



REFLECTION OF THE ECONOMIC GROWTH THEORIES IN EUROPA 2020 STRATEGY

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Abstract. Europe 2020 is the umbrella strategy of the European Union (EU) aiming at enhancing of the economic growth of EU over the years 2010-2020. In this regard it takes into account number of the economic growth factors, listed by the contemporary theories of economic growth, such as the neo-classical economic growth theory (employment), new economic growth theory (innovations, research and development) and partly in the theory of evolutionary economic growth (economic governance). Furthermore, Europa 2020 strategy considers the sub-theory of sustainable economic growth (poverty reduction, climate change, renewable energy, and energy efficiency), as well as indirectly – the impact of fiscal indicators upon GDP growth, which is not yet well incorporated into the economic growth theories and considered as being just some framework condition of growth.

Keywords: Europa 2020, economic growth theories, sustainable growth, fiscal indicators.

JEL classification: Q40.

1. Introduction

Europe 2020 is the strategy aiming at global development of the European Union over recent decade (2011-2020). This is, first of all, though to be the strategy for economic growth, having three interrelated parts of smart growth, sustainable growth and inclusive growth. In-doubtfully, - Europe 2020 strategy is very important for recent and future development of the EU. It has been established as the EU response to very complicated circumstances. The structural problems of the EU – lack of growth and productivity, inadequate participation of the population in the labor market, rather incomplete accommodation of the constraints linked to ageing – have nevertheless persisted whilst new worries were appearing, in particular the greater competition from the emerging economies and the challenges linked to climate change and management of natural resources. Moreover, the recent economic crisis has placed strains on the financial sector and negated part of the efforts to stabilize budgets that had been accomplished in the preceding years.

The article aims at presentation of the economic growth theories as well as their extension in the area of the sustainable growth and financial as well as fiscal situation, and their influence upon the economic growth. This is especially relevant to understand the macroeconomic impacts of Europe 2020 strategy. Furthermore, it aims at brief

presentation of the reflection of economic growth theories in Europe 2020 strategy.

2. Theoretical foundations of the economic growth

Economic growth is the increase in the amount of goods and services produced by an economy over the time. It is conventionally measured as per cent rate of increase in real gross domestic product (GDP) (Sullivan, Sheffrin 2003). Or, growth can be described as a process of transformation, being uneven and unbalanced (Encyclopedia Britannica, 2012). But, in any case, economic growth relates to long-term growth, thus, does not take short-term economic trends into account.

In the early 20th century, it became a policy of most nations to encourage the growth, and the long-run path of economic development became one of the central questions of economics. Over long periods of time, even small rates of annual growth may have large effects on wealth. A growth rate of 2.5% per annum will lead to a doubling of GDP within 28 years, whilst a growth rate of 8% per annum will lead to a doubling of GDP within 9 years.

The theories of growth are in continuous development, since new sources as well as aspects of growth emerge time-to-time.

The *classical growth theory* has been inspired by two great economists – Adam Smith and David

Ricardo, and has been associated with factors of production, especially with the increase of physical capital as well as with opening of the economies – the international trade (Jones 2002).

The growth facilitated by increasing stocks of capital goods was also codified in the early version of *neo-classical growth models*, the most prominent of which was invented by Solow (1956) and Swan (1956) in 1950-th. In this model, the increasing rate of employment is crucial factor of growth along with the capital intensity. In the long term, output per capita and labor productivity grow at an exogenously given rate of technological progress. But, since the technical progress is entirely exogenous, in reality the economic growth was left unexplained.

A group of models – the so-called *new growth theories*, that emerged in the course of 1980-th explain long-term economic growth endogenously by providing for the assumption of diminishing returns on capital and by rendering technological progress endogenous to the model. In a pioneering paper, Romer (1990) postulated that a firm's production function is defined by firm-specific variables (capital, labor, R&D inputs) and a shift term (index of technology), which is function of the stock of knowledge available to all firms. Thus, the endogenous growth theory takes into account a variety of factors enabling innovation, and first of all – R&D as the basics for economic growth. Theory does also suggest that the international diffusion of knowledge increases the growth of output and productivity. Research found that more than 50% of the productivity growth in countries of the Organization for Economic Cooperation and Development (OECD) can be attributed to innovations from just three countries – USA, Germany and Japan (Eaton, Kortum 1996).

The recent, *evolutionary approach* to growth draws attention to aspects that are neglected in both – neo-classical and endogenous growth models (Nelson, 1998). It states that growth should be based on more realistic theory of the firm that stresses strategic firm capabilities in a broader sense, rather just investment in human capital and R&D. It must take into account the institutional framework that presumably contributes strongly to an explanation of cross-country differences in economic growth. To create value and gain a competitive edge, firms use a whole set of specific assets, among which R&D is only one, though, the important one. Other are: marketing, organizational and managerial skills, individual and collective learning capabilities, social capital (trust, etc.), networking, property rights, etc. This ensures the sustainability of economic growth, which we will discuss in the chapter below.

3. Economic growth and financial system

The problem of inter-dependability of the economic growth and fiscal indicators has been discussed very briefly in the economic literature before the recent financial-economic crisis. The main attention has been paid to the relationship between the economic growth and financial system. In 2001, Michael Thiel in a research paper, prepared for the Directorate General for Economic and Financial affairs (DG ECFIN) of the European Commission, on relationship of the finance and economic growth, has cited earlier economist Levine, who, to his opinion, in 1997 provided for the first wave of evidence on the finance-growth nexus.

“Although conclusions must be stated hesitantly and with ample qualifications, the preponderance of theoretical reasoning and empirical evidence suggests a positive, first-order relationship between financial development and economic growth. [...] There is even evidence that the level of financial development is a good predictor of future rates of economic growth, capital accumulation and technological change. Moreover, cross country, case study, industry- and firm-level analyses document extensive periods when financial development – or the lack thereof- crucially affects the speed and pattern of economic development.” (Levine 1997).

To Thiel's opinion, while no economist would doubt that a developed financial system is beneficial for growth, the importance attached to finance differed with respect to two key questions:

- Firstly, is financial development a precondition for economic development or does the financial sector develops in parallel with overall economic development?
- Secondly, do differences in financial development only account for differences in early stages of economic development or do they also matter for mature industrial economies?

Economic growth, following the theories, depends on accumulation of the input factors of the production process, such as physical capital and labor, as well as on the technologies and innovations. All this is not for free, thus, finance has been considered in the context of the economic growth, since the first theories showed-up at the end of 19-th century. Finance contributes to accumulation of the physical capital, and to the realization of technical progress as, in particular, in periods of rapid technical progress, an efficiently structured financial sector facilitates adoption of the technical advances in capital formation, what allows for higher rates of economic growth. In this sense, we may state, that although financial sector could be pre-

condition for economic growth, it also develops in parallel of economic growth. Taking the recent history into account as well as today's situation, the better developed financial sector correlates positively with rates of economic growth. For example, economic growth in USA with better developed financial system, i.e. banks, credit institutions, insurance, other financial institutions, was higher over the pre-crisis years compared, for example, with the Euro area. The USA economy in 2000-2007 grew in average 2.6% annually, and the Euro area -15 economy – by 2.3% annually. Of course, this is not big difference, as well as we may remember that recent financial and economic crisis came to the large extent from USA.

While considering the relation between the economic growth and financial system, according to Thiel, we may not leave apart importance of the interest rates, being derivate of the financial and economic situation. Economic theory states, that the interest rate plays the main role in equilibrating savings and investment. According to the neo-classical Golden Rule, the economic growth path relates to the real interest rate, in an opposite way.

Why does it take the time, for economist to start considering the financial sector as the factor of economic growth? Some explanation to this lays in pure theoretical considerations that in presence of the perfect markets, financial sector does not impact upon investment and other economic decisions. This, of course, was a mistake, since in reality the perfect markets stopped functioning maybe more than 100 years ago. Today, we talk about the imperfect markets, with asymmetric information and imperfect competition. However, the exact transmission channels from finance to economic activity and in particular estimates of theirs quantitative impact are subject to considerable uncertainty. Besides, the empiric research, which has been done on the relationship of economic growth and financial system, lacks methodological accountability. Different researches used different data sets for different years and countries, as well as different dependent and independent variables.

In 1993, the economists Levine and King found a strong statistical relation for 12 combinations of 4 financial variables with 3 growth indicators after controlling for a set of further variables, in the period 1960-1989, which was interpreted as evidence for a causal link from finance to growth. In 1998, the economists Rousseau and Wachtel examined the causal link between bank assets and bank deposits and real economic growth for 5 industrial countries in the period 1870-1929. They have found the evidence that financial developments affect the economic growth, in sense that changes in financial variables affect real economic variables but not vice

versa. Again, in 1998, economists Levine and Zervos analyzed the relation between 6 financial variables and 3 real growth variables (real per capita GDP growth, real per capita capital stock growth, and productivity growth) and the savings ratio. The cross-country study has covered the period 1976-1993, but unfortunately, it has found any evidence of the working relationship between the private saving ratio and the financial indicators. Controversial conclusions are reached by study, done in 2000 by economists Levine, Loayza and Beck. They have found the significant impact of the financial indicators upon physical capital growth and savings, but any working impact on real GDP growth and productivity. In 1999, the study, done by the economist Andrés and his colleagues did not reveal the major relationship between finance and economic growth indicators for OECD countries. Although, different results were found in another OECD study, finding significant relationship between stock market capitalization and bank credits, in the developed countries (Bassanini, 2001).

Taking the presented evidences into account, we may state that financial indicators are only ones among a large number of potential external determinants of economic growth. The differences in political institutions or legal structures may determine financial development and economic growth, as well as, on the other hand, endogenous parameters of changes in technology, the accumulation of human capital, etc. have additional effects on the development of the financial as well as the overall economic system.

4. Theory of sustainable economic growth

Economic growth has undeniable effects on the living conditions of people. But, nevertheless, it raises certain critics, basically related to some negative effects on the quality of life, such as pollution reflecting upon the climate change, some exaggeration of artificial needs – the consumption that goes beyond the needs for contemporary quality of life; depletion of non-renewable resources; growing gap between the poorest and richest countries in the world (Case, Fair 2006).

Concerns about possible negative effects of growth on the environment and society led to the idea of sustainable growth, which foresees optimal growth rates. Canadian scientist David Suzuki stated in the 1990s that ecologies can only sustain typically about 1.5-3% new growth per year, and thus any requirement for greater returns from agriculture or forestry will necessarily cannibalize the natural capital of soil or forest (Suzuki, *et al.*, 2007). Stern Review, published by the United

Kingdom Government in 2006, concluded that an investment of 1% of GDP per annum would be sufficient to avoid the worst effects of climate change, and that failure to do so could risk global GDP being 20% lower than it otherwise might be, by 2050 (Stern 2007).

The idea of sustainable growth is far away from being new one, although it just recently takes the desirable place in the strategic political decisions of the countries. However, taking into account the on-going financial and economic crisis, that complete attention is paid to the debt-related situation and speed of the GDP growth; the idea of sustainable growth became some-how forgotten by the scientists, politicians and media. Furthermore, taking wider aspects of sustainability into account, the definition of sustainable growth gets beyond the ecology.

About 15 years ago, James Robertson (1997) in its report to the European Commission on the new economic of sustainable development listed the factors of new economics, reflecting upon the sustainability of economic growth. These were:

- systematic empowerment of people (as opposed to making and keeping them dependent), as the basis for people-centered development,
- systematic conservation of resources and environment, as the basis for environmentally sustainable development,
- evolution from a “wealth of nations” model of economic life to a one-world model, and from today's inter-national economy to an ecologically sustainable, decentralizing, multi-level one-world economic system,
- restoration of human and ethical factors to a central place in economic life and thought,
- respect for qualitative values, not just quantitative values,
- respect for feminine values, not just masculine ones.

According to Robertson, these principles are relevant to every area and level of economic life and thought. In short, he proposed the idea of sustainable growth, which takes not the market and not the state, as two principal actors of the market economy into account, but rather the horizontal dimension of it – the peoples, i.e. the citizens. However, according to him, the roles of the market and the state will continue to be important. The role of the market would be to serve the needs of citizens in environmentally sustainable ways. And, the role of government would be to develop a financial and regulatory framework designed to encourage personal and local self-reliance, economic efficiency and enterprise, social justice, and envi-

ronmental sustainability. Furthermore, the sustainable economy will also recognize the importance of those activities which are carried out neither for profit in the market nor by employees of the state, by an active "third sector" alongside the public and private ones. The growing importance of voluntary organizations, citizens' groups and nongovernmental organizations (NGOs) is evidence that this trend is under way. Furthermore, in the statements of Robertson, we may also recognize the elements of the evolutionary theory of growth, as far as it relates to networking and social capital.

If this attitude of sustainable growth, written down more than 15 years ago, still relevant? We think, that yes. First of all, Robertson proposed the holistic approach to growth taking into account the entire system of factors, which acting in a synergy provide for the best results, where people are taken into account alongside with the environment. And, secondly, he emphasized the importance of people, as the source of growth, what is especially relevant taking into account the emerging ideas, that future's and already today's economic development depends upon ideas and concepts, and that the economy of future means the conceptual economy. We may remember here the works of the Reflection Group (2010), led by Felipe Gonzales and Žiga Turk, which has aimed at construction of Europa 2030 strategy.

However, let's come back to the original concept of sustainable growth, what means compatibility of the economic growth with the environmental protection. Today, this is mostly fight against the climate change. Earlier, and in many cases - still today, prevails the opinion that economic growth fosters the resource depletion and greater pollution as well as that environment protection measures reduces the profitability and the rate of economic growth. We may remember here the entire collection of different reports, books, articles, governmental programs, etc., raising concern about the situation related to resource depletion and climate change, that survival of the future generations is in danger, and that world shall sacrifice the economic growth along with consumption, to keep the world alive, i.e. apply the concept of sustainable growth and sustainable consumption. We do fully agree with number of these statements, as they may be correct, and that both – fight against the climate change and environmental protection cannot be ignored. However, if these statements can be taken for granted? We think that no, and that the relationship between the environmental protection and economic growth shall be considered in a broader field of attitudes. Maybe then, we will see the environmental protection as not the burden, but rather the source of economic growth, thus, the implementation of these measures will not be avoided by the

governments, what leads to postponement of the problem, and to real slowdown of the economic growth.

Some researchers found that higher economic growth, which improve the living standards, in return demand for higher environmental protection, being the part of better living conditions, thus, economic growth and environment protection develops by the principle of the interdependent spiral. This logic became known as the Kuznets curve for environmental protection; similar it has been discovered for the poverty reduction (Shafik, 2004). Nevertheless, the question, whether policies to regulate the environment do themselves promote or restrain economic growth, remains open.

However, well known professor of competitiveness and strategy, Michael Porter, already in 1991 stated, that economic growth can get hand-by-hand with environmental protection. According to him, and his later co-author van der Linde, the pollution is often a waste of resources and a reduction in pollution may lead to an improvement in the productivity. More stringent, but properly designed environmental regulations can “trigger innovation [broadly defined] that may partially or more than fully offset the costs of complying with them.” (Porter, van der Linde 1995). Later, this became known as the Porters Hypothesis, which has raised some critics among the economic scientists, and it is debated until today, although with the evidences of Michael Porter being right. The critics have been raised because of the thought, that firms are profit maximizing entities, and if the environmental protection would be giving some profitable effects, these would be already exploited by the businessmen. However, the later theory of industrial organization states on some degree of irrationality of the decisions made by the individuals and the businessmen, because of the bounded rationality of human beings, asymmetric information, agency problems, etc. Thus, the businessman could hopefully overlook the profitable opportunities, especially under the opinion, that measures of the environmental protection limit profitability and growth.

5. Economic growth and fiscal situation of the countries

The recent financial and economic crisis, has raised the attention towards the fiscal indicators of the countries, especially of the years 2011-2012, when the emerging economic growth has been hindered very seriously by worsening fiscal indicators in number of Euro area countries, as well as in the USA, and in some other world economies. Declines in GDP growth, large financial rescue

programmers related to the banking sector and expansionary fiscal policies to stimulate the economy in the wake of the financial crisis (2008-2010) have led to a dramatic deterioration of fiscal positions in number of industrial economies. Furthermore, many developed countries face increasing pension and health costs associated with their ageing populations, what does not provide for the perspective of decreasing public debt. In this way, some of the developed countries, with public debt far beyond 100% of GDP either would be forced for the lower, that potential GDP growth rates, either they should be reducing their debt levels to the optimal ones, of about 90% of GDP as it is suggested by the scientists, either, and most likely, the economic science shall discover the contemporary theory, finding new sources of economic growth with high debt levels as well as contemporary theory of the fiscal health of the countries, taking into account increasing public debt levels.

How does it work, i.e. what are the mechanisms of the impact of the fiscal indicators upon the economic growth? The countries were borrowing all the time. The populists, especially today in the course of the sovereign debt crisis, often blame the governments for irresponsible behavior towards borrowing that it weighs on the future generations. However, economists agree that without borrowing the countries cannot afford the technological progress and innovations, which are expensive and pay-off just in decades. Thus, financial deepening, what often means the raising debt levels, provides for improvement of economic well-being, higher technological level of the society as well as, as consequence of this – lesser macroeconomic volatility, although, to the certain level, i.e. when borrowing is efficient and modest. Excessive borrowing, when public debt gets beyond let's say 60–90% of GDP, and especially when it is inefficient at the same time, can just increase the macroeconomic volatility, and although some countries with high public debts, such as USA or Japan still growing well on high technological level, any unexpected shock, either internal (earthquake in Japan) or external (Euro area crisis) is dangerous from macroeconomic point of view for a few reasons. Most of all, as it happened in the case of Greece, investors can simply start distrusting the country's economic abilities and its competitiveness, what is the guarantee that country would pay its debts, and this could lead to difficulties in borrowing and to a sharp rise in interest rates, which just exaggerate the financial fragility and put the economic recovery at risk.

According to Nauten and Meensel (2011), impact of the public debt upon economic growth could happen through three main channels (Figure 1):

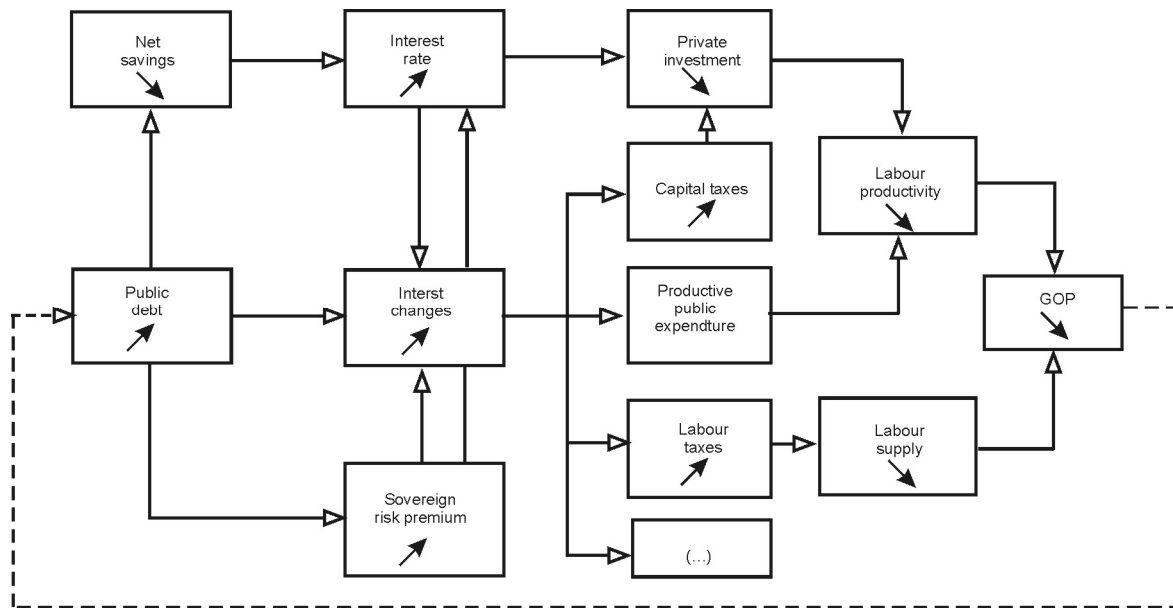


Fig. 1. Transmission mechanism of the public debt upon the GDP growth (source: Nautet, Meensel 2011)

- *Gross savings and interest rates.* An increase in the public debt may lead to reduction of the national savings and to increase of the interest rates, what could cause the decreasing investments and affect negatively the capital stock, what, as the consequence may lead to decreasing level of innovations, which are necessary for the productivity growth,
- *Interest charges and taxes.* The increase in the debt may lead also to the situation, when country could be asked to pay higher interest rates for its borrowers. Besides, the increasing public debt, especially taking into account the increasing interest payments, demand higher budgetary resources to repay it, what could lead to higher taxation and increase in the associated distortions, related to consumption, private investments, labor supply, etc.,
- *Sovereign risk.* The increase in the debt may lead to the emergence of sovereign risk, when country, under unexpected external or interval shocks leading to economic downturn and loss of the credibility in the eyes of the investors, could be put under the threat of default and/or need for the external help, as it happened with Greece, Ireland, Italy, Spain and Portugal.

Additionally, we shall consider the inflationary effects, which could lead to economic slowdown. The Bank for International Settlements, in its 80-th Annual Report (2010) states, that continued deterioration of fiscal balances could complicate central banks' task of keeping inflation low

and stable, for at least two reasons. First of all, the rapidly increasing public debt could provide for the increase of money supply, i.e. for "printing of the money" to get higher budgetary revenues, what could lead to the inflation and higher interest rates, undermining the investments in innovations and technologies as well as private consumption. All this could lead to decrease in GDP growth rates. A second reason is that the public could become unwilling to hold government bonds, what could lead to the situation, that central bank should purchase it while expanding the money supply. All this again raise the inflation and interest rates as well as undermine the economic growth.

Thus, we may draw the conclusion, that impact of the fiscal indicators upon the economic growth gets mainly through the interest rates and taxation effects, which are again, the derivate from both – the financial, but also economic situation. In this sense, controlling of the interest rates as well as of tax policy, as far as it possible, is crucial for elimination of the fiscal impact upon the growth.

However, the questions are, if every level of the public debts affects the economic growth, as well as if these effects spread across the countries with equal intensity? Interesting research in this regard was done by Reinhart and Rogoff (2010), working with the National Bureau for Economic Research (USA). They have clustered 44 countries of the world, including the most advanced, following almost 200 years observations of the public debt levels, GDP growth and inflation. What they found for 20 most advanced countries over the period 1946-2009 is that the public debts start af-

fecting the GDP growth substantially when it reaches over 90% of GDP. Another data set, analyzed by the researchers, presents the data for the same advanced economies, however with the bigger time lag, starting from 1790 for the USA, and ending with the same for all countries year 2009. Although the average picture is similar, i.e. countries with above 90% of debt grew slower; nevertheless, the countries are different. When high debt levels for Austria, Belgium, Spain, maybe – New Zealand, have facilitated the higher growth rates, so the same for USA has resulted in the significant slow-down of the growth.

This means, that higher debt levels do not automatically reduce the economic growth for every country, since a lot depends from specifics of the country, i.e. from its competitiveness (not always, taking into account USA), confidence assurance among the creditors, political institutions, finally - from finding the new economic growth sources even in a bad times. This has been confirmed recently by Herndon, Ash and Pollin (2013), who have found, inter alia, that calculations of Reinhart and Rogoff (2010), lacks methodological preciseness, and that even countries with the debt ratios above 90% can grow at a good rates, in different time periods between 1.7% and 2.1%, albeit at a lower rates compared to the lower-debt level countries (Table 1).

Table 1. Real GDP growth rates in selected advanced economies, in % (source: Herndon *et. al* 2013)

Period	Public debt to GDP, in %			
	Below 30	30 to 60	60 to 90	90 percent and above
1950-2009	4,1	3,0	3,1	2,1
1960-2009	3,9	2,9	2,8	2,1
1970-2009	3,1	2,7	2,6	2,0
1980-2009	2,5	2,5	2,4	2,0
1990-2009	2,7	2,4	2,5	1,8
2000 -2009	2,7	1,9	1,3	1,7

The highest GDP growth rates were observed among the lowest-debt category countries or time periods, when countries have been in this category, of below 30% of GDP. But it is not just the debt levels that matters. Normally countries with low debt levels are also those in the phase of industrial development, thus, they have higher economic potential for GDP growth. The technologies and innovations, which are required to reach the higher stage of economic development, are expensive, thus, countries shall borrow and in this way they become more in-debt. Furthermore, higher level of economic development does also mean that GDP growth rates become lower but more sustained. Although, findings of the researchers are very im-

portant, again, if they are correct, as empirical research always raises methodological questions, especially while working with large data-sets, - since they state that economic growth could be in large part of it decoupled from levels of the public debt.

This undermines rationale of the austerity policies, which the EU has followed over the recent years to avoid default and even bigger crisis in the Southern part of EU and in Ireland. Of course, nobody denies importance of the fiscal discipline, but to some extent, increase of the borrowing interest rates for Italy and Greece, for example, what caused the threat of default and intensified the austerity measures, were quite subjective due to fears of the investors that public debt of Italy and Greece becomes too high, thus, theirs economies are not able to grow at the appropriate rates, thus, they could not give back the loans, and thus, they could not borrow at a low costs. Of course, not everything was as simple as described, but to some extent it was, since it has been money on the markets to borrow them at a low costs. All this again raises the importance of wide and critical scientific discussions, before passing the policy decisions. Although, it does not mean that in post-austerities time economies of the Southern EU could be free from economic and fiscal policy guidance. On the other hand, this can mean that EU Stability of Growth Pact providing of the public debt limit of 60% of GDP could be too tight for the recent conditions, that due to economic simulation programs, structural reforms and banking bailouts, countries have accumulated larger debt levels, which could be hard to reduce, due to further structural reforms, also due to green growth and climate change, finally – due to ageing populations and other problems of the globalization suggesting that it could be more push on the expenditure rather the income side, and that increasing debt levels could become common. There is high need for further theoretical and empirical research to find out the relationship between economic growth and fiscal situation, since the recent knowledge is rather contradictory. For example, according to IMF (Eyraud & Weber 2013), fiscal consolidation may have the growth related effects in a longer run, although in a short-run it may have the adverse effects. On the basis of the IMF simulations, cutting the debt by 10% in the Euro area, USA and Japan would boost output not just in those countries but also in the rest of the world. A 10% cut in the debt ratios would drive interest rates down, what would boost private investment, leading to an increase in the physical capital stock and output in the long term.

According to Bank for International Settlements, several advanced economies have experi-

enced higher levels of public debt than we see today (Cechetti *et al.* 2010). After the World War II, for example, government debts in excess of 100% of GDP were common, and none of these led to default. In more recent times, Japan has been living with a public debt ratio of over 150% without any adverse effect on its costs. So it is possible that investors will continue to put strong faith in industrial countries' ability to repay, and that worries about excessive public debts are exaggerated. As a matter of macroeconomic theory, so long as the debt/income ratio is constant, an economy could live with any level of debt. However, the debt, which had occurred after the World War II was quite different from that we have today. Then, it had been largely made by the military expenditures of the war, which has disappeared, as the source of debt, soon after the end of the war. Besides, the after-war economies had huge stimulus of economic growth, due to destroyed peaceful production capacities and increasing demand for industrial and consumer goods. Last, but not the least, new sources of economic growth were found, leading to the so-called Golden Age of the European economy, lasting from 1950 to about 1973, when the economic growth rates were constantly high in Western Europe, in average 4,8% annually.

Peter Temin (2002) has found that Golden Age could have happen because of three interrelated reasons:

- GAP gap – the % gap between per capita GDP in 1948 and 1938,
- Conditional Convergence – that is, starting from a level of low income relative to the country's equilibrium income,
- Arrested Development – the difference between the actual share of the labor force in agriculture and the equilibrium share. The great depression and two world wars prevented the growth of international trade and industrial restructuring leading to a disproportionate amount of resources in agriculture. Growth in the Golden Age can be explained by the transfer of resources from agriculture to manufacturing and later to services – correcting the disequilibrium. The labor productivity in manufacturing and in services is higher than in agriculture.

In general, Golden Age came to the end, when the disequilibrium's, imposed by the wars, were corrected. Thus, can the correction of the recent economic disequilibrium's, lead to higher economic growth? We think, that yes, and that in the post-crisis time we will see some periods of

high economic growth, if just the crisis not to change the core of recent economic theory.

6. The economic growth enhancing content of Europe 2020

If the Europe 2020 strategy is considered to be the strategy for economic growth, the question is if it takes into account the theories of economic growth, i.e. if the embedded policies are those, boosting the economic growth. We think, that yes.

Taking headline targets into account, the smart growth component comprises maybe the only target. i.e. boosting the investments into R&D up to 3% of GDP by 2020, if the employment and educational targets are considered under the inclusive growth component (European Commission, 2010). The 3% target, which also reflects upon innovation and technologies, has been transferred to Europa 2020 as from the Lisbon strategy. Briefly, - the 3% target gets in line with the new growth theories, considering the innovations, stipulated by the R&D, as the major endogenous factor of growth. On the other hand, the investments into R&D are far away from being the only indicator of innovative activities, as it does not reflect upon the productivity of research, which can be measured by number of publications, patents, etc. Maybe it would be possible to think deeper, while establishing the integral indicator for R&D, similar we have for innovative activities from the innovation scoreboard. This is too important, - the R&D as well as innovative activities, for the economic growth of EU, to be reflected just by the single target of 3% as the escape from underperformance again. Besides, the 3% target works just for the part of EU, and for the most dis-advanced part, which, if to look to the national targets of Europa 2020, will never reach 3% investments even by 2020. What about the most advanced EU member states, such as Scandinavian countries, which already reached the 3% of GDP investment into R&D by 2010, or Germany and France being just nearby? (Eurostat 2013).

In its inclusive growth, and party – in smart growth components, Europe 2020 covers another three very important indicators for the economic growth, taken theories into account. These are two indicators of educational level (reducing school drop-out rates below 10% and at least 40% of 30–34-year-olds shall be completing third level education/or equivalent), and one indicator of employment (75% of the 20–64 year-olds to be employed) (European Commission, 2010). The educational level reflects upon quality of the human capital, which is considered as the production

input as well as the important factor of economic growth. Furthermore, quality of the human capital, and especially the education level, is the conditional factor for R&D and for innovations. The amount of labor, i.e. the employment rate, as the factor of growth is considered by neo-classical theories of growth.

The three indicators of sustainable growth¹, reflected among the headline targets of Europa 2020 strategy, although seems they are not found in the economic growth theories, are extremely important taking into account the concept of sustainable growth. If Porters hypothesis is correct, in a longer run, achievement of these targets will contribute to economic growth of the EU, through efficiency and productivity effects. On the other hand, attaining of these indicators could slow down the economic growth, if the environmental regulation, established incentives for low-carbon innovations, etc. do not work properly.

The indicator of poverty reduction (at least 20 million fewer people in or at risk of poverty and social exclusion) is social rather the economic growth oriented indicator, which will improve the inclusion of citizens as well as the quality of human capital (European Commission 2010). Thus, although it could distract the public resources, in a longer run it will provide for the growth related effects.

Finally, what about reflection of the evolutionally concept of the economic growth in Europe 2020? This concept emphasis the infrastructural conditions for economic growth, such as governance, citizenship, management, social capital, networking, etc. We think, that presence of the economic governance component tells on the reflection of the evolutionary theories of growth in Europe 2020 strategy, however, of course, it lack indicators of wider citizenship participation, of social capital and networking, etc. At the same time, these qualitative indicators have positive effects on economic growth, through flows of information and knowledge, through sharing of the experiences and taking ideas from the bottom into account. Social capital and networking, reflecting upon the well-being and happiness of the societies, are widely spread practices in Scandinavia, which are advanced countries in terms of GDP growth and innovations, the level of which, i.e. of innovations is high not just because of a few genius people or companies, but because of the culture of innovations, that everyone attempts to innovate at least in the everyday life following the concept "think outside the box".

¹ Greenhouse gas emissions by 20% (or even 30%, if a satisfactory international agreement can be achieved to follow Kyoto) lower than in 1990, 20% of energy comes from renewable, 20% increase in energy efficiency.

7. Conclusions

Number of theories explains sources of economic growth, major of them being the classical and neo-classical growth theories, the new growth theory and evolutionary growth theory. Although these theories were introduced in a different time, starting from 19-th century, all economic growth factors, explained by them, are valid in our days economy, i.e. increase in production capacities and intense use of the labor force, internationalization of the economy, more recently – research and technological development along with innovations as well as managerial capacities, marketing, networking and civil society.

Taking relationship between the economic growth and development of the financial system into account, the impact of the financial situation, and especially the fiscal one, is significant. It steams through a few channels, such as gross savings, interest rates, taxes, inflation, sovereign risk. However, not any worsening of the fiscal indicators, i.e. foreign debt and budget deficit, may reduce the economic growth. The highest GDP growth rates were observed among the lowest-debt category countries or time periods, when countries have been in this category, of below 30% of GDP. But it is not just the debt levels that matters. Normally countries with low debt levels are also those in the phase of industrial development, thus, they have higher economic potential for GDP growth. The technologies and innovations, which are required to reach the higher stage of economic development, are expensive, thus, countries shall borrow and in this way they become more in-debt. Furthermore, higher level of economic development does also mean that GDP growth rates become lower but more sustained.

Europa 2020 strategy takes into account the basic theories of the economic growth through the headline indicators. The 3% of GDP for investments into R&D target gets in line with the new growth theories, considering the innovations, stipulated by the R&D, as the major endogenous factor of growth. In its inclusive growth, and party – in smart growth components, Europe 2020 covers another three very important indicators for the economic growth, taken theories into account. These are two indicators of educational level (reducing school drop-out rates below 10% and at least 40% of 30-34-year-olds shall be completing third level education/or equivalent), and one indicator of employment (75% of the 20-64 year-olds to be employed), which as the factor of growth is considered by neo-classical theories of growth.

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