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Economic policy fundamentals

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Preface

Modern society delivers daily news about the economy. The multifaceted economic processes shape our life. We need jobs and earning for subsistence, reliable utility services, peace and security, clean environment. Our living conditions depend on the performance of the economy and those institutions that help running it in an orderly manner. Economic performance depends on the creativity, entrepreneurial talent, accumulated wealth and knowledge of the society. All these qualities depend, of course, on past decisions. Economic power develops over time utilizing and improving inherited conditions. For the first sight some basic conditions like natural resource endowment (including arable land), geographic location (position near the main trade routes) may seem to be strong drivers of wealth generation. Yet, we can find numerous success stories of rapid and significant economic development in countries that do not possess extraordinary endowments. In addition, we can find countries with phenomenal natural endowments that still fight with poverty and bad economic conditions.

Take the example of Japan, a country that has virtually no mineral reserves and very meager amount of arable land. A country that pursued isolation policy from the world markets for several centuries. A fundamental change and modernization in the social and economic institutions, a very robust economic policy mix to support development and the opening to the world markets propelled the country to the leading economic power centers of the world – in a hundred years' period. On the other hand, look at the dismal economic development of the once rather wealthy Venezuela. The country with large oil reserves and income that once belonged to the group of middle-income countries. The country has sunk in social and political disorder, poverty and crime in a few decades' time. The key of the contradictions lies in the differences of social and economic institutions and economic policy.

The main aim of this book is to describe how market economic systems work². More precisely the book deals with the main market economic institutions, macro- and micro economic policies that can help societies to take the most advantage of their endowments and improve their economic fundamentals.

Economic policy is the topic of a huge amount of scientific articles and books; there are also textbooks that focus on various areas of economic policy. However, there is only a limited number of textbooks that seek to provide a general overview of economic policy institutions

² The book does not cover the centrally planned economy and hybrid economic systems.

and policies³. There is also need to place these into the overall societal environment to understand the logic and main drivers behind the activities of institutions and policies. Thus, this volume intends to introduce the reader the general framework system of the economy with the most important institutions and policies.

Of course, this ambitious task can be fulfilled at varying levels of detail. My aim is to concentrate on developing a complex view of economic policy, to show how the various types of policy instruments work, how they are coordinated in order to support each other's impact. Furthermore, I would like to show that there are always options. These may have very different impacts on the various strata of the society. Hence, economic policy is in many ways interlinked with overall political concepts and actions. Since the effects of political regimes are not treated exogenous, in many cases the clean economic rationale can be reoriented by policy decisions. Yet, the book deals only with the *main policy dilemma* of having more or less state intervention in the macro or micro level policies.

Since the main aim of the book is to provide a complex view of economic institutions and policies, the issues of fundamental theoretical background behind the various spheres are not discussed in detail in this volume. The introduction of theoretical considerations show the overarching logic and social concepts that shape policies. Who are the targeted main beneficiaries? What long-term concepts and visions can be attributed? What are the main risks of such concepts? This approach also intends to serve the needs of the targeted audience, which is undergraduate students and interested readers without completed studies in economics.

The structure of the book is as follows. The first part will define the basic terms of market economy and the role of economic policy as a means that directs the outcomes of the economic processes towards social preferences correcting them for market failures on micro- and macro level. After learning the imperfections of the market process as a reason for correction I discuss the design of corrective tools, shaping economic policy. We differentiate between the normative and positive theories of economic policy. The third part introduces microeconomic policies. These include the types of institutions that provide the general regulatory framework of business (property right enforcement, corporate governance and competition policies). We briefly discuss the problem of externalities and the reasons of taking certain economic activities

³ Two of the remarkable exceptions are Accocella (2005) and Bénassy et al. (2019). However, this later volume concentrates mainly on macroeconomic policies, while Accocella covers the full range of economic institutions and policies.

directly in state hands through public ownership. Also, this chapter discusses those elements of state activities which are aimed at shaping the structure of the economy.

The fourth part's main concern is macroeconomic stability. Most of the literature considers these policies as "true" economic policy maybe because they include mostly indirect tools of influence. They seem therefore less vulnerable to politically motivated arbitration and hence are better modelled by economic theories. Indeed, they are very important, and their importance has grown with the internationalization and globalization of economic processes. This chapter introduces the two main macroeconomic policies: monetary and fiscal policy. Of course, also their institutional background is covered (central bank and other monetary and fiscal institutions). This part is completed with the discussion of the system of external economic relations in the frames of the balance of payments. The corresponding policies (exchange rate policy, trade policy) are discussed against this analytical background.

Throughout the book, the analysis will concentrate on those features and values that seem long lasting, fundamental. The book intends to be rather practical minded and not theoretical. Yet a few abstractions are necessary for the better understanding of the basic logic of the institutions and policies. Therefore, the concept of the book remains in the conceptual framework of closed economies. I will draw attention to the role of some external factors whenever it is unavoidable. In addition, macro policies are discussed with due consideration of external economic relations. However, the institutions, organizations and policies that shape international economic coordination are not discussed. Similarly, the most important challenges of the globalization process posed for economic policy are discussed elsewhere (Szanyi, 2020).

I. Market economy and social preferences: imperfections and their correction

Economic policy is as old as human society. The rapid expansion of humankind on our globe had been made possible through innovations of the time and expanding economic activity that also needed some kind of social coordination. The birth of human societies was parallel with increasing labor division and the emergence of the first forms of exchange among people and nations. In addition, the economic role of a superior political and military power, the state evolved and took over some forms of social and economic coordination. Most important of these were the collection, storage and redistribution of goods. This all happened 6-8 thousand years ago simultaneously in many geographic areas. Thus, the first forms of specialization, exchange markets, taxation and redistribution appeared. These fundamentals of economic institutions have evolved ever since and became increasingly complex and sophisticated. They became indispensable for all societies and therefore the desire emerged to create *fixed rules* of the game: socially controlled institutions. They were to provide steady frameworks for social actions among them economic activity. Alternative opinions see these historic changes as the birth of troubles and headache for the Homo sapiens as compared with its earlier hunter-gatherer lifestyle before the agricultural revolution (Harari, 2011). To master one form of the headache, economic policy had evolved.

Although ancient policy makers had no complicated theoretical underpinnings for what they did, yet, the ultimate goal of their action was most probably similar to their current counterparts' goals. This goal is running the economy in accordance with *social preferences*. Social preferences are fundamental because they reflect the most important needs of each society. These have to be taken into consideration in order to assure the long-term (sustainable) existence of the societies. Hence, for example, in ancient river-valley societies the organization of public work for creating and maintaining irrigation systems was inevitable. In exchange, the state as coordinator supplied the cooperating society with "public" goods that also included at the time basic food supply. These cultures could survive until this centuries' long social coordination system existed. Modern societies work similarly, albeit social preferences changed, their size and sophistication increased ever since. Yet, their realization is still the most important social glue. True, social preferences are often manipulated to favor one or other social strata. Nevertheless, independently from the social content and impact, articulated social preferences serve as yardsticks for the design of economic policy.

The reader may raise the point here that *spontaneous processes of the market* can carry out the necessary coordination. After all this is the essential statement of the classic root of the economics discipline. Adam Smith emphasized the role of the invisible hand of markets in coordinating economic processes. In this text, I am not entering the area of economic analysis to illustrate how this hand operates. From the viewpoint of the involvement of social institutions, including the state it is sufficient to draw the attention to the *imperfections of the work of the invisible hand*. They are outcomes that contradict social preferences, public expectations. Hence, they call for an agent who expresses social or collective objectives in the economic system composed of individuals. The discipline of economic policy seeks solutions for the tensions between social desires and economic realities. This ambition will lead to the society's institutional choices (the roles assigned to various institutions) and government's current choices (economic policy measures). These choices closely depend on the political, social and economic concepts that prevail in a certain country at a given time. Especially important are the theories adopted to explain the functioning of the economic system. Hence, economic policy does not offer generally accepted recipes.

Each economic theory highlights certain aspects of reality and the policy maker must carefully select among the available reference models. The main dilemma is however, how much societies may rely on market processes and where should be set *the boundaries of state action in the economy*. The design of economic policy concepts needs a proper understanding of economic processes: how the various economic institutions work, and how economic agents behave in given framework conditions or in relation with each other. We can foresee and plan the effect of an economic policy tool only if we understand its working mechanism and can predict the potential reactions of the affected stakeholders. The discipline of economic policy must rely therefore on the findings of many other disciplines. Most important is of course economic theory, but sociology, psychology, political science, law, statistics also play a role.

1.1. Market failures on micro level

Two main institutions, the market and the government coordinate modern economies'. Other institutions also have economic importance, such as firms and non-profit organizations. In the context of this book market is regarded a core institution representing the pursuit of individual interest. I treat government as the representative of collective interest. These two institutions fundamentally differ also in their structure and mechanism. Markets work based on voluntary decisions of agents, government relies on coercive decision process. Main actors of the markets

are private firms, the term government or state includes all public organizations (most importantly central and local governments). In modern economic systems, the two work together.

1.1.1. Two aspects of the evaluation economic coordination: efficiency and equity

We can assess the interplay of the two economic coordination institutions based on two important criteria: *efficiency and equity*. Typically, market is regarded as a solution favorable for efficiency. The concept is as old as Adam Smith's famous book the Wealth of Nations published in 1776. He stated that the market was able to ensure that economic choices made by individuals pursuing their personal interests would have a beneficial effect for the whole society. This pure speculative statement can be tested if we more closely define what efficiency is and what equity is. Among the several interpretations of efficiency allocative- cross- and dynamic efficiency seem to be the most important.

Allocative efficiency means a situation when collective welfare is highest. This means that a group of individuals will move towards a hypothetical optimum welfare situation until at least one individual of the group is better off and no individual is worse off in a new position. The group can be identified as the society as a whole. If we move forward from the sterile world of theory we can realize that this optimum position (which is called "*Pareto optimum*") is a value judgement. Not everybody might share its valuation criteria, since individual preferences greatly vary. Some cannot accept some of these preferences. Moreover, the distribution of the benefits might be very uneven. Despite of these shortcomings the Pareto principle plays an important role in economics since it represents the efficiency concept. Reaching the Pareto optimum requires an efficient allocation of consumption of goods, the efficient allocation of production inputs and general efficiency.

Cross-efficiency means the ability of firms to choose the technically most efficient production program. After selecting effective production techniques employing the optimal combination of capital and labor, production is organized to maximize output. Important task is to specify a firm's objectives in ways to prevent discretionary behavior of workers pursuing own objectives against the interests of the firm. The concept of efficiency is also conceived in many ways in future sustainable development. This is what the term *dynamic efficiency* means, which incorporates adaptive efficiency: the ability of the firm to improve its own production through

learning by doing and act as a learning organization. The long-term development aspect of efficiency is reflected also in the firm's ability to innovate (process and product innovations).

As far as the principle of equity is concerned, many interpretations are plausible. Two main concepts stand out. In general, we consider the distribution of income and wealth equitable if it ensures *equality of opportunity* or *equality of final positions* of the members of the society. The relevance of the two equity concepts varies in modern societies. The long traditions of entrepreneurship in the United States lays much emphasis on equal opportunities. This is reflected in the functioning of many institutions and in the outcome: the ease of doing business in that country. In other societies, social solidarity prevails and the term equity means primarily limitations of income and wealth inequality. The Scandinavian countries are known examples of high-level income redistribution and very generous social security systems. Be it equal opportunities or final positions, the historically determined social perception of equity plays important role in shaping socially acceptable economic policy solutions in each country. However, the redistribution concept of equity can easily contradict the efficiency requirement. An important task of economic institutions and policy is to care about the simultaneous proliferation of the two. The national systems of tripartite social negotiation play an important role in this.

1.1.2. The conditions of competitive equilibrium

In an optimal case, the economy is in equilibrium situation. This means that throughout the economy profit making opportunities are similar and so are average wages. In other words, no differences among economic activities are present in returns of capital (profit rates) or labor (wages). This means that there are no price differences that would cause excess demand in any market (we call this *Walrasian competitive equilibrium*). However, this also means that the equilibrium situation of the economy is Pareto optimal. This is the *first fundamental theorem of welfare economics*: “in an economic system with perfect competition and complete markets, a competitive equilibrium, if it exists, will be Pareto optimal” (Accocella, 2005, p. 12). However, as it is clear from the definition, there are a few assumptions, which might or might not be fulfilled. In addition, these imperfections in the conditions will deteriorate the full realization of the desired beneficial outcome. I will come back later to these imperfections that provide ample room for correction.

Before that, however, we have to realize that simultaneously there can be *several competitive equilibrium positions* in the economy. This provides options for economic policy to choose from a range of efficient positions (efficiency requirement) based on other criteria, as for example equity or political feasibility (equity requirement). There are tradeoffs in the economy. Economic policy may reinforce certain goals at the expense of less favorable proliferation of other goals. Such tradeoff may exist for example between more government spending aiming the acceleration of economic growth and job creation and inflation on the other end. In other cases competitive equilibrium position does not provide consumers the resources necessary for survival. Obviously, such a position is socially not desirable and of course politically not feasible. Such Pareto optimal equilibrium points may ensure efficiency only in relation to the initial distribution of resources, which can be socially unsustainable. The *second fundamental theorem of welfare economics* states that through proper redistribution of resources every Pareto optimal point can be reached as competitive equilibrium, if transfers do not interfere with the properties of the market and its resource allocation function (Accocella, 2005 p. 14). This statement clearly draws a hypothetical *division line between market and government function*. The market should provide efficient resource allocation while the state has a redistributive function.

As is seen, government action may be required in setting some basic parameters such as assignments of resources. Nevertheless, it is also necessary to correct for deviances from the hypothetical optimum conditions of the competitive equilibrium state of the economy (first theorem's perfect competition and complete markets). *Perfect competition* means a regime with homogenous goods, large number of agents, exclusion of agreements among agents, free market entry and exit and full information about market prices. The condition of homogenous goods helps defining the markets. Agents have no direct influence on market prices and are price takers if they are numerous and do not collude. Competition is fierce if agents can freely move across economic activities because the costs of market exit and entry are absent (low). Full information about prices is required to have agents with perfect information about the entire market but also because this would establish one single generally hold price in the market of a given good.

The condition *complete markets* means the absence of externalities. Externalities are advantages or disadvantages caused to other agents by the activity of a given agent for which the other party does not pay/receive a price. An example of negative externality is pollution. A positive one is the case of the beekeeper. Bees collect nectar from the flowers of farmers' plantations

but also help pollen the plants. Nobody pays a fee for that. In these cases, agents are in a relationship that does not involve an economic exchange transmitted by the market. The assumptions of perfect competition and complete markets are practically not met and call therefore government intervention in many areas. Due to this, we can even turn the logic of the first welfare theorem: it clarifies the reasons *why the market does not provide an efficient and equitable state of the economy*. These imperfections are market failures at microeconomic level. The traditional theory regarded solely the micro level imperfections as market failures. Stiglitz (1988) broadened the category and included cases when Pareto optimality applies and macroeconomic performance is dissatisfactory.

1.1.3. Failures of perfect competition

Real life markets feature imperfect competition. In many cases, *monopoly or oligopoly* prevails on them. In this case, market prices will be distorted from production costs (in economics terms the marginal cost of production) and thus Pareto optimality is not guaranteed. Monopolies and oligopolies do not feature price-taking actors: they themselves can set prices with regard to other agents' activity and demand conditions. Three cases stand out in this regard. The first is the problem of *natural monopolies*. Take the example of oil extraction. In the countries of the Persian Gulf oil production is very cheap due to advantageous natural endowments. It is much more expensive to produce oil in the open waters of the North Sea or in the polar regions of Russia. Yet, since demand for oil is larger than what the most efficient and cheapest production sites could supply the production of more expensive oil resources will also be sold. Since there is demand for oil at relatively higher prices, the marginal cost of less favorable sites will determine prices on world commodity markets for oil. Those who produce cheaper will earn extraordinary high returns: they *realize rent* in their income.

Some agents enjoy rents also if the market agents themselves create the monopoly position. Economic theory presupposes that the cost structure of production is standard and does not change with increasing or decreasing sales volume. If this condition holds, then any increase in supply will create a new equilibrium with higher demand at lower price level. Increasing output and declining unit prices will produce *diminishing returns on scale*. The price mechanism is at the heart of the equilibrium model of economics. However, there are various sorts of production costs: fixed costs and variable costs. While variable costs (cost of production material, energy or labor) increase proportionally with higher-level outputs, fixed costs do not. Some fixed costs like investments are one-off large price tag expenditures. They appear in the sales prices

through amortization schemes on a longer period. Of course, if these costs are spread on a higher output volume their impact on the cost of the production unit will be lower. Less cost at the same sales price will increase returns. Thus, some elements of the production cost by definition would induce not diminishing but *increasing returns on scale*. This is problematic not only from the aspect of the price mechanism of the market. The issue is also relevant from the angle of market structure. Increasing returns on scale (in other words scale economies) will support larger market players and thus contribute to market concentration and consequently the reduction of market competition.

A third important deviation from the perfect competition vision occurs with *innovations*. Innovations, especially technological innovations are regarded the main drivers of long-term economic growth. The idea is as old as classic economics theory and has been included in current neoclassical growth theories (Solow, 1956; Romer, 1990). After the influential contribution of Schumpeter (1934) innovation as key driver of the economy also gained a lot of economic policy support. Schumpeter states that the main goal of innovations is to generate competitive advantage for the entrepreneurs. In other words, entrepreneurs introduce new products and technologies in order to establish monopoly position for themselves. The monopoly is required also because relatively narrow scope of supply and low level of competition will generate high returns, which are necessary to cover the costs of innovation process and initial investments. Modern legal systems provide protection for innovation in form of *patents*. Thus, a branch of economic policy itself creates and maintains monopoly positions on some markets.

The existence of scale economies is perhaps the most important built in cause of market failure. Based on the premises provided by Baumol et al. (1982) the concept of *contestable markets* has been developed. This states that the negative impacts of monopoly or oligopoly positions can be reduced not only by the establishment and entry of new agents but even by the threat of new market entries. If monopolists perceive the threat of competition, they would not push their monopoly rents too high in order to avoid new entries in their markets. The threat is effective if there are strong firms around that can afford a quick establishment in a new market to reap monopoly profits there. This needs sizeable investments. Hence, we come to the problems with another condition of free competition: the existence of *entry and exit barriers*. Should there be no such barriers contestability would be unlimited. The intensity of new entries in a market depends on the relationship of the costs of market entry (investments in technology, production and human resources) and the size of potential (monopoly) profits. Obviously, if deep and

sufficiently structured capital markets support the reallocation of capital market exit and entry is easier. Despite of the shortcomings of the contestable markets concept (Accocella, 2005, p. 18.) it has become a de facto element of current day competition policy.

There could be also other problems with the conditions of perfect competition. Obviously, goods are not homogenous, the less so since firms strive for product differentiation to gain marketing opportunities. Another rather traditional problem is of course collusion of agents. Their agreements that aim the curtailment of market competition has been prohibited in virtually all countries since the early 1900s. This legal action gave birth to modern *competition policy institutions*. Last, but not least the condition of full information must be also mentioned as problematic. Here the *informational asymmetry* is the key. Manufacturers usually have more information about products, market conditions than consumers do. However, consumers information gathering opportunities improved substantially recently with the use of internet. However, the same technology provided also new opportunities for firms to collect more specific information about their customers. They utilize this information for the development of custom-made solutions in a wide range of markets and for personalized pricing policy. The simultaneous use of several customized prices for the same product obviously contradicts to the general equilibrium concept of market economy.

1.1.4. Failures of the complete market condition

The other broad condition category of the first fundamental theorem of welfare economics postulated the existence of complete markets. This means that at any given time, for the usual decision time horizon of business there exist markets for all goods and services. However, markets can be incomplete or missing. One reason of this is the existence of *externalities* (as in the case of pollution and the beekeeper). The reason of externalities can be the lack of individual property rights on certain goods, which are common property (e.g. fresh air). The common property may be overexploited and users tend to act as free riders and ignore other individuals' right to access to the common property. Another reason may be the jointness of production or consumption. The main problem here is that each agent's activity influences others'. The impact may be beneficial or negative, but any way it will influence their utility function. Since agents' preferences are not identical, the production or consumption of others will be valued differently. Hence, the Pareto optimal equilibrium would not exist due to agents' differing value judgements. Reaching equilibrium position would then mean from the social point of view that each person should take account of all the effects of his choices both the impact on his own

utility and that of others. In other words, externalities create differences between private marginal cost/price and social cost/price. There is room for government action to remove the divergence by internalizing the cost or benefit to society using taxes or regulations.

The logic of welfare economics' competitive markets entails scarcity of goods and rivalry in the use of them. However, there are also non-rival goods. An increase in one agent's consumption of these goods does not reduce its availability for others. These goods are called *public goods*. Most common example is lighthouses, but similar qualities feature television broadcasts or national defense and many other services. The cost of these services does not depend on the level of demand (usage): their marginal cost is zero. Some public goods are global: their benefits extend beyond national boundaries. They are the nucleus of sustainable development. The main problem with public goods is that their costs and benefits are spread unevenly. They usually require large initial investments and high fixed costs paid by only one agent. However, many consumers, often creating increasing returns too, may share their variable costs. Consumers are not stimulated to contribute to the fixed costs since it is difficult or even impossible to exclude them from the consumption of the public good. This free rider problem makes the production of public goods less attractive. This also explains why some natural public goods are overexploited. Governments may decide to provide public goods directly or they can stimulate production by private vendors. They can also tax and regulate the usage in order to prevent plundering of natural resources.

Problems with the condition of full information can also cause important disturbances of the market mechanism. Asymmetric information means that the parties of a transaction possess different amounts of information. This gives way to the emergence of *agency problems*. The party without full information is the principal the other possessing full information is the agent. Asymmetric information can cause two negative situations: adverse selection and moral hazard. *Adverse selection* occurs when the principal is unable to detect the situation of the agent or some characteristics of the good involved in the transaction. In case of bank loans for example, banks may not be able to evaluate the riskiness of specific borrowers properly. Consequently, they charge a uniform interest rate that also includes reserve to cover the risk of insolvency of subprime debtors. Less risky borrowers might be unwilling to pay the premium, meanwhile those whose more risky projects promise higher returns would take the loans. The perceived increase in risk would further boost the risk reserve part of the interest. In the end, only transactions with very high risk will remain in the banks' portfolio.

The *moral hazard* problem arises when the principal is unable to monitor the activity carried out by the agent and the agent has no incentive to act in the principal's interest. In fact, the risk of moral hazard is evident in all cases of mediated transactions. The problem arises because of the different utility functions of the two parties. Most common is that the principal does not provide enough incentives for the agent to perform the contract in the way he would do if the principal would also have access to full information. Thus, the agent has ample room to pursue his personal interest at the expense of the principal⁴. Some agency problems between private agents can be solved by skillful formulation of transaction contracts. In some cases, government regulation requires the inclusion of contractual safeguards to counterbalance the problems stemming from information asymmetry. Moral hazard can be limited by the use of more sophisticated incentives of the agents.

Control questions to chapter I.1:

Please explain the terms allocative-, cross- and dynamic efficiency!

Please explain the two fundamental theorems of welfare economics!

Why is the perfect competition assumption of the Pareto principle unrealistic in real life?

What are the main concepts of equity? What is the relationship of equity to the principle of efficiency?

What is the "contestable market" concept is about?

What are the main characteristics and sources of externalities (rents) of incomplete markets?

What are public goods? Why are they considered a special form of externality?

What is asymmetric information and what kind of agency problems are attributed to it?

I.2. Macroeconomic aspects of market failure

The microeconomic theory framework discusses traditional market failures. Their horizon is the current day equilibrium position of the markets. However, the national economy is not a sterile complex of various product and production input markets. They confluence each other therefore the sum of properly functioning individual markets can produce different macroeconomic outcomes. Some of these can be labelled as crises with excessive unemployment, inflation, external payment imbalances or underdevelopment. These

⁴ Most obvious example is the case of corporate owners and managers. The control of the agency problem between them is an important task of corporate governance institutions to be discussed later.

phenomena cannot be addressed in terms of microeconomic market failures. In general, we can talk about two problem levels. On the one hand market economies tend to be instable and not being fixed in certain equilibrium situations. On the other hand, the development of the economy might take non-optimal long-term paths from the viewpoints of efficiency and equity. The general equilibrium theory cannot handle these imperfections adequately⁵. Consequently, we treat these macroeconomic imbalances as market failures on macro level that call for government intervention.

1.2.1. Failures on macro level: unemployment

The problem of *involuntary unemployment* had become a primary focus of economic policy after the 1929-33 Great Depression. Previously employment conditions were treated as private contracts of sovereign parties. Employee interest was represented by their associations, trade unions. Government action usually took place only if disagreements in the negotiations produced social disorder. However, the Great Depression culminated in so widespread unemployment (over 20 % in many countries) that could not be neglected any more. Thus, many governments took action to manage the situation that threatened with serious social tensions. This took several forms from social subsidies through the creation of social work jobs and state controlled mediation in various markets. More lasting solutions for the employment problems were suggested by an evolving new economic paradigm, the theory of John Maynard Keynes⁶. Keynesianism had become the leading economic theory fundamental for policy action for the next fifty years.

Unemployment as economic policy target means involuntary unemployment. This is a situation when workers are willing to accept employment at the prevailing wage rate but the demand for labor is insufficient and does not provide them all with jobs. The level of unemployment of course depends on various factors. Much depends on labor supply, which is determined by demographic processes (labor pool) as well as by social traditions (e.g. level of women's employment). In countries where due to demographic reasons new entries on the labor market

⁵ For example, mass unemployment is not a voluntary phenomenon. Involuntary unemployment however cannot evolve in general equilibrium models. If markets are in equilibrium labor market should also be in equilibrium and involuntary unemployment should not emerge. Changes of absolute price level (inflation) are outside the theoretical framework of microeconomics that treat single (homogenous!) product markets, and so does the external balance of payments, because microeconomic theory applies for closed economy.

⁶ Keynes saw the inadequate level of demand as the major problem for the stalling of the economy. Hence, he suggested increasing state expenditure in crises that could stimulate the economy and even create new jobs in an evolving state sector.

is high, the “usual” level of unemployment is also high, especially among the young. More mature economies with smaller or even shrinking young social cohorts have lower unemployment. Sometimes they may even face labor shortage. Nevertheless, based on the traditions and statistics of developed countries we can treat unemployment level as normal if it does not exceed 3-4 % of the active population⁷. Over 10 % it is regarded as extraordinarily high and potentially dangerous for social stability. If we look at the data of Table 1. we can realize that unemployment has become a problem area again from the 1980s in many countries reaching a dangerous level several times, including the time of the most recent big financial crisis of 2008.

Table 1. Unemployment figures of various developed countries (1950-2020)

	USA	UK	Germany	Japan	France	Italy	Sweden	Hungary
1950	8,0	1,6	8,2	1,9	2,3	6,9	1,7	n.a.
1960	4,9	2,0	1,0	1,7	1,8	3,9	1,7	n.a.
1970	5,9	2,6	0,6	1,1	2,4	4,9	1,5	n.a.
1975	9,0	2,8	3,6	1,9	4,0	5,8	1,6	n.a.
1980	7,5	13,0*	3,3	2,0	6,2	7,5	2,0	n.a.
1985	10,8*	11,7	8,2	2,6	9,8	8,1	2,9	n.a.
1990	6,8	6,8	6,1	21	9,1	8,9	1,7	10,0
1995	5,6	9,5	8,3	3,1	11,8	11,5	8,8	10,2
2000	4,0	5,6	8,0	4,7	10,2	10,8	5,5	6,6
2005	5,1	4,7	10,7	4,4	8,5	6,8	7,5	7,2
2010	9,3	7,8	7,0	5,1	8,9	8,4	8,6	11,2
2015	5,3	5,3	4,5	3,4	10,4	11,9	7,4	6,8
2020	8,3	4,3	4,3	3,0	8,6	9,3	8,5	4,4

*:1982 peaks of USA and UK

Source: Maddison database and World Bank Statista 2021 from year 2000

⁷ There is always some unemployment in every country. For various reasons some workers do not accept the wage rate matching their labor’s marginal productivity. This is *voluntary unemployment*. There could be temporary imbalances in the demand and supply for labor in some areas of the economy. It may also take time until workers find new jobs in booming sectors (e.g. they need some retraining). This type of structural unemployment is called *frictional unemployment*. Labor statistics is not able to differentiate among the three unemployment types.

Continuous existence of involuntary unemployment represents a loss of efficiency. It means that it is possible to improve the situation of some people (the unemployed) without making others worse off. In addition, the lasting unemployment causes a deterioration of the affected human resources. The deterioration of skills is one of the reasons of declining probability of finding a job as the period of unemployment lengthens. A further negatively perceived effect of mass unemployment is the increase of inequality of income distribution. Developed countries' governments ease the consequences of unemployment with income redistribution (unemployment benefit payment). These payments supplement personal incomes but they also increase the flexibility of the economic system and industrial relations (relations between employees and employers). It is easier to lay off abundant labor. On the other hand, excessive unemployment benefits may create labor supply disincentives. The level of voluntary unemployment may increase. Another theoretical drawback of excessive treatment of the unemployment is shrinking competition on the labor market. The existence of a pool of unemployed and their competition for jobs will exert discipline and discourage demand for wage rises. Obviously, scaling between curtailment of the negative personal effects and longer-term effects on industrial relations will always depend on the orientation and political background of the governments.

1.2.2. Failures on macro level: inflation

The second important macroeconomic imbalance problem is *inflation*. Inflation is the sustained rise in the general level of prices. It is a methodologically complex task to measure the change of *general price level*. For what an individual can observe is the rise of the price of specific products. Usually, the measure of price changes vary as demand and supply functions are specific for the given commodity markets. Hence, price changes of individual products and services have to be aggregated to get an index of general price level. The national statistical offices carry out this work. They observe and combine the impact of a wide range of commodity prices.

Changes of commodity prices are inherent features of any market economy. The price changes are necessary levers in the market mechanism. However, if prices continuously change (increase) this would not necessarily mean that commodity markets could find equilibrium position. If several commodities' prices simultaneously grow and the aggregate price index also increases this signals the influence of factors that are exogenous for the given commodity

markets. Hence, inflation is usually launched by such factors that affect several markets or the whole economy.

Inflation is dangerous. Modern economies are monetized. This means that money mediates all transactions. The success of mediation depends on trust in *money*. The *monetary institutions* (e.g. banks) play an important role in this mediation process. They are also trusted institutions. Inflation, the rise of the general price level means in other words a decline in the value of money. If inflation is long-standing and potentially accelerating, trust in money and monetary institutions will decline. Market transactions will shrink, the use of money avoided and potentially replaced by other payment solutions. Cash payment may be preferred because of its reduced time request. In extreme cases, market agents do not accept the country's currency because of extremely quick devaluation. These disturbances can undermine the functioning of the monetary system. Unfortunately, such high inflation periods did happen to various countries also in most current times. Therefore, inflation is an inherent problem that must be closely controlled.

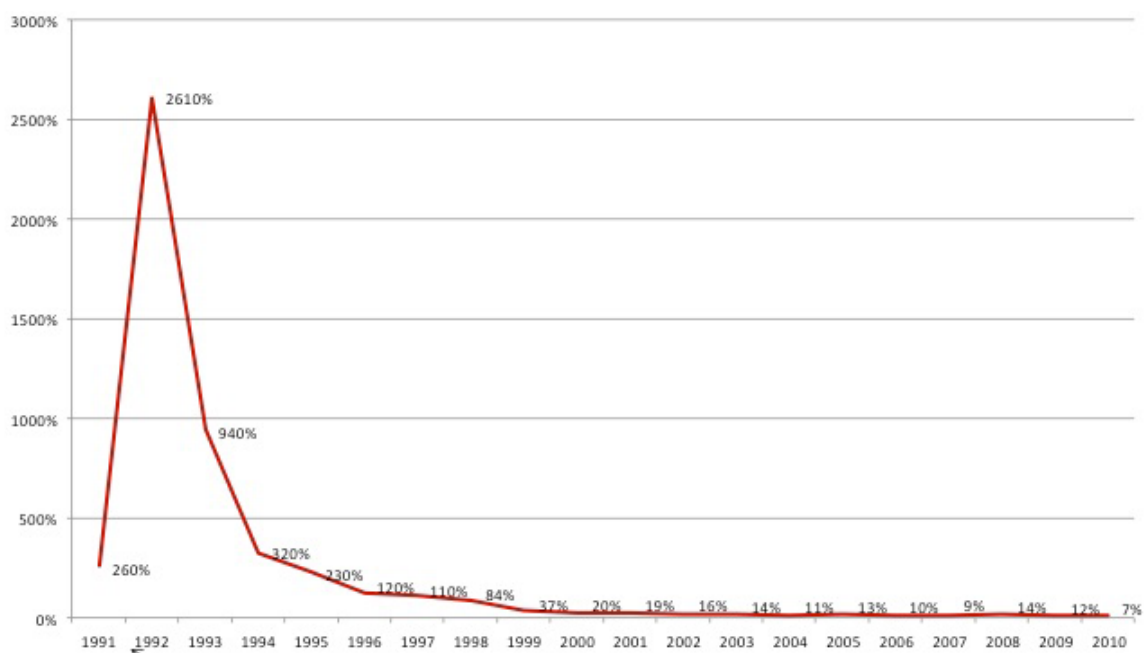
In order to adequately master inflation it is necessary to identify the source of it. As said, the reasons of inflation are external to the individual commodity markets. Hence, it is very difficult to detect them precisely. The potential sources affect the markets indirectly, their impact is never straightforward. Some subjective factors like speculation or a general decline of trust in monetary authorities or governments can boost the process. Nevertheless, in a properly functioning market economy the likely reasons of inflation can be spotted. *Demand pulled inflation* is taking place if aggregate demand of the economy exceeds supply. Aggregate demand can increase for example if banks extend excessive loans at reduced interest rate or in case government increases deficit spending. The other side of the market can also change rather dramatically. *Supply inflation* occurs when external shocks (such as natural disasters or wars) reduce supply. *Cost pushed inflation* occurs when the price of any of the production factors increase. The level of profits and wages can increase due to political reasons (social conflicts) or disturbances in industrial relations. Changes in the price level of imported commodities can also be a major source of inflation. During the 1970s, the oil price explosion launched massive inflation in many countries. Paradoxically, increasing oil revenues caused inflation also in the oil producing countries during the 1970s. Similar effects can happen when not income but other monetary flows enter the country (foreign investments, large-scale aid transfers or workers' remittances from abroad).

Inflation affects markets and social groups differently. Inflation always involves some *change in the income and wealth distribution*. An increase in the general price level is always accompanied by changes in relative prices, the price structure of the economy. Some prices increase more than others depending on the supply and demand conditions of the given markets. Inflation also redistributes wealth. The value of bonds with fixed nominal value will decline in real terms in inflationary environment. Debtors will take advantage of this at the expense of creditors. The extent of redistribution will depend on many factors. If agents anticipate inflation, by using their bargaining power they can contract with indexation mechanisms that correct for inflation. One can index other types of incomes like wages or yields on securities as well.

Income and wealth redistribution is a zero sum game. In this sense, inflation will cause cost for some parties. Gains of others will balance these costs. Nevertheless, *inflation has net costs* for the society as a whole even if its pace is moderate. It gives rise to specific costs generated by adjusting price lists or declining money holdings. However, these costs are relatively minor. The real problem emerges if it creates social conflicts or if control is lost over it and the entire monetary system is endangered by a meltdown. Chart 1 shows such a situation experienced in Russia after the 1990 systemic change and the collapse of the Soviet Union.

Chart 1

Inflation indices of Russia



Source: <https://jimbutterfield.org/3440-handouts.html>

One of the main dilemmas of macroeconomics is the relationship of employment and inflation. The mediation role of money stands out in this relation. Governments may wish to stimulate the economy through excessive government spending or increasing money supply to create demand for more output. More output would then generate more jobs. However, there is a lot of reason to believe that the transmission of excess money into the real economy is a complex process. Much of the monetary stimulus can “disappear” in this process: monetary tools will find other rational usage than the real economy. Changes in *aggregate demand* will depend for example on the propensity to consume. Incomes are used for consumption as well as for saving. Some part of increased income is saved thus limiting aggregate demand stimulation. To achieve the desired effect production must be also flexible. Production levels must increase quickly to satisfy excess demand. If supply is not flexible enough, increased purchasing power of consumers will generate inflation and increase imports of goods.

1.2.3. Failures on macro level: inadequate economic development

The third main macroeconomic dilemma concerns long-term *economic development*. Policy makers must count with social expectations concerning the future state of the economy. Every citizen would like to see an increase in his personal wealth situation as well as in *collective wellbeing*. This desire puts much emphasis on *economic growth*. However, we must differentiate between economic growth and development. Growth merely means an increase in some economic indices most importantly output measures like gross domestic product. Increased output may produce more income that can increase all stakeholders’ wealth (employees, capital owners and the state). However, the mere nominal increase in incomes especially if it is expressed only on aggregate levels, does not tell much about qualitative changes in the economy and the society. Development is a more general concept that includes growth but also considers many other economic and social aspects. It is therefore rather difficult to define the term development. One possible interpretation is to regard development in terms of *improving human wellbeing on the long run*. This definition would then mean not just steady improvements, but the creation of an economic and social environment that sets the conditions for development paths expanding human capabilities (Sen, 1987)⁸. This aspect is important

⁸ The concept of economic and social development is bound to improvements in some qualitative measures of the society. These can be numerous. In order to make development levels internationally comparable the Human Development Index (HDI) was introduced. HDI is the most widely used development measure. It combines various areas of social wellbeing: economic (GNI per capita level), health (life expectancy), culture and education (years of schooling). Many other aspects can be added to HDI in complex development analysis, such as inequality, poverty, human security, empowerment and others.

because in most backward countries there is a risk that the increase in total income is not accompanied by appropriate reduction of poverty or improvements in other social dimensions.

There has been an important evolution of the growth/development concepts. The main issue has been if development level differentials among countries can be limited. In other words: Is there *real convergence* among countries? Up until the 1960s the most commonly shared view stated that catching-up is the normal, logical path of any country. Most important is the accumulation of capital investments that will establish the necessary conditions for “take-off” of the economy (Rostow, 1960). This type of linear development falls short of identifying the rigidities of economic and social institutions that create serious bottlenecks for the qualitative changes even if there is a robust quantitative growth. However, the analysis of successful catching-up stories also highlighted many country-specific aspects (Ricz, 2019). Also, there is an extensive scientific literature on the “varieties of capitalism” (Rapacki et al., 2020). These readings also highlight the limited applicability of generalized recipes of catching-up.

Nevertheless, governments must care about the long-term development aspects of their economies. Not only improving human wellbeing is desired. There is need for *sustainable development*. Sustainability may involve many areas such as ecological and environmental sustainability, political sustainability (social cohesion), security (defense against hostile economic actions from outside), financial sustainability, and others. These aspects usually require international or global coordination. They are therefore treated elsewhere (Szanyi, 2020). Nevertheless, some development aspects have strong national or subnational character.

One such problem of the development of national economies is the spatially uneven development. Economic activity tends to concentrate in certain areas (Marshall, 1890; Krugman, 1998) and enjoy external economies. On the one hand this process would increase some agents’ utility, and of course general wealth too. On the other hand, agglomeration process may collect resources from wider areas also from regions that may be left behind with lower level of economic potential. Managing *spatial duality* is an important task of economic policy. Another development-centered issue is the *structural development* of the national economy. As is suggested by classical theory (Ricardo’s comparative advantage theory) specialization is beneficial for all participants. However, the distribution of the benefits is likely be uneven. Thus, firms and countries that specialize on “strategically less important” activities will gain less. This also means that their backwardness is likely conserved. Catching-up has always been bound to concentration on booming and technologically advanced activities. Therefore shaping

the activity structure of the economy (in other words: industrial policy) is also an eminent economic policy area.

1.2.4. Failures on macro level: external imbalances

A fourth main problem area is the state of the *external balances* of the countries. This issue is also closely bound to the monetization of the national economies. All kinds of foreign economic transaction are conducted in monetary terms. However, cross-border monetary flows traditionally include more than one monetary systems: the *currencies*, as well as financial institutions and other actors of at least two countries. Thus, the relation of the two monetary systems, most remarkably the two currencies connected through the exchange rate, further complicates the financial intermediation. This complicated mediation system can be disturbed by a lot of noise that can cause important deviations from expected results. For example, if there is some commodity export, usually payment is performed in a foreign currency. Sales revenue has to be exchanged to local currency via the exchange rate. However, if the date of delivery and payment substantially differs, the exchange rate may also change in the meantime. This would then cause risk for the seller in case the exchange rate appreciates in the meantime. His earnings in local currency will be then smaller. Exchange rates are rather volatile. Changes may occur due to many reasons most simply because of differences of the inflation rates in the two countries.

The volatile relationship of two countries' currencies is only one, albeit rather general problem area. Many others also reflect the specificities of the different types of cross-border transactions. To make these transparent and registered an external account system is used. The *balance of payment* (BoP) is the systemic record of cross-border transactions carried out by residents of a country and non-residents. These transactions generate outflows and inflows of foreign exchange (currency). The register collects debits or outflows of foreign exchange (payments serviced after imported goods and services, transfers abroad, capital outflows). The credits consist of foreign exchange inflows (revenues for the export of goods and services, transfers arriving from abroad, capital inflows).

The structure of the balance of payment follows the manuals of the International Monetary Fund and composes of three accounts: the current account, the capital account and the financial account. The *current account* contains foreign exchange in- and outflows of trade transactions, income flows (employee earnings abroad and investment income in abroad) and other current

transfers (official and private). The *capital account* collects commercial transactions and transfers incorporating investment activities. These can be the sale and purchase of intangible assets and transfers for the purpose of transactions involving capital assets. The *financial account* records capital movements. These are different types of investment: direct investment, portfolio investment, derivatives (financial securities), bank loans or long-term commercial credits. In addition, changes in the official reserves (monetary gold and foreign exchange stock and liquid foreign currency claims) are counted here.

The net of the three accounts should be equal to zero. In optimal case, the three accounts' are in balance without changes in the monetary reserves. However, if they are not, as they report transactions that are usually not directly correlated, there must be some change in the official reserves. Larger-scale changes in both directions may cause macroeconomic imbalances. A decline of reserves may herald decline in competitiveness, which in turn may be caused by weaknesses of the real economy but also by various financial reasons including exchange rate appreciation. The increases of reserves on the other hand means an increase in the monetary base in the economy. For example, if the *trade balance* is positive, excess revenues in foreign currencies are allocated to the central bank increasing the currency reserves. The exporter receives domestic currency in exchange which increases the monetary base and can fuel domestic inflation. Thus, both increases and decreases in official reserves are signs of disequilibrium.

Control questions to Chapter I.2.:

Describe unemployment as a social problem!

What are the dangers of inflation concerning the monetary economy?

Please define the term inflation and describe its main types concerning its sources!

How does inflation influence income distribution in the economy?

Please, define the terms growth and development!

What are the main problem areas of the external balance of countries?

Please describe the structure of the balance of payments!

II. The design of economic policy

In Part I. I introduced micro- and macro level market failures that divert economic processes from a socially desirable, expected path. I also emphasized that the social will can be various. Since individuals' utility functions are subjective value statements, many of the nuances cannot be ultimately formulated. Nevertheless, some basic values and features are shared by the vast majority and can be treated therefore as social consensus. Economic policy is about formulating these norms and directing economic processes towards them. Market failures show the need for an agent (the state) to express the collective motives and objectives, which is able to transcend the failures.

In Part II. the abstract potential for action of such an agent is described. The expected rational action should compensate for market inadequacies. This is the *normative theory of economic policy*. After the discussion of the desirable, optimal action plan in the second half of this part, I turn to the problem of realism of this hypothetical agenda. The normative theory postulates an agent who acts in the interest of indistinct individuals. This agent, the policy maker expresses the social will and translates it into a hypothetical social welfare function. Yet, because the economic system is not a bunch of indistinct individuals and the policy makers are not anonymous, both the content (social will) and the agent will be diverted from the hypothetically expected behavior and the abstract structure sketched by the normative theory. The normative model is therefore noised. This deviation is called *government failure*. It is necessary to address these problems and discuss potential treatment for them. This is the main content of the *positive theory of economic policy*, which is discussed in the second half of Part II. The normative theory serves as a yardstick for assessing the actual behavior of governments described by the positive theory. The normative theory's logical structure helps verifying the internal consistency and rationality of concrete economic policies so that they are not based on intuition or past experience of policy makers.

II.1. Normative theory of economic policy⁹

An important feature of the normative theory is the ability to plan economic policy steps. This means taking coordinated, consistent decisions. Through *planning* government's intervention

⁹ The differentiation between normative and positive economics served as concept basis for Accocella (2005) to apply the same distinction between concepts and practice of economic policy. The discussions in Part II use Accocella's idea.

can avoid piecemeal measures and can consider the full range of policy aims (social will) and the potential tools for each problem¹⁰. Hence, policy planning means the optimal selection from a range of alternatives to solve some objectives considering also the side effects and time requirement of the measures. The policy problems are also intertemporal. Planning helps designing such policy practice that assures the time consistency of public choices.

There are three main elements of an economic policy plan: targets, instruments and the analytical model. The *target* is an economic policy aim; an *instrument* is a tool that help achieving the target. Both target and instrument are expressed by economic variables. Changes in the instrument variable will induce change in the target variable in the desired way. This impact is inferred from economic theory and analysis that can identify the relationships between the economic variables. This is the role of *analytical models*. Abstract theoretical models describe these relationships as mathematical models on aggregate level (the macro economy) or a disaggregated level (microeconomic models). The analytical models differ according to the concept base of the school of economic thought that supports them.

Accocella uses the example of the Keynesian concept relationship between aggregate demand and employment to illustrate the functions of the three main elements of the policy plan Accocella (2005, pp 91-2). There could be a situation when policy makers may find the level of employment low (that of unemployment high). Employment can be expressed in absolute or relative terms. In order to solve the problem (low level of target variable N: number of employed persons) such instruments are to be found that can cause an increase in employment. The Keynesian theory provides models that describe the relationship between various sorts of consumption (C: consumption, A: autonomous expenditure), the propensity to consume (c), the level of income (Y), labor productivity (π) and employment. The following model describes the relationships of these variables:

$$Y = \pi N$$

$$Y = C + A$$

$$C = cY$$

If we substitute the second and third equations into the first, the employment variable (N) is expressed as a function of the other variables (the potential instrument variables):

¹⁰ This concept of policy planning should not be mixed of course with the concept of central planning. Central planning means the bureaucratic coordination of the economy without the involvement of markets.

$$N = \frac{1}{\pi} \frac{1}{1 - c} A$$

This equation offers three instrument variables (π , c and A) as potential levers to change the target variable (N). The potential instrument variables differ in terms of their controllability for the policy makers or the impact time required taking effect. Variable A composes of government consumption (G) and investment spending (I), which is directly controllable and also private investment which can be also influenced by policy action. More distantly also c can be considered as an instrument variable since the income distribution among various social groups having different propensity to consume can be altered. After we decide which instrument should be used we can solve the policy problem.

If we consider using autonomous expenditure (A) and take the government expenditure (G) component as the key instrument variable (leaving private investment constant) we can rewrite the previous equation to express how much G would influence the other variables:

$$G = (\pi(1 - c)N) - I$$

Based on this equation and knowing the values of the constant variables (c , I and π) and the target, it is possible to determine the level of G that will allow to reach the desired employment target (N). In other words: the model suggests a certain amount of government spending in order to reach a certain level of employment¹¹.

II.1.1. Economic policy objectives

After this brief illustration of how the three main elements of the economic policy plan work, we should also ask on what basis the *policy objectives* (the social will) are selected. Social will in this respect means the will of at least one major part of the society and the electorate. The concept of liberal market economy is at the heart of most economic policy discussions. It presupposes political democracy: the social will is expressed in the course of democratic political mechanism. The practical policy dilemma lies in the identification of objectives to pursue and the weight to give each. The objectives sometimes contradict, there could be some

¹¹ Needless to say, that this simple model describes the main rationale of the Keynesian aggregate demand stimulation concept only. The other variables of the equation all need careful consideration and even then, the real impact will depend on some additional conditions. Monetarist critics of the actual implementation of the Keynesian concept stated that the structure and efficiency of excessive government spending determines the outcome. If used without proper targeting the mere spending will not boost demand but increase inflation instead.

trade-offs between them. Preferences in the objectives' selection reflect the preferences of the electorate. Taking the well-known example of the United States, the two major parliamentary parties represent the interests of their traditional electorate. Their economic policy plans remarkably differ. President Trump deviated from the traditional values of the election winning Republican Party (2017-21) and relied more on rather concrete wishes of a smaller stratum of the electorate that he regarded important political supporter. His administration made very serious efforts to squeeze his "unorthodox" populist ideas into a somehow functioning policy framework. The normative economic policy framework helped the administration fitting the President's wishes into a workable policy practice.

The selection of policy objectives can be based on three principles that give more or less room for fine tuning of the trade-offs: the fixed target approach, the priority approach and the flexible target approach. The fixed target approach takes into account the trade-off between two variables fully. Improvement in one variable to the desired level will inevitably cause deterioration in the level of the other variable, which is valued less by social preference. In case of the priority approach, two or more objectives are treated, but there is a subordination. We treat the first objective as fixed target. The second and subsequent objectives' levels are then optimized in the delimited room of maneuvering. The flexible target approach compares various sets of objectives and optimizes the selection among them according to the perceived social preferences, considering also the budget constraint. This method is also called optimizing approach of planning because the target values are not pre-determined but defined in an optimization process in the opportunity frames of the model of the economy.

II.1.2. Economic policy instruments

The *policy instruments* are such variables that can lever changes in the status of the target variables. In other words: instruments must be *effective*. Another important feature is *controllability*. Policy makers must be able to decide what value the instrument variable should have and fix the variable with their own decisions. The third quality is *separability* of the variables concerning both their controllability and effectiveness. Sometimes the instrument variables have intrinsic value for the policy makers, thus becoming themselves also a kind of target variable. This happens in ways that are more explicit when there are ceilings or floors on the use of instruments. For example, many countries have some ceiling of government debt accumulation that limits the use of various policy instruments.

We can differentiate among the instruments from various aspects. Economic policy decisions and steps vary according to their importance, reach or the size of efforts. Policy makers may decide that one or another variable measure should change, increase or decrease. Changes in the value of existing instruments mean *quantitative policies*. If one new measure is introduced or another lifted, we talk about *qualitative policy*. These steps do not change the logic and orientation of the economic system. When this is intended, more complex redesigning of one or several elements of the economic system is carried out. The changes may alter the policy orientation, the main beneficiaries or the theoretical fundamentals favoring different policy concepts. These are *economic reforms* that consist of both qualitative and quantitative policy measures with an aim to fit with the new economic strategy. Reforms have significant institutional impact. They may include changes in the property rights (nationalizations or privatizations), changes in the financial system or in the rules of the game in certain (regulated) markets. Most comprehensive reforms may have constitutional importance¹².

The policy instruments can be divided according to their working mechanism. Some tools achieve their objectives by imposing a given behavior on some economic agents. These are the *direct control measures*. Other measures do not intend to impose a specific behavior, but rather influencing agents' decisions through changes of some variables. These are *indirect policy measures*. An increase in the base interest rate of the central bank would induce increase in commercial banks' interest rates. This in turn will attract more savings and some reduction of consumption. Indirect policy measures apply in three main policy arenas: fiscal policy, monetary policy and exchange rate policy. I discuss them in detail in Part IV.

We can differentiate among the policy measures also according to the frequency of their use. The framework institutions of the economy tend to be *stable rules* on the long run. Their stability is necessary for trustable business planning. A number of fundamental economic legislation pieces, like the Commercial Code or the Law on Financial Institutions, etc. regulate these institutions. The content of these laws is obligating economic actors and they are coercive. In other cases, the fine-tuning of economic processes require the flexible usage of some measures. These are *discretionary measures*, that are adjusted by the policy makers' decision.

¹² Economic reforms were pursued also in non-market economies. The reform of central planning in Hungary and Poland during the 1970s and 1980s also included some systemic changes. For example private business was allowed though in a strongly limited form. Obviously, the policy makers did not want to replace the main values of central planning, nevertheless there was strong ambition to introduce efficient incentives for better performance. This was the main content of the new policy concept. The current hybrid economy of China is a successor of Central European reforms of the command economy.

Some rules have double effects serving the solution of problems (mainly cyclical fluctuations) that would require discretionary measures. These are the so-called *automatic stabilizers*. The payment of unemployment benefits for example has been introduced in order to smooth increasing inequality produced by involuntary unemployment. The payouts increase in times of recession when unemployment grows. The payouts also increase aggregate demand (compensate for drops in aggregate demand) and thus serve economic stimulation to overcome the recession. Automatic stabilizers have the important advantage that they make government intervention quicker since they eliminate *time lags* of policy decision making. Such lags may occur at several points. There is an observation lag: decision makers need to collect sufficient amount of information about problems before they design the necessary response. The process of policy design also needs time and causes therefore administration lag. In addition, after the introduction of some measures it always takes time until they start to bite: there is an effect lag. Policy makers always need to count also with the time requirements of the policy tools. However, automatic stabilizers may help solving a limited range of problems. Therefore discrete measures are also used rather frequently. There are simply such nuances or sudden events that lay outside of the reach of the rules.

Control questions for Chapter II.1.:

What are the constituent elements of an economic policy program?

What are the main forms of economic policy objectives?

What are the main types of economic policy instruments?

How are economic policy objectives selected in a market economy?

What are the applicability conditions of policy instruments?

What are the main types of economic policy instruments?

II.2. Government failures and the positive theory of economic policy

II.2.1. Interest groups and their impact on policymaking

The normative theory of economic policy described the hypothetical optimum method of policy design. The optimum is the representation of public interest, the social will. However, this optimum way can be diverted by factors that do not work in compliance with this task. In particular the nature of individuals and the behavior of policy makers can adversely influence

the policy making process. The normative theory works with a policy maker who acts in the interest of indistinct individuals. In this framework government should take action to improve efficiency and the personal distribution of income that reflect the social will sustained by the idea of generic individuals. The problem is that the economic system is not composed of indistinct individuals. They are aggregated into *classes with shared interests* which likely act jointly through their organizations. These can take the form of interest groups, lobbies, unions, political parties and care about that their preferences prevail over those of other groups.

The influence groups have different level of power to shape the politically legitimated social will and thus the weights to be assigned to the various policy objectives. The problem of personal wealth distribution becomes a key conflict area between the interest groups, which is not foreseen in the normative theory. Therefore, from the viewpoint of successful policy design it is necessary to know how the individuals organize themselves to create common objectives. These aspects are not included in the neoclassical economic thinking (including Keynesian macroeconomics) which serves as a base model of the normative theory of economic policy. The aspects of power and class differences as well as the role of private institutions are discussed by other economic schools that belong to the discipline of *political economy*. This new school uses some important insights of political science to treat more realistically economic policy problems (see for example Persson and Tabellini, 2000). The *public choice school* treats government action to some extent as a reflection of special interest groups' influence.

Thus, the traditional figures of capitalists and workers no longer appear as individuals but as institutions representing their interests. In addition, other stakeholders like consumers, groups of firms, groups within the worker class organize themselves to better solicit government intervention in their particular interest. All these stakeholders may wish to influence government decision making in various forms. They might induce governments to pursue specific *policy attitudes*, for example expansionary or restrictive policies. They also can press governments to apply specific actions and *selective intervention* in their favor. Classic example is the introduction of trade barriers to defend domestic suppliers against foreign competition. Protectionism flourishes again in many countries including some of the most developed ones like the United States of America. Larger interest groups (political parties, unions, etc.) seek general intervention like tax policy measures. By contrast, a company or more marginal union may ask for support for individual firms or sectors via tax exemptions, subsidies or industry-specific measures. The influence may be exercised in numerous ways like voting, lobbying, using personal connections or corruption.

II.2.2. Principal-agent problems with policy-makers

The description of the existence of various power groups of stakeholders and their competition to influence government policy makers is conceptualized by some theoretical contributions. One such approach models the agency problems associated with *politicians* and with *bureaucrats*¹³. The principal-agent context provides a realistic analytical framework for the discussion of the decision making process. In this environment policy makers have own identity and personal ideas about the desirability of various policy solutions. They also have personal interest to pursue apart from the recognized social will. Therefore, there is intense need for institutional constraints or incentives to induce policy-makers work for the public interest. They also may face obstacles in the social environment or from the side of the executive apparatus that they have to overcome in some ways. Pursuing personal goals, facing problems with withstanding apparatus may divert policy makers from the application of the hypothetically optimal policy solutions of the social will.

As is seen the two key players in the policy decision-making process are politicians and bureaucrats. The former are elected and define the objectives of government intervention. The latter are employees and translate politicians' decisions into actual policy measures. Due to existing self-interest and hardships of the policy-making process, for both actors an *incentive problem* arises. Based on these premises Nordhaus (1975) formulated the so-called *political business cycle* (PBC) theory. In this theory, politicians' strong self-interest is to remain in office after the next elections. They can serve this interest if they take decisions that secure the support of their voters. The electorate may be divided traditionally among different parties according to their political concepts. Nevertheless, there are such policy steps that affect the whole electorate beneficially. Such policy action is attached among others to loose fiscal policy, for example increasing social transfers. Politicians' important purpose is to maximize the number of votes that they can expect to receive.

Such policies cannot be continuously maintained, the fiscal balance must be restored. Hence, in the post-election years fiscal tightening is due which then would eliminate much of the pre-election excess transfers in one or another way. Nordhaus assumed that voters were affected by

¹³ Originally, the principal-agent problem was raised in connection with the conflicting interests of firm owners and managers and the corresponding institutional framework of corporate governance (Jensen and Meckling, 1976). Later similar conflicts have been described for politicians and voters, as well as for relationships of bureaucrats and politicians.

memory loss and gave more weight to the pre-election good performance of the economy. They tend to be unaware of the negative long-term consequences, such as high inflation caused by the fiscal stimulus. This may happen since the inflation effect is delayed and do not disturb politicians in increasing their popularity at election time. The politically motivated turns of economic policy provides cyclical character to the economy, hence the name of the theory (political business cycle).

Extensions of the PBC theory stated that the cyclical character might be also induced by the differences in the ideological and political background of parties. The *partisan theory of the political business cycle* postulates that these traditionally set political values will induce conceptual changes in the objectives of economic policy. Taking the example of the United States, Democrats give greater emphasis to reducing unemployment and increasing social welfare services (see the Obama-Plan) than Republicans, who usually care more about macroeconomic stability.

This difference of political and social concepts of traditional “program parties” has been pushed in the background more recently. A number of politicians won elections with populist promises and pursued populist policies when in power (US President Trump, Russian President Putin, Brazilian President Bolsonaro, Hungarian MP Orbán, just to name only a few). In some cases the political practice of populist governments run into economic collapse (Chavez’s Venezuela, Siriza’s Greece) as the economically unfeasible populist political promises ruined the budget and the economy. President Trump’s administration (the bureaucrats) did all their best to stop the President’s most unviable ideas from execution. Populist Hungary’s “illiberal democracy” and “unorthodox economic policy” seems to be a success story because of two external stabilizers: EU transfers and strong dominance of multinational companies in the economy.

II.2.3. Principal-agent problems of bureaucrats

The other main actor of the political decision making process is state administration or *bureaucracy*. Their role is to implement the measures of the politicians. As the above story of President Trump’s administration showed, there are sometimes serious conflicts between bureaucrats and politicians: this is a classic principal-agent problem. However, the problem raised much before the aforementioned recent spread of populism in politics took place. Bureaucrats’ concrete actions are shaped by their behavior to *seek the maximization of their own utility* at the expense of public interest. This behavior is certainly not necessarily simple

fraud, but rather the satisfaction of bureaucrats' personal aspirations regarding income, prestige, power.

Sociologists argue that most of these aspirations are linked to the size of the department or agency where the government officials work. There is a bias in the decision making process towards *increasing the size of the organization*. Because of the centralization of bureaucratic functions, there is double monopoly position of the various departments. On the one hand regarding citizens (bureaucrats are the providers of public goods) and in relation with politicians who exclusively use the departments (as bureaucrats' principals). In the bilateral monopoly position the result, the level of government activity depends on the bargaining power of the parties. The situation usually favors the bureaucrats due to the information asymmetry compared with the politicians.

Due to this problem, government activity also tends to generate *high costs due to operational inefficiencies*. This can be attributed to the relative scarcity of efficiency boosting innovations in the sector as compared with ordinary business¹⁴. Another reason of inferior efficiency can be the relative difficulty of measuring the size and quality of the results or the existence of multiple objectives of government activity. Evaluation of the government work is usually also biased towards quality and not much concerned with the costs of activity. The problems are difficult to overcome. An increase for example in the number of organizations can easily lead to serious confusion of entitlements and responsibilities thus paralyzing government action.

The second problem with government bureaucracy and its double monopoly position is the existence of *shirking and the corruption* of government employees by individuals. In worse cases, the government officials may form bureaucratic oligarchies that enjoy special preferences over those offered by the democratic process. These kinds of opportunistic behavior can be controlled in two different ways. On one hand the rules of the administrative procedures can be set in sufficiently rigid way with obligatory reporting that discovers deviations from the rules (negative incentive). Another solution can be the application of positive incentives linked to the output. In reality, a combination of the two is plausible.

¹⁴ This statement holds in general, but of course, there are periods of rapid technological change when the spread of certain innovations affects also government work. We are just amidst such a period; hence the spread of e-governance has increased the efficiency of the bureaucracy rather substantially in the past two decades.

II.2.4. Government failure

We approached the discussion over the optimal extension of market and government regulation in the economy based on the comparison of the limits of the two coordination mechanisms. This means a comparison of reasons and effects of *market failure* and *government failure*. Many of the most problematic cases of market failure are posed at very high level of abstraction (e.g. externalities of public goods). They consist of a logical and an empirical problem. At lower level problems are associated with moral hazard inducing both market and government failures. We may state that the incentive problem is typical for all kinds of institutions both private and public. Hence, these problems are comparable. One important tool of comparison is the transaction cost theory (Coase, 1960).

The comparison of moral hazard in private and public institutions includes various aspects. To begin with the important question of measurability arises. As I mentioned we usually measure the performance of private actors in monetary terms. Performance measures of government agencies and bureaucrats are usually non-monetary measures (unemployment rate, economic growth, etc.). Hence, due to the lack of a common (monetary) denominator it is not possible to compare directly. The multiplicity of government targets also cause monitoring difficulties. Concerning the extent and nature of the agency situations it is clear that due to multiple agency situations in government (electorate, politicians and bureaucrats) problems in the public sphere are more severe. A further important issue is the impact of *complementary institutions*. It is a widely shared view that incentive problems of private managers can be solved in addition to monitoring by owners if they are also subject to the discipline of the market (e.g. Fama and Jensen, 1983). The market may force the firm into bankruptcy or launch the replacement of incumbent managers following a hostile takeover. Complementary institutions have more plausible effect on private business than on government organizations.

Politicians' and bureaucrats' discretion can be reduced by the usage of appropriate rules. Some rules may limit the accessible room of maneuvering and impose a ceiling for government action. This is most widely used in constitutional ceilings of budget deficits, or the institutional separation of fiscal and monetary authorities the later controlling the first. These tools can limit the inflationary pressures that might be imparted by politicians and bureaucrats. Normally the rules are devised to reflect the values of the majority of citizens. Formal rules gain importance especially if there is deep social division in a country. In comparison, *unwritten rules and customs* that had been formed over centuries in spontaneous processes are observed in societies that are more cohesive. Policymaking is a dynamic process that seeks to implement rules and

organizations to cope with the limitations of participants and their actions (Dixit, 1996). The process requires the participation of citizens and social groups in political life and administrative activity. Their impact and control that they can exercise are difficult to replace with written rules and often create the basis for the unwritten ones¹⁵.

Control questions to Chapter II.2.:

Why is the application of the normative theory of economic policy limited? What are the main sources of government failure?

Please explain the political business cycle theory!

What kind of agency problems emerge between public interest and bureaucrats?

III. Microeconomic policies

Microeconomic policies are applied on three major areas. They ensure the “normal” working condition framework of the conduct of economic activity. These are the standard rules of the game on which market processes produce a desired optimum. Whenever the market processes are ineffective in achieving this task, microeconomic policies seek to correct the actual operation of markets. These interactions must serve the static and dynamic efficiency of the economy. Third, microeconomic policies ensure the equitable personal distribution of wealth so that the equity principle prevails. Finally yet importantly in the presence of externalities these policies guarantee the supply of merit goods.

Policies that ensure the existence and operation of markets represent the minimal state. This is a necessary minimum function that governments must provide that creates the working conditions, institutions for the economy. Most important aspect in this regard is the attribution of property rights (as the fundamental social institution of capitalist economies). The property rights are assigned to individuals or in selected cases to the state or other public bodies, public enterprises. The first section of Part III discusses these policies.

¹⁵ A negative example to illustrate this relationship is the most current practice of some East-Central European countries (especially Hungary and Poland). The autarchies that evolved in these countries during the 2010s caused significant “backsliding” in the effect of democratic institutions. The deliberate elimination of many democratic control institutions aims the lifting of social control over government action, which in turn seems to suffer from serious moral hazard problems (Chepurenko and Szanyi, 2021).

Corrective policies are used for the compensation of market failures occurring due to various reasons: the existence of externalities, public goods, transaction costs or asymmetric information. They also correct for divergences in actual markets from the ideal model of the normative policy due to economies of scale, collusion of agents and barriers of entry and exit. The purpose of these measures is to improve allocative efficiency. The improvement of dynamic efficiency is also sought for through changes in the spatial and structural features of the economy. Redistributive policies correct for better access of equity in the economic system.

III.1. Property right regulation and corporate governance

III.1.1. The assignment of property rights, corporate governance

There is a basic understanding in the economics profession that the state must exercise some functions that establish and maintain the functional framework of market economy. The minimal duties of the state are *assigning and protecting property rights and economic contracts*. These features are essential for the proper functioning of the markets. The legislative activity of assigning rights is the very foundation of the market. The actual way in which these are defined will also influence income and wealth distribution and the efficiency of the markets.

Assignment of rights is necessary but not sufficient condition of proper market functioning. Agents must obey the laws and this must be also guaranteed. In established market economies, the institutions of private property are embedded in social life. The most effective means of the “rule of law” is the understanding and acceptance of laws¹⁶. The rule of law must be supported also by some coercive mechanisms. The judicial activity interprets the laws for real-life situations. Coercive action (police) ensures that the holders of rights are protected from those who might still threaten the use of the rights. It seems self-evident that any market transaction is based on the proper definition of the owner of the property right over an asset. Transactions would not be conducted if buyers would not be guaranteed that the seller has legally secured possession of any good or asset.

Assignment of property rights may be rather complicated if related to complex sets of assets like a company. In this case, certain elements of the property rights are transferred from the owners to specialists who run the company. They are the *managers*. The *separation of ownership and control rights* serves the effective functioning of the firm. I have already

¹⁶ In road crossings cars do not stop if they got red light because drivers are afraid of potential punishment by the police, but because they are aware the horrible outcomes of a potential major crash which is controlled by the usage of the traffic light.

mentioned the agency problems of politicians and bureaucrats in the previous section. Similar principal-agent relationship exists between owners and managers of the firm (Fama and Jensen, 1983). One of the important areas of property right attribution is *corporate governance*, the institutional separation of the rights and entitlements of owners and controllers, which is typical in modern corporations. In addition, modern listed corporations usually have dispersed ownership structure with numerous bulk shareholders and a large number of small shareholders. The relationship of the various owners must also be regulated in the corporate governance rules. To name only one more problem of property right assignment, companies, which work with borrowed capital (risk capital or debt capital), also must share some of their property rights with creditor claimants. This relationship also needs regulation.

Since the controller and the owner differ, their relationship must be regulated in order to achieve efficient outcomes despite of the conflict of interest between them. The statutes of the modern corporations are based on the countries' commercial codes, the main piece of legislation with economic content. These establish those *governance bodies* within the corporations that seek to fulfill two parallel tasks. The first is to encourage the controller (be it the owner or non-owner manager) to manage the firm in the interest of all owners and seek profits rather than personal interests. Another task is to encourage non-controlling owners to provide the capital necessary for the firm. Their minority interests must be protected from possible misuse by controllers. Besides the legally required governance bodies (like boards of directors, assembly of shareholders, supervisory board) *complementary institutions* may also play important role in governing property rights.

Theory attributes important role to the control of stock markets as complementary institution. Owners may change the firm's control when the controller proves inefficient. Either controlling managers are fired or owner's shares are sold to another owner who replaces the controller. The sale of owners' shares is called *takeover*. Takeovers may act as a deterrent to the abuse of power by the controller. Especially strong deterrent is the *hostile takeover*. In this case the share price of the company drops below asset value because of malfunctioning management or strong speculation against the firm. In most cases, hostile takeovers take place when management is engaged in risky undertakings or the company is highly leveraged. Management should avoid such situations since the news about such situations can easily launch speculation on the stock exchange that may lead to the collapse of share prices. This means in other words a great loss of corporate asset value, an immediate loss in the wealth of the owners. Managers who are

thought to be responsible for such events will lose reputation on managers' labor market and would not find other matching jobs (Fama and Jensen, 1983).

Further complementary institutions of corporate governance is a series of contractual instruments. Baseline contract is signed between the owners and managers that contain appropriate incentives and penalties. There are also measures that limit the transferability of the property rights or voting rights of non-controlling owners, or introduce some limitations on them. Shareholders may also form *voting pacts* to increase a party's power in the control bodies. In some countries, fiduciary relationships (e.g. family ties) play important role in corporate governance.

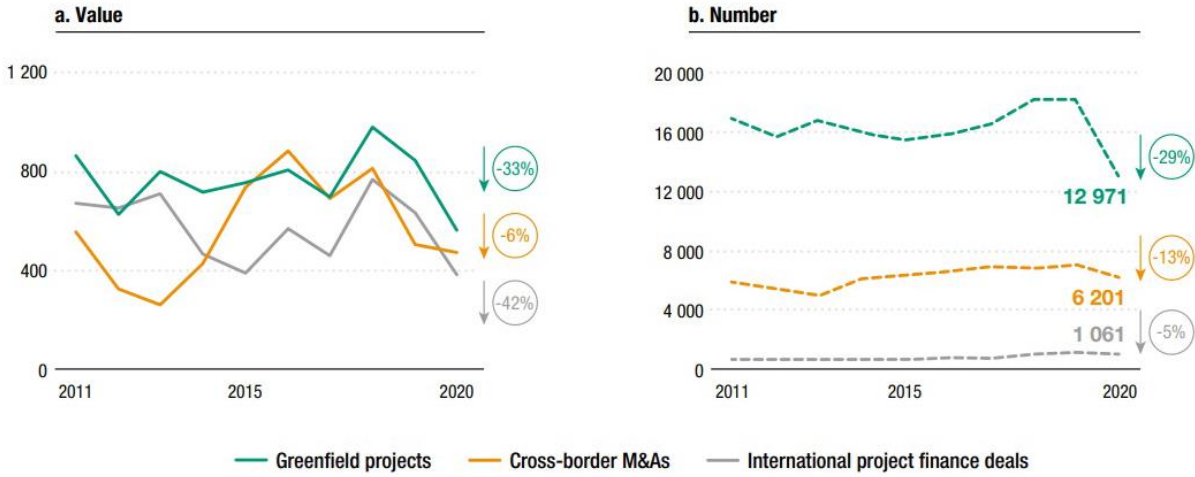
The complementary institutions of corporate governance, especially takeovers presuppose the existence of a large market for corporate control (stock exchange). It can provide the availability and circulation of information and platforms for the exchange of shares. Another option is a strong network of financial institutions involved in debit finance. They can assess the reliability of the owners of enterprises who need additional capital for their business.

Takeovers may play important role as auxiliary corporate governance institutions. However, many takeovers or using a broader category *mergers and acquisitions* (M&As) have other functions than disciplining the actions of managers. They are the primary tool of corporate expansion to create business empires. Current day capital flows are largely such changes in owners that seek to achieve long-term strategic goals, unleash synergies due to externalities, and cost sharing. A more traditional aspect of takeovers has been the reduction of competition and increase of market power. Chart 2. depicts foreign direct investment figures (cross-border capital flows acquiring or establishing new ownership entities).

As is seen, much of the capital flow does not create a new facility but takes over the ownership of already existing entities. Furthermore, in some years cross-border M&As exceeded the value of greenfield investments. We must consider such mega deals like the acquisition of Columbia Pictures by Japanese Sony or the continuous expansion of Microsoft or Google with the acquisition of many smaller scale niche specialist companies like LinkedIn or Skype. From the economic policy viewpoint gaining dominance on markets which is sometimes the purpose of takeovers will reduce allocative efficiency and hence must be controlled. I will discuss this issue later with the topic of competition policy.

Chart 2.

Announced greenfield projects, cross-border M&As and international project finance 2011-2020 (billions of dollars and number)



Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics) for M&As, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

III.1.2. Basic models of corporate governance

The combination of ownership institutions and complementary institutions in corporate governance structure varies country by country. We can talk about three main types of corporate governance solutions. In the *German-Japanese model*, ownership and fiduciary relationships are the main ingredients. Organizations (other firms, banks) closely monitor the activity of the company often control ownership of firms. Ownership is very much concentrated in the hands of a few shareholders. Banks play a major role in this model. In order to accentuate the control of major shareholders the overall amount of share capital is limited. Instead, bank financing is the predominant source of external finance. Banks possess at least informal influence on company strategy. Stable ownership pattern allows the development of long-term strategies involving also technological innovations. However, this stability may also lead to dangerous combinations of economic and political power. Interests of minority shareholders are poorly protected in this model. In some Mediterranean countries and to some extent also in the Nordic states the German-Japanese corporate governance systems prevail, albeit not under the guidance of financial institutions but rather families. In the *Mediterranean model* wealthy families usually directly control company management. In these two models stock markets do not play important role, and they are relatively underdeveloped.

The *Anglo-American model* is different. Long-term strategy and its implementation is entrusted to a controlling owner, but as an important complementary institution financial markets also play important role. It can also remove the inefficient controller. If managers' decisions do not pursue the profit maximization objective, owners may sell their shares. This reduces the value of the firm and encourages other investors to buy it when they see opportunities to raise that value by removing the current management in the takeover process. When share ownership is very much widespread and no strong controlling owners act there is a danger that managers concentrate efforts solely on short-term financial positions of the firm. Long-term developments that do not bring immediate return may be neglected, and thus the long-term profitability of the firm can decline.

Control questions to Chapter III.1.:

What is the role of minimal state?

What does the term "rule of law" mean? What institutions strengthen the rule of law?

How can the state assign property rights and why is this an important task?

What are the main areas regulated by the bodies of corporate governance?

Why can agency problems occur between corporate managers (controllers) and owners?

How does market discipline help solving agency problems within the firm (hostile takeover)?

What are the main features of the German-Japanese corporate governance structure?

What are the main features of the Anglo-American corporate governance structure?

III.2. Competition policies

The achievement of Pareto efficiency is usually at the heart of competition policies. This can be implemented by the *liberalization* of markets including their opening to the world. Liberalization of the economy became more commonly used economic principle in some periods (late XIX. century, the era of the Great Moderation 1985-2007). In other periods its counterpart, *protectionism* against foreign competition was stronger. David Ricardo's 1817 comparative advantage theory served as primary basis for the liberalization concept. This states that international specialization and the exchange of goods will provide benefits for all participating nations. While this is true, criticism can be raised that the distribution of the benefits is usually very uneven favoring the more developed, stronger nations. The correction

of this situation is possible if the uneven power relations are smoothed through an increase of competitiveness of less developed countries. In order to achieve this temporary protection of the domestic markets and actors should be introduced which can be lifted once domestic actors gather the necessary expertise and grow in size to successfully compete the long established foreign counterparts.

International opening can be a useful instrument to reduce the market power of firms in markets of *tradeable goods*. But not all industries are exposed to international competition. Basic commodities and manufactured goods are tradeable, most services, especially personal services are not. Consequently, international competition is not effective on these markets. The impact of international opening usually has positive effect on competitive performance in the short run. However, recent trends of globalization created global monopolies and oligopolies, which then would not necessarily bring more competition after opening has taken place. One or a few companies dominate some global markets (e.g. the long-range jet aircraft industry having only two companies: Boeing and Airbus). On other markets, the oligopoly is strengthened by strategic alliances of large manufacturers and service providers (global automotive industry, air transport industry). Obviously, these markets have no effective competitive pressure. I will return to the issues of foreign trade later.

State *regulation* can safeguard or potentially intensify market competition. Regulation indicates direct control measures through which authorities govern the activity of private agents in a given area or under special circumstances. Regulation involves legislative and executive action. In case of competition policy the regulation of market entry and effective competition stand out. Areas include authorization of market entry for reasons of hygiene, professional sophistication or financial stability; the extraction of monopoly rents (when the license of conduct is dependent on payment of a fee); the establishment of a minimum number of market agents (with the potential breakup of monopolies or establishing public companies as new market players). The other area of competition policy action is the regulation of the structural elements of the market and the conduct of firms. Some other areas of regulation may also have impact on market structure and competition. Such are tariffs and price controls, environmental regulation, financial regulation, regulation of intellectual property rights, and others.

It is important to bear in mind that regulation is especially exposed to the pressure of influential interest groups as it was described in the section on the positive economic policy. Among the countless smaller or larger attempts to influence government action by lobbyists, I mention one famous case that induced the later Nobel Prize laureate Paul Krugman to step in the discussion

(Krugman, 1994). The neoliberal policy wave of the 1980s increased competitive pressure on many American markets. In complete branches like consumer electronics, shipbuilding, steel industry cheap and qualitatively improving foreign competition effectively wiped out of the markets American. Their lobbyists tried to move the US government for the introduction of protectionist measures on various markets, claiming that the US “national competitiveness” suffered. Krugman called attention to the reason of declining competitiveness of US firms: the slowdown of productivity growth. This cannot be restored by protectionist measures. Later the US economy evidenced periods of accelerating productivity growth as well as the boost of completely new industries and fundamental economic restructuring. This was the later response of the US economic system to the shocks that emerged with growing foreign competition and declining domestic productivity development. Withstanding protectionist pressures payed off¹⁷.

III.2.1. The regulation of market entry and exit

The *regulation of market entry* may serve various purposes. For example, it can support the income of incumbent firms or protect consumer safety by guaranteeing quality to the benefit of consumers. The pursuit of these objectives may limit the entry to the market because of the establishment of various restrictions. However, from the viewpoint of efficiency instead of restricting market access policy makers should rather encourage firms to enter the market. This can be achieved by reducing natural entry barriers or those created by incumbents or previous regulation itself. As I mentioned earlier, the mere possibility of market entry can influence firm behavior through increasing contestability of the markets. This will also increase the efficiency of the market. The removal of government barriers to market entry and exit may have the same effect and control the strategic behavior of incumbents. Yet, we cannot eliminate entry and exit barriers entirely, since market operation requires investments that are not always mobile. These costs are the so-called *sunk costs* that have to be written off in case of major activity change.

Large market concentration can evolve in the existence of natural monopolies or in the presence of scale economies. In both cases, firm size reduces the marginal cost of production, which can lower market prices if not compensated by monopoly profit. Hence, regulation may want to establish effective competition that reduces monopoly profit, yet, if it is also bound to limits of

¹⁷ Similar situation evolved after the 2007 crisis, which led to similarly growing pressure on the US governments that culminated with the presidential election of Donald Trump who run a campaign with strong protectionist messages. Some of his promises were realized most importantly trade restrictions against China and the European Union. These measures then fought back on the US economy when the replacement of cheap imported inputs increased the price of a number of important American products (especially in electronics).

firm size, part of the saving will be offset by higher market prices stemming from less scale economies (for example in case of breaking-up monopolists to several smaller units). Thus, changing the market structure by regulation may work well in markets with no scale economies. In other cases governments *auction for market* positions. This is frequently the case with natural monopolies, especially in mining with the extraction permits. In this case, interested firms compete before the activity starts and conduct production under pre-determined contracts that may control for the distribution of monopoly rents (the difference between the marginal cost and the market price). In other cases, contracts may include market price regulation (for example in case of telecom services). Auctioning may also be used as an instrument for stimulating contestability if the permits are temporary and periodically rewarded.

The advantage of auctioning is that it can extract monopoly profits and achieve efficiency with relatively little burden on the regulatory authority. Yet, in most industries, it is not applicable because of specific reasons. One important barrier is that auction participants may collude thus curtailing competition for the licenses. In many cases, incumbent firms have important strategic advantages over potential new entrants. For example, the gathered technological knowledge or a well-established brand may provide strong competitive advantage. However, the accumulated proficiency sometimes strikes back. This can happen in times of dynamic technological progress, when incumbents rely too much on their gathered expertise and neglect new opportunities¹⁸. Because of the drawbacks of regulations that aim directly increasing market rivalry, *competition legislation* more routinely seeks ensuring that the market power associated with scale economies and barriers to entry and exit is not exploited.

III.2.2. Control on market concentration

Competition legislations aim the control over market power concentration and the exploitation of existing monopolies that would cause allocative inefficiency of the market. Such situation can evolve in case agents meet agreements to limit competition or when previous competitors merge to a single company. The increase of market concentration is potential danger to competition and is effective if there is an abuse of a dominant position. However, market

¹⁸ One famous case was the Nokia cellphone. Nokia used to be market leader in cellular telephony, did not invest however in the touchscreen technology. Within very short period of time Nokia devices became obsolete and the firm went bankrupt. The same happened to Xerox Inc. 40 years earlier in the photocopier machine business. Xerox used to be obsessed with ever-increasing quality of the images and neglected the quick, low-quality mass scale market segment, which was captured by new Japanese entrants like Cannon and Fuji (Drucker, 1985).

agreements but especially mergers may serve obtaining increases in production efficiency for example through scale economies. These efficiency gains may offset losses in allocative efficiency. It is therefore necessary to examine the subject cases one by one to map the expected economic impacts. The activity of competition legislation thus seeks to affect the *market structure* (control for market concentration) and the *conduct of firms* (collusions, abuse of dominant position). Concerning market concentration and structure, legislation can force firms over certain level of market share to divest some of their business. Another practical option is to measure and punish the exploitation of the dominant position.

Dominant position effectively means that using their market power firms can set prices on their representative markets that are above the long-term marginal cost. Competition policy controls would indicate unlawful methods used to obtain the dominant position, for example the erection of strategic barriers for new entries, or the abuse of such a position (e.g. imposing unjustified onerous prices or other contractual terms) and other discriminatory practices. In case of collusive agreements between firms, elements of conduct are again important and the authority needs to investigate properly if the agreements improve the performance of the affected firms in some other ways than simply increasing market power. For example, agreements may enhance the innovative activity of firms (this may be a major content of long-term strategic alliances) and thus improve dynamic efficiency of markets.

III.2.3. US antitrust legislation

One of the basic models of competition (antitrust) legislation and jurisdiction is the practice of the USA. The American traditions are rather special. Being a large economy domestic markets provide plenty of business opportunities and the sheer size of the markets allows many companies to compete. Besides, the large size also reduces the importance of trade relations: the USA is not a small, open economy. Therefore, traditionally, competition policy issues were discussed more within the national framework and foreign competition was not regarded as a substantial policy tool. The situation of course changed somewhat in the past fifty years with the USA becoming the largest trade partner of the world, and later with the ever-increasing trade deficit of the country. Yet, when the institutional foundations of competition policy were established the country was a large and rather closed economy.

The strong anti-competition pressure of American big business at the end of the XIX century urged the US government to develop his *antitrust legislation*. The 1890 Sherman Act prohibited

collusion of market players if this would restrain trade and commerce. The same act deemed criminal action any monopolization of trade. This later statement focused on the creation of monopolistic position rather than the actual abuse of such a position. The identification of specific violations of antitrust law was assigned to the judicial system.

Not much later, the practical needs of the procedures called for the establishment of a permanent institutional background that safeguarded the antitrust regulation and practice in the country. The *Federal Trade Commission* (FTC) was established for this purpose in 1914. The Commission has three main roles. First it provides general assistance to the actual definition of many aspects that may appear in relation to the antitrust laws. A second role is to prevent and repress unfair competition. Thirdly it conducts investigations on suspected instances of restraining trade. FTC forwards the results of such investigations to specific courts. Thus, FTC has no authorization to take measures; these are decided upon by the American jurisdiction. Since FTC is not part of the US jurisdiction, the independent judges do not necessarily share its suggestions for the individual cases.

III.2.4. European competition policy

Competition policy institutions in Europe evolved differently. Some European countries had no competition legislation at all until their closer integration in the European Communities. For example, France introduced this institution in 1986, Italy in 1990. In general, European countries' practice with monopolies has been more forgiving than the US. This was the heritage of stronger state development ambitions: continental Europe has always pursued policies to develop and grow to the same size and sophistication than their main trading partners: Britain and later the USA. This active structural involvement required looser policies with "*national champions*" the companies that deemed to compete on international markets. In many cases, these large companies were state owned or collaborated very closely with the state. Thus, in many cases *industrial policy* concerns tempered the goals of competition policy.

Industrial policy considerations were reflected also later in the EC-level competition policy legislation. The idea of "Fortress Europe" was extended from the area of trade policy also to competition policy issues. Accordingly, the practical implementation of competition law should not weaken the ability of Europe's economy to fend off foreign competition. The European competition law is broadly based on the US legislation. Its first document is the 1957 Treaty of Rome which was amended in a 1989 Community Regulation. These documents give the

executive power to the European Commission. The Commission has established the Competition Directorate General headed by the commissioner responsible for competition policy. The Commission is authorized to pass binding decisions, yet these can be appealed to the European Court of Justice. Legal harmonization in the EU required the national legislations to consider and introduce the European competition regulation in their own legal systems.

The European legislation prohibited all agreements and concerted practices of undertakings that affect trade between the member states and which object the prevention, restriction or distortion of competition. Agreements to fix prices, share markets, apply dissimilar conditions to equivalent transactions, limit production or tie contracts to other obligations are considered void and forbidden. However, the same act also lists some conditions based on which there may be exemptions from the general rule. Such are cases when the objected actions contribute to an improvement in the production by promoting technical or economic progress, or when consumers are allocated fair share of the resulting benefits. The Commission initiates proceedings following a complaint if it realizes signs of collusive behavior. If such behavior is proven the Commission is entitled to suspend the agreement and impose penalties on involved firms. In other cases, the Commission can informally request the accord dissolved or amended so that it does not harm competition. The regulation precisely describes the steps of any antitrust procedure in the European Union. Accordingly, first the relevant market needs to be defined, then the dominant position in the market identified. Finally, the concept of abuse of the dominant position needs to be clarified.

The *relevant market* is defined taking into account the product, geographic reach and economic impact. The definition of product characteristics describes the way that the product satisfies consumer needs. The relevant geographic reach can be local, regional, national or global, very much depending on the features of the product. A dominant position in some markets does not necessarily distort competition. Not only because the monopolist occasionally does not abuse it, but also because many products have many close substitutes. For example, not only Pepsi and a number of other less significant cola products, but other types of soft drinks and eventually mineral water challenge the market position of Coca Cola too. In case of car industry local production of 1-2 brands means high market concentration, yet, the automotive industry is global; hence, national car sales are not disturbed by the concentrated market structure.

The evaluation of the *dominant position* is not based solely on market share. Dominance means market power, which is expressed more closely by the effective capacity of a firm that may be used to exercise pressure on other market players in an anticompetitive behavior. In addition,

many other structural elements of the markets must be taken into consideration: the number of participants, levels of entry and exit barriers, the degree of vertical integration in the branch, etc.

Finally yet importantly, the antitrust procedure must prove that agents *misused the dominant position* and significantly reduced competition in the market. In the European practice, all external growth that increases market share by firms in dominant position is treated as abuse of the position. This strict interpretation of the rules poses the basis for close control over mergers and takeovers in Europe. These transactions must be reported and before they could take effect, the European Council must approve them. The approval is rejected if it evidently leads to the deterioration of allocative efficiency on the relevant market, which is not compensated by economies of scale or increase of dynamic efficiency (e.g. in form of increase of innovative potential).

The European level of competition control takes effect over certain threshold. National authorities are responsible for other operations. Besides the firm-centered anti-competition practices, the EU law also prohibits governments to use competition reducing and distorting policies, for example selective export or investment subsidies. Normative aid measures that support limiting regional inequalities, increased R&D effort or environmental development are permitted. In addition, sectoral aid in some “strategic branches” like shipbuilding, fishery, and steel are also exempted by the commission.

There are markets where the optimal conduct of business requires large scale economies, which are attributed to concentrated market structure. Public utilities but also some other service sectors like telecommunication need this in order to ensure the return on large-scale investments. Most of these markets are not just concentrated but also deeply regulated. For example, in the case of telecommunication there are various laws that require certain behavior from the agents including an obligation to share their networks and the conditions of their contracts. This is necessary in order to allow subscribers unlimited network usage. In many cases, government authorities also directly influence market prices or other contractual conditions. *Market regulation* is always a very complex issue that must take into consideration the vendors’ business interest and simultaneously consumer interests. These regulations are extremely market specific. However, all of them regulate in some ways market prices.

III.2.5. Price controls

Price controls involve setting maximum or minimum prices. If the objective of the price control is to guarantee certain income level for the suppliers of a good or service authorities may fix a minimum price. The most important case of using this tool is the Common Agriculture Policy (CAP) of the European Union. For antimonopoly purposes, the setting of maximum selling price is more typical. Also, in this case the baseline consideration is to secure an expected level of profit. There are several potential ways how this profit rate target can be achieved. Unfortunately, none of them seems perfect; all of them may induce some opportunistic behavior with negative long-term effects (reduction of allocative or dynamic efficiency).

Fixing a certain percentage rate of profit over unit costs for example can easily lead to unnecessary increases in production costs. Fixing the rate of return on capital would determine the maximum unit price. However, this would provide incentives for firms to choose capital-intensive techniques that is usually regarded not optimal. Finally yet importantly, the regulator may set a maximum price. Setting a price cap implies a certain profit margin if costs are given. If firms seek allocative efficiency and costs reduced, the profit margin can increase. The price cap can be reviewed and actualized over certain time range. Inflation, technological progress and other processes can be taken into consideration for changes.

In baseline situation the objective of regulating a private firm is to constrain firm behavior in some areas (e.g. in setting prices), while allowing it to stay in business¹⁹. The firm must be able to cover all costs and earn a minimum rate of profit to ensure survival and possibly growth. However, the rate of profit must not be too high, since its limitation is the primary purpose of the regulation. There is a risk therefore that the firm will earn excessive profits. On the other hand, there is also the danger that investment will be discouraged by a low rate of return or due to uncertainty about the price level. Hence, the revision of authorized market prices needs cooperation between firms and authorities. Government needs information about the market processes if it intends to correct prices in addition to the mere indexation to consider the impact of inflation.

¹⁹ I do not deal here with cases when price control served other purposes than improving market efficiency. Price control has also been used in the practice of some East-Central European governments to achieve political goals. For example, the reduction of public utility cost was used for winning election support. The service providers would make loss can be compensated by government transfers. Obviously, such politically motivated interactions disregard the most elementary considerations of market economy. They leave the frames of economic policy and enter the arena of populism and predatory state. These wildings grew beyond the theoretical framework of this volume and I discuss them elsewhere (Szanyi, 2022).

Control questions to Chapter III.2.:

How can economic policy increase competition on markets?

How does trade liberalization affect market competition?

Please explain the role of entry- and exit barriers in the contestability of markets?

How can governments regulate concentrated markets?

How do you interpret dominant market position and its exploitation?

Please explain the main tasks of competition legislation!

How are antitrust procedures regulated in the EU?

How is the relevant market defined in EU antitrust procedures?

How is dominant position and abuse of dominant position defined in EU antitrust procedures?

What are the goals and instruments of price controls?

III.3. Sectoral policies

Sections III. 1 and III.2 discussed policies that aim to secure allocative efficiency of the markets. Other microeconomic problems are addressed when the objective is to increase *dynamic efficiency* of the economy. Some forms of market failure play a role also in this respect that call for public intervention.

Dynamic efficiency means the ability to manage change or react to change introduced by others to secure higher profits and faster growth. This ability is linked to various features of the productive structure of the economy. I already mentioned the role of the size and international openness of the economy that influence competition and allocative efficiency on domestic markets. Yet, not only the macroeconomic features but also many lasting microeconomic features determine dynamic efficiency. These qualities include the sectoral composition and regional division of production, the amount and quality of available economic resources (physical and human capital), accumulated entrepreneurial knowledge in the field of the management of innovations, the technological capabilities of firms, cooperation and integration patterns among firms, market structure and concentration.

Economic policy views markets and corporate activity from the point of the national economy. Hence, the activity range of national firms is an important issue albeit of course it depends on capital owners' sovereign decision how they would like to use their assets. Quite obviously, if an economy *specializes on sectors* that have large growth and development potential in future

it can retain competitiveness, growth and employment on the long run. Similarly, the introduction of new innovative technologies can increase output growth. New product innovation may create entirely new business opportunities adding to both economic output and employment (new jobs created). The *innovation process* is also about continuous change in business activity and the sectoral composition of the economy. Moreover, it also influences specialization and labor division on both micro- and macro level. The relationships between firms and other actors in productive sectors plays a key role in determining innovative capacity²⁰.

III.3.1. Industrial policy

The operation of market forces alone does not necessarily guarantee the most efficient productive structure. There is therefore scope for public action. The policies that aim to modify the productive structure and thus increase allocative and dynamic efficiency are called *industrial policy*. These policies alter the sectoral composition of the economy; induce changes in the productive structure for example in technology or sectoral cooperation patterns. As it frequently happens, policy measures may have implications for different policy objectives. I mentioned in this regard the example of the EU competition policy legislation. Concentrated market structure is treated negatively if the negative impacts (less allocative efficiency) overshadow potential positive ones (increasing dynamic efficiency and scale economies). In other words: companies with high innovation potential are not constrained if they achieve monopoly positions through their innovations. State intervention in the area of property right assignment can take the form of establishing public companies. Some of these can be created in order to alter economic structure. State-owned companies may overtake the risk of innovation as well as the extensive costs of investments if private business (and markets) fail to engage in activities regarded desirable by the public. Fiscal incentives for certain activities (tax allowances for example), public procurement policies and trade policy are also frequently used tools of industrial policy.

The active state intervention in shaping economic structure has already been started in the XVI century and the first systemic policy with this focus was probably mercantilism. The aim of the

²⁰ Modern theories of innovation give much emphasis for the national innovation systems (NIS). Innovation is regarded as a social process with several cooperating actors including firms, consumers, financial institutions, the academia (universities and research institutions) and development agencies. Technological development requires contributions from all these actors and will influence their coevolution in the NIS (see: Dosi and Nelson, 2010).

practices was to increase industrial potential of “second line” monarchies like France, Prussia (Germany) or Russia as compared with the industrial workbench of Europe, the British Empire. Later, in the XIX century theoreticians developed the concept of economic nationalism to explain and justify similar practices. The temporary subsidization and protection of national business served the future increase of competition in the markets with the entry of new potent players. The aims and rationale has not change ever since, but the applied toolkit was amended several times. After the Second World War, the active structural policy has been called industrial policy.

Immediately after the Second World War the reconstruction of war damaged national economies was top priority. In addition, later on, during the 1960s developed industrial nations sought to strengthen their productive systems in strategic sectors. These were of course mainly military-related and double-purpose industries considering the harsh political conflicts of the cold war. Additional interventions promoted the ability to generate dynamic external economies using the unfolding internationalization (later globalization) of business conduct. The toolkit that most governments applied were those of trade policy (including customs protection), public demand management, fiscal incentives, and public enterprises (mainly in Europe). In fact, state-owned enterprises (SOEs) have been used as levers of development already at the turn of the XX century, but their role has increased and spread also in less developed countries’ practice. Many of the SOEs were treated as *national champions* in strategic industries. In most cases, they substituted non-existing private firms. Nevertheless, in many cases they rather served the bailing out of failed business in various crisis ridden industries. Hence, they could also serve the conservation of badly performing productive structures thus deteriorating the allocative efficiency of the markets.

The dawn of the neoliberal revolution of the 1980s brought fundamentally new economic policy fashion that altered the active sectoral policies as well (the second phase of industrial policy). The role of competition gained more emphasis; liberalization and deregulation were suggested to enhance it. Parallel, extensive state intervention including state ownership was suggested to be reduced to the hypothetic minimum (the minimal state concept). Continental Europe did not give up its activist state heritage entirely. The less so since the desired status of overtaking the development level of the USA had not been achieved. Nevertheless, from the early 1980s a shift from sectoral policies to “factor policies” or “*horizontal policies*” was evidenced.

The main rationale of horizontal policies was that instead of selective measures (where picking the winners had always been a difficult task) normative support tools were applied. These were

accessible for all market agents who committed to engage in the proliferation of the required policy objectives. These were manifold, ranging from employment and job creation to export performance and innovation. The sectoral focus was usually also eased. For example, all kinds of activities could obtain support, which contributed to export growth or job creation in backward regions. This period of *general industrial policy* lasted until the 1990s. In Europe this period was finished with the creation of the European Single Market in 1992 that unified trade policy measures among the member states and made plans for harmonizing policies in further areas (to achieve the “four freedoms”²¹).

Industrial policy’s third stage started in the early 1990s and was earmarked by the existence of highly liberalized global markets and accelerating globalization. The liberalization process was reinforced not only regionally in the EU and by NAFTA in North America, but also globally in the frames of GATT and the *World Trade Organization*. These international institutions were set up to enhance worldwide *liberalization* of economic processes. In a series of negotiations tariffs and other trade barriers were reduced, eventually eliminated. In addition, the free flow of services was largely achieved. In 1992, the World Trade Organization was established, a steady institutional background to support the process. These events modified the framework of industrial and trade policy. This became less discriminatory against foreign competitors thus enhancing from the regulatory side the globalization process. Therefore, the third stage of industrial policy aimed ensuring a level playing field for global competitors. However, subsequent regionalism enhanced competitive advantages of spatially concentrated cooperation (regional integration). The main difference between stage two and stage three was strengthening regional cooperation that was also supported by policy coordination.

Many countries started to focus public action to improve their production systems on *system externalities*. This means setting rules and property rights in order to enhance the competitiveness of the entire economic system. The usage of normative tools is often tailored in preference of national business in general. In this regard, support is provided to any economic agent present in the country including also multinational business. The aim is to induce such behavior that is beneficial for the national economy regardless of the nationality of the owners of firms. Therefore, capital (*foreign direct investment – FDI*) attraction policies became an important tool of industrial policy. Major investment projects receive generous government support especially in some high-tech industries exactly because they contribute to the

²¹ Free movement of goods, services, capital and persons.

modernization of the production structure of the countries (Antalóczy et al. 2011). Table 2. summarizes the most important tools of the selective and the horizontal industrial policy.

Table 2.

Tools of selective and horizontal industrial policy

Selective IP measures	
Financial incentives	capital grants, interest subsidies, debt relief of private firms financing of certain company functions (e.g. R&D)
Fiscal incentives	tax allowances, accelerated depreciation,
Direct public intervention	equity investment in private firms in specific sectors, public enterprises
Administrative intervention	licensing, selective management of public sector demand
Horizontal IP measures	
Labor mobility target	easing of administrative and regulatory barriers in health care and the pension system, labor market support (e.g. job mediation), support of flexible contracts on the labor market (part-time, job sharing, etc.), easing of exit (less restriction on redundancies), increasing social shock absorbers
Capital mobility target	liberalization of capital and goods movements, recognition of authorizations of business conduct issued by other countries
Goods market reforms	safeguarding competition and market openness, reduction of entry barriers
Innovation policy	public research initiatives, incentives for private research
Substantive public services	e.g. information, technical assistance, vocational training, public research, etc.
Infrastructure	roads, ports, urban infrastructure, communication networks

Source: Accocella, 2005, p. 188.

An especially effective and traditional tool of industrial policy is public sector demand management. The various state organs need supplies of goods and services that they can purchase at their own initiative. *Public procurement* also has legal regulation. On national level, governments are accountable for the national parliaments with their budget and also procurement practice. There is also a European level regulation of public procurements that controls for hidden subsidizations of selected companies. This legislation is part of the EU-level competition policy framework. Nevertheless, tender conditions are treated rather flexibly. They

do not exclude competition, hence they are de jure not selective. However, the specifications of the procurement tenders may still be formulated in ways that they favor certain companies. It is rather frequent that in important areas (defense, IT-systems, etc.) national companies are asked to submit proposals and foreign competitors are banned²². In other, less important areas foreign competition is not banned, yet domestic applicants may still enjoy the “*home country advantage*”.

Increasing preferences for national or regional business in public procurement or various other regulations signals the dawn a new fourth stage of industrial policy. Later efforts at further liberalization of the WTO had already been less successful in the 2000s mainly because of conflicting interests of some third world countries (most notably India and China). These countries insisted to the use of selective and protectionist measures within the remaining institutional frames of the WTO. This practice was called *economic patriotism* (instead of the traditional and discredited term economic nationalism: Clift and Woll, 2012). Their pattern started to spread especially after the 2007/8 financial crisis in more developed countries as well. For example, US government introduced new protectionist measures against Chinese and European imports threatening with trade wars to reappear. The government of Germany took measures to control the spread of Chinese acquisitions of German firms. Finally, trade sanctions were imposed on Russia to retaliate the country’s aggression against Ukraine. All these events herald an increasing concern about economic security. States take action to develop national competences in a variety of strategic businesses where they lost control in the economic liberalization process.

III.3.2. Regional development policy

I dealt with the sectoral decomposition of the economy and its change in the previous pages. There is another structural problem that often calls for policy action: the *regional structure* of the economy. Since the time of Alfred Marshall the interpretations of the reasons of uneven spatial development have inspired generations of economists. This imperfection can be hardly explained with standard microeconomic logic. The late work of Paul Krugman helped to incorporate spatial issues into the neoclassical economic fundamentals (Krugman, 1998). The

²² It is relatively less known fact that in absolute terms of spending the US government subsidizes national industries the most through public procurements. The US has always been regarded a champion of market liberalization yet national defense and aeronautics (potentially also some other industries) have always been treated as a playground for domestic firms. In this sense the US is regarded the largest country operating a system of hidden industrial policy (Mazzucato, 2013).

better understanding of the agglomeration process (Marshall, 1890) helps economic policy makers develop tools aimed at lessening spatial development differences. Regional policy is in fact a kind of industrial policy that is targeted at a specific part of the country. It seeks to stimulate local growth and development using industrial policy instruments. These should provide incentives for firms to stay in the region or move there from outside the area. Regional policy is focusing on improving the regional distribution of income.

There can be various obstacles of economic activity in a backward region. Classic economic geography emphasized the role of distance from consumer markets and the related transport costs. These extra costs are not necessarily compensated by lower wages, though wages of backward regions are tendentially lower than elsewhere. Other reasons of higher costs can be relatively lower level of labor productivity, higher costs of procuring raw materials or capital. However, the *new economic geography* called the attention to important external advantages and disadvantages bound to the spatial concentration of business and scarcity of it respectively. The manifold *agglomeration effects* provide advantages. Large local markets, better and cheaper infrastructure, knowledge sharing of densely populated business actors, more developed educational system with better labor supply and many other factors provide a different quality of business conditions. The *positive externalities* of the agglomeration effects add up on some initial business advantages of a place like its geographic location and other advantageous endowments.

Because of the externalities, the market process does not produce spontaneous convergence of conditions in a backward area. In the presence of a vicious circle government intervention is needed to boost local development. Regional policy seeks the reduction of backwardness through financial and fiscal incentives, direct government intervention and some administrative measures. One of the major structural policy instruments of the European Union is also targeting cohesion of the regions in the EU territory. The *European Regional Development Fund (ERDF)* for rural development supports the improvement of business conduct framework in regions where the per capita income is lower than the EU average. The funds can be applied for a wide range of purposes including developing rural infrastructure, education and health system, furthermore it can assist local business development too (in form of investment subsidy).

Control questions to Chapter III.3.:

How can industrial policies enhance dynamic efficiency in an economy?

Please describe and characterize the stages of industrial policy!

What are the main tools of selective industrial policy?

What are the main tools of horizontal industrial policy?

What is the difference between selective and horizontal industrial policy?

What is the difference between the concepts economic nationalism and economic patriotism?

What are the main objectives of public demand management policies (public procurement)?

Why can regional policy be regarded as special type of industrial policy?

IV. Macroeconomic policies

Macroeconomic policies seek to achieve goals that are defined by *aggregate economic variables*: full employment, price stability, equilibrium in the balance of payments or economic growth. Macroeconomic theories identify the market failures that threaten the achievement of these objectives. These underlie analytical models that enable the identification of variables to be used as instruments and indicate the links between targets and instruments²³. To some extent, microeconomic theories can also suggest policy solutions for macroeconomic problems. These include such changes and refinements of the market institutions that enhance and improve the effective functioning of markets and institutions.

Yet, macroeconomic policies aim the adjustment of aggregate variables (like for example government expenditure, tax revenue, level of liquidity of financial markets) in order to correct macroeconomic imbalances. The macroeconomic instruments are monetary policy, fiscal policy, price and incomes policy and exchange rate policy. These all aim at macroeconomic targets, nevertheless their effects do not spread equally over the economic system and their impact may be selective. For example, changes in the structure and rate of personal income tax will affect to different degree individuals of different income levels. The application of a series of progressive tax rates will put higher tax burden on higher incomes. An increase of flat tax rates on the other hand will collect more from lower level incomes. An appreciation of the exchange rate will reduce exports of goods with high price elasticity more than innovative or high quality products for which the price elasticity of demand is lower. However, the selective effects are treated in the following discussion only as side effects.

IV.1. Monetary policy

Monetary policy has the same typical objectives as other macroeconomic policy instruments: price stability, balance of payment equilibrium, employment and growth. There are *complementarities* between the objectives. For example by maintaining the competitiveness of national goods and services, the pursuit price stability also ensures balance of payments equilibrium and exchange rate stability. Also, a certain degree of price stability can stimulate the accumulation of financial savings facilitating investment and long-term growth. However,

²³ See Chapter II.1 about targets, instruments and models of normative economic policy.

there may be also *problems of substitutability* between objectives especially in the short run. Pursuing one objective may make it difficult to achieve another. One typical case is the relationship between price stability and balance of payment equilibrium on one hand and employment on the other. Substitutability means that policy makers must create preferences and make choices. This problem is especially serious in case of monetary policy. One indication of this is the separation of the monetary authority and the treasury, a long-standing area of debate that I will address a bit later in this section.

IV.1.1. Money, financial intermediaries and monetization

In all modern monetized economic systems, all market transactions include two parallel processes. There is a flow of goods or services in one direction and a money flow in the other. Money serves as mediator of market transactions. We call this function of money the role of the *medium of exchange* or means of payment. Compared with a barter economy money reduces transaction costs: there is no need for long search for suitable counterpart for transactions. A second money function is the role as a *unit of account*. Money is the “good” which is generally accepted value measure of all kinds of commodities²⁴ in which all prices all calculated and values are stated. A third function of money is to serve as a *store of value*. This means serving the transfer of purchasing power over time.

While in the precious metal currency system coins themselves contained the unit amount of precious metal, the magnified development of trade transactions required substitutes. First bank notes appeared the payment obligations of banks in precious metals. This was the gold standard system. The mint parity secured also the accountability of international transactions using two different currency systems. The system already had strong fiduciary nature. Agents had to trust in the potential application possibility of the payment obligation for precious metals. This confidence was broken during the turmoil of the First World War (1914-18). Although governments made efforts to restore the gold standard based currency systems in the interwar period this effort was not successful in most countries. In many cases, the gold standard existed only de jure. The strict rules of the system on the other hand strongly impeded the expansion of business. The lack of trust resulted in serious inflations, most importantly during the Great Depression (1929-33). After the Second World War (1939-45) the so-called Bretton Woods

²⁴ Based on classic economic fundamentals Marxist theory described the evolution of the various forms of general value measure (money) up till the gold standard system. Today’s money does not incorporate valuable metals in itself to represent the unit general value measure any more.

monetary system was set up. The US \$ was selected as key currency with the promise of exchange to gold. All other national currencies were pegged to the US \$. Finally, the convertibility of the US \$ for gold was also lifted in 1971. Since then currencies have no direct link to gold and their stability is entirely based on fiduciary relationships of the monetary authorities. In more recent past, this trust based monetary system transformed further with the emergence of electronic money. Hence, the fiduciary nature of money has increasingly become the necessary condition for the performance of the exchange function and the general acceptability in settlement of debt.

After money, a second constituting element of the monetary system is a network of financial intermediaries. Usually the moment of income and the moment it is spent do not coincide. In addition, under circumstances of deep labor division agents who own goods do not coincide with the agents who demand those goods. In a monetized economy, agents of the production process receive a quantity of money that grants them *purchasing power* over goods. Households usually demand only a fraction of the goods they are entitled to buy (this is consumption). Other agents like firms or the government demand more than they have been assigned in income distribution in order to expand their proactive capacity through investments. Therefore, there are some agents with *savings surplus* and others with *savings deficit*. The satisfaction of both the savings plan of the first group of agents and the spending plans of the second depends on the existence of financial instruments (direct credit). Through *direct credits* agents with surplus can temporarily transfer purchasing power to those with deficit.

Direct credit is traded in the *financial markets*. Financial markets consist of three branches. The primary markets for new issues of securities (payment claims of those transferring their purchasing power), secondary markets (where existing securities are traded) and derivatives markets (markets where various mixes of different claims are created and traded). Direct credits like loans, bonds and shares issued by firms and subscribed by households have limited range of action since there is a remarkable difference between the terms (*interest and maturities*) requested of the two groups. This is especially true if information costs are high and agents do not have full information of a broad and differentiated financial market.

The more so, since the two sides usually desire different loan maturities. Creditors need short term in order to reduce their exposure to insolvency risk. By contrast, borrowers prefer long maturities until they match the time needed for the investment to produce the necessary gains in order to avoid the risk of not being refinanced after the first shorter-term credit matures. This fundamental divergence can be bridged by increased price paid by borrowers (higher interest

rate) that also include a risk premium associated with longer maturity. The price of the risk premium can be lowered if specialized *financial intermediaries extend indirect credits* from holders of surplus savings to those with savings deficit. The lower cost of indirect credits come from three essential sources.

Firstly, specialized intermediaries' action will accumulate *economies of scale and scope* in acquiring savings and channeling them to borrowers. Scale economies are linked to lower management costs of specialized and standardized operation and to the existence of fixed costs for ex ante information about the riskiness of firms and the various investment projects. This means that financial intermediaries are involved in the *certification of borrower quality*. Economies of scope are connected to the benefits gathered by lending in various fields and thus combining information from the different segments of the financial market.

A second source of lower costs stems from the *maturity transformation* carried out. Since not all suppliers of funds demand repayment on maturity intermediaries can lend money for a longer period keeping only a small risk reserve. Risk management is a third source of cost saving. The insolvency risk of some borrowers is negatively correlated with that of others thus lowering the overall level of risk. Intermediaries thus can *diversify the risk* of individual portfolios. Due to their small size, most surplus agents could lend only to few borrowers directly. This would incorporate considerable insolvency risk compared with a more diversified portfolio that financial intermediaries can offer. Intermediaries can pool small individual savings and thereby diversify lending and thus reducing the overall risk and its costs expressed in the interest rate.

IV.1.2. The financial system and its measures (monetary aggregates)

Direct and indirect credits extended in the economy constitutes the *financial liabilities* of the economy. In a closed economy, total financial assets must equal to total financial liabilities. These assets and liabilities and their markets form the *financial system* of an economy. Direct credit (financial markets) and indirect credits (financial intermediaries) serve the task of spreading information and channeling purchasing power. The presence of financial intermediaries enriches the ways of financing. It generates various financial instruments with different forms, maturity and risk structure. The specialization of financial intermediaries may take place according to the borrowers' branch of activity (agriculture, consumption, real estate etc.), the maturity of granted loans or the forms of credit (commercial banks, discount houses,

etc.). In some countries banking activity licenses are universal in others short-term credit and savings collection and long-term borrowing is institutionally separated.

As I argued earlier, money forms evolved from one with an *intrinsic value* (commodity money) to token money, money that has become nothing more than a liability issued by a financial intermediary. The fiduciary nature of money is associated with the shared belief in the reliability and solvency of a particular intermediary that led to the acceptance of its sight and short-term liabilities as a means of payment. In the financial systems, there are two types of money related to two types of intermediary: *banknotes* created by central banks and *deposits* created by commercial banks. Banknotes are legal tender. After a period when several issuing institutions coexisted, today one single bank issues banknotes under government monopoly granted by law. With the end of convertibility to specie or bullion, law imposed the acceptance of banknotes.

In the case of bank deposits used as money, the acceptance is still based on entirely fiduciary relationship that is not imposed by any outside authority. The circulation of bank deposits that provides them monetary role takes place through cheques and giro transfers. More recently, banks have introduced new forms of liquid liabilities to be included in the definition of money. These financial innovations are partly the result of agents' attempt to elude credit regulations (discussed later). In other cases, they create new liquidity instruments to improve the performance of the financial system by meeting clients' needs more appropriately.

Due to the existence of various liquidity instruments a variety of empirical definitions of money, so called *monetary aggregates*, has been introduced. Their exact definitions may vary from country to country. In the European monetary union three monetary aggregates are in use. M1 is defined as currency in circulation and current account deposits; M2 includes M1 plus deposits with maturity of up to two years, and deposits redeemable at notice of up to three months. M3 includes M2 and repurchase agreements, money market fund shares and money market debt securities up to two years.

IV.1.3. Central Bank activities

As I already mentioned, in modern economic systems the license of issuing bank notes is granted to one single bank. This bank (the *central bank*) may continue to perform some ordinary banking activities as well. However, the central bank enjoys special status among banks not only because of the license but also because its status towards the government is special, moreover it is trusted with the task of centralizing national metal reserves. This special position

of the central bank also makes it suitable to perform some very specific roles in the monetary system.

The evolution of financial systems can give rise to increased risk of instability (e.g. due to separate money creation opportunities of the financial intermediaries). There is a danger that banks' reserves prove to be insufficient to cope with unexpected mass withdrawals. Insolvency in such cases can be avoided if the issuing institution provides banks with liquidity and acts as a *lender of last resort*. Most central banks perform this task; however, there might be exceptions. For example, the German Bundesbank did not take this obligation since it could conflict another important primary objective of regulating the money supply and ensure the stable value of the German currency. The European Monetary Union's European Central Bank is close to this German tradition, however, it provides overnight lender of last resort services through special "marginal lending facility".

Central bank functions also include regulation and supervision of commercial banks to ensure compliance with sound management rules thus guaranteeing the stability of the financial system. Beginning in the 1980s many countries worldwide shifted control from structural supervision (degree of concentration, ownership structure) to *prudential supervision*. An international agreement of major central banks was conducted under the auspices of the Bank of International Settlements that drew up rules governing capital requirements for banks. This agreement is known as the *Basel Capital Accord*. The rules have been regularly updated (stiffened) in the subsequent editions of the Accord (now we have the third expected to take effect in 2023). The aims of the regulations are to foster the stability of banks and to establish capital requirements corresponding to accurate risk measurement.

In addition, the common rules applied by the central banks create a level playing field. The suggested regulations are usually adopted also outside the restricted group of large international banks of highly developed countries. The Basel Accord defines banks' various types of risks, suggests solvency ratios and quantitative capital adequacy requirements covering the risks. In addition, it describes the main principles of prudential regulation and control of banks as well as data disclosure requirements. However, banking supervision can be assigned also to a specialized agency instead of the central bank. These bodies often conduct also the supervision of non-bank financial intermediaries such as pension funds or insurance companies (as in Japan, the UK or Hungary).

IV.1.4. The monetary base

The regulatory function of the central bank can complement its lender of last resort role. This guarantee role can create a kind of moral hazard because banks backed by the central bank's protection may engage in excessively risky transactions. Central bank regulation and supervision can reduce this risk. The regulatory function includes setting of compulsory minimum risk reserves for commercial banks (as I mentioned in connection with the Basel Accords). The original aim of this regulation was depositors' protection. More recently, the compulsory reserve ratio also serves the regulation of money supply. Financial assets to be used to constitute the requested reserves make up the *monetary base*. It consists of all sight liabilities issued by the monetary authorities or by others that can be converted into such liabilities.

The monetary base meets the needs of commercial banks to maintain *excess reserves* to comply with reserve requirements. In addition, it also serves the public since monetary base includes legal tender as a stock of *currency in circulation*. Demand for and use of the monetary base is the free and compulsory bank reserves (monetary base held by banks) and circulating money (monetary base held by the public). The sources of monetary base creation are those institutional sectors that are the counterparts of central bank lending operations: foreign sector, the treasury (state budget), open market operations and bank refinancing. The regulation of the monetary base can happen through central bank operations with these agents.

The central bank can create or destroy monetary base through the foreign sector when it acquires or sells reserves (gold or foreign currencies). This happens independently of the will of the central bank in case money markets are liberalized and the exchange rate is fixed. When there is an excess supply of foreign exchange, the exchange rate will appreciate. To satisfy the excess supply (and stabilize the exchange rate) the central bank must demand foreign exchange and supply monetary base. The opposite will happen in case of excess demand for foreign exchange and exchange rate depreciation: central bank will increase the supply of foreign exchange and thus destroy monetary base.

Principally the state budget can also create monetary base since the treasury itself can issue currency and the central bank may grant credit by purchasing government securities on the primary market. The *Maastricht Agreement* (1992) prohibited central banks from directly financing the state budget. The central bank can create or destroy monetary base through *open market operations* (OMOs): purchases or sales of government securities on the secondary market. The purchase of government securities on the secondary market creates monetary base:

liquidity is provided in exchange for future payment obligation by the state budget. The effect of the change in monetary base lasts until the security matures.

A third option for monetary base creation or destruction is provided by central bank's capacity to refinance the credit system by rediscounting bills and providing advances against securities. The central bank regulates the conditions of credit of last resort, primarily by changing the *minimum lending rate* (official discount rate) or the rate on advances (the rate on the marginal lending facility used in the EMU). The terms are set by the central bank, however, commercial banks autonomously decide about whether or not to take the rediscount credits and how much depending on the external circumstances. Monetary base supply through the different sources should equal its total demand (bank and publicly held monetary base). Changes in supply and demand should also be equal.

Bank liabilities (public deposits) are another *means of payment* in addition to legal tender. In modern monetized economies, deposits are used by banks to extend credits among others to public users (consumers), firms or the government. There is an historic tendency of increasingly using currency reserving money forms (claims and obligations held by the banking sector) for transactions and for accumulation (savings). Thus, an increasing part of the monetary base is denominated on the accounts of banks as deposits. Banks use their deposits for new lending, yet, deposits will remain within the banking sector after each transaction. Due to the time discrepancy of deposits maturity and prompt transfer payments, deposits can serve as monetary base several times during the maturity creating new deposits in the banking system held by the recipients of the transfers. These *derived deposits* are loans granted by the bank. This continuous change of loans to deposits creates a sum increasing by geometric progression in the banks' balance sheet. The deposit made by the public is used by the bank by subsequently made loans well in excess of the amount of the initial deposit. This occurs because the public prefers to hold part of its assets as bank liabilities rather than cash. This is the *deposit multiplier* function of the financial systems.

IV.1.5. Monetary policy actions

The here discussed *deposit multiplier* and deposit creation is a result of bank lending. For the process to take place both the willingness of banks to grant credits and the willingness of the public are necessary. This condition does not always hold, and can be influenced by monetary policy. The demand for credit is a function of the conditions most importantly the interest rate.

If demand falls short of supply at a given interest rate, the deposit multiplier's value will decrease. However, the supply of credit is not automatically given either. Banks' reserve ratio include not only the compulsory reserves but also excess reserves that will also depend on the interest rate on loans.

Money supply plays an important role in determining the level of economic activity and prices. In addition, we know that much of the instability of capitalist systems is linked to the existence of the monetary economy. The 2007/8 financial crisis gave rather powerful demonstration for this. Many argue that this is truer the greater the fiduciary nature of the monetary regime²⁵. The increasing fiduciary nature of money increased the risk of instability of the monetary system. It is important therefore that policy makers supervise the financial structure and the money supply. In order to meet this requirement it is essential to know which variables underlying the money supply can be controlled by the monetary authorities (see also Chapter II.1 and the normative theory of economic policy). The quantity of money is an endogenous variable, since it depends on the size of the monetary base, the ratio between currency in circulation and deposits, as well as the bank reserve ratio. At least one of these elements has to be affected by the policies of the monetary authority. The monetary base and the compulsory reserve ratio seem to be more open to control in the short run.

In case of the monetary base we may state that it is controllable if at least one source of monetary base creation is controlled by policy makers, to offset any undesired creation or destruction of monetary base through the other channels. The foreign source is not readily controllable, since it would require deep rooting changes in the exchange rate system (introduction of managed float instead of pegging or free float) or the introduction of controls in the capital markets concerning convertibility and the free flow of capital. These changes cannot be implemented for the management of short-term temporary imbalances in the monetary system²⁶. The treasury source is on the other hand controllable if there are no special rules imposed on monetary authorities. Without such obligations, the central bank can independently decide about purchases of government securities (OMOs). This means a primary focus on controlling the money supply. Nevertheless, in managing OMOs the central bank tries to avoid failures to place

²⁵ Analysts of the 2007/8 crisis emphasized that the recent financial innovations largely eliminated the transparency of the so called „financial innovations“ for example structured debt obligations the acceptance of which solely relied on confidence in the issuer financial organizations.

²⁶ During the early years of their transformation, especially in the years of the transformational recession some ECE countries reintroduced some capital account controls to manage imbalances. An immediate result was a quick decline of trust in the governments and the countries as investment and business partners.

government securities or excessive falls in the security prices or confidence crises that might undermine the soundness of the financial sector. In case the central bank must purchase the leftover treasury bills, it will be forced to issue monetary base. Such situations can be avoided with the institutional separation of the monetary authority and the treasury.

The central bank controls monetary base changes done by the banking sector through changes in the interest rates charged on refinancing the sector's credits of last resort. This way it influences the availability of reserves for banks. Changing the official discount rate does not affect automatically, especially for *expansionary* purposes. Despite lower interest rates, banks might not increase their recourse to central bank credit if they already hold excess liquidity reserves owing to low credit demand²⁷. The degree of controllability of this source of monetary base in *restrictive* monetary policy is more effective. Nevertheless, of course, the lack of refinancing may raise problems for the equilibrium of banks that can lead to liquidity crises and thus undermine the confidence of depositors.

We can thus state as regards controllability of the monetary base that in a fixed exchange regime monetary authorities cannot control foreign sector without major direct controls. If they are guaranteed independent action they can substantially control the treasury and they can effectively control bank refinancing with certain limits to provide an expansionary boost. The controllability of at least one source of monetary base creation allows overall control unless the other sources are exposed to very strong disturbances. In particular, under fixed exchange regime the foreign sector can create or destroy any amount of monetary base. For example if monetary base is created by OMOs interest rate will fall inducing *capital outflow*. The balance of payments will deteriorate causing a reduction in official reserves and destruction of the monetary base.

Bank refinancing or changes in the required reserve ratio as tool of monetary policy works through changes in the deposit level held by the banks. If the reserve ratio is increased, this means the banks must increase their holdings of monetary base in form of compulsory reserves. If they do not have large excess reserves or other forms of liquidity, they will be forced to take back their lending and therefore reduce the volume of deposits. This would mean a reduction in the monetary base required to be set aside as compulsory reserves thus limiting potential deposit sources of monetary base creation in the banking sector. However, if banks possess high

²⁷ This was the case for many years after the 2007/8 financial crisis when economic recovery remained very sluggish. Central banks offered in certain periods even negative discount rates for commercial banks with very limited expansionary impact.

level of liquidity they may decide not to reduce lending activity in order to keep their customers. In such cases, changing the reserve ratio may be relatively ineffective. Money supply can be regulated only with other direct control measures like *credit ceilings*, when banks are required to keep lending growth within certain limits.

As I mentioned in the first paragraph to this section monetary policy may serve multiply targets and its effects may be complementary but in some cases also contradictory. Before it can affect ultimate objectives like employment, price level, balance of payment equilibrium or growth monetary policy requires time. Monetary policy is conducted in a highly uncertain environment. It is important to follow up changes in market conditions and continuously adjust the actual target values. Monetary authorities use therefore variables that are intermediate between instruments and targets of monetary policy. Such variables are the *monetary policy indicators*. They are variables like the money supply growth and the interest rate that provide an overall information of monetary expansion or restriction, even if the policy action involves various instruments. Yet, it is difficult if not impossible to find a reliable indicator that measures solely the magnitude of monetary policy action.

The measurement problem arises because aggregates that measure monetary changes alone do not exist. Money supply for example is also determined endogenously by the demand for credit, which entails subjective elements like business outlook for the future. Thus, monetary aggregates or interest rates that can be measured rather precisely are influenced by multiply factors with monetary policy instruments among them. In order to anticipate the effects of monetary policy measures on the ultimate targets intermediate targets are used. They enable monetary authorities to regulate monetary policy promptly. The intermediate targets are monetary or credit aggregates. Such targets are indicators of money supply (M1 and M2), interest rates, credit targets and the exchange rate.

The usage of intermediate targets requires the formulation of a two-step intervention practice. This means the indirect pursuit of the final target through the direct achievement of an intermediate target. More recently many countries' monetary authorities opted for one-step intervention on the final target, mainly price stability (*inflation targeting*). The European Central Bank for example adopted inflation targeting; however, this policy is amended by other target measures, most importantly the control of M3. The main problem with inflation targeting is that inflation can depend on non-monetary factors (see: section I.2).

Control questions to Chapter IV.1.:

What are the basic functions of money, and how forms of money developed over time?

Who are the financial intermediaries? What is their function?

Please describe the features of direct and indirect credits!

How do financial intermediaries change the conditions of credits to better fit the demand?

What is the monetary base, and what are the main sources of monetary base creation?

How do the monetary aggregates M1, M2 and M3 differ?

What is the role of the central bank in a financial system?

Why is regulation and supervision of financial markets necessary?

What are the main tools of monetary policy?

Why is the independence of the Central Bank important?

Through what types of transaction can the central bank regulate the level of monetary base?

IV.2. Fiscal policy

Fiscal policy includes government budget measures. The general government sector consists of all units of central or local government, the social security funds and the non-market non-profit institutions controlled and mainly financed by government units. The sector does not include publicly owned corporations (e.g. state-owned enterprises: SOEs). However, unincorporated companies owned by governments are included (e.g. many public service providers in 100 % public ownership). In general, discussion of fiscal policy refers to the general government sector as a whole.

IV.2.1. Fundamental budget accounting

The central budget consists of two parts: incomes and expenditures. The *fundamental budget accounting* identifies the following items:

$$T - C_g - Tr_c - INT - I_g - Tr_k = B_t$$

In this equation, the symbols stand for:

T = Current revenues

C_g = Government consumption

Tr_c = Current transfers, excluding interest payments

INT = Interest payments on public debt

I_g = Government investment (net)

Tr_k = Capital account transfers

B_t = Budget balance

For the ease of discussion, we can add government consumption and investment, which will then be called government spending on goods (G). The adding of current transfers, interest payments and capital account transfers will be called total transfers (Tr). In this form, the equation is as follows:

$$T - G - Tr = B_t$$

Current revenues minus government spending minus total transfers equals the budget balance.

Government revenues consist of current revenues and capital account revenues. *Current revenues* are generated by direct and indirect taxes and social security contributions (eventually also the profits from public enterprises count here). The use of these sources as policy tool is clear: the level of current revenues can be adjusted in relation with the governments' countercyclical purposes. In addition, changes in the composition of the revenues can be adjusted to pursue income redistribution goals. *Capital account revenues* raise from the sale of government property and from the repayment of loans.

On the expenditure side, the first main item is government spending on goods and services. This consists of *government consumption*, including wages and salaries, spending on purchases of goods and services used for the current operation of the public sector. Part of government expenditure is *government investment* aimed at increasing the stock of publicly owned capital²⁸. The second important expenditure item is government transfers. *Total transfers* include transfers to households, transfers to firms and official transfers. Households may receive budget transfers for redistributive purposes and as supply of merit goods (e.g. benefits to certain categories of person: disabled, underage children, etc.) Transfers to firms consist of production subsidies that may serve various purposes: improving the balance of payments, redistribution,

²⁸ It is not so well known that central budgets concentrate large parts of national wealth. It is however not easy to account for it. The publicly owned assets include all kinds of public infrastructure (roads, railways, waterways), natural resources (in most countries these are public property and the extraction rights and licenses are sold to private companies), public buildings, bridges, etc. Sometimes public debt is repaid by the sale of public property: SOEs, public infrastructure and others. Greece for example sold recently some of its ports to generate incomes to service government debt.

increasing demand, and others. Official transfers include contributions to international organizations and aid to developing countries. Interest is paid on government debt. However, interest is usually treated separately if the accumulation and structure of debt, especially excessive debt is analyzed. Capital account transfers consist of payments made to firms to boost private investment (the various grants provided for structural and regional development policies, see section III.3).

The overall budget balance is the sum of the current and capital account balances. The *current balance* consists of excess of current revenues over current outlays, which can be used for expenditure on the capital account. Current surplus is public saving. However, public saving is usually negative since in many cases governments run *current deficits*. If we subtract interest payments from total expenditure ($G+Tr$) we construct the primary government expenditure (G_p).

$$C_g + Tr_c + I_g + Tr_k = G_p$$

The subtraction of interest outlays from the current balance or the total balance (consideration of primary expenditure only) produces the *primary current balance* and the *total primary balance* respectively. The primary current balance equals $T - C_g - Tr_c$ and the total primary balance is $T - G_p$ or in more detail: $T - C_g - I_g - Tr_c - Tr_k$.

IV.2.2. Tax policy

The level and structure of the state budget and especially changes in these are the primary tools of fiscal policy. As I mentioned, these changes in both the revenue and the expenditure side can have major effects on income redistribution. Obviously, there is a basic need for financing the public sector. Yet, the necessary income may come from various agents of the economy. Principally we can differentiate three main beneficiaries of the national income: wage earners, employers (capital owners) and the public sector. High income- and capital taxes will take more from the revenues of capital owners. High indirect taxes, most importantly value added tax (VAT) would cause burden on consumption. Since personal consumption is highest proportionally for wage earners, high VAT means increased tax burden for employees. On the expenditure side we see subsidies of both capital owners and wage earners. The actual fiscal policy of the government can put very clear emphasis on either of these contributing directly to the process of income redistribution.

In more general terms fiscal policy and especially tax policy can be used for the stimulation of the economy. We can assume that a reduction of taxes will leave income with wage earners and capital owners for more consumption and investment. Of course, the level of this multiplier effect will also depend on the propensity of consumption and saving. In societies with high propensity of saving increased income will boost mainly savings. The excess saving is channeled by the financial sector to investments in an ideal case. If excess income is spent on consumption this will promptly boost the economy and produce more output, employment and income. However, it is also an open question if capital owners', wage earners' or the public sector's excess spending will have larger multiplier impact on the economy?

Keynesian theorists state that government spending can be directed effectively to usages with high multiplier effects. Thus, in case of lacking demand economy can be stimulated most efficiently by government spending. The monetarist theoreticians doubt that government spending is effective. They suggest relying on the decisions of market agents to find the most effective usage of the national income. The two views suggest completely different fiscal policy: Keynesians prefer higher-level income concentration and state administered spending. Monetarists claim that the state budget should be reduced to the lowest possible size since government spending is in their view always less effective.

In practice, three types of tax rates are in use. Lump-sum tax is paid regardless to the amount of production or consumption or any action of the taxpayer. As taxpayers cannot affect the level of tax by changing their behavior, revenue can be raised and redistribution achieved with considerable ease with no efficiency cost. The differentiation of lump-sum taxes across taxpayers requires taxes to be levied on the basis of some steady characteristics. Unfortunately, it is rather difficult to find such characteristics that are publicly verified and also relevant from the viewpoint of redistribution. The application of lump sum taxes is therefore rather difficult.

The second tax type is proportional taxation (flat tax). Proportional tax is an income tax that levies the same rate to everyone regardless of the level of income. The flat tax rate's characteristics are accentuated in comparison with progressive tax, which adjust tax brackets to increasing income levels. Proponents of proportional taxes believe that this tax stimulates the economy by encouraging people to spend more and work more because there is no tax penalty for earning more. However, critics of flat taxes argue that the system places an unfair burden on low-wage earners in exchange for lowering tax rate on the wealthy. Thus, critics believe that progressive tax system is fairer than flat tax system. Besides income tax also VAT is regarded

a type of proportional tax since all consumers regardless of earnings are required to pay the same fixed rate.

The third type is progressive tax, which is based on the taxpayer's ability to pay. It imposes a lower tax rate on low-income earners than those with higher income. This is achieved by creating tax brackets that group taxpayers by income ranges. Compared to the flat tax progressive tax provides less disproportionate burden for people with low incomes. The amount that they owe may be smaller, but the effect on their real purchasing power is greater. The degree of progression of the tax structure depends upon how much of the tax burden is transferred to higher incomes. In more egalitarian societies (like Nordic countries) the progression is larger than elsewhere (e.g. in the USA). In some countries the personal income tax has a flat rate, and is therefore the least sensitive to social status of tax payers (e.g. in Hungary)²⁹. However, the choice of tax structure also has significant macroeconomic effects. Progressive income tax leaves more money in the pockets of low-wage earners who are likely to spend all of that money on essential goods and stimulate the economy. The progressive tax system is likely to collect more taxes than flat rates as the highest percentage of taxes is collected from the highest amounts of earnings. Critics of progressive tax claim it is disincentive to success. The strong redistribution effect punishes the rich and even the middle class unfairly. All these pros and cons highlight the high political sensitivity of the tax system.

A more comprehensive analysis of the macroeconomic effect of progressive taxation is provided by Accocella (2005, pp 288-9). He investigated the impact of the usage of proportional and progressive income tax rates on income generation in the economy. The impact depends mainly on how the income multiplier of spending (especially autonomous spending by the government) will change. He stated that the final effect on income of a change in autonomous spending would be less in case of progressive taxation than under proportional tax. This difference suggests that progressive taxation is used as an *automatic stabilizer* with countercyclical effects. Fluctuations in the level of aggregate demand are dampened by changes in the opposite direction of the income multiplier caused by the changes in the average tax rate. Excessive income growth will increase tax deduction not proportionally since the weight of incomes levied in higher tax brackets will increase. The opposite will happen when income shrinks. The stabilizing effect may be amplified by price changes. The likely increase of prices in boom periods will also increase the average income thus pushing incomes towards higher

²⁹ Of course, social solidarity can be effectuated not only by tax policy measures but also by government transfers adjusted to social needs.

tax brackets. The opposite movement is less likely to happen since commodity prices prove to be “sticky” and do not necessarily decline in bust periods.

The increase in taxes resulting from the combination of rising prices and progressive tax structure is called *fiscal drag*. The fiscal drag can be eliminated if the threshold values of each tax brackets are adjusted to inflation. In this case, net real income may remain unchanged. In special situations, fiscal drag occurs outside the classic business cycle framework. In this case, it does not act as automatic stabilizer. Such situation is *stagflation* when prices rise despite of slack demand. The price rise in this case can accentuate the slowdown. This depressive effect and the resulting increase of the tax burden of taxpayers can be compensated by some relief measures. Tax refunds offer taxpayers a tax credit of comparable value with the impact of fiscal drag. Indexing tax brackets is another tool that tries to avoid the creation of fiscal drag.

IV.2.3. Stimulation of the economy and public deficit

As I mentioned earlier, governments tend to run budget deficits (spend more than they can collect). The Keynesian theory that prevailed until the 1980s stated that in the short run aggregate perspective the economic impact of government expenditure does not depend on its precise content. Keynes of course did not mean that inefficiency or patronage should be acceptable or any type of expenditure should be feasible. Yet, his normative theory proved to be difficult to implement without the growing risks of low efficiency and moral hazard. Yet, even in an optimum scenario the financing of excessive government spending may bear important risks for macroeconomic stability. The various options of financing pose different difficulties³⁰. Spending can be financed with taxes (maintaining balanced budget) or in deficit.

If expenditure is financed by new or increased taxes, the increase of government spending may have a limited expansionary effect. Government spending acts directly on national income while the simultaneous increase in taxes affects disposable income and consumption through this national income. The marginal propensity to consume is less than 1, therefore income reduction will simultaneously reduce consumption and savings thus sharing the impact between the two factors. Full size increase of national income by government spending and shared (limited) decline of private consumption will add up to increasing aggregate demand (realized

³⁰ The issue of Keynesian demand stimulation is applicable several decades after the overall decline of the concept because after the 2007/8 financial crisis many governments returned to this principle of aggregate demand stimulation. Nevertheless, the obvious fiscal expansion has been twinned with effective monetary control that up till most recently effectively blocked inflationary pressure.

income) and declining savings. The theory states that the multiplier of income growth will accentuate the stimulation effect.

The stimulation effect can be increased if government expenditure is not financed by taxes. For many decades, deficit financing was a preferred way of fiscal stimulation in the slack periods of the capitalist economy. Even if policy makers would opt for balanced budget financing, the increase of taxes might be politically difficult to implement. Obstacles may stem from the structure of modern societies: the existence of various interest groups that have considerable economic and political power. This is the reason for the *asymmetry of fiscal policy*: an expansionary policy is always easier to implement than a restrictive one. Therefore, governments may feel forced to turn to deficit financing.

Another factor of the increase of public deficits is ineffective tax collection due to tax evasion, avoidance and erosion. *Tax evasion* refers to illegal actions aimed at the reduction tax payer's tax obligations. *Tax avoidance* means reduction of one's tax obligations by taking full advantage of the provisions of the tax code. This may include for example income shifting to lower income tax payers, if the tax system is progressive, by tax deferral (mainly capital gain taxes) or by tax arbitrage, exploiting differences in tax rates on different kinds of income, individuals or countries³¹. The growing complexity of international business conduct and especially the emergence of internet-based services increased tax avoidance opportunities. This gave rise to claims that some of the basic principles of tax administration should be adjusted to the new business environment in order to control tax avoidance (Olbert and Spengel, 2017). Provisions of the tax code that give rise to tax avoidance are technical, and the consequences are usually unintended. However, there are other provisions that purposely grant tax exemptions in order to encourage the development of an industry or geographic region³². Such tax provisions are called *tax expenditures*, since they offer a substitute for direct government expenditure and subsidies. Tax expenditure means the *erosion of the tax base*.

³¹ Using the differences of tax rates among countries, companies running premises in different countries may transfer incomes to countries with lower tax rates, a general practice in multinational business. A particularly important tool of this practice is transfer pricing: setting of administrative prices for the transactions conducted between the various international premises of the same multinational company.

³² In the globalization process competition evolved among governments to attract larger scale investment projects to specific locations. The regional development impact of such FDI projects may be significant. A kind of race to the bottom evolved starting with the 1990s to offer more and more advantageous working conditions for multinational companies. The incentive packages usually contain tax allowances and in kind contributions of governments to the investment projects. All this can have rather important effects on the state budget both on the revenue side (lacking corporate income tax) and the expenditure side (costs of infrastructure development activities preceding the investment project).

Turning back to excessive government spending there are two options of deficit financing: monetary base financing and debt financing. An important difference of the two is their cost to the government. Debt financing is expensive. Monetary base financing is often less expensive and sometimes comes without costs. In the latter case, most important cost could arise if this stimulates demand to such a degree that causes inflation. Inflation would then impose costs for both the government and consumers. Monetary base creation generates no cost if money supply is increased directly by the government. It involves minimal costs if it is effected by means of credit arrangements between the government and the central bank, which set a below-market interest rate. This dampened interest rate generates a hidden revenue equal to the difference between the cost of funds raised through government bonds and the cost of central bank financing. This hidden revenue is the *seigniorage*.

Monetary and debt financing also differ in the magnitude of their expansionary effect on income. Monetary financing of excess expenditure can affect interest rate. This means increased demand, which then would increase the cost of money (the interest rate). As I already mentioned it earlier, a coordination of fiscal and monetary policy is necessary to control interest rate changes in this situation. The change in monetary base needed to keep interest rate constant can be larger or smaller than the additional expenditure to be financed. Coordinated monetary policy may seek to maintain constant interest rate and accommodate the impacts coming from the capital markets. If *accommodating monetary policy* is adopted and the price of excess monetary base does not increase, expansionary fiscal policy has full effect, which is the fundamental recommendation of the Keynesian economic policy recipe. An independent central bank may want to put emphasis on anti-inflationary policy and reject the adequate increase of money supply. In the presence of increased government spending this would trigger a rise in the interest rate that would adversely affect the magnitude of government spending due to increased costs to be paid.

Of course, central bank's fear of increased inflation can be justified. This is especially the case if the excess government spending is not efficient. For example in case of full employment or sectoral bottlenecks that block economic expansion or if wage rates, profit margins and other incomes are an increasing function of the level of economic activity, increased government spending is likely to have limited expansionary effect on the economy. In this case, the short-term options would be higher income and employment combined with inflation or lower income and employment with greater monetary stability. On the longer turn, of course the above-mentioned rigidities of the economic system can be limited thus providing more flexible

structure for the absorption of increased government spending. Such measures can include professional training policies to increase flexibility of labor force, labor market measures to improve the allocation of labor or policies to increase productivity (for example more innovation) and output (e.g. directives to public enterprises). However, in the short run these conditions are given and do not change.

Debt financing of excess government spending does not necessarily induce inflation. If monetary policy is not accommodating increased government spending, the increase in income will be smaller due to the *crowding-out effect* resulting from unchanged money supply. The use of the same amount of money will be redistributed in favor of government spending. The increase in income triggers a rise in the demand for money, an excess money demand over money supply that will increase the interest rate and reduce private investment. This then would thwart the rise of income itself. The substitution of private investment with government spending is called *financial crowding-out*, related to the increase of the interest rate because of the non-monetary financing of government spending. However, the issue is still debated; the empirical evidence on financial crowding-out is mixed.

The effects of fiscal policy on income and employment will also depend of the exchange rate mechanism in use: fixed exchange rate or floating. Fiscal policy has full control over aggregate demand with fixed exchange rates. The opposite is the case with floating exchange rate. With fixed exchange rate balance of payment surpluses and deficits will not affect changes in the exchange rate (as it is fixed) but will produce variations in the monetary base. For example, an increase in government spending financed by debt will have two effects on the balance of payments. Firstly, the goods balance will worsen (due to the resulting income growth), secondly, there will be an improvement in the capital movements balance owing to the rise in the interest rate. The net effect will depend on the flexibility of the different markets. If international financial markets are more responsive than goods markets, there will be an increase in monetary base stemming from abroad that can facilitate the expansion. In an opposite case, balance of payments deterioration may happen for example owing to a lack of capital mobility. The deficit will then cause a contraction in the monetary base. A common feature of the two cases is the positive effect of expansionary fiscal policy on income under fixed exchange rate regime, which is strengthened by high capital mobility and reduced by low capital mobility³³.

³³ See for details: Accocella, 2005, pp. 299-300.

The situation with floating exchange rates is different. In this case, changes in macroeconomic balances will firstly trigger exchange rate responses rather than changes in the monetary base. The increased government spending will cause a rise in both income level and interest rates. This would result in deterioration of the goods balance and improvement of the capital movements' balance. If capital markets are responsive, the balance of payments will improve and the currency will appreciate. This would then deteriorate export competitiveness and hence also income. The pressure on the currency to appreciate will be stronger if capital movements' flexibility to interest rate increases is larger. This resulting drop in exports can counterbalance the income generating effect of increased government spending. If capital is not perfectly mobile, fiscal policy may be somewhat more effective.

IV.2.4. Public debt

From the above discussion, we can conclude that debt financing can be most effective if there is an accommodating monetary policy and fixed exchange rate. Another important question is of course the price of the expansionary fiscal policy, and also the conditions how and when this price comes up and how it is financed. Budget deficit will create public debt. This occurred in many countries in the post second world war period. Table 3 contains an illustration of the debt accumulation.

As is seen, the accumulated debt has always varied among the EU member states. There used to be countries with high government debt (Italy, Belgium) and others who were more sensitive to limits of government debt (Germany, the Netherlands). It is also clear that during the 2000s overall debt burden started to increase in almost all countries. It remained relatively stable in countries that have introduced constitutional ceiling to debt accumulation (e.g. Poland). In other countries, rather conservative fiscal policy did not allow quick debt accumulation. In fact, the introduction of the European currency in 2002 also had dampening effect. Countries to join the European Monetary Union (EMU) had to reduce their debt stock to 60 % of GDP or less, among some other conditions (collected in the Maastricht criteria). Yet, the crisis periods of the 2000s increased public debt far above this level also in countries of the EMU.

Table 3.

Public debt in some European countries 1970-2020 (percentage of GDP)

	1970	1980	1990	2000	2005	2010	2015	2020
Austria	18,9	36,2	57,2	66,8	63,4	82,7	84,9	83,9
Belgium	65,3	78,6	129,2	109,6	93,2	100,3	105,2	114,1
France	-	19,8	30,8	57,2	66,6	85,3	95,6	116,3
Germany	18,6	31,7	43,5	60,2	67,9	82,0	72,0	69,8
Greece	19,8	25,0	79,6	106,2	107,5	147,5	176,7	205,6
Hungary	-	-	-	-	61,7	80,0	75,7	80,4
Italy	37,9	58,2	97,2	110,6	106,6	119,2	135,3	155,8
Netherlands	-	46,0	77,0	55,8	52,7	59,2	64,6	54,5
Poland	-	-	-	-	41,9	53,5	51,3	57,6
Spain	15,0	16,8	43,6	60,6	43,1	60,5	99,3	120,0
Sweden	27,4	40,3	42,3	52,8	50,3	38,1	43,7	39,9

Sources: Eurostat (General government gross debt – annual data) 2010, 2015, 2015

<https://ec.europa.eu/eurostat/databrowser/view/teina225/default/table?lang=en>

and Public Finances in EMU, various issues 1970-2005

As a baseline scenario, we can assume that the primary balance is equal to zero. This means that interest free expenditure is the same amount then budget income. Interest payments on the existing accumulated debt can increase public debt, provided there is no monetary financing. Since the debt/GDP ratio also depends on changes of income (GDP), debt will increase if the interest to be paid is larger (and increases the debt stock quicker) than the growth rate of income (GDP). A *primary deficit* of the budget if not financed by monetary base increase but rather by debt will by definition increase the debt level in addition to increase due to interest payments. A primary surplus of course would work in opposite way.

If we look at the figures of Table 3. after a jump in the 1970s we see a relatively slower increase of debt prior to 2005. This period but especially the 1980s and 1990s were earmarked by very high interest rates well above of the GDP growth rate. The general increase of debt was largely caused by this factor and not by fiscal expansion. However, the 2000s, and especially the period

after the 2007/8 financial crisis showed very low interest rate levels and changing momentum of GDP growth. Yet, there was a huge increase in budget deficits in almost all European countries due to expensive state programs to reignite the economy after the crisis. As is seen, the period is not yet over, debt level has not returned to previous, relatively lower values. The 2020 covid crisis reinforced a new wave of fiscal expansion. Since however, inflation has also risen monetary policies are less likely to accommodate deficit financing. Significant further increase of debt stock can be expected.

We may ask at this point: what are the limits of debt growth? And also: what danger does a high debt level pose for the economy? The question is relevant because debt accumulation has economic repercussions such as insolvency risk. Very high debt to GDP ratios may create debt traps, a situation when the interest and installment obligations of the government are so high that budget surpluses cannot cover. In this case, if only the regular budget incomes are accessible debt will automatically grow until a point when the governments are no longer able to service their debt. Such insolvency situations emerged several times in various countries, but most acute situation evolved in least developed countries. The international financial organizations led by the World Bank provided support schemes for these countries (referred to as heavily indebted poor countries – HIPC), yet the weak economic performance and very low GDP level of these countries thwarted their financial relief up till now³⁴.

The question if there are limits to public debt growth should be interpreted in relative, rather than absolute terms. It is necessary to identify a more suitable yardstick than the debt/GDP ratio. The usage of this measure is easy and illustrates the main dimensions. The level of debt is *normalized* through this way: its growth is measured compared to the changes of income (GDP). Thus, it filters country size effects and inflation (inflation affects both the numerator and the denominator). This correction is however not complete since the amounts of previously accumulated debt were registered at lower prices than the new loans would cost in their

³⁴ The low level of GDP and weak market institutions do not allow sufficient improvement in the restructuring and improving of the activity of the state budget's institutions. The case of a more developed country's financial troubles illustrates this dimension quite well. Greece is member of the EU and its monetary cooperation system the EMU. Thus, the country is expected to have sufficiently developed economy and market institutions that had been required for the monetary cooperation. When due to loose fiscal policies the country started to accumulate dangerously high level of public debt, after a while the process was not fueled by excessive expenditure any more but rather the collapse of the revenue side. The Greek tax collection system became so inefficient that it could not collect the expected (planned) tax revenues. The lack of revenues became the primary problem. Greece became de facto insolvent by 2015.

refinancing transactions. Thus, a recalibration of the debt with regard to the maturity of its items and the thus changing *real value* of the stock is necessary in order to get a more precise vision.

The question about the limits to public debt growth is relevant insofar as it can lead to economic repercussions, such as insolvency. From this point of view, a more precise ratio is the comparison of *public debt to total assets of the economy*. This measure is not in use for various reasons, including the difficulty of its calculation. Instead, the generally used measure is the ratio of public debt to income as I indicated it earlier. In case of rapid and continuous rise of the debt/GDP ratio, two outcomes are plausible. One is the insolvency of the debtor government. The other is credit rationing or complete denial of credit by the creditors. There have been real-life instances for both, but they have been associated with major political changes such as revolutions in the countries concerned.

IV.2.5. Public debt reduction

The dynamics of the debt/GDP ratio can be influenced by various measures affecting either the numerator or denominator of the measure. Debt reduction objectives were introduced in form of a ceiling on the ratio between the annual deficit and the GDP and between the stock of debt and the GDP. In case of EMU's Maastricht agreement, these ceilings have been set at 3 % and 60 % respectively. However, as the figures of Table 3. demonstrated, these ceilings could not be kept in many member countries of the EMU especially after the 2007/8 financial crisis. Besides, in a number of countries there is also a constitutional limit of public debt, which is usually set at the same level as in case of the EMU requirements (Poland). Yet, in many cases, governments have to pursue policies for debt reduction.

Maybe the first idea for the reduction of the debt/GDP ratio is promoting income growth (increasing the denominator of the ratio). Nevertheless, this might be rather difficult to implement since supposedly a large public debt does not allow governments to use the traditional fiscal tools of aggregate demand stimulation since this would increase the deficit. Growth can be fostered by *restructuring of government spending and revenues* (taxes). This measure is used in most cases in parallel with fiscal restriction (a decline in spending on various budget items). On a longer run however reform policies are a better option that for example use government budget spending for the stimulation of high-growth innovative industries in the

framework of industrial policy³⁵. Taxation can be redirected to enhancing private economic activity. Economic growth can be enhanced also by using indirect macroeconomic tools like deregulation, easy monetary policy or the devaluation of domestic currency. Attempts at increasing income and thus the denominator of the debt/GDP ratio are usually treated as forward looking. Nevertheless, they are not prompt with the exception of exchange rate devaluation.

The debt/GDP ratio can be obviously reduced by achieving a surplus in the primary budget balance. Improving the primary balance is an explicit objective of fiscal restriction. The goal can be achieved either by *reducing primary spending or by increasing revenues*. Reducing spending is a politically difficult policy measure since it always produces considerable welfare loss for the public and undermines the growth potential of the economy. A radical improvement of the quality (productivity) of public services may reduce the dampening impact³⁶. Increasing revenues can also support primary balance surplus. However, raising tax revenue has an adverse impact on income, thus reducing the denominator of the ratio. Here again restructuring and improvement of the administrative machinery could be the most desirable tool that reduces tax evasion avoidance and erosion.

The *sale of public assets* can increase revenues too. During the transition period of Central and Eastern Europe (CEE) many countries used the *privatization* process for increasing state budget revenues. This was the case in countries that started the period with high inherited debt (Poland and Hungary). Also in some other countries asset sales were used for the reduction of the debt stock. Such a case was the sale of public infrastructure items (e.g. the naval port of Saloniki) by the Greek government during the 2000s. However, the primary role of privatization in CEE countries was rather the improvement of efficiency of the productive system. This of course also manifested in an increase of GDP, which in turn could also contribute to the reduction of the debt/GDP ratio.

³⁵ After long decades of depression, industrial policy aims reappeared in the new development strategy of the European Commission launched in 2021 for the next program period lasting until 2027. This is a kind of fundamental change in the strategic concept that tries to fulfil a variety of political goals, most importantly European competitiveness, social inclusion, environmental sustainability and resilience against external shocks (e.g. the COVID-19 pandemic).

³⁶ The spending restriction can affect many areas. The most obvious welfare loss can happen when the salaries of public servants are cut. This was the case with several stabilization efforts carried out in Europe (Estonia, Greece). In other countries, public servants' salaries are simply not indexed and lose their value over time (Hungary). Obviously, an increase of the quality of public work and increase in the productivity is not facilitated by declining real wage levels. In such situation, the lack of efficiency may result in a rise of the cost of public services despite "savings" in the wage bill.

A further rather frequently used method of debt relief is the reduction of real interest rates paid on public debt. This can be accomplished in two basic ways. Firstly, governments may improve their crediting policy in such a way as to *reduce the real cost of the debt financing*. Accumulated debt is refinanced after the maturation expired. The taking of less expensive, longer-term loans may lower the prompt payment obligations. This can also mean a steady restructuring of the debt stock. A more general solution for lowering interest rate can be achieved in relation with the *global financial markets*. Lowering domestic interest rates (in order to limit the cost of debt refinancing) may require some administrative reduction of capital market mobility in order to avoid massive capital outflow from the country or undesired depreciation of the exchange rate (if it is in a floating regime). This can be done by imposing constraints on capital movements or taxing them³⁷. Governments can influence international financial markets' expectations through delivering positive messages that would reduce pressure on exchange rate. In many instances international financial organizations, most notably the *International Monetary Fund* (IMF) helped governments in these efforts. An institutionalized form of this support is the "stand-by loan" which is a kind of promise of IMF to extend real loans in support of a country's government if necessary.

Control questions to Chapter IV.2.:

Please describe the fundamental budget accounting equation!

What is the difference between the primary current- and total primary balances of the budget?

What are the main technical types of taxes currently in use?

Why does progressive taxation play the role of automatic stabilizer? What is "fiscal drag"?

What is the multiplier effect?

Why is the stimulation effect of excessive government spending limited if financed by new taxes?

What is tax evasion and tax avoidance?

How can budget deficit be financed through additional monetary base creation?

What are the macroeconomic impacts of public debt-based budget deficit financing?

How can be public debt measured?

³⁷ This tax is called „Tobin tax“. It is named after Nobel Prize laureate James Tobin. It is applicable to speculative international financial transactions that can undermine macroeconomic stability especially in less developed countries.

What are the limits of the growth of public debt?

How can public debt be reduced?

IV.3. The balance of payments (BoP) and trade policies

IV.3.1. The exchange market and exchange rate regimes

International transactions, payments and receipts in foreign currency of the national economy are registered in the balance of payments that I introduced in section I.2.4. Residents of the home country who need to make payments to non-residents will demand foreign currency. Residents who receive payments in foreign currency can supply the necessary liquidity. The transactions are carried out on the *foreign exchange market*. Here like on any other markets a price of the national currency is determined through the exchange rate, more precisely through the *nominal bilateral exchange rate*. It is the price of a currency in terms of another currency. The reference unit is the foreign currency and its price is expressed in the domestic currency. 1 Euro was worth 370 Hungarian Forints (on 28 February, 2022). The exchange rate, thus the price of the foreign currency can change rather frequently following the usual process of markets in the establishment of equilibrium price between foreign exchange demand and supply. If the price of 1 Euro changes to 400 HUF then this means that income and wealth which is denominated in HUF will lose roughly 10 % of its worth through the *depreciation* of the Hungarian currency (as it happened by December 2022). In an opposite case, if the exchange rate changes to 350, the HUF *appreciates* against the Euro.

Since there are more than two countries (and currencies) in the world it is necessary to calculate an average of the various nominal bilateral exchange rates to produce a synthetic indicator. Such an indicator is the nominal effective exchange rate, which is the weighted average of the nominal bilateral exchange rates applied in a country.

Since the balance of payments reflects international transactions denominated in foreign currencies, it reflects changes in demand and supply for the national currency and other currencies. This demand and supply relationship on the other hand may depend on changes occurring in the real and the monetary economy of the countries. For example, increasing differences in the levels of productivity between two countries will affect the competitiveness of exported goods and services of both countries. The resulting changes in the sales prices and perhaps sales volumes will also affect demand and supply of foreign currencies in both countries. These changes will then put pressure on the exchange rate: the equilibrium in foreign

exchange demand and supply can be established through the change of the exchange rate. Declining competitiveness of Hungarian goods on the European markets will reduce export incomes. This would create trade deficit in the balance of payments. The new equilibrium can be established if the price competitiveness of Hungarian producers increase in their foreign markets through the devaluation of the Hungarian currency. In this case, their decreasing revenues in terms of Euro can still supply them with the same amount of revenue expressed in Hungarian Forints. The equilibrium in the balance of payments (or at least in the trade balance) can thus be restored. Although changes in the exchange rate are triggered by changes in all the items of the balance of payments, they influence mainly foreign trade transactions through the changes of export competitiveness.

It is clear from the above discussion that real economic competitiveness is mediated in the system of balance of payments through the exchange rate, the price relationship of two currencies. The value of the national currencies can also change in the national monetary system because of inflation, which is usually entirely endogenous process. Nevertheless, it may also affect the exchange rates and the balance of payments. Each national economy undergoes price changes and realize inflation. The purchasing power of the national currency will change. The differences between various countries' national inflation rates can also trigger exchange rate movements if the currencies are free floating. The currency of the country with higher inflation rate will lose value compared to the other currency. In case the Hungarian economy realizes 15 % inflation and the European average remains at 5 %, this would mean that the same product basket's HUF price will increase by 15 % and in Euro terms only by 5 %. This would then put pressure on the exchange rate to devalue the HUF by 10 % to establish the new equilibrium: the same product basket can be purchased calculated with the depreciated HUF as in the countries using the Euro. Without such correction, using the old exchange rate HUF owners could buy 10 % less, and would purchase Euro to correct for the difference. The increasing demand for Euro will put pressure on the HUF exchange rate to depreciate, which will actually happen in floating exchange regime³⁸.

The problem of differing inflation rates can also cause analytical problems. Therefore, exchange calculations may also wish to take account of the nominal exchange rate and domestic and foreign prices simultaneously. The *real bilateral exchange rate* corrects the nominal one with

³⁸ This happened in Hungary in 2022. Due to various external and internal reasons, Hungarian inflation (cca. 25 % for the year 2022) exceeded by 10 % the EU average. The free-floating Hungarian currency depreciated by 10 % in the same period (from 370 HUF to 410 HUF for 1 Euro).

the price differences of two countries. The price levels are usually measured by wholesale or producer price indices. If there are numerous foreign countries rather than only one partner, the weighted average of the real bilateral exchange rates will provide the *real effective exchange rate*.

The previous discussion of the causes and effects of changes in the nominal exchange rate assumed that there were no administrative limits to such changes. If there are no such limits, we speak about *floating exchange rates*. If there are limits or the exchange rate changes are ruled out, we speak about *fixed exchange rates*. The fixed exchange rate is maintained through the intervention of the monetary authorities. In a floating exchange rate regime, monetary authorities' intervention can curb exchange rate fluctuations. This intermediate system is called *dirty or managed float*. In this case the intervention is triggered if the exchange rate lastingly deviate from a proposed target value, the parity, and approaches the edge of the fluctuation bands which can be set for example at +/- 15 % of the parity. The parity is normally constant over a relatively long period but it can also change. When the parity declines, we have *revaluation* of the domestic currency. When it increases then we have a *devaluation*.

IV.3.2. Balance of payments equilibrium policies

At the introduction of the balance of payments system, I mentioned that technically speaking foreign transactions are usually in balance. The surpluses and deficits in the various parts of the BoP will usually equal to zero. In the common BoP interpretation however, the BoP equilibrium means a situation when the sum of the goods balance and the capital movements balance net to zero. We have a surplus (deficit) when the official reserves increase (decrease) in order to create the technical equilibrium. BoP equilibrium is a long-term policy objective. Countries must seek on average to offset deficits of one period with surpluses of another. The pursuit of continuous surpluses seems feasible for the first sight, while persistent deficits are not. The first case would mean a steady increase in the country's foreign reserves, the other a continuous decline, up till the point when the reserves run out altogether thus making further net payments abroad impossible. Nevertheless, running constant surplus also has serious negative consequences. It implies deficits for other countries, which may be important from the viewpoint of stable international labor division and cooperation. In addition, constant BoP surplus may give rise to domestic inflationary pressure since it means a steady source of monetary base creation. Countries may want to limit BoP surpluses for other reasons as well. Wanting for example to increase world market shares of national firms governments may wish to achieve trade surplus

and on the other hand pursue a deficit on the capital movements (FDI). The deficit in capital movements can at least in part offset positive trade balance.

The long-term stability of the BoP allows in the short run also imbalances and the manipulation of the balance in order to achieve various policy objectives. A main question is if there are *automatic adjustment processes*? Also, if there are none or they are insufficient what *adjustment policies* are applicable? In the section about the normative economic policy concept, I highlighted the role of automatic stabilizers and the superior effects of normative policy actions over selective measures. In connection of the balance of payments, we can find several mechanisms that automatically drive processes towards equilibrium position. Both trade and capital flows can adjust if the international movements are liberalized. For example, given exchange rate expectations the net inflow of capital induced by higher domestic interest rates will cause domestic rates to fall and foreign rates to rise thus eliminating the initial differential. Nevertheless, this has a simultaneous effect on the trade balance too. It is therefore very much advisable to examine the overall BoP adjustment process, especially in case of floating exchange regimes.

Price changes pose the first type of automatic BoP stabilizers. Assume there are two countries. For some reason country A accumulates BoP deficit, meanwhile country B runs a surplus. A's loss of reserves will reduce its money supply and therefore prices will decline. The opposite will occur in country B. The prices of goods produced in country A will decline compared with products of country B. This change in relative prices will improve the trade balance of country A. The process continues until the BoP equilibrates. Since price flexibility is asymmetric, (prices rise more easily than they fall) it is sufficient for prices to rise at an adequate rate in country A running a surplus. This would create an appropriate inflation differential between the two countries to trigger the BoP adjustment process. Yet, adjustment always occurs with difficulties (e.g. time lag) and social costs (caused among others by increasing inflation). For these reasons, the BoP adjustment processes are usually supplemented by policy measures. The decline of reserves usually causes central banks raising the discount rate in order to attract foreign investments and deposits. This policy also dampens domestic economic activity that in turn reduces imports. The social price of the measure is depressing domestic demand and employment.

Another automatic mechanism relies on *changes in income* associated with BoP disequilibria. Consider two countries A and B again. Start with BoP equilibrium. There is an exogenous increase in A's exports. This change will cause deterioration in B's trade balance, and create

surplus in A's trade balance if demand in A remains unchanged. However, this occurs only in part. The export increase will cause A's income to rise since exports add to aggregate demand. The rise in income will also increase demand for imports. The income generating effect will lessen over time through increasing imports. The opposite will happen in country B. Increased imports from A will cause deficit in the trade balance. If the level of autonomous expenditure on domestic goods decreases by the same amount, there will be a decline in income. This will result in falling imports while exports will rise as an effect of higher imports of country A. This mechanism seems to be quicker than price induced changes, but it also has social costs in terms of dropping income and employment.

Both of these automatic mechanisms can work with fixed exchange rate regimes when exchange rate adjustments do not absorb the momentum of the initial BoP disequilibria. Nevertheless, even if exchange rate movement does not accommodate the effects both mechanisms have limitations. In addition, time lags may be at work. Therefore, governments frequently take actions to support the mechanisms. The form of the intervention must be tailored to the causes of the imbalance. This is especially the case with regard to the long-term solution of the problems causing the imbalance. On the short-run, the BoP deficits can be eliminated by stimulating the collection of surplus in other BoP brackets, then the problem area. Nevertheless, this is firefighting and not permanent solution for the problems³⁹.

If capital markets are liberalized and country risks are equal, the foreign exchange market will be in equilibrium when the domestic and foreign interest rates equal. Given the foreign interest rate, monetary policy operations will induce changes in the capital account. It can improve in case of a deficit for example if policy makers reduce the quantity of the monetary base and the money supply to obtain an increase in the domestic interest rate that would then attract more foreign outlays. However, rising interest rates will reduce domestic income, as I argued earlier. If there are no alternatives to the restrictive monetary policy, the drawbacks are unavoidable. In some cases, however they can be avoided by resorting to controls on capital movements, but these regulations also have their negative effects on their own. It seems therefore necessary to

³⁹ This was the case for example with Hungary during the transformational recession (1990-93). Due to the lack of competitiveness and other factors commodity exports collapsed creating large trade deficits. The deficit was partially counterbalanced by increasing capital inflows, most importantly FDI. The Hungarian government offered generous investment incentives. In the public opinion, the "provision" of FDI was regarded as a kind of "compensation" for trade liberalization and the resulting trade deficit. It is of course a false interpretation to link the trade and investment processes directly together. The drivers of both processes are almost entirely independent. Foreign companies invest because they see profit opportunities not because they wish to help governments balancing the BoP.

take account of the comprehensive range of impacts⁴⁰ as well as continuously monitoring the effects of such macroeconomic devices in order to maintain the capability of fine-tuning the measures according to the needs.

An interesting aspect of adjustment policies for capital movements is the existence of expectations concerning changes in the exchange rate. There are many links between policies and expectations concerning exchange variations. Monetary policy itself influencing domestic interest rate is such a policy. For example, if the domestic and foreign interest rates are the same, but foreign investors expect the domestic currency to depreciate there will be an outflow of capital. This could be counterbalanced by more restrictive monetary policy. The restriction would raise domestic interest rates less than the size of the expected depreciation since the monetary restriction itself will influence expectations and reduce them. In addition, other government policies can affect the exchange rate expectations and facilitate the adjustment of capital movements. However, monetary policy tools have effect only if there is a minimum degree of exchange rate stability. In case of a currency crisis with rapidly depreciating exchange rate the interest rate changes cannot be a match for speculative exchange rate gains. In such environment strong monetary policy measures (robust interest rate increase) could even fight back alarming more conservative investors like financial institutions and cause panic in the capital markets. The other limit on using monetary restrictions to reduce expectations of devaluation is the possibility of repercussions on the budget. A rise in interest rates increases interest payments on public debt.

Another relevant example would assume a country with large public debt and high inflation adopting fixed exchange rate as used to be recommended by the international financial organizations to improve the credibility of the country and the policies of its government. Fixed exchange rate would then reduce expectation for devaluation. Yet, financial market speculation can be reduced rather by a combination of stable (fixed) exchange rate policy and good balance of payments performance. Assuming that the government does not apply fiscal policy tools to reduce the budget deficit the credibility of its commitment to maintain the exchange rate parity depends on the restrictive monetary policy stance. Nevertheless, rising interest rates have a negative impact on the budget undermining the credibility on that side. The main problem is the financialization process of the world economy. The process increased capital market sensitivity especially in the area of exchange rate variations (see the numerous currency crises

⁴⁰ Such factors as the severity of unemployment, the sensitivity of investment to the interest rate, the degree of speculative capital movements and the effectiveness of capital controls.

of the 1990s and 2000s). The speculative expectations can generate the expected changes through the sheer size of the global capital markets⁴¹. The long-term solution for combatting BoP deficits is a durable improvement of competitiveness of domestic firms. I mentioned this aspect already in the discussion of industrial policy.

IV.3.3. Efficiency of BoP policy measures

As is seen policies to solve BoP problems are mediated by the exchange rate of the domestic currency. When analyzing the impact of the policy tools we assumed exchange rate stability (fixed exchange rate regime). Nevertheless, of course changes in the exchange rate, depreciation (less frequently appreciation) can also restore BoP equilibrium, at least in the short run. The applicability of the exchange rate as a policy instrument depends on various conditions.

Controllability is primarily related to the exchange rate regime. In case of fixed exchange rates, the immediate question arises: Does not the fixity of the exchange rate conflict with its controllability? The answer is not really: it is more like semantic than essential question. Control is exercised through the variable to which the exchange rate is linked. Policymakers can change the exchange rate by altering the parity. Similar question can be raised also in case of free floating. If the exchange rate is fully exposed to the supply and demand functions of the market how can the government intervene? In this case, controllability implies that the exchange rate is not entirely free floating and reflects government intervention. There is in practice no absolute free float; all regimes are instead to some extent managed.

Some specific factors will influence the efficiency of exchange rate adjustment policies. As I indicated in the section on the normative economic policy, the instrument variable must be controllable and also effective. Effectiveness means here that exchange rate changes induced by government action have the desired effect on the target variables, which are usually the level of income or elements of the BoP. The first problem in this regard is *demand elasticity*. It can be proved by more rigorous mathematic discussion that the elasticity of demand on both exported goods and imported goods decisively influence if the goods' relative prices will modify demand and thus policies aimed at this modification can bite or not (Accocella, 2005, pp. 330-2). The so-called *Marshall-Lerner condition* for the effectiveness of depreciation states that *the sum of the demand elasticity of exported and imported goods must be larger than 1*.

⁴¹ For the details see: Szanyi, 2020.

Without the use of the mathematic discussion of the issue, we can understand also intuitively the validity of this statement. A devaluation of the currency will increase price competitiveness of domestic producers on foreign markets. Their incomes measured in domestic currency will increase and they will make efforts to increase production and exports. Foreign consumers purchase the excess export in case their demand is elastic. Imports at the same time will become more expensive therefore; if domestic demand for imports is also elastic, demand for more expensive imported goods will decline. Both changes will contribute to improvements in the trade balance. As I mentioned earlier, the impact can be dampened by the income effect: More revenue from exports will be spent at least partially on imports thus exercising an opposite impact. The changes in export and import can substitute each other if their elasticity differs. Nevertheless, with rigid export and import demand (no response to exchange rate changes in either direction) currency devaluation may prove to be absolutely inefficient. This is however not the case. Thus, the Marshall-Lerner condition states that the combined effect of export and import changes brings the necessary improvement in the trade balance if the combined elasticity of these two is bigger than 1.

Nevertheless, with adequate levels of export and import elasticity the desired impact of devaluation can still stay out. This can happen if producers do not *pass through the exchange rate variations to consumer prices*. Let us take an example. If our home country were Hungary, a given increase in the exchange rate of the Forint would lower the Euro prices of Hungarian goods by the same amount as the rise in the exchange rate. Similarly, it would leave the Euro prices of foreign goods unchanged and increase their prices in Hungarian Forints. These changes will happen if certain conditions hold. For example, the Euro price of Hungarian goods will fall in exactly the same proportion as the depreciation if there is perfect competition among the Hungarian producers of each exported good and they represent a significant part of the world supply of the good. The Euro prices of goods imported into Hungary will remain unchanged if the domestic market accounts for only a small fraction of the world market of these goods. If these assumptions do not hold then the depreciation may not be entirely passed through to the foreign currency prices of exports or the Forint prices of imports.

In many cases, especially larger companies have the choice of passing through the exchange rate impact entirely or partially to the export sales prices. For a full pass through would lower the unit revenues and the unit profit expressed in domestic currency. On the other hand, a larger pass-through would increase foreign demand. The greater elasticity the lower the need to have a larger pass through. The firm will weight both effects, which have an opposite impact on

profits. The issue is also influenced by the pattern of production costs. In presence of scale economies a larger pass through will not necessarily lower unit profit. The increase in demand caused by the pass-through will lower average costs and thus increase unit profit. Similar effect can be observed with investment depreciation. Companies may pursue sales strategies that appreciate market presence even at higher costs or at loss. Overall, the real effect of depreciation on price changes and hence export volumes will depend on the market actors' decision, which is influenced by a variety of factors that can alter the expected impact of the policy measure.

A still further determinant of the real effect of exchange rate measures is the *elasticity of supply*. The basic assumption is of course that there are no supply-side constraints on exports: the supply is perfectly elastic. This means that in case of sufficiently elastic demand (demand meets the Marshall-Lerner condition) supply will always adjust to demand changes and the trade balance will improve. High supply elasticity on the aggregate level would mean that physical resources and labor are only partially used and there is sufficient amount of *buffer* in the economy. Otherwise, supply cannot meet increasing demand and depreciation will remain ineffective. An increase in the exchange rate gives rise to an increase in demand which under conditions of full employment will lead to an increase in all prices including those of exports rather than to increasing export volumes. In case there is *demand-pulled inflation* and full employment in the country depreciation of the currency will not improve the trade balance. On the contrary, in such situation the deficit will be created at least partially due to the pressure of the domestic demand, which the depreciation would only intensify. This danger also calls attention to caution when deciding about the use of exchange rate depreciation. It can easily lead to inflation.

The previous discussion considered the effects of exchange rate changes on trade balance. But such effects can influence also capital movements. In some cases a depreciation may include expectations of further depreciation and therefore cause capital outflow. In other circumstances the opposite can occur: a depreciation considered sufficiently large may trigger expectations of a future appreciation. The main conclusion is that adjusting the exchange rate is effective only in certain situations of BoP disequilibrium. Depreciation is appropriate when the loss of competitiveness is at issue, when changes in unit labor cost or profit margins are higher in the domestic markets than abroad. In case of deficits in the trade balance caused by excess demand, response that is more proper would be the adoption of restrictive fiscal and monetary policy. Depreciation does not seem appropriate response to a deficit caused by capital movements and may have undesired adverse effects in the financial account.

IV.3.4. Trade policy

Government influence on trade flows may pursue also purposes other than balancing the BoP. *Trade policy* directly influences the state of competition on domestic markets. A liberal attitude of trade policy means that no barriers to exports and more importantly to imports are raised. Governments may assume a protectionist stance meaning an attempt to safeguard domestic firms against foreign competition. A third rather extreme position is autarchy, which seeks to close the domestic economy to the rest of the world. Liberal policies aim the elimination of all trade barriers⁴² and establishing free trade. In contrast, protectionism as a trade policy alternative to free trade has been the subject of an extensive theoretical debate since the birth of modern economic science and a focus of various government actions over the years.

Before entering the discussion of pros and cons for liberalization and protectionism, we will look at the measures of trade policy, and their impacts. The most widespread and traditional protectionist toll is *tariff protection*. This involves the placement of duties on imported goods. Duties are in effect indirect taxes, which usually increase the price of foreign goods. They are source of tax revenues, but they are not used frequently for this purpose⁴³. Tariffs normally are used to protect domestic goods from their foreign competitors: they are protective duties. In the post second world war period a larger variety of protectionist measures were introduced, mostly non-tariff instruments. They included *quotas*, which set quantity or value limits to imports, restrictions on the purchase of foreign goods (for instance requiring a minimum level of *local content*). Administrative regulation was introduced in a wide range of areas (health protection, environmental protection, content requirements in chemical and food industry, special standards, etc.) that favored local business over imports. These regulations purportedly create obstacles and delays that raise the costs of foreign producers. As liberalization took off from the 1980s more emphasis was given to *public procurement* used as protectionist measure. Finally yet importantly, subsidies and other forms of export incentives (including currency devaluation) have been in use that distorted competition in favor of domestic firms.

Tariffs have different effects on domestic markets. The desired impact of giving a development chance to local firms cannot be measured or evaluated in an outright way. However, we can

⁴² Liberal trade policies were the backbone of the competition-centered neoliberal policy paradigm reinforced by the international advisors and financial institutions in the 1985-2008 period. After the 2007/8 financial crisis trade liberalization lost steam and instead an increasing number of protectionist measures were introduced as it is evidenced for FDI policies by UNCTAD (2021, p. 109) and for trade by WTO (2021).

⁴³ One such case was the 1995 introduction of an import surcharge in Hungary that affected all imported items and was aimed at income generation for the central budget in the frame of the overall economic stabilization program. It was soon withdrawn when the policy goal was achieved.

foresee the various side effects easily. There is a *consumption reducing effect*. Tariffs increase the prices of imported goods. If demand is flexible, increased prices will reduce demand for imported goods. If domestic competitors' production is also flexible, and the crowded out demand can be channeled towards domestic produce this demand loss can be at least partially compensated (we can assume that domestic products are inferior in quality and price). This effect is called *protection effect*. If the country does not have full employment, the production capacities can be increased to take over the abandoned positions of foreign competitors. For sure, imports will decline (provided demand for foreign products is at least somewhat flexible to price changes). This is the *import effect*. There is also the *tax revenue effect*: tax revenues will increase by the tariff rate multiplied by the new quantity imported. Finally yet importantly, the introduction of tariffs will launch a *redistribution effect*. Consumers pay higher price to domestic manufacturers and the duty to the government. *Always consumers pay the bill of protectionism*. Quotas have similar effects as tariffs. Reduction of imports increase the domestic price of the goods. Unlike in the case of tariffs the government does not receive any revenue from this. Quotas redistribute income to the detriment of consumers and the benefit of importers.

Trade policy instruments also include export subsidies. They can take various forms like credits, insurance subsidies, tax allowances. These usually supplement the profits of exporters. The unit profit net of taxes is increased by the amount of the subsidy thus directing resources towards export-oriented production. Subsidies' effect on prices is similar to those of tariffs. Export subsidies raise the price of the good in the exporting country because producers will not be willing to sell in the domestic market at a price that is lower than what they obtain from exports increased by the subsidy. In addition, if the country that introduces the subsidy is large, the world price of the subsidized good may decline because of increased supply on the world market. The price within the subsidizing economy will not increase by the full amount of subsidy.

The application of protectionist measures has a long history. A constant perception of economic development seems to be that countries become industrial powers thanks to protectionism. The British protected their markets against superior Dutch merchants in the mid XVIIth century. Once having established trade hegemony Britain adopted and promoted free trade. The same happened to Germany vis-à-vis Britain in the XIXth century, the USA in the XIXth century, Japan after the second world war against mainly the USA and this has happened to China vis-à-vis more developed countries in the 1980s and 1990s. The turning point in this latter case was

China's 2001 joining of the World Trade Organization (WTO)⁴⁴. Thereafter China became the loudest advocate of free trade.

The free trade concept lies in the advantages of *specialization* at international level, the advantages realized in international trade. David Ricardo's *comparative cost principle* provided the scientific foundation for the concept. If two countries have different relative abilities to produce two commodities both countries will be better off if each specializes on producing the good whose production cost is *comparatively lower* and trades the excess quantity of that good to get access to the other good from the other country. This statement is valid also if the comparative cost of both commodities is lower in one country than in the other (relative comparative cost advantage). The Ricardian concept has been upgraded and adjusted to more recent comprehensive economic environments (Helpman and Krugman, 1985).

Critics drew attention to some limitations stemming mainly from the static nature of the concept. The economic arguments in favor of protectionism are based on these limitations. The non-economic arguments for the support of protectionism are traced back to Adam Smith. Despite of his firm conviction in liberalism the founding father of modern economics argued, "defence is of more importance than opulence". On this basis, the protection of certain industries can be justified (agriculture, basic services and industries) even if their production may be unprofitable from the business point of view.

John Stuart Mill cited first the need to nurture *infant industries* as a reason for protection. He argued that the temporary introduction of protective tariffs could be justified if it attempted to neutralize a superior foreign industry. The superiority of one country over another often arises only from having begun development sooner thus accumulating skill and experience that newcomers temporarily lack. The country that protects an infant industry may acquire the same skills and experience over time, thus enabling it to compete on equal footing. Current temporary protection can produce more competition in future. This is especially the case if there are *dynamic economies of scale* to be gained. These can be gained by producers through learning by doing. Their presence produces a learning curve: through the acquired expertise and growing firm size productivity increases and average cost declines quickly in the first, introductory period. Then with more mature technology and skills, the process slows down.

⁴⁴ WTO is the successor organization of the trade liberalization negotiations that were launched after the second world war on US initiative.

Nevertheless, in the initial period output of countries with more mature industry will enjoy the competitive edge through their previously acquired skills and firm size as compared with newcomers. The advantage of protection is that the scope for foreign producers to expand their market share is curbed thus allowing domestic producers to increase their market share and accelerate the accumulation of skills and firm size. The development of an infant industry can also generate *positive spillover effects* for other businesses in the country. Such effects are associated with close inter-industry linkages that lead to the spread of knowledge, stimulate innovations and strengthen relationships arising between innovators and the users of innovations. Further benefits from protection may derive if production costs go below the costs of foreign competitors due to lower wages or profit margins. This can lead to very high level of international competitiveness (at least regarding costs). The dawn of China's industrial development miracle was based by and large on this cost advantage. Yet, Chinese firms had to establish themselves first, in terms of technological sophistication, size and other skills.

Protection entails also considerable risks. It is always very difficult to pick the winners, to identify those infant industries that will become viable in future and produce the expected positive spillovers. The more so if the protection refers to only a few national companies. In such a case, the risk of moral hazard can be substantial: protection applies for pre-selected single companies instead of generally conceived industries with a larger number of competing firms. There is also the possibility that firms will simply sit comfortably behind the protective tariff barrier and do little to accumulate the necessary skills or provide the foreseen spillover effects. The protection of infant industries was expanded to underdeveloped economies as a whole by *development economists*. Protectionism in this case would support not only selected industries but also the institutional up-grading of the affected countries. Hence, the protection of domestic business on a number of markets would be part of a more general and complex development policy (for more discussion about industrial policies see III.3.1).

Another economic argument in favor of applying protectionist measures is the possibility for a country to improve its *terms of trade*. Tariff is an indirect tax, which is shifted onto the price of goods. The more elastic is demand, the less likely the shift can be carried out. If the price does not increase, the foreign supplier pays the tax. The issue is further complicated by *supply elasticity*. Inelastic supply would mean that the foreign supplier firm does not change its supply despite of the reduction in price (unit sales revenue). After the introduction of the tariff, the firm is willing to sell the same quantity at a lower price. This may be due to the importance of the market for the exporting firm and the fact that the good is produced with significant

economies of scale. If the foreign exporter keeps the price unchanged (considering flexible demand), the tariff-imposing country's terms of trade will improve.

The last, and in recent times perhaps more frequently used argument for the introduction of protectionist measures is protection from *cheap labor and social dumping*. It is most frequently used by developed countries to argue for the general protection of industry or certain sectors (mainly labor-intensive ones) threatened by cheap foreign labor that can make industries uncompetitive. The argument has also been used with regard to the problem of social dumping that is unfair competition by countries where labor costs are kept low by giving workers little social protection.

This position fails to take into account that lower labor costs of less developed countries may correspond to lower productivity. This then would mean that *unit labor costs* are often not much different and dramatically low as the labor costs per se. Thus, the claim does not always rely on reality and is often advanced only to promote purely sectoral interests. It seems understandable that governments use protection on the short run to avoid dangerous falls in employment, but it is less justifiable in the longer run. Avoiding such situations should be entrusted to full employment macroeconomic policy and adequate industrial policy that promotes both the necessary productivity gains to keep unit labor costs low, and the kinds of structural change in the economy that promotes the development of rapidly expanding markets that are less sensitive to labor cost competition.

Thus, trade policies have a direct impact and are constituting elements of *industrial policy* concepts. Trade policies have a direct impact on both exports and imports. Industrial policies tend to influence the factors determining the supply functions: production technologies, product types, market structure, inter-firm relationships and supporting institutions. Industrial policy can contribute to creating the conditions for trade success. The often used best practice solutions are usually taken from the *developmental state concept* pursued by the South-East Asian tiger countries. Their success heralded the advantage of the export-oriented development strategy over the import substituting development concept: a debate that was conducted in the 1970s and early 1980s. This concept, however, has to be updated and adjusted to the new global environment of the 2000s. This is a task that evoked further discussion of the developmental state concept (Ricz, 2019).

Industrial policy can promote the country's competitive position and trade success in several ways. In particular, government can focus efforts on promoting industries in the sectors in

which world demand is growing fastest. A particularly important area of action is the strengthening of strategic sectors through the development of their background conditions (supply of technology, trained staff, skilled labor and adequate financing). Industrial policy can help ensuring suitable relations between firms as well as industries at the domestic and international levels (FDI, strategic alliances, and contacts to financial intermediaries). However, industrial policy's set of objectives must be broader than trade policy aims. The opposite may be rather the case: trade policy actions can help strengthen the productive structure of a country, contribute to reach dynamic economies of scale (e.g. by protecting infant industries) or channeling resources to selected sectors that can boost the economy's overall growth and development.

Control questions to Chapter IV.3.:

How do international inflation rate differences influence the real effective exchange rate?

How do exchange rate changes correct balance of payment imbalances?

What are the main types of exchange rate policy? Please explain their difference!

What is exchange rate devaluation and revaluation, and what is their impact on trade and international investments?

What are the automatic BoP stabilizers?

How can monetary policy operations influence international capital flows?

What are the conditions of effectiveness of exchange rate adjustment policies (to control trade flows)?

Why may exporting companies consider passing through only partially the price increasing impact of exchange rate revaluation?

Why is supply elasticity necessary condition of correcting the trade balance via currency devaluation?

Please describe the comparative advantage theory and its main critics!

How would you argue for the introduction of protectionist trade measures?

What are the main types of protectionist trade measures and what are their effects?

What is an infant industry, and how can it be protected from international competition?

How do industrial policies support international competitiveness?

Closing remarks

The reader of this volume may feel that somehow the information to be gathered might be incomplete. Well, yes, the book contains only a snapshot of information that is available even in the most basic literature that focuses on the various policy areas. More in depth analysis indeed is possible and necessary for those who would like to be engaged in the study, research or professional life in matters of economic policy analysis. The general overview of the main fields, which was the aim of this volume, cannot provide this depth of information.

Another hiatus of the text is perhaps the specific focus on new problem areas of economic policy making. I mentioned several historic examples as illustration but these related mainly to the less recent past. This choice was intentional. The main logic of economic policy, the discussion of the balance of government and market has to rely on sound experience and evidence to enable us making some kind of conclusive statements. Yet, the newly emerging problem areas (especially the problems of the 2007/8 financial crisis and the following 15 years) pose relatively new threats and ask new questions that have not yet been discussed through to allow me conclusions. Therefore, I discuss the new issues, or at least some of them in a separate volume (Szanyi, 2020). This other reading tries to identify the main problem areas of economic policy making after the 2007 crisis. It raises problems and describes how governments intended to solve them. However, we still lack the knowledge to choose best practices in this regard. This is the main reason why I omitted them from this volume.

There have been also major changes in world politics. I write this last section on 1st March 2022 when the Russian attack on the Ukraine has lasted for five days and the Russian President has threatened with the use of the country's nuclear weapons in case "outsiders" would get involved in the conflict with their armed forces. This single event heralded the end of the political period from 1990 up till now which was earmarked by mutual acceptance of some basic agreements and rules governing world politics. Let us hope that the world will return to peace and mutual respect of civilized solutions of conflicts, but it is unfortunately not quite certain. This big drift can exercise strong influence on the world economy. Another, not less important issue is the problem of sustainability. A third is the dawn of virtual economy: businesses that go out of the control of national policies. We can just bet how the institutional controls over these problem areas will look like in the future. For sure, these are all challenges that may require a fundamental rethinking of some principles and areas of economic policy making discussed in the current volume. I tried to complement this text with some further considerations of these new challenges in my other 2020 volume.

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