contracts (*affermage*) and divided interest in financing services (*régie intéressée*) are now frequently adopted in developing countries.

The German tradition of governance is slightly different, as the internal efficiency of public organizations is preferred instead of using market incentives. The “New Steering Model” of public finance management helps to measure the efficiency of public service units. In Germany there are various ownership and accounting forms of public utilities which try to balance public functions with private sector mechanisms. *Eigenbetrieb*, *Eigengesellschaft* are widely used intermediary forms of economic entities, where public (consumer) control is combined with the autonomy of the service producing entities.

There is no comprehensive information on ASDA in Central European countries. These new forms of service delivery are slowly developing under the changing ownership structures, low autonomy of local governments and the slow establishment of the necessary legal environment. Each country in the region put a great emphasis on the development of a civil society, so non-profit sectors have increased rapidly. Contracting out practices and other forms of “privatization” techniques very much depend on the character of local governments. Some indications of change come from the Czech Republic, Slovak Republic and Hungary

where public procurement acts have been passed. Contracting out practices are more common in the Polish and Hungarian local governments.

A survey of the Hungarian local governments showed, that in the field of communal services, there are two groups of activities, where external service producers are involved (Péteri, 1994). There are contracts between the client municipality and the service producer in solid waste collection (42% of localities), and in district heating (33%). These facts do not necessarily mean that the service provider is a private entity, but at least the service performance and finances are regulated by the contract. External organizations (that is not the municipal administration or public institutions) provide the funeral services (61%), water supply (49%), sewage treatment (36%), swimming pool operation, (21%), and solid waste collection (18%), in the responding municipalities. Tendering procedures were rarely used at the time of the survey.

### **Requirements for ASDA**

Alternative service delivery methods are deeply embedded in the political, legal and financial environment of local governments. Several factors from the public and private spheres may support or hinder their development. ASDAs are not simple techniques of service provision. Several interrelated preconditions are required for proper use of these alternative forms. They are:

1. legal conditions, supporting contractual relationships between public and private spheres;
2. organizational changes at public authorities, developing the client's role and pushing accountability of public decisions;
3. financial regulations, supporting a better understanding of the real costs of services;
4. new forms of service management, like tendering procedures and contract monitoring;
5. market environment, with private sector mechanisms and their consequences.

### *Legal Conditions*

Decentralization in the public sector in line with the development of market institutions and private organizations leads towards contractual relationships in service delivery. Contracts, as agreements between equal parties, have several preconditions in service delivery. Not all of these are available in the Central European countries, but the tendencies of the past decades show a clear direction toward positive changes.

Government entities, both at the national and local levels, have higher levels of autonomy in defining the level of services provided for their consumers. If the

unified character of public services is changed, there will be an increasing need to select the most efficient service delivery organizations. In this respect local discretion is closely related to property issues, as “municipalization” of former state owned assets gives the foundation for establishing new organizational structures. All of these changes in the legal and institutional environment should develop in parallel with greater authority in managing and financing these services. User charges, grants or subsidies on services should be defined by those entities which are responsible for other aspects of the service.

In the case of Hungary all of these slow legal and organizational changes were recently accelerated by two major legislative actions. The Act on Public Procurement is based on the requirements of the European Union which supports integration through the free flow of services, labor and capital. If the procedures on public purchases are transparent, contractual relationships are probably more developed in the field of services. This might lead to a wider use of alternative service delivery arrangements. Due to externalities some public services are compulsory for the customers. For example, the use of service organizations selected by localities in waste management or chimney sweeping are mandatory for the citizens. Parallel to the changes in the legislation, these services should be tendered so monopolistic positions will be avoided.

### *Organizational Requirements*

Due to changes in the legal environment the organizational structure and procedures of public authorities have also been modified. The client and service producing roles should be separated as a first step towards developing new forms of service delivery. The clients’ decisions should focus on the service outputs and efficiency of provision. The potential drawbacks on the owners’ role or any other aspects of public decisions (increasing employment, raising revenues, etc.) should be considered, but not override the need for efficient services.

A new clients’ role influences almost every step of service provision. Clear priorities are needed for any decisions on the selection of service producers, as without well specified objectives no alternative arrangements can be compared. New organizational forms require modified procedures of monitoring the service producers. Control in this case has a preventive role. To avoid any major difficulties, the client should be aware of all the significant factors influencing the capacity of the service producer.

Another important aspect of procedures connected to alternative service delivery arrangements is to prove in any situations, when personal interests might be raised, that the decision making was clear and neutral. Motivations in some



countries for introducing public procurement regulations have been simply to exclude any actors who could be interested or at least preferred by public decisions.

### *Financial Regulations*

For making decisions on organizational forms of service delivery it is essential to have information on the real costs of alternative solutions. Accounting regulations on public entities often do not require detailed cost measurements. Expenditures and not the real costs of organizational units are measured. These do not really help in decision making. Financial information should be available by services (functions) provided, presenting the total (direct plus overhead) costs of each activity.

Accounting regulations of government entities focus on organizational units. This raises two basic problems. First, cross financing of several activities within the same organization are hidden for the decision makers. An evaluation of efficiency and financial balances of departments, budgetary and contributory organizations or even public enterprises will not be professionally sound if the financial information on activities are not separated. Cost centers, or enterprise funds should be set up for measuring the real expenditures (costs) and revenues of various activities.

Another misleading factor in public accounting is the improper allocation of costs by functions. If the expenditures, raised in the public administration or expenditures required by public decisions, are not shown among total costs, then no comparison of alternative service delivery arrangements can be completed. For example, if waste management is contracted out, but the collection of user charges is still the duty of the local administration, then these expenditures should be added to the costs of the contract. When expenditures of a service produced by departments or budgetary institutions are measured, the indirect costs of government decisions, and overhead of general management and accounting departments should be involved in the cost calculation.

This financial information is needed at several stages of decision making. First, when the service producer is selected and later when basic financial conditions of a service are defined. The calculation of user charges should be based on proper costs information. Not only differences by regions or subdivisions, but also the depreciation costs should be incorporated into the price of a service. Very often public services are jointly financed by grants. The allocation of grants to services also needs to be determined with basic financial information. Especially, when grants are for capital investments that involve long term recovery of costs.

*Management of Services*

The introduction of new forms of service delivery will modify management practices. Under the traditional ways of service delivery (hierarchical structures support decisions) the rules of administrative management might work. In the case of contractual relationships, when public and private entities are equal partners under the civil or semi-public law, new management systems must be developed. The most important elements of this relationship are the tendering process, contract specification and monitoring of the service.

Tendering procedures require a clear understanding of the future contracted services, transparency of decisions and clear rules of tender evaluation. Preparation of tenders is based on the specification of tendered services. In certain services, measurement of outputs is simple (e.g. park maintenance, waste management), but there are some more complex services, where the activities require sophisticated indicators of quantity and quality (e.g. education, welfare services). The selection of a tendering procedure is based on a compromise between simplicity and transparency: negotiation procedures, tender by invitation and call for tenders need different levels of advance preparation, time and administrative costs.

In the contract several aspects of the service should be specified. First, the characteristics of the service should be detailed, e.g. definition of the activities (quantity and quality), geographical area, and timing of the service provision. It is also essential to define the basis and method of payment for the services rendered. As contracts are preferably signed for longer periods, calculation of changes in future costs should be agreed in advance.

Detailed contracts require new forms of contract management. The client has to calculate the costs of contract monitoring, which might be 5-10% of the total cost of a service. Under service contracts the client, as the service provider, is responsible for the produced activities, that is the level of service, management of complaints, any alterations from the contract and assurance of service quality. The client should be interested in the continuous provision of the service.

*Market Environment*

Dealing with private organizations is a new task for government entities. They should guarantee the safety of public services in the long run while the confidentiality of private contracts should be balanced with the transparency of public decisions. Both of these components of market mechanisms require new management techniques and local government levels.

The long term security of contracted services is mostly based on proper contract specification, a detailed pre-tender evaluation, a good tendering procedure and

careful monitoring. The techniques of performance bonds might be used only in those countries where the regulations and practices allow them and insurance companies are to prepare for these services. Obviously insurance bonds increase service costs as the contractor will include them in the price.

Transparency requirements of public actions sometimes are in conflict with confidentiality rules for private contracts. As budgets are public documents, expenditures allocated to the contracted service will be known by future tenderers. Another problem is the assurance of confidentiality of business information submitted by the tenderers. Public decisions always require elected bodies or boards, where secrecy cannot be easily secured.

### *Criteria for Assessing Service Delivery*

All the requirements detailed above show that public entities should carefully assess their capacity, if they plan to deal with private contractors. The client should be prepared to make decisions on alternative ways of service delivery. The organizational and managerial experiences should be sufficiently developed for a successful contractual relationship. In the case of local governments, where alternative service delivery arrangements are often used, there are several criteria for assessing the municipality's ability to work with the private sector.

In Box 1. there are twelve items, which should be carefully evaluated, before the public entity starts any actions in changing its traditional service delivery methods. The first group of criteria (items 1-4) are focused on the characteristics of the service: analysis of service needs, and ensuring quality and fair services. The second group (items 5-7) are basic requirements on the contractor's side: experience, openness to monitoring, and control. The rest of the components (items 8-12) again focus on the client's ability to manage contracts: flexibility, management culture, and staff capacity.

#### **Criteria for Assessing Service Delivery<sup>3</sup>**

1. Assisting the municipality to understand the service needs  
How far can the local government continue to generate the information, that helps it understand, define and respond to the needs of its community?
2. Ensuring realistic economy and efficiency  
Can the local government ensure realistic levels of economy and efficiency through the service contract?
3. Delivering effective, quality service  
Can the client local government ensure that the effectiveness and quality of the service is guaranteed?
4. Equality of service delivery

Can local governments ensure support for and delivery of a fair and equal service?

5. Experience, knowledge and resources for the service  
How much does the service producing organization have knowledge, practices and resources, which will help or hinder the delivery and adaptability of the service?
6. Openness to monitoring  
Can the monitoring processes be made as effective whoever is delivering the service?
7. Directness of accountability and control  
Are the alternative means of service delivery sufficiently accountable to the municipality? Can the control of the service be as effective as an internal or owned organization?
8. Knowledge and experience of the client side  
What knowledge of the locality, work and client function is necessary to effectively provide the service? Can this be communicated to other providing organizations?
9. Flexibility to response  
What situations does the authority face and wish to tackle that require radical flexibility? Are there forms of contract that can be devised to cope with this?
10. Management culture and values  
What are the key values and practices that the municipality wishes to sustain in its delivery of services?
11. Employer concern for staff and their futures  
What future for the staff involved can be explored and guaranteed by the local government?
12. Local government and staff capacity to make the change  
How willing is the municipality to support the transition into other organizational form? How capable are the staff of managing the change?

If all of these criteria are met then it is possible to introduce alternative service delivery arrangements. This list also show those elements, where future actions should be made to increase the efficiency of contractual relationships and contract management with the private entities.

### **Advantages and Disadvantages of ASDA**

Traditional public sector service delivery mechanisms and alternative forms are not easily comparable. Dimensions of comparison are not equally important

and characteristics of service methods differ significantly by sectors and by countries. This section provides a short list of positive and negative sides of alternative service delivery mechanisms. The actual importance of these arguments is very much subject to personal judgments.

#### *Merits of ASDA*

First, all new forms of service delivery try to increase the efficiency of public services. Under traditional public sector schemes, bureaucratic procedures, a lack of competition, and inflexible rules make services inefficient. (Batley, 1992). Market based alternative service delivery methods are able to utilize the advantages of private management, which result in savings for the service provider. This does not necessarily mean cheaper or better services for the consumer. They simply transfer resources from the public sector into the private. This shift is very important for those countries, where public expenditures reach three quarter of gross domestic product.

In many cases there is an indirect influence of ASDA on traditional public services. Even if new forms of service delivery do not really endanger the monopolistic position of large public entities, the competition is always there. This might be hidden in professional discussions or more outspoken in fights for national grants. At least the existence of a potential competitor will slightly modify the attitude of the service providers towards the purchaser of their services.

Public services always focus on the average consumer, they are not able to meet individual needs. During periods of scarce resources, traditional forms of public services are provided to the average consumer. Differences in service demand cannot be followed by the service delivery mechanisms. As service level becomes higher, more differentiated needs can be managed by the service provider. Consumer decisions on the types and levels of services will be more successfully followed by alternative service delivery arrangements.

As ASDAs require new decision making rules, traditional procedures of the public sector are modified. Tendering regulations make public decisions more transparent. Public money should be spent on clearly defined purposes, so that there is greater chance for public control. This will also increase the accountability of elected bodies.

Very often alternative service production is used for sectors with high capital needs. Lack of public funds for long term investments raises the need for other sources of financing. Capital projects need additional sources which can more easily be raised in the private sector. If capital investment projects are separated

from other elements of public activities and potential sources of financing of the investment can be controlled, then more capital will flow into that service.

There are other minor positive consequences of ASDAs and modified procedures on other aspects of services. For example, performance indicators and planned levels of services will be more precisely defined. This will support public decisions, as the relationship between the administrative staff and the elected bodies will be more balanced. Operation of councils and representative bodies will be less dependent on the administration.

In each Central European country the traditional methods of public service delivery have to be renewed. Public sector reform is a fundamental requirement of economic development, as no large public expenditures under the former organizational and management systems can be financed. In this long process of reforming deeply rooted public services, alternative service delivery arrangements play a key role. First, they work as substitutes to the traditional public services. These service mechanisms also provide alternative solutions of service management for the public sector which are under heavy fiscal stress. Restrictive fiscal policies cannot be implemented without introducing new and more efficient forms of service delivery.

#### *Arguments Against ASDA*

The most frequent argument against ASDAs is the lower safety of public services. The client public body will lose direct influence over the service producer. This factor can be counterbalanced with various techniques in a properly designed tendering and monitoring procedure. The service area can be divided among several equal contractors. Performance bonds might be required and continuous control over the service producer might help to avoid bankruptcies.

Some costs might be increased when alternative service delivery arrangements are introduced. Tendering, monitoring of the service or potential modification of the service may require additional funds which will be a new burden on the service provider. These additional costs should be compared with savings on service expenditures and the achieved higher level of services.

Any contracts with non-public service producers will have an influence on the client's assets. This deterioration of machinery and equipment is a real loss for the client and should be planned in the process of introducing ASDAs. There are some methods which help to decrease these losses. These include rent or the lease or sale of these assets by the future contractor.

Organizational and managerial conditions are very important for introducing alternative methods. Administrative changes and adaptation of new procedures in

planning and decision making of services requires sustained efforts both among elected politicians and the public employees.

In the voluntary sector there are some factors which hinder the development of these organizations. The inefficiency of these services, particularism and the lack of professional skills are the known problems of this sector.

All of the arguments for and against these service delivery arrangements should be carefully measured and the balance of these factors must be evaluated in each individual organizational form and in every sector. At the current stage of public sector transformation of the civil society, there is a real need for new service delivery mechanisms which provide alternative solutions to the old unmanageable problems.

### **Conclusion**

This chapter has examined the issue of alternative service delivery methods for the delivery of public services. This is a central issue of the transition in Central Europe as new relationships are developed between the public and private sector to provide the level of services required, but in a more efficient and cost effective manner. Several approaches and methods for the delivery of public services have been outlined here and examples provided of their use in other countries. This is an area of public finance needing additional research and investigation to determine if these methods are providing the level and quality of service for the cost.

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1 Types of ASDA are described by Cointreau-Levine, 1994, ICMA, 1989, Kessides, 1993, Savas, 1987.

2 This definition is based on Salamon, 1994.

3 LGTB, 1989: *A Local Authority's Options for Service Delivery*. Local Government Training Board, Luton, UK

4 Based on Savas, 1987 and World Bank, 1994

5 Based on Batley, R., 1992: *Cooperation with private and community organisation*. DAG, INLOGOV, University of Birmingham



## **Case Study: The 1% Laws in Hungary and the Czech Republic**

*Gabor Peteri*

### *1. Private discretion on 1% of Personal Income Tax for public purposes in Hungary*

Personal income tax (PIT) is the second largest revenue item in the national budget. According to the estimates for 1996, 480 Billion Hungarian Forints (2.8 Billion USD) will be collected by the tax administration. From 1997, individual taxpayers will have the right to allocate 1% of their actual paid PIT to specific public purposes. This new law on tax allocation will provide additional sources for non-profit organizations. The Free Democrats (a liberal party in Hungary who initiated this legislation) emphasize that an additional advantage of this law is that it will give greater say to individual taxpayers in influencing public spending.

The act on tax allocation defines the strict criteria for the public purposes and organizations which are eligible for these donations.

1. public activities and religious education, registered for more than three years;
2. non-governmental organizations (excluding political parties and lobbying organizations), foundations which have been registered for more than three years with defined activities for more than a year;
3. public foundations;
4. selected national museums and cultural institutions;
5. the Hungarian Academy of Sciences;
6. government funded programs (e.g. for technical innovations, academic research, adult education); and
7. theaters, museums, cultural institutions, granted by local governments within the last three years.

Preferred activities for items 2 and 3 are health care, welfare, education, culture, research; assistance to children, youngsters, elderly, and the disabled; grants to national and ethnic minorities; environmental protection, youth protection, traffic safety, civil rights, public order, and child and youth sport as well as sport for the disabled. These organizations and foundations should be politically neutral. That is, they do not get any support from political parties, they did not support any Parliamentary candidates and have no public debt (national and local taxes, social security fees, duties).

One percent of PIT is administered with the annual tax declaration. These transfers are very carefully managed. A coding system allows only the tax authority to combine the information of the taxpayer with that of the selected organization. The estimated administrative costs are 5% of the potential transfer. The recipient institution is expected to publicly report on the use of its transfers.

This act was discussed in detail by the Parliament and by the Hungarian public. The strongest argument against the 1% PIT transfer was that only large organizations will benefit, as they have resources to advertise. The expected revenues for national museums and cultural institutions are very low, compared to their budgets. The Catholic Church, the largest religion in Hungary, was also an opponent of the transfer law. The argument used by the Catholic Church was that they were concerned that they would receive a lower national budget grant if they received a significant amount of transfers.

## *2. Transferring 1% of funds accumulated in state privatization*

Since 1991 the Czech government set aside 1% of privatization revenues for the non-profit sector. Due to political discussions they were not able to allocate this amount to NGOs until 1996. At this time the government proposed three methods for distributing the 66 million USD:

*flat distribution:* this simple method allocates equal sums of funds to each existing foundation. This option is not seriously supported by any parties, as it would provide only small amounts to the non-profit organizations;

*selecting a number of foundations:* only a limited number of foundations would receive the funds which would create new conflicts, as the entire NGO sector is eligible for these funds;

*decentralizing the allocation:* one or several new foundations would be established to allocate the available funds for the non-profit organizations. The tricky part of this proposal is how the boards of these foundations will be set up, and how they will resist political pressures from the parties.

*Source:* NGO News, No. 6, Spring 1997, The National Forum Foundation

### **Questions for Discussion:**

1. What effects do you think the Hungarian law will have on promoting the development of NGOs?
2. Compare the Hungarian and Czech Republic approaches to promotion of NGOs and identify advantages and disadvantages of each.
3. Over the longer term, which approach do you think will have the most impact on promoting and developing NGOs?

## **CHAPTER 11: LOCAL GOVERNMENT ISSUES**

### *Soða Èapková*

Public finance theory suggests that decision making should occur at the lowest level of government consistent with the goals of allocational efficiency, reflecting economies of scale and benefit-cost spillovers. Decentralised decision making enlarges the possibilities for local participation in development. Fiscal decentralisation can contribute to a more efficient provision of services by matching expenditures more closely with local priorities and preferences.

In transitional countries the intrusive role of national governments has started to be replaced by an emphasis on the assignment or allocation of responsibilities for expenditure and taxation. Local authorities have been given general responsibilities for public functions, new property rights and the right of self-government through elected representatives. It is obviously easy to put these ideas in constitutions and laws but it is very difficult to turn general rules into detailed regulations and to implement them.

The purpose of this chapter is to review key elements of local government finance. The first part introduces the decentralisation of responsibilities for revenue and expenditure to local government. The following parts deal with the main sources of local government funding and their principles as well as the roles of the local finance system. Special attention is paid to the role of local government finance in economic development. The final part covers local government cash management.

### **The Context of Local Government Finance**

The economic analyses of local government finance usually covers the three traditional branches of public expenditure - the allocation, the distribution and stabilisation functions. However, because of the characteristics of local government there is a tendency to pay special attention to the allocation function. Local authorities are entrusted with the provision of certain public goods. This enables local electorates to influence the mix of local taxes and services, thereby promoting a more efficient allocation of resources and encouraging cost containment at the local level.

The key issue here concerns the optimal degree of decentralisation of public sector decisions. The traditional argument for the decentralisation of functions to lower levels of government is based on the fact that some public services are of a purely local or regional nature.

The other arguments in favour of decentralised government can be summarised briefly.

Residents of different localities will generally prefer different types and mixes of public services. A decentralised government may be better informed about the needs of individuals or communities and therefore be more responsive to these needs.

Local citizens/taxpayers will be able to express their preferences by voting for different tax/benefit packages at the local level.

If the residents are relatively mobile, they should be free to move to jurisdictions which best satisfy their preferences. In such a way, households and firms can migrate to localities with the desired tax/benefit packages.<sup>1</sup>

The administrative efficiency in the provision of certain services may be improved. Lower level provision is likely to be less costly because administrative overhead is likely to be lower and because agency and monitoring costs are likely to be lower.

The decentralisation issue in fiscal federalism is referred to as the assignment problem - assignment of taxation, expenditure and responsibilities to various governmental levels. (Musgrave and Musgrave 1976) Assignment of responsibilities to local government can be based on various considerations such as economies of scale, economies of scope (appropriate bundling of local public services to improve efficiency through information and co-ordination of economies and enhanced accountability through voter participation and cost recovery), cost-benefit spillovers, proximity of beneficiaries, consumer preferences and budgetary choices on composition of spending. (Shah 1994) The responsibilities of various local governments reflect population size, their rural or urban classification, and fiscal capacity criteria.

Responsibilities for public services of a purely local nature (for which political proximity is essential and economies of scale and significant cost-benefit spillovers are not a major consideration) are usually decentralised to local governments regardless of their size or financial capabilities. (Break 1973, Hirsch 1964) Examples of such services include fire protection, police protection, refuse collection, street maintenance, local libraries, local transport, primary education, local parks and recreation. In services where economies of scale and scope exist, cost-benefit spillovers can be serious and political proximity is important (such as transportation, water supply, sewage treatment, public health, hospitals, regional planning, regional parks) these are provided by metropolitan or regional governments.

The degree and form of decentralisation of various tax and expenditure decisions depends upon the political, economic and institutional characteristics of the country as well as the role that local governments assume. However, an assignment of functions depends upon value judgements and empirical consequences that are difficult to verify

The trend to decentralise the expenditure and revenue functions of government in transition countries is often accompanied by a process where the determination of spending responsibilities of local government precedes the question of how resources will be generated to pay for the spending. In order for decentralisation to be successful both spending and revenue assignment must take place at the same time.

The wider the scope of local responsibilities, the higher the share of total public revenue that needs to be assigned to local governments. There is no universal model of local government finance applicable to all countries. However, The European Charter of Local Self-government has established the following principles of local government finance<sup>2</sup>:

“Local authorities shall be entitled, within national economic policy, to adequate financial resources of their own, of which they may dispose freely within the framework of their powers.

Local authorities’ financial resources shall be commensurate with the responsibilities provided for by the constitution and the law.

At least part of the financial resources of local authorities shall derive from local taxes and charges of which, within the limits of statute, they have the power to determine the rate.

The financial systems on which resources available to local authorities are based shall be of a sufficiently diversified and buoyant nature to enable them to keep pace as far as practically possible with the real evolution of the cost of carrying out their tasks.

The protection of financially weaker local authorities calls for the institution of financial equalisation procedures or equivalent measures which are designed to correct the effect of the unequal distribution of potential sources of finance and of the financial burden they must support. Such procedures or measures shall not diminish the discretion local authorities may exercise within their own sphere of responsibility.

Local authorities shall be consulted, in an appropriate manner, on the way in which redistributed resources are to be allocated to them.

As far as possible, grants to local authorities shall not be earmarked for the financing of specific projects. The provision of grants shall not remove the basic

freedom of local authorities to exercise policy discretion within their own jurisdiction.

For the purpose of borrowing for capital investment, local authorities shall have access to national capital markets within the limits of the law.”

Clearly, the amount and regulation of local government revenue depends on the distribution of responsibilities among government levels. Generally, four sources of local government finance are available: taxes, non-tax revenues<sup>3</sup> (predominantly user chargers), grants and borrowing. Table 1 gives the percentage of each of these sources in European countries.

Table 1  
Sources of Local Government Funding

Country	Excl.local taxes	Fee charges	Transfers	Borrowing	Other
Albania	2,50	3	94	0	0,50
Austria	15	19	35	8	23
Belgium	32	5	40	13	10
Bulgaria	1	10	78	2	9
Cyprus	25	33	30	12	0
Czech Republic	16	12	45	11	16
Denmark	51	22	24	2	1
Estonia	0,10	0,90	91	2	6
Finland	34	11	31	3	21
France	36	2	26	10	26
Germany	19	16	45	9	11
Greece	2	22	58	6	12
Hungary	4	8	66	4	18
Iceland	12	16	53	5	14
Ireland	18	10	57	2	13
Italy	18	11	38	9	24
Latvia	6	1	68	0	25
Luxembourg	31	29	37	3	0
Malta	0	0	98	0	2
The Netherlands	5	13	60	19	3
Norway	42	16	33	7	2
Poland	21	7	60	0	12
Portugal	20	19	38	6	17
Romania	5	16	79	0	0
San Marino	0	0	31	69	0
Slovakia	10	9	39	5	37
Slovenia	5	9	67	1	18
Spain	31	16	37	10	6
Sweden	61	8	19	1	11
Switzerland	46	24	18	3	9
Turkey	7	1	56	0	36
United Kingdom	11	6	77	0	6

Source: Report by the Steering Committee on Local and Regional Authorities on local finance in Europe

Current revenue generally comes from non-tax revenue, taxes and grants. Only on occasion do local authorities use loans to finance current spending. There are sound reasons to avoid using loans in this way for they can lead to overspending as they tend to result in some of the burden of the spending enjoyed by today's citizens being passed on to tomorrow's citizens. (King 1996) Borrowing as well as capital financing are further examined in the section on debt financing.

### **Transfers to Local Governments**

There is practically no country where state transfers to local budgets do not exist, although the amount and purpose of these grants vary from one country to another. The amount and regulation of transfers depends on the distribution of responsibilities among government levels and on other government revenue sources. From the public finance perspective, the literature of fiscal federalism<sup>4</sup> suggests several economic rationales for intergovernmental transfers:

#### *Addressing Vertical Fiscal Imbalances.*

In most countries the national government retains the major as well as the most elastic and productive tax bases, leaving insufficient fiscal resources to the local governments in which expenditure responsibilities are greater than the tax revenue assigned (static imbalance). Moreover, expenditure responsibilities of local government grow with the economy quicker than tax revenue (dynamic imbalance). Intergovernmental transfers are therefore needed to balance the local budgets.

#### *Restoring Horizontal Fiscal Balance.*

Citizens in different jurisdictions making the same tax effort should be able to receive the same per capita expenditure (the same level of services) provided by local government. Similarly, local governments with different tax capacities but with the same tax effort should be able to enjoy the same per capita revenue in order to provide the same level of service

#### *To Guarantee the Provision of Goods.*

The national government should maintain a minimum standard of public services which are considered necessary from a social standpoint or are felt to be in the national interest. Regions without sufficient resources to reach this minimum level should be subsidized. Some jurisdiction may have better access to natural resources or other tax bases that are not available to others. Some jurisdiction may have extraordinary expenditure needs for reasons such as having large populations of poor, old or young citizens. Grants may be necessary to compensate local



authorities to meet their varying needs either because of the number of needs in their area or because of the costs involved in meeting those needs.

*Neutralisation of Externalities or Interjurisdictional Spill-over Effects.*

Some public services have spill-over effects (or externalities) on other jurisdictions. Examples include pollution control, higher education, city public transport, tourist promotion. etc. Spillovers usually occur because the benefits of a locally provided service spill beyond the local jurisdiction to benefit those not contributing to the costs and because non-residents also enjoy services provided. Without reaping all of the benefits of these projects local governments tend to underinvest in such projects. Therefore the central government must provide incentives in the form of financial resources to address problems of underprovision. Intergovernmental transfers are often the most practical means of alleviating the inefficiencies of spillovers.

*Contributing to Stabilisation and Economic Growth.*

Local governments contribute to the stabilisation function through policies aimed at developing local employment and carrying out programmes with redistributive effects (see the section on economic development). Local government financing helps to improve productive infrastructure and the labour supply. The central government often wishes to encourage such development or wants to compel local authorities to provide such services.

*Macroeconomic Objectives.*

To the extent that macroeconomic effects must be implemented only centralised measures are suitable.

Some publications on intergovernmental transfers suggest that an effective transfer system should satisfy several criteria (see for example Shah 1994):

*Revenue adequacy:* the local authorities should have sufficient resources from the transfers to undertake the designated responsibilities

*Local tax effort and expenditure control:* ensuring sufficient tax effort is needed. Effective transfers should not encourage overspending or discourage local tax effort.

*Equity:* transfers should vary with local fiscal needs and inversely with local fiscal capacity

*Transparency and stability:* the formulas should be announced and each locality should be able to forecast its total revenue including transfers to prepare a budget.

The formulas should be stable for at least a few years to allow for long term financial planning at the local level.

### **Types of Intergovernmental Transfers**

There are basically two types of grants: conditional and unconditional. (Cullis and Jones 1992, Shah 1994)

Conditional grants are sometimes called specific purpose grants or categorical grants. The central government specifies the purposes for which the recipient government can use the funds. Such grants are often used to reflect the interjurisdictional spillovers as well as to address concerns that are very important to the centre but are considered less so by local government. Conditional grants can come in the form of matching or non-matching grants.

In the case of matching grants the central government agrees to match a certain proportion of the expenditure of the local authority, e.g. central government may pay  $x$  percent of the total cost of providing a service at the local level. Otherwise, for each unit of money given by the grant to support a particular activity a certain sum must be expended by the local government. Matching grants may be open-ended or close-ended.

With open-ended grants no limit on the total subsidy or total expenditure is set and the amount of grants depends upon local government behaviour. Open-ended matching grants are suited for correcting inefficiencies in public goods provision arising from benefit spillovers or externalities. Spillovers can be corrected by subsidising the provision of the service to the amount determined by the benefit spillout ratio. Open-ended matching grants also may stimulate local government expenditure on areas with high national but low local priority.

Close-ended matching grants are provided by setting a ceiling on the amount of the grant, i.e. the maximum sum which will be contributed is specified. This mechanism is used by most countries due to concerns with budget control. However, if such grants result in a significant transfer of resources, they may cause inefficiencies. (Shah 1994) The reason is that these grants are often available for a few activities causing overspending on some functions.

Matching grants can correct inefficiencies from spillovers, and are generally more successful than non-matching grants in stimulating local expenditure on a particular good or service. They do not, however, address uneven or inadequate fiscal capacities among local governments.

Non-matching grants may be either conditional or unconditional. In the case of non-matching conditional grants the central government offers a fixed sum of money with the stipulation that it will be spent on a specified public good. The

grant is not proportional to local expenditure and it is usually calculated according to parameters related to the service to be financed. They are used for activities considered to be high priorities by the central government but low priority by local governments. This may involve ensuring minimum standards of services across a country.

An unconditional grant places no restriction on the use of funds. The main justification for unconditional grants is that these grants can be used to equalise fiscal capacities of different local governments to ensure provision of a minimum level of public services.

In some countries unconditional equalisation grants take the form of general revenue sharing. Two types of revenue sharing are basically used.

Derivation type, where a percentage of the total revenue of a particular tax is distributed according to the tax yield collected in each locality.

Non-derivation type, where a percentage of the total revenue of a particular tax is distributed according to the population and/or other criteria.

If the central government pays a large proportion of local costs it is likely to feel justified in laying down the rules about how this money should be spent. Budgetary responsibilities are smaller, control of central government is easier. The proportion of transfers of total local government revenue in European countries is shown in table 1.

### **Local Taxation**

The decentralisation of expenditure responsibilities implies an argument for decentralising tax responsibilities as well. The question of tax assignments by local government has been discussed by many authors, because if decentralisation improves the allocation of resources on the expenditure side there must be resources available to local jurisdictions to carry out the expenditure responsibilities.

#### *Tax Assignments*

The most common method of tax assignment is to provide some taxing power to local jurisdictions and, if necessary, to complement the revenue raised locally with grants from the national government.

One of the other reasons for giving local government a degree of fiscal discretion is to encourage local accountability. The argument for fiscal accountability is especially valid to the extent that local authorities must finance their expenditures out of their own sources of revenue. Local accountability requires that the revenue

consequences of locally determined expenditure increases should be passed on to local electorates either through taxation or user charges.

This process would seem to be facilitated if local governments have their own tax resources and are able to fix their tax rates by reference to the level of public services demanded by their constituents.

There are various ways in which tax assignment can occur. (King, David 1992) One is by assigning particular tax bases to local government and allowing them to decide how much to exploit them. This form not only entails local decision making but also local collection and administration of the tax. A weaker form is when tax bases and their rates (in some cases within limits) are assigned to local government, but the collection and administration are done centrally. This is the case for local income and sales taxes in many American states.

Tax bases may be jointly occupied by state and local governments. This may take two forms:

- *Local surcharging*. Local and central governments share the same tax bases, but levy different tariffs. The state may be responsible for the administration and tax collection by itself and local governments may be responsible for determining the tax base and possibly the rate structure. Local governments then simply determine the level of taxes collected by applying their own tax to the state tax liability<sup>5</sup>. This form is sometimes referred as local surcharging or overlapping taxes. This applies to personal income tax in Belgium, Denmark, Finland, Norway, Sweden, Switzerland as well as in Japan and some parts of the USA. This form of taxation applies to corporate income in Finland, Italy, Norway, Portugal, Spain and Switzerland.
- *Revenue sharing*. Local and central governments share the same tax bases but there is only one tariff and one rating authority. Under such tax sharing arrangements local governments are automatically attributed a fixed percentage of the overall tax receipts within a country. These shared taxes cannot fulfill the role of a direct link between local spending and revenue decisions, since an increase in the expenditure of a particular unit of local government has no direct impact on the taxes paid within that local authority.

Own source taxes or overlapping taxes are levies over which local authorities have some direct control. These taxes provide a direct link between local spending and revenue decisions at the local level. At the same time there are some disadvantages to it. One of the more important involves interjurisdictional spillovers. Public goods and services provided in one locality may generate benefits for the residents of neighbouring localities. Consequently, jurisdictions would systematically underprovide those goods which have positive spillovers and overprovide those with negative spillovers.

As mentioned above, revenue sharing means allowing local authorities the right to a share of the yields of certain national taxes. A country can have several shared taxes with different percentages for each going to local government. Among the best known examples of tax sharing are those in Austria and Germany, which cover the central government, the states as well as the municipalities. Shared taxes exist in other countries (Belgium, Bulgaria, Czech Republic, Hungary, Latvia, Poland, Slovakia) and in most cases the local authorities are free to use them as they wish.

The assignment of taxes to a local jurisdiction must take into account several considerations. First, the importance of the objectives (other than raising revenues) being pursued through taxation. Second, the mobility of the tax base: if a tax base can easily escape taxation at the local level by moving to another jurisdiction, this is not an appropriate local tax. Third, this consideration involves economies of scale, e.g. informational requirements, technical requirements, administration requirements.

Both efficiency and equity factors influence tax assignment. Efficiency would suggest decentralising taxes applied on non-mobile bases which serve allocative purpose. Equity should consider to what extent are burdens imposed on those who can best afford them or on those whose behaviour generates costs which must otherwise be borne by others.

Ideally local government revenue should include some taxation over which local authorities have discretion. This discretion is important in giving local representatives some margin of choice over the size of municipal budgets and making them answerable to local taxpayers for these choices and the use of their money.

Local authorities cannot do much about their tax bases. What local authorities can really manipulate are the tax rates. Almost all local authorities are subject to limitations on the choice of tax base for local taxes. National legislation usually defines which local taxes shall be levied and how they should be assessed and collected. Local authorities have discretion in deciding the tax rates. However, many local governments are also subject to limitations on the determination of the rates of these taxes, even if they are responsible for the assessment and collection of the tax. Even when local authorities have some discretion over their tax rates, central governments tend to set limits on the rates that can be levied, and they generally specify a number of concessions or reliefs that must be provided.

Table 2 provides an overview of local government discretion on exclusive local taxes in Europe.

Table 2: Local exclusive taxes in Europe

Countries	Real estate tax	Personal income tax	Tax on trade	Household tax	company tax
Albania	● ■		● ■		
Austria	● □		● □		● □
Belgium	○ □	○ □	○ □	○ □	○ □
Bulgaria	● ■	● ■			
Cyprus	□	○	□		● □
Czech Republic	●				●
Denmark	● □	● □			
Estonia		○ □	○ □		
Finland	● □	● □			● ■
France	● □			● □	● □
Germany	□		□		□
Greece		■			
Hungary	○ □		○ □	○ □	○ □
Iceland	● □				
Ireland	● □				
Italy	● □		● □		● □
Latvia	● □	● ■			
Luxembourg			● □		
The Netherlands	○ □				
Norway	○ □(1) ● □(2)	● □			
Poland	● □				
Portugal				● □	
Romania		● □			
Slovakia	● ■				
Spain	● □		● □		● □
Sweden		● □			
Switzerland		○ □(3)			
Turkey	● ■				
United Kingdom	○ □				

- Mandatory tax
- Non-mandatory tax
- Municipality is free to determine the tax rate
- Municipality is free to determine the precise rate within a given band established by the state
- Tax rate is established by the state
  - (1) Property tax
  - (2) Wealth tax
  - (3) As a rule, municipalities are free to determine the tax rate, but there are exceptions

Source: Report by the Steering Committee on Local and Regional Authorities on local finance in Europe

*Principles of Local Government Taxation*

Criteria for a 'good' local tax need to be applied only to the total bundle of local taxes and need not apply fully to each individual tax. There are many criteria which can be applied in selecting good local taxes.

A local tax should be judged by the same criteria as any other tax. It should not contradict national social policy objectives concerning resource allocation, distribution and stabilisation. If aimed at individuals, it should follow the ability-to-pay principle and it should be inexpensive to collect for both the government and taxpayer<sup>6</sup>.

The other specific criteria for local taxes are grouped into two categories<sup>7</sup>:

- Criteria pertaining to vertical relations (local government to upper levels)
- Small revenue fluctuations during business cycles
- Revenue growth proportionate to local economic growth
- Derivation of tax revenue from local tax base
- Making taxes perceptible; balance of interest
- Protection against one-side local economic structure
- Criteria pertaining to horizontal relations (between local governments)
- Distribution of tax potential according to local expenditure needs
- Flexibility of local tax rates

*The Main Local Government Taxes*

There are a wide array of local taxes in use throughout the world. However, with respect to yields being considered, the local authorities rely on local income taxes (personal income tax and to a less frequent extent business income tax) or on property taxes. It is clear from Table 2 that taxes on trade, namely sales taxes, are less frequent.

Income taxes are suitable for piggy backing by the local government. This gives them access to a potentially lucrative tax base while preserving the benefits of a harmonised tax system. Income taxes may have high administration and compliance costs. The administration of a corporation tax could be costly if multi-area firms have to split their profits

As mentioned above a variation of local taxation is local surcharging of national taxes. In this case local governments are usually able to impose a percentage addition to the national tax rates. The major fields of local surcharging in Europe are mainly personal income taxation but also corporate income taxation. The advantages of local surcharges applied to personal income tax to local government include the relative buoyancy of the tax source, the clear identification of the individual taxpayer with a specific place of residence and the direct

connection between the level of the tax and the ability to pay. Surcharging provides the efficiencies of using a single tax administration for both national and local levels.

In the group of locally defined and collected taxes, property taxes (on domestic properties and on business properties) are generally considered to be a good local tax. Reasons to use this tax by local governments include:

- the base of the tax is immovable property that cannot leave the locality
- the rate of tax can be varied between tax authorities without a serious risk of the migration of capital and residents to low-tax jurisdictions
- the tax can sometimes be seen as the application of the benefit principle of taxation to financing local services. The burden falls mostly on users of local public services, tax exportation is limited.
- providing that the tax base is correctly defined the connection between the costs of local services and the value of the building or land is easily understood. Moreover, the differences in property value are apparent so that the tax burden is clearly comparable by the owners
- it is clear which local government is entitled to tax each property
- the yield is relatively predictable and stable, because the stock of immovable property changes only gradually from year to year providing a reliable instrument for fiscal policy
- the tax is highly visible and immovable, it is difficult to evade.

There are several key issues with local property taxes that must be addressed. First, it must be decided what the tax base is, who will do the assessment and who will collect the tax. The tax base may be based on annual values or capital values (in some countries square metres). Countries tend to use the alternative for which there is the most available data.

The importance of property taxation to local governments varies enormously between European countries. It is the most important local tax base in many of them but of declining significance elsewhere. The major problem with local taxes are assessment and the lack of a close connection between assessed property value and the incomes from which owners or occupiers have to pay in tax. On the other hand, it is argued that differences in property tax rates between jurisdictions do not induce important interjurisdictional displacements of tax bases, because the supply of property in a given jurisdiction is inelastic. It is also argued that local property taxes make it possible for each local government to decide its own tax policy and to offer packages of taxes and services (higher taxes and higher service levels or low taxes and low service levels) - if local taxes play a key role in the financing of local public services. (King 1984)



When the principles of local taxes are discussed in the theory of fiscal federalism it is usually assumed that local taxes are levied on citizens or private households, not on businesses. To keep the authorities interested in both businesses and households some authors suggest the inclusion into the local tax mix of a business tax<sup>8</sup>.

Local taxes on business activity are important in a number of countries. Examples include the Austrian and German Gewerbesteuer, originally based on the threefold base of business capital, payroll and profits, the French Tax Professionnelle based on a combination of rental value and payroll, and the Hungarian local tax on turnover (now net of purchased material costs). However, these taxes are highly controversial. Criticisms include the distortions to trade of different tax rates, the lack of connection to net corporate income and the unequal distribution of the tax base where there are many municipalities. This shows that whereas it is rather easy to establish a local tax on people (be it separate local tax like a property tax or a shared tax like an income tax) it is much more difficult to establish a local business tax.

Local taxes on business should have or at least include a tax base other than on profits. This will help to ensure that local tax revenues do not fluctuate too much over periods of boom and recession. Business tax on profits also result in very large differences between economically well-off communities and those which are less well-off.

The other problem stems from multi-unit firms with subsidiaries in several municipalities, which means that the tax base of such a firm has to be broken down between the different communities. This is quite easy to do with a local property tax, because parcels of property are usually clearly defined. However, if profit, assets or value added is chosen as the tax base then the breakdown becomes much more difficult.

### **Tax Competition**

In all countries the disparities in unemployment rates and income levels among regions make local authorities take actions for enhancing the attractiveness of their area to new eligible firms and to protect existing enterprises and to ensure higher growth rates than it would have otherwise (this issue is discussed more deeply in the section on economic development). In an attempt to attract new businesses into an area or for fear of driving existing businesses away, local governments may try to keep tax rates below those needed to secure efficient levels of services. Local authorities are seen as taking part in a tax competition for businesses and often provide suboptimal services as a result.

In the U.S. where there have been changes in the location of economic activity in the past 50 years, industrial plants, office buildings, shopping centers and housing in the older economic centers with very high property taxes have been abandoned on many occasions, and the owners have built new facilities in places with low property taxes.

The decentralisation of tax responsibility can involve the distortion of the allocation of mobile factors. This can arise because different local governments choose individually to levy different tax rates and factories/businesses will tend naturally to locate in the locality with the lowest tax rates.

These sorts of distortion will be less on taxes levied on less mobile factors such as real property. Individuals will be much less mobile among jurisdictions than capital, though more so than real property.

It has been suggested<sup>9</sup> that the taxes most likely to be used for competition are a payroll tax, a corporation tax and taxes on expenditures because these taxes represent significant costs to businesses. In the U.S. local governments frequently compete for new business investments by offering special property tax reductions. This is mainly because the property tax is the municipal form of taxation most widely used by local governments in American cities.

It should be mentioned that some studies concluded that state and local tax differentials seemed to have little effect on business location. The limited effect arose partly because businesses are influenced by more important factors than differences in taxes<sup>10</sup>. However, the most recent studies in the U.S., which incorporate better data and improved analytical methods, conclude that state and local differentials do have measurable effects on location decisions.

Competitive pressure may induce a certain amount of similarity among tax rates across jurisdictions. Even so, tax competition can itself result in a less than optimal situation. Tax competition may take the form of beggar-thy-neighbour tax policies designed to attract factors of production from neighbouring jurisdictions. If all jurisdictions engage in it, the result may be a similarity of tax bases which are not sufficient to ensure efficiency. An appropriate solution would be to select taxes that impinge least on businesses and are therefore least likely to be used in tax competition or to control the extent to which local governments could attempt to attract industry with low tax rates since this might result in the provision of services at suboptimal levels.

### **Borrowing**

Borrowing is one of the most potent activities in local government financing, mainly in capital financing. Capital development can rarely be covered by current

revenues and grants. Public finance theory suggests that current spending should be covered by current revenue while capital expenditures should be financed through borrowing and other capital revenues. (King 1984, Musgrave and Musgrave 1976)

*Capital Financing*

Capital financing (investments) means the raising of funds for improvement to facilities owned by municipalities that transmit goods and services (such as roads, sewage) or facilities that function as origins to provide municipal services (such as sewage treatment plants, etc). It is particularly interesting to examine the relative importance of local government investments. For this purpose local government capital expenditure is assessed in relation to total local government expenditures and to gross domestic product. Table 3 shows the values concerning the ratios of local government capital expenditure over total local government expenditure and over gross domestic product in five Central European countries.

Table 3

Local government capital expenditure in relation to total local government expenditure and GDP in 1993

Ratios	Czech Republic	Slovakia	Poland	Hungary	Bulgaria
capital expenditure/ total expenditure	35	34.1	25	17.9	8.2
capital expenditure/ GDP	3.4	1.7	1.5	3.3	0.6

Source: State Budget Support to Local Government 1994

Capital financing is normally associated with the creation of long-term assets which can rarely be completed within a short time. The expenditures on such long-lived assets are usually very expensive. Local government capital spending can be financed from these major sources:

- current revenues from a local governments own sources
- government investment grants
- external borrowing from loans or stock and bond issues
- hire-purchase/contractor finance

### *Financing from Current Revenue*

Local government capital financing usually comes from currently collected recurrent revenues (taxes, fees charges, etc.), asset sales, or accumulated funds in carryover balances from previous fiscal years.

The relatively small amount of revenue available after covering operating expenditures in most local governments has caused the decline in importance of recurrent revenues in capital spending. Furthermore, accumulating funds in the form of growing fund balances postpones the receipt of the benefit of the expenditure and also requires political discipline that can seldom be sustained.

### *Contractor Finance*

Some suppliers lease rather than sell equipment and premises against a regular rent. Such deals tend to be more expensive in cash terms than outright purchase or payment. However the contractors may provide other services such as repair and maintenance or operating expertise which offset this added cost. Leasing may allow a municipality to avoid obsolescence, particularly where technology is changing rapidly

A further variation of contractor finance is concession procurement (known as BOT - build, operate and transfer). Under such contracts commercial companies construct an income earning facility such as a water supply or a heating system and operate it directly until they have recouped their capital outlay from the operating revenues. At the conclusion of this period, specified in advance, the facility transfers to direct management by the municipality

### *Debt Financing*

Borrowing is considered to be the natural or best way to finance capital expenditures, because the investment may generate revenue from the sale of goods and services which can repay the loan as well as meet operating costs. Capital spending benefits people for years to come and repayments and the interest on the loans will be paid from future taxes using recurrent revenue surplus to debt service rather than for direct capital expenditure which accelerates the rate of investment

By law, local governments have been given the possibility to incur debt to finance long-lived assets. It does not mean that there is not a danger of excessive debt burden on public finance. There are several reasons to limit local government borrowing. It may be controlled for macroeconomic reasons. If local authorities borrow more and spend more, then their extra spending will add to aggregate demand while their extra loans will do little to reduce it. Thus, there may be an

appreciable rise in aggregate demand. (Local Finance in Europe 1996) Borrowing controls may also be imposed on local authorities to ensure that they do not borrow more than they can afford to repay.

The U.S. experience has shown that the frequency of financial difficulties associated with debt financing can be limited by clear restrictions on the amounts local governments can borrow and with well defined procedures for borrowing combined with market discipline; the risks are minimized.

In some countries the access to capital markets by local governments is free, i.e. local governments are free to borrow or issue bonds under the same conditions and control as any body acting in the capital market. Few countries in Central Europe have laid down rules for such access. For example, in Poland municipal debt levels are regulated by the Act on Local Finances which says that burdens coming from annual debt payments cannot be larger than 15 percent of total planned revenue. (Swianiewicz 1996)

Local governments use several different techniques and types of debt instruments. In principle, there are three common sources of municipal borrowing:

- loans from commercial or public banks
- issues of bonds or stock
- mortgages on municipal fixed assets

There are several issues to be considered in making loan agreements with external bodies and the local authorities portfolio of borrowing (Capkova and Davey 1996):

- the length of the loan and the basis for repayment
- the security attached to the debt
- the interest rate

A decision by a municipality to borrow has to be based upon an assessment of its capacity to service debt. If the loan is self-liquidating , i.e. for a direct income earning investment, the concern is for the viability of the scheme and its potential rate of return. If an investment is not directly revenue earning, repayments of capital and interest will have to be financed out of general revenue.

There are several methods of repaying loans. The annuity method involves equal installments through the life of the loan, combining repayment of capital and interest. In another method interest only is paid during the life of the loan and the capital is repaid in full at maturity. The latter method is associated with bond issues. In between there is a method combining payments of capital and interest.

Municipal borrowing is normally secured by a lien on municipal assets or revenues. There are three common types:

- a lien on fixed assets, this may be appropriate where a loan is used to finance a capital asset which generates revenue and can be taken over by a lender in lieu of repayment
- a lien on government block grants or tax shares, this should normally only apply to lending by a central government fund or institution, i.e. permitting the lender to recover a loan at source
- a lien on direct municipal revenues, this would allow the lender to take tax money or other revenue of the municipality as soon as it is collected

Interest rates on borrowing from the capital market are dictated by prevailing market conditions; but varying also with the perceived creditworthiness of the individual borrower. Whether it is better to borrow on fixed or variable interest rates depends partly on what the market offers and partly on a prediction of future interest rates. A fixed rate may be preferable if rates are likely to rise. A variable rate would be preferred if rates are likely to fall.

Municipal bond/stock issues are useful where adequate long term credit is not available from banks and can also exploit local pride by tapping private savings which do not otherwise flow into investment channels. The main advantage of bonds is that they are a flexible and relatively easy means of raising money from the general public potentially at lower rates than through other finance means. However, the process of issuing bonds involves substantial administrative costs which are proportionately heavier on smaller issues. The banks and other credit institutions offer marginally lower interest rates both through spreading the risk between municipal borrowers and by saving administrative expenses through bulk borrowing from the capital markets.

If the market is able to impose discipline on borrowing by local government or if the national government never intervenes if local government get into trouble then borrowing by local governments does not contribute to a country's macroeconomic difficulties. Markets, however, have proven unable to discipline borrowing and central governments often assist local governments that get into trouble. There are several reasons why borrowing can create financial difficulties:

- borrowing often gives immediate benefits to those in power while the costs are paid later perhaps by different administrations.
- a lack of good local government budgetary systems to prepare competent projections for revenue and expenditure
- a multitude of ways in which loans can be obtained. Loans may come from the national government, national and foreign banks, the capital market, suppliers and so on.
- a belief that national government will eventually come in and assist

Local government debt is primarily focused to help finance capital development. As such it is a part of the larger question of capital financing, in which several alternative sources should be examined. Because the power to borrow means binding future taxpayers to raise revenues, it must be a decision which is approached with great caution to ensure that it truly serves the interest of the citizens.

### **Economic Development**

Local economic development represents the broadest strategy in which local actors and institutions try to make the best use of local resources to conserve and create jobs and strengthen and promote business activity. This approach attempts to co-ordinate the scattered initiatives undertaken under the two preceding headings. It seeks to improve the conditions and the environment in which such initiatives operate, and to place them within the framework of coherent local policies or strategies. It also tries to influence the behaviour and internal decisions of firms, since in a market economy, business is the driving force for the whole economic growth process.

#### *The Definition of Local Economic Development*

Economic development has no single definition, it means different things to different local authorities. To many local governments, economic development is a means of economic growth in order to increase employment and broaden the local tax base. It may involve a number of activities, including the establishment of new institutions, the development of a new or better mix of industries, the support of new and existing enterprises, to improve the capacity of existing employers, produce better goods and services, identify new markets, and transfer new technologies.

In his book on economic development planning, Edward J. Blakely defines local economic development as “a process by which local government and / or community-based groups manage their existing resources and enter into new partnership arrangements with the private sector, or with each other, to create new jobs and stimulate economic activity in a well-defined economic zone.”

Within this concept local authorities in CEE countries have an important role to play in economic development in their areas mainly because:

- as a result of property restitution, many local authorities are substantial property owners, and manage businesses, giving them a substantial local market presence
- local authorities have discretion over a number of important fiscal instruments and capital assets that can be used to provide direct assistance to new and existing enterprises.

- local authorities also frequently have access to information and extended networks of agencies which can be used to assist new and existing enterprises, and to help attract inward investment.
- local authorities as service providers can frequently support new and existing enterprises through the organisation and provision of a range of local services to ensure that special needs are met.

### *Policy Options*

Activities of local government designed to stimulate local economic development are numerous and vary according to the types of support provided. In general terms, however, they are aimed to :

- Protect employment which is under threat
- Help to generate new employment opportunities
- Increase the productivity of enterprises through enhanced management and workforce skills and access to new technology
- Enhance the attractiveness of the area to eligible firms seeking to relocate or invest

Local governments use a variety of financial tools for local economic development. Given the current economic situation and limited resources the principal tools appear to be:

- fiscal initiatives, principally the use of discretionary local taxes and fees,
- financial initiatives,
- land and property based initiatives,
- business incubators

### *Tax Incentives*

Tax concessions and other incentives that are specific to individual enterprises are likely to be needed only if general conditions in a given local authority are unfavourable to enterprises relative to other places where the enterprises might locate. Priority in policy should be given to general tax and spending policies that favour economic development before specific concessions are tried.

Local authorities usually have the power to offer concessions or waivers on rates of local taxes which they can use as a means for providing support to new and existing enterprises. By reducing the tax bill to local enterprises, local authorities may try to protect existing jobs, fund new recruitment or free up cash reserves, enabling enterprises to fund expansion or invest in new capital. However, the benefits to local enterprises of tax concessions clearly need to be set against the costs of foregone revenue to local authorities and the impact of this on local services.



Local authorities offer tax concessions to enterprises which provide local employment opportunities, particularly for existing unemployed or long-term unemployed persons. Where a local authority ties the grant of a concession to the creation of a position, it needs to ensure that the position will continue to exist for the foreseeable future, thus preventing unscrupulous enterprises from simply creating temporary positions in order to gain the concession.

A further rationale for granting tax concessions is to encourage enterprises to start new business or to undertake investment programmes aimed at increasing their overall productivity and longer term viability.

Local authorities may also consider granting tax concessions or waivers to local enterprises in order to boost their working capital or cash reserves. Such concessions are made in response to short-term problems encountered by the enterprise. They are, therefore, of a temporary nature.

Whatever the rationale for considering tax concessions, it is clear that the case for granting a concession should always rest on a principle of additionality; i.e. that the concession will realise some benefit which would not be realised otherwise. In many cases, demonstrating this is extremely difficult.

The possibilities of attracting economic development via tax incentives are relatively limited, therefore, other mechanisms have been used.

### *Financial Signposting*

Aside from providing indirect subsidies to enterprises through tax concessions, local authorities also play an important role in providing information on other sources of financial support, thus acting as information brokers for interested local enterprises. Information should be collected by local governments on the availability of funds, eligibility criteria, terms and conditions and application procedures

### *Using Property*

How much municipal property should be used to promote local businesses clearly depends on the scale of property owned. Generally, the following options should be considered:

- property as collateral
- property as equity
- rental agreements

Local authorities may provide property as collateral for loans on behalf of local enterprises. Similarly, local authorities offer themselves as guarantors for loans in instances where legal guarantees are required. The use of property or guarantees

carries significant risks and local authorities need to be convinced that there is a minimal prospect of default before proceeding to offer property in this way.

Where an enterprise has a particular property requirement which a local authority is able to satisfy from its own portfolio of property, a related idea is to offer the property in return for equity in the enterprise. With direct equity the local government shares ownership and profits but also shares risk.

In cases where an enterprise has a particular property need which a local authority is able to satisfy from its own portfolio of property, a further alternative is to rent the property to the enterprise. In order to support enterprises local authorities set rents at lower than market rates, or devise payments packages which similarly enable the enterprise to realise cost savings. Another alternative is rent holidays or “staggered” rental agreements to enterprises. Such agreements usually consist of an initial period of months or years in which rent is charged at lower than market rates, but increases in a series of timed stages to reach parity. Rental agreements are in effect a form of rent-subsidy and are most commonly undertaken as a means for supporting new enterprises

#### *Managed Workspace for New Enterprises*

Managed workspaces (business incubators) provide a wide range of initiatives which centre on the provision of suitable land and premises for reasonable rent aimed primarily at helping small enterprises to develop and expand. In addition to providing appropriately sized and flexible accommodation for new enterprises, an important part of the attraction of managed workspaces is that they provide shared resources and management facilities which it would be very difficult for individual new enterprises to afford. A number of such services can be mentioned, e.g. property services such as security, maintenance and repairs, cleaning, administrative services, and common facilities, for example: conference or meeting rooms, reception, warehousing, business services, payroll and invoicing service, and shared equipment including computers, fax machines and photocopiers

Some local activities are clearly designed to allow local authorities some scope for stimulating economic activity in their areas. This raises the issue of whether the local economic development function of local government should be further strengthened.

There are critics who would say that local governments should not play a role in financing economic development for it is widely believed that local authorities have no part to play in the stabilisation function. It must be said that local governments have access to fewer instruments than the central government . If the central government acquires the responsibility of development there is a place for local government . Local government implementation might make it easier to co-

ordinate the incentives with planning programmes and local support can always help.

## **Cash Management**

The management of cash is an essential element of local government financial management. It can be defined as activities aimed to ensure that resources are available to meet current and future payments (and prevent loss), as well as to maximise interest on balances available and minimise the cost of borrowings. Cash management is concerned with the efficient management of cash from the time revenue is raised to the time expenditures are paid.

Cash management enables local authorities to forecast variations in cash balances arising from both reserve accounts and temporary imbalances between levels of revenue and expenditure.

Cash management involves three main processes:

- the management and control of bank accounts;
- the management and control of physical cash;
- the management of cash flows.

### *Bank Accounts*

Local governments usually have a current bank account for income and expenditure and a number of subsidiary accounts for specific purposes which include an investment account and others for specific municipal units.

The organisation of the local government's bank accounts should be reviewed on a regular basis to ensure an appropriate balance between the need to maximise interest on balances and the need to minimise bank charges. Transfers between bank accounts are undertaken to maximise interest on positive balances and to minimize interest payments on credit.

Accounting records should be maintained for all bank accounts. This record lists payments made from the bank account, payments made into the bank account and the estimated bank balance after these transactions have been completed. The record should be reconciled on a regular basis (at least monthly) with the transactions and bank balance shown on the bank statement.

### *Physical Cash*

The majority of local government transactions are based on bank transfers, which are used for paying contractors, with cheques and other non cash payment methods. Only a small number of transactions are made with cash.

Cash transactions usually take place only at a designated cash office, such as the central cashiers office, a local petty cash office, a post office or bank. However, there are some circumstances where cash is collected in person; for example in the collection of service charges.

To guard against error and fraud all cash offices in local governments should maintain a cash book which lists all cash transactions (including cash drawn and paid into the bank) and the expected cash balance. This should be reconciled with the cash on hand. This should be done on a daily basis to confirm that the amount of cash listed in the cash book is the same as that held in the petty cash box/safe.

### *Cash Flow*

Cash flow management is necessary to ensure that resources are available to meet current and future commitments, to maximise the interest of balances and to minimize the cost of borrowing.

The treasurer should prepare cash flow forecasts covering the forthcoming financial year, (showing the cash flow position at the end of each month) and monitor actual cashflows against those forecasts on an ongoing basis, i.e. the process of cash flow management can be broken down into two elements - planning and control.

The planning process involves:

- establishing the local authority's current financial position in terms of bank balances, financial investments and borrowings;
- forecasting the amount and timing of income;
- forecasting the amount and timing of expenditures;
- forecasting the financial position at specified time intervals based on the above;
- planning actions to improve the financial position at these specified intervals, for example, by altering cash flows, obtaining credit, realising financial investments or transferring resources between bank accounts.

The most difficult part of the planning process is forecasting the amount and timing of future income and expenditure. This is because each category of income and expenditure will have a different profile of when it will be received or incurred.

The assumptions on the amount and timing of future income and expenditure may be based on known payment dates (e.g. for wages), previous experience or a standard proportion of the annual budget.

The planning process should result in a long term plan covering the forthcoming financial year. This plan should show the financial/cash flow position at the end of each month and an operational plan covering the immediate future .

The process of control involves:

- replacing forecast cash flows with actual cash flows on a daily basis;
- revising forecasts of future cash flows
- taking actions to improve the cash flow position, for example by deferring payments, transferring resources between bank accounts or obtaining short term credit.

### *Cash Management Function*

Generally, the cash management function is concerned with short term investments. The planning and monitoring of cash flows is the basis for active management of cash balances. These can be invested even for short periods to earn revenue from interest and dividends. This revenue depends on a thorough investigation of the alternative locations for deposits and their respective rates of interest. These depend upon the duration of the deposit, which is guided by the cash flow forecast.

The cash balance forecast is also necessary for covering any temporary cash flow shortages. An estimate of the scale and duration of cash shortfalls is essential in order to negotiate overdraft facilities.

In recent years local governments are much more conscious of the importance of cash management than in previous years. The two main responsibilities in cash management have become:

- accountability so that precise records of cash operations are available and auditable
- acceleration of cash receipts, so that funds are available for investment.

In the simplest form the cash management function has three elements<sup>11</sup>:

- Cash mobilisation: Get the cash in as fast as you can.  
Cash mobilisation is the process of actively transforming financial claims into cash
- Controlled disbursement: Release cash at the last possible moment.  
Premature disbursements result in lost interest income. Many local governments have implemented techniques that enable them to disburse funds “just in time”. Special care is devoted to large disbursements, such as debt service payments, so that cash is not released prior to the due date.

- The investment programme: Do something worthwhile with the cash in the meantime. A prudent investment programme can help government officials generate additional income from their cash resources.

To prepare a cash flow forecast a cash budget needs to be prepared. This is usually completed monthly using projections of revenue and expenditure under each item, not just to undertake acceptable investments but also to maintain the solvency of the local authority. In some cases an even pattern of collection or spending throughout the year can be expected. This might apply for example to staff salaries or debt service, or collection of rents on permanently leased premises. However, in many cases such patterns are either seasonal or come all at one time. Annual or biannual payments such as insurance might lead to particularly heavy expenditures in certain months. The cash management process can only be effectively monitored if such irregularities in the expected revenue collection and expenditure are charted and the net cash inflow/outflow for each forthcoming interval is projected. Historical cash and investment levels can be plotted and analysed to reinforce the reliability of cash projections.

Rapid progress in computer systems and data processing enable local authorities to store, retrieve and analyse historical cash flow data with spreadsheet software programmes. Homebanking systems enable local financial managers to directly access their account information.

## **Conclusion**

In this chapter we have examined several issues relating to fiscal decentralization and the development of local government fiscal capacity. Local governments play an important role in the public finance area and to the extent they are politically independent and financially responsible they provide a basis for democratic and market oriented systems to have a greater chance for success. Local governments face many difficult choices in the taxes they levy, the purposes of their expenditures and the methods to manage and promote their economic development. For these reasons, local government finance and budgeting is one of the most interesting areas of public finance. This is a particularly rich area for further research in the Central European transition.

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- 1 The so-called Tiebout model stresses the benefit of free migration- voting with one's feet combined with decentralised decision making .
  - 2 European Charter of Local Self -Government. Article 9 - Financial resources of local authorities
  - 3 Non-tax revenue covers all government revenue from other than compulsory tax payments grants and borrowing. Non-tax revenues come from fees and charges for local services and revenues which are grouped under the heading "other". Other sources include fines and penalties, interest of municipal deposits, incomes from municipal organisations, income resulting from the use or sale of municipal property.
  - 4 The classic references to fiscal federalism are Musgrave (1959) and Oates (1972). More recent treatments include Boadway and Wildasin (1984), Boadway (1992), Shah (1994), and Rosen (1995)
  - 5 This is sometimes referred to as piggy-backing and combines harmonisation with some degree of accountability for revenues raised in each jurisdiction
  - 6 Report by the Steering Committee on Local and Regional Authorities on Local Finance in Europe (1996) summarises the most important criteria to select good local taxes as follows:
    - a high yield and a fair distribution of the yield
    - low administration and compliance costs
    - low distortion
    - promoting efficient spending levels
  - 7 Zimmermann, H. and Postlep, R.-D. (1980) 'Beurteilungsmabstäbe fur Gemeindensteuern', *Wirtschaftsdienst* 60, p. 248
  - 8 E.g. Zimmermann,Horst: Reform of local taxation in Germany. In: King, David eds. (1992). *Local government economics in theory and praxis*. London: Routledge
  - 9 Grewal and Mathews 1977, pp.84-5
  - 10 See theories dealing with regional and local economic development such as location theory, and industrial attraction theory
  - 11 *Local Government Finance*. Edited by J.E. Petersen and D.R. Strachota. GFOA 1993



## **GLOSSARY**

Ability to pay - The principle that the tax burden should be distributed according to a person's affluence. Those who have higher incomes or greater wealth should pay more in taxes than poorer people

Accrual Accounting - Accounting basis which records revenues when they are earned (whether or not cash is received) and expenditures when goods and services are received (whether or not cash payments are made then)

Ad valorem - A tax collected as a percentage of the price or value of a good

Allocative Efficiency - An economic outcome in which no reorganization or trade could occur which would make all individuals better off. Also, called Pareto efficiency.

Alternative service delivery arrangements (ASDA) - New forms of public service production based on private sector involvement

Arrow's Impossibility Theorem - Provides that there is no voting scheme that can guarantee majority voting will be consistent and will move society to its utility-possibility frontier

Audit - An examination of evidence, including records, facilities, inventories, systems, etc., to discover or verify reported information.

Average costs - The total costs of production divided by the number of units produced

Average tax rate - Total dollar amount of taxes collected divided by the dollar value of the taxable base.

Backward shifting - Transfer of the payment of a tax from buyers who are liable for its payment to sellers through a decrease in the market price of the taxed good.

Barter - Exchange of goods for goods and services, or services for goods and services, without the use of money.

Benefits received - The principle that the tax burden should be distributed according to the benefits an individual receives from government. It is a logical extension of the exchange relationship of private markets.

Budget - A financial plan, including proposed expenditures and estimated revenues, for a period in the future.

Budgeting - the method of setting and operating budgets

Build, operate, transfer (BOT) schemes - public-private partnership to finance capital improvement projects in the field of physical infrastructure and public utilities

Capital Budgeting - The method of financing non-current projects with long-term service flow

Capitalism - A type of economic system which is characterized by private ownership of property and freedom of enterprises, and which is based on the freedom of choice by the consumer, on business competition, and on profit motive.

Capitalist Economies - Consist of four characteristics. (1) Most of the means of production are privately owned. (2) Production of the majority of goods and services is determined and organized by the market. (3) Distribution of income is primarily determined by the market. (4) Socially necessary goods and services, when not provided by private sector and market failure is determined, are produced or (re) distributed by the state.

Chicago School of Economics - A group of economists (among whom Henry Simons, F. A. von Hayek, Milton Friedman and George Stigler have been the most prominent) who believe that free markets and competition will lead to the most efficient operation of the economy

Classical Economics - Classical economics is the body of thought built up in the late 19th Century on the foundation of Adam Smith, Ricardo, and Mill, among others. It emphasized the role of the individual markets in determining what is produced and at what price products are sold. At the center of the system, prices would adjust to changes in demand or supply to clear markets.

Coase Theorem - A view put forth by Ronald Coase that externalities or economic inefficiencies will be corrected by bargaining between the affected parties

Collective Goods vs. Market Goods - Goods are divided into collective or market depending upon whether they are allocated by political decisions or public choice (in which case they are collective goods); or by decentralized supply and demand (in which case they are market goods)

Command Economy - A mode of economic organization in which the key economic functions - How, What, and For Whom - are principally made by government directive

Compliance cost - Expenditures by individuals and business firms that are required to meet regulatory goals established by government.

Concession - transferring the exclusive right of public service provision to private entities for a long period of time, under defined technical, performance and financial conditions

Consumer Surplus - A measure of the difference between what consumers would be willing to pay for extra output and the price they actually do pay to obtain it in the market

Contracting Out - the client transfers service delivery to a contractor for a limited period

Contractual Approach - getting agents (contractors) to pursue the interests of a principal organization

Corporation net income taxes - Taxes on net income earned by a business organized as a corporation. Net income is gross earnings less expenses.

Cost Benefit Analysis (CBA) - a systematic study of expenditure programs that relate costs to monetary valued benefits

Cost Effectiveness Analysis (CEA) - a systematic study of expenditure programs that relates costs to non-monetary benefits

Cost Minimization Analysis (CMA) - a systematic study of expenditure programs (the specific type of CEA). It analyses the costs of the various alternatives that attain similar benefits in order to determine the lowest costs solution

Cost Utility Analysis (CUA) - a systematic study of expenditure programs that relates costs to utility (like quality adjusted years of life)

Crowding-out Effect - A market condition wherein a government borrower dominates the bond market by issuing debt; excluding other borrowers such as those from the commercial sector or even from local government units

Decentralization - The dispersion of authority and implementation from a central government to a more specific jurisdiction, agencies or locations.

Deficit - The amount by which expenditures exceed revenues during an accounting period.

Demand curve - A graph of the demand schedule.

Demand schedule - The relation between the price of a good and the quantity demanded, *ceteris paribus*.

Deregulation - A lessening of constraints on private behavior in certain sectors of the economy.

Differential Costs - Synonym for the marginal costs

Discounted Bond - A bond which has slipped to a discount price in the market because interest rates have risen in the market

Discount Factor - the number by which an amount of future income (costs) must be divided to compute its present value

Discount Rate - the rate of interest used to compute present value

Earmarked taxes - Special taxes designed to finance specific government-supplied services. The proceeds of these taxes are usually placed in a special fund

Economic incidence - The change in the distribution of real income brought about by a tax.

Economics of the Public Sector - A presumption of the economics of public finance is that three roles can be played by the state. These include provision of public goods, intervention to correct imperfections in the market economy, and redistribution of income or wealth from rich to poor.

Economies of Scale - A situation in which the average cost of production declines when plant size and output is increased. More precisely, a production function in which, when all inputs are doubled, output more than doubles.

Economy - obtaining inputs of appropriate quality at least costs

Effectiveness - the extent to which the goals of an organization are achieved

Effective tax rates - Actual taxes paid, divided by the taxable base.

Efficiency - relationship between outputs and the resources used to produce them

Elasticity - A term used in economics to denote the responsiveness of one variable to changes in another

Equalization - a program through which a higher level of government makes normative (unconditioned) grants to lower levels with a weaker tax base.

Equity - Judgment about the fairness of an outcome

Excess burden - A loss of welfare above and beyond taxes collected. Also called welfare cost or deadweight loss.

Exclusion Principle - The basis for distinguishing between public and nonpublic goods. If those who do not pay for a good can be excluded from enjoying it, then it is not a public good.

Expenditure Analysis - the careful evaluation of public expenditures programs

External Debt - Public debt owed to non-citizens

Externalities - Costs or benefits of market transactions not reflected in prices.

Externality - an activity of one entity affects the welfare of another entity in a way that is outside the market

Federal System - A form of government constructed on the principle of the division of powers between levels of government. In such a system, each level of government is regularly and directly elected by the citizens. It independently exercises certain powers which are usually specified in the country's constitution.

Fiscal Federalism - Transferring wealth by equalization payments from the 'have' to the 'have-not' jurisdictions to ensure that they all have sufficient revenues to provide reasonably comparable levels of public services at reasonable comparable levels of taxation.

Forward shifting - Transfer of the payment of a tax from sellers who are liable for its payment to buyers, as a result of an increase in the price of the taxed good.

Free Rider - Problem that exists when people seek to enjoy the benefits of a public good without contributing anything to the cost of financing the amount made available.

Free Rider Problem - the incentive to let other people to pay for a public good while enjoying the benefits

Fungibility - The ability to use funds for any purpose, even though they might be granted for a specific purpose

General Theory of Second Best - The theory of how to get the best results in remaining markets when one or more markets have defects about which nothing can be done

General sales or gross receipts taxes - Taxes that are applicable with only specified exceptions to all types of goods, all types of goods and services, or all gross income, whether at a single rate or at classified rates.

Head tax - Example of a lump-sum tax that would require all adults to pay an equal amount each year to governing authorities.

Horizontal equity - People in equal positions (of the same economic capacity, measured, for example, by income) should be treated equally.

Impure (mixed) public good - a good that is between pure public and pure private good

Incidence of a tax - The amount of the tax ultimately paid by different individuals or groups

Income Effect - the effect of a price change on the quantity demanded due exclusively to the fact that the consumer's real income has changed

Indifference curve - A graph of all different consumption bundles that yield the same total utility.

Individual income taxes - Taxes on individuals measured by net income, including distinctive taxes on income from interest, dividends, and the like.

Interest - Price of borrowing money; rate measured by percent of principal borrowed.

Inverse elasticity rule - As long as goods are unrelated in consumption, tax rates should be inversely proportional to elasticities in order to achieve efficiency.

Investment Bank - Traditionally, an institution that engages in securities trading, financial advising, and underwriting of financial instruments, such as bonds

Keynesian Economics - A economic approach that emphasized the role of government in strengthening and providing stability for a free enterprise economy.

Laissez-faire - As a general notion indicates that government intervention in economic and social areas should be kept to minimal level and only for basic functions of defense and law and order to protect the state and citizens.

Life-Cycle model - Individuals' consumption and saving behavior during a given year is the result of a planning process that considers their lifetime economic circumstances.

Lindahl equilibrium - Exists when the voluntary contribution per unit of the public good of each member of the community equals his marginal benefit of the public good at the efficient level of output.

Lindahl prices - Equilibrium contributions per unit of the public good that equal the marginal benefit received by each consumer.

Local Government - A generic term pertaining to political subdivisions which are created at the pleasure of the state and exercise duties and responsibilities within a framework of state constitutional provisions and legislative enactment.

Local public good - A public good that benefits only the members of a particular community.

Logrolling - The trading of votes to obtain passage of a package of legislative proposals

Lump-sum tax - A tax for which the individual's liability does not depend on his or her behavior.

Majority voting rule - one more than half of the voters must favor a measure for it to be approved

Marginal benefit - the extra benefit received by a consumer from the consumption of one more unit of good or service

Median voter - the voter whose preferences lie in the middle of the set of all voters preferences

Marginal cost - The incremental cost of producing one more unit of output.

Marginal rate of substitution - The rate at which an individual is willing to trade one good for another; it is the slope of an indifference curve.

Marginal social benefit - Extra benefit obtained by making one more unit of a good available over any given time period.

Marginal social cost - Minimum amount of money that is required to compensate the owners of inputs used in producing a good for making an extra unit of it available.

Marginal tax rate - The proportion of the last dollar of income taxed by the government.

Market Socialism - An economic system in which the activities of socially owned enterprises are coordinated through freely functioning market forces. It seeks to use self-adjusting markets to determine the pattern of production and the allocation of resources, while retaining other aspects of socialism such as social ownership of the means of production and an egalitarian pattern of income distribution.

Maximin criterion - The notion that social welfare depends on the utility of the individual who has the minimum utility in the society.

Monetarist School - The opposite of the Keynesian economics, it argues that monetary policy has very significant effects on the economy. Monetarists opt for a stable monetary environment to be achieved by the central bank maintaining a constant rate of growth of the money supply. It stresses the role of money in the determination of inflation, advocates strict control of the supply of money and opposes the use of government monetary and fiscal policies to counteract unemployment.

Monopoly -A market in which there is only one seller of a good.

Natural monopoly - A situation in which cost factors inherent in the production process lead to a single firm supplying the entire industry's output

Net wage - The wage after tax.

Neutral taxation - Taxing every good at the same rate.

Non-profit organization - self-managing non-commercial organizations with prohibition of earning profit and is independent from the government

Normative Economics - Economic analysis which provides prescriptions or statements about what "should be" rather than "what is." It is constructed from positive economics and some judgments about what society's objectives should be (value judgments).

Normative (unconditioned) Grants - A payment from one level of government to another within a system which can be used for any purpose the lower level desires.

Original position - An imaginary situation in which people have no knowledge of what their economic place in society will be, whether they will be relatively rich or relatively poor.

Opportunity Costs - The value of the next best opportunity foregone by deciding upon one course of action rather than another

Performance bond - guarantee required in contractual relationship for public service delivery to continue the service production in the case of contractor's failure

Pareto-efficient system - An allocation of resources such that no person can be made better off without making anyone else worse off.

Pareto Optimality - A term which means that policy changes should only be implemented if some individuals or groups are better off, and none are worse off.



Pigouvian Tax - a tax levied on each unit of a polluter's output in an amount just equal to the marginal damage that it inflicts at the efficient level of pollution

Political cost - Measures of the value of time, effort, and other resources expended to reach and enforce a collective agreement.

Positive Economics: Economic analysis which is concerned with describing and analyzing the economy as it is.

Present Value - the maximum amount that an individual would be willing to pay now for the right to a future benefit

Price elasticity of demand - The absolute value of the percentage change in quantity demanded divided by the percentage change in price.

Price Elasticity - the absolute value of the percentage change in quantity supplied/demanded divided by the percentage change in price

Price elasticity of supply - The absolute value of the percentage change in quantity supplied divided by the percentage change in price.

Privatization - Transfer or sale of state owned or local government property to private entities; using private sector mechanisms in public service delivery

Progressive tax - A tax with effective rates that are higher for families with high affluence than they are for families with low affluence.

Property taxes - Taxes conditioned on ownership of property and measured by its assessed value.

Proportional tax - A tax with effective rates that do not change across families with different affluence levels.

Public finance - the set of complex problems that center around the revenue-expenditure process of government

Public good - A good that is non-rival in consumption and one which is impossible to exclude anybody from its consumption

Ramsey rule - To minimize the total excess burden, tax rates should be set so that the percentage reduction in the quantity demanded of each commodity induced by the taxes is the same.

Real income - A measure of income taking into account changes in the general price level.

Regressive tax - A tax with effective rates that are lower for families with high affluence than they are for families with low affluence.

Regulation: The concept of regulation comprises all rules of conduct imposed by government on its individual and corporate citizens. Governments use regulation as a policy instrument for one of three purposes: to remedy market failures, to serve as an instrument of redistribution, and to meet social and cultural objectives.

Socialism - An economic system in which business firms are owned and controlled by the people who work in them or by the government acting in the name of the workers.

Social welfare function - A function reflecting society's views on how the utilities of its members affect the well being of society as a whole.

Statutory incidence - Indicates who is legally responsible for a tax.

Substitutes - Two goods are substitutes if an increase in the price of one good leads to increased consumption of the other good.

Substitution effect - The tendency of an individual to consume more of one good and less of another because of a change in the two goods' relative prices.

Supply schedule - The relation between the market price of a good and the quantity that producers are willing to supply, *ceteris paribus*.

Targeted (conditioned) Grants - Within a system of government these are payments by higher (Federal) levels to a lower levels (province or municipal) in which the receiving government undertakes programs according to conditions specified by the granting government.

Tax avoidance - Altering behavior in such a way to reduce your legal tax liability.

Taxes - Compulsory payments to a government based on holdings of a tax base.

Tax evasion - Not paying taxes legally due.

Tax expenditures - Losses in tax revenues attributable to tax preferences.

Tax shifting - The difference between statutory incidence and economic incidence.

Tax wedge - The tax-induced difference between the price paid by consumers and the price received by producers.

Underground economy - Those economic activities that are either illegal, or legal but structured so that they are hidden from tax authorities.

Unitary System - In public finance a unitary government is organized around a single level of government for the entire country.

Unit tax - A tax levied as a fixed amount per unit of commodity purchased.

User charges - Prices determined through political rather than market interaction.

User fee - A price paid by users of a good or service provided by the government.

Utilitarian Social Welfare Function - an equation stating that social welfare is some function of individuals' utilities

Utility - the amount of satisfaction a person derives from consuming a particular bundle of commodities

Value Added Tax - A tax levied upon a firm as a percentage of its value added

Variable Costs - Costs that vary in direct relation to the level of activity or production

Vertical equity - Distributing tax burdens fairly across people with different abilities to pay.

Voluntary failure - Factors decreasing the efficiency of non-profit organizations: philanthropic insufficiency, philanthropic particularism and paternalism, philanthropic amateurism

Vouchers - Coupons issued by the government with the right to get free services at selected service producers, who are reimbursed by the issuer

Welfare economics - the branch of economic theory concerned with the social desirability of alternative economic states