VISION OF THE ECONOMIC STRATEGY CHANGE IN THE CZECH REPUBLIC

Economic and Political Priorities

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This study is a follow-up of the analyses: "Social and economic impacts of the integration of the Czech Republic into the EU – New opportunities, possible risks" and "Social and economic connections of the integration of the Czech Republic into the EU – Economic convergence, competitiveness and social cohesion", performed by the authors in 2001–2002. The authors refer to two famous persons in Czech Economic Science — Ing. Růžena Vintrová, DrSc. and Ing. Miloš Pick, CSc. We may also consider them as authors of this study.

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Summary

It is almost four years since the Czech-Moravian Confederation of Trade Unions published its fundamental programme document: "Vision of ČMKOS for the Czech Republic". This was a document which outlined as a first the idea of fundamental change in the economic, social and budgetary policies of the Czech Republic under new conditions. The document fulfilled its task. It showed that there exists an alternative to the long-term restrictive and destructive policies of right-wing governments. It shows the direction in fundamental spheres in which the policies of the present government coalition is moving (even all the intents of the Vision are not being met). This is not adequate.

Within the context of the declared ambition of the present political representation to introduce the Euro historically in a short time and with regard to the monetary policy of the Czech National Bank (ČNB) targeted at the weakening of the Czech Crown, the ČMKOS indicates that it is time to clarify other directions and priorities of the total economic strategy of the Czech Republic besides the above-mentioned Vision. It is necessary to clarify the interconnection and harmonisation of single measures of this strategy in the medium- and long-term horizon.

A vast quantity of conceptual material related to the creation of economic policies, or more precisely, economic state strategy, has been published during recent months and years. However, its common feature is a lack of clearly specified priorities and their mutual coordination. Individual specific measures of economic policies for the medium- and long-term horizon are not linked together. There are different attitudes to the same questions and documents which overlap each other. Their common feature is that they often totally ignore some serious questions about the overall economic strategy of the Czech Republic. The wider covering framework is not often formulated in these documents.

It is not possible to reach the effective coordination of individual documents without such a covering framework to regulate preparatory works in advance. And this coordination can not be achieved by the consequent interdepartmental comment procedure. For instance, this problem was clearly shown during the preparation of the Action Plan for Economic Growth Support. It actually arose from the "collecting method". It assumed the ideas of individual departments on the focus of their economic policies. However, there was not and is not clarity of their relation to the intentions and direction of the budgetary policies of the state (or development shows that these two lines are not fully harmonised).

In the Czech Republic, for a long time fiscal consolidation has been, and in fact is still being, furthered in principle (and not only in periods of right-wing governments) as the "only correct" line of state economic policy. Outlines of the real economic policy of the state remain strictly in the background or are not actually clear.[1] However, this does not mean that nothing

[1] Obviously symbolic of this system is, for example, what is called the "Convergence Programme". This material is submitted by the government to the European Commission and devotes almost the entire contents to questions of fiscal consolidation and its modernisation for the forthcoming three-year period. Information on convergence itself and the approach of individual economic parameters (economic performance, labour productivity, wages, employment and unemployment, etc.) between the Czech Republic and the EU are minimally mentioned here. But what other than the approximation of Czech economic performance to advanced EU countries should be the

is happening in the Czech economy. It is happening, so to say, automatically "by gravity" with very little interest and intervention by the state.

Actual development of the Czech Republic, especially in the period of economic crisis between 2008 and 2013, clearly showed that fiscal consolidation and the total economic development strategy of the real economy are communicating vessels and can not be separated without the risk of marked national economic losses.

Despite fiscal consolidation being a real problem, in the view of the ČMKOS, it should always be subordinate to the higher aims which must be followed by all governments to ensure employment, economic growth and an increase in the standard of living of inhabitants. Sufficiently strong economic growth is also the best solution for the limited financial resources problem. It is obvious that even the realistic pre-adjustable acceleration of economic growth can not solve the wide-ranging imbalance in public finances in the existing situation, which requires fundamental reforms firstly in revenue, which must be stressed, and also in expenditure.

After a long period of economic recession and stagnation (caused not only by the global crisis but also by the excessive fiscal restrictions of the Czech government), the Czech Republic registered an increase in the economy last year. GNP increased — after two years of recession — interannually by 2 % and this was accepted almost with euphoria. GNP growth is also expected for this year. It will probably reach up to the 4 % limit and so the 2008 level would be exceeded.

Nevertheless, it is difficult to estimate whether we are on a long-term growth trajectory as anticipated by the actual official prognoses. This applies in particular with regard to the marked variability of the external environment on which the Czech Republic is extremely dependent.

If one gauges economic growth in the long-term horizon, then it is obvious that the growth of the Czech Republic is the slowest among the new EU Central and Eastern European member states — countries which should be closer to the advanced core of the European Union. The annual growth rate of our neighbouring states of Slovakia and Poland — and the Baltic States too — has been stable at approximately 3 % in recent years. The Czech economy has been stagnating in recent years. At times, it has been above the water level, at other times, below the surface.

In the second half of the past decade, the initial promising growth in the Czech Republic tended to be short-lived. Between 2009 and 2014, the Czech economy was really stagnant. This was caused by the economic crisis, which could not be avoided by the Czech Republic, despite the government at that time declaring the opposite, as well as by the beginning of the right-wing coalition 'reforms' of the Mirek Topolánek government. These resulted in the intensification of the impact of the crisis.

This could also be markedly documented by a comparison of the average annual rates of GNP growth in the last five years, i.e. during the post-crisis period. Between 2010 and 2014, the Czech economy reached the slowest rate of growth in the Central European region, but its growth was also one of the lowest among the new EU member states of the CEE.

After many years, during which the Czech economy started to draw apart from the advanced part of the EU in the performance index, in 2014 performance efficiency again first started to approach that of advanced countries. Last year, according to estimates, the

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aim of state economic policy? It is a typical almost textbook case of the change between tool and aim, which fully lurks within the Czech economic mainstream.

performance efficiency of the Czech economy (GNP per capita in purchasing power parity) was 84 % compared to 28 EU countries, approx. 78 % compared to 18 Eurozone countries, and approx. 68 % to that of Germany.

We did not reach the values of the pre-crisis period compared with the EU 28, but this was caused rather by the falling behind or slump of some EU member states than by our efforts (we should not forget the Czech Republic is also in this average).

It should sound especially as a warning that during the past seven years the performance of our economy drew apart from Germany and Austria. Compared to Germany, the performance of the Czech economy declined by 4 percentage points (from 72 % to 68 %) between 2007 and 2014 and by 2 percentage points (from 68 % to 66 %) compared to Austria.

It is obvious that the existing growth dynamics of the Czech economy is still not sufficient to close the gap in the level of the economy, when compared to the most advanced countries of the European Union and for the required process of real convergence. So it is not sufficient for the convergence of quantities of the real economy esp. in performance, labour productivity and in total competitiveness. The effect of this development is that the gap is not closing, but in some instances is widening, such as in wage levels and household total income levels, which are the synthetic rate of the total living standards of inhabitants.

In 2014, the level of hourly gross wages (at the official exchange rate) in the Czech Republic reached 29 % of the Austrian and 28 % of the German levels. In other words, for the average wages of one Austrian or German employee, companies in these countries could hire three Czech employees and still save money. Knowing these comparisons, we often hear that labour costs are too high in the Czech economy, discouraging potential investors. In response to these statements, only one question remains: Down to what level could Czech wages decrease?

According to international analyses, there has been an approximation of average Czech wages to wages of our neighbours by approx. 7 percentage points during the past ten years.[2] Naturally such growth is inadequate, comparing it from the point of view of the possibility of an increase in the living standards of inhabitants. We must also not forget that wages in the Czech Republic arise from a very low initial level, which was artificially created at the beginning of the economic transformation by the extreme exchange rate depression of the Czech crown deep under the purchasing power parity level and also by the depression of the wage growth by wage regulation markedly under the productivity of the labour growth

Authors of the economic transformation at the beginning of the 1990s introduced two "transformation cushions" which were intended to guarantee a temporary transformational advantage to the Czech Republic These were cheap labour and markedly undervalued export, allowing our production to be sold far under the real value. This should allegedly have secured an increase in competitiveness and subsequently the rapid growth of the Czech

[2] In 2014, the average hourly labour cost was 6.85 EURO in the Czech Republic, 23.3 EURO in Austria and 24.4 EURO in Germany. Eurostat, Labour Cost in the EU No 56/2015, 30. March 2015.

[3] According to estimates, the rate of undervaluation of the Czechoslovak crown, measured by the ERDI index (Exchange Rate Deviation Index) based on GNP to DEM, in 1990 was at the value of 5.17 i.e. at that time in the former Czechoslovakia, the German Mark (DEM) had 5.17 times higher buying power at the official exchange rate than in former Western Germany. In fact it was a "clearance exchange rate" which became evident very 'successfully' after the subsequent flat privatisation of the Czech economy. See: Social and economical impacts of the Integration of the Czech Republic to the European Union, Czech Government Council for the economic and social strategies, July 2001, page 112.

economy and rapid approximation of our living standards to those of the most advanced countries of the European Union.

This was of course an illusion, probably worthy of textbooks, but not of real life. Therefore these assumptions inevitably did not come true and – as critics of transformation warned – their economic legacy still persists to this day and will be a very difficult obstacle for next generations to overcome.

Our products became cheap on world and European markets, which is their alleged competitive advantage. They are compared with products from countries with much lower living standards. Besides that, we lost markets and so were in the position of a subservient economy, i.e. an economy dependent on the deliveries of components and subdeliveries to other economies.

During the transformation, privatisation, liberalisation and many different "reforms of public finances", the majority of promises of transformation started to disappear. The only thing which still remains is the sad evidence of the economic transformation of the 1990s. This is the very low nominal wage and salary level in the Czech Republic.

The aim of the Czech-Moravian Confederation of Trade Unions is that the real convergence of the Czech economy with that of advanced EU countries, especially the wage and salary convergence, proceeds as rapidly as possible. This is in consideration of the fact that the Czech Republic and Czech citizens did not enter the European Union with the vision that briefly stated they were and would remain the 'beggars' of Europe. And it would not be beneficial if this vision were linked with the adoption of the EURO as the common EU currency.

It is obvious that the process of real convergence or approximation of the Czech economy to advanced EU countries can not continue at the current speed because it does not provide an understandable perspective of a time frame within the horizon of one man's lifetime.

Therefore the ČMKOS is convinced that a crucial change in the direction and content of the economic policy of the Czech Republic must take place. There must be an acceleration of real convergence based on an acceleration of economic growth.

The idea that we will continue in the present method of convergence of the economic level is hardly acceptable. **Equalisation of wage levels to the closest advanced neighbours could take approximately the next 100 years at the current speed. Our grandchildren will not even experience this!**

Formulation and enforcement of this new strategy of the economic policy are also necessary, because they have again been revived during recent years, as well as also putting into practice the 'proven' tools of a cheap labour policy, known as "transformation cushions". Wage progress appears to be tied down by pliers.

One arm of these pliers is the intended exchange rate devaluation of the Czech crown in autumn 2013, followed by the preservation of the almost fixed rate of the crown to the US dollar, thereby to the devaluation of the EURO by the Central Bank. The second arm is created by the developing discussion on the alleged very high labour costs compared to the productivity reached in the Czech Republic.

And here is another reason for a change in the new economic policy strategy. It is, in fact, the ambition on the part of the Czech political scene to adopt the common EURO currency in a very short time.

Although many words, opinions and analyses on the real impact of EURO adoption on the Czech economy have been published, nothing much concrete has been said. There has been a significant time lapse in comprehensive discussion on the EURO since the last analyses, which were prepared before entry into the EU. From the ongoing 'discussion', we can gather an impression that the adoption or non-adoption of the EURO is not conditioned by anything other than the fulfilment of the Maastricht Criteria (or fulfilment of the conditions of what are known as "nominal convergence"). This was not and is not the view of the ČMKOS.

In our opinion, in this discussion there are no questions on the real convergence rate of the Czech economy. To be specific, for example, at how high a level of wages, salaries and total productivity will the EURO be adopted and mainly at what price, or by which rate will these quantities be evaluated? (and of course all issues concerning the inhabitants of the Czech Republic, including savings, for example). This is also one of the reasons why the ČMKOS views with doubts and anxieties the continuing interventions of the ČNB in favour of the crown weakening. The crown is in a real tight bond with the weakening EURO and so hand in hand with this, also other currencies out of the Eurozone are depreciating.

It is necessary to return to the discussion on the real economy and on resources and opportunities to increase its real and long-term competitiveness. Based on this development only is it possible to be oriented towards the date of EURO adoption. Manipulation of the exchange rate could provide limited assistance to the real economy and only for a limited time. Experience from the beginning of the '90s and also the current devaluation of the crown to the EURO should, from this point of view, be adequate warning. In no case can the principal restructuring measure in the real economy be replaced by exchange rate manipulation.

The Czech economy must demonstrate its viability and competitiveness firstly without the aid of the exchange rate. Thereafter, there can be thinking about the adoption of the EURO. In the opinion of the ČMKOS, this is a lesson from the past 25 years of economic development in the Czech Republic and is the only possible way to the failure-free adoption of the EURO. At the same time, we do not mention the problems being experienced today by the Eurozone, which is postponing the date for the adoption of the EURO and in fact giving the Czech economy time for conversion.

Whether we realise it or not, currently the Czech Republic has before it the choice: whether the policy of cheap labour will be pursued – cheap exchange rate of the crown, low wages policy, low social standards and low taxes – or the method of efficient progress, rapid growth, competitiveness, etc.

Naturally the realisation of such a strategy is not easy, because this assumes a fundamental change in the existing direction of the economic policy and thus the creation of a governmental economic strategy able to fulfil such aims.

Among other things, this means considering whether it is a reality, in the given situation of the landless, and in many cases right-wing destructive privatisation, to reach the cutting edge in some modern and developed sectors and branches without state aid. Being on the cutting edge makes it possible to attain equal prices and high labour productivity. It is also a realistic evaluation of the fact that the economy in recent years has started to be transformed into the back-up economic space of the German economy, with all the aspects of what such a dependence entails, and this process is continuing.

It is certainly very difficult to state whether such a change in the economic policy of the Czech Republic, which we discuss later, will be implemented or not. This we can not state with any certainty. However, after 25 years' experience, it is obvious how our situation will

develop within the European economy if we continue along the same route of a cheap labour policy. This is the way of technological backwardness and downward movement to lower processing stages, with a lower added value, a lower valuation, lower productivity and of course also lower wages. It is the way in which the Czech Republic could fall into the poverty trap.

I. Performance of the Czech Republic within the Context of the European Economy

Starting Point

The global economic crisis changed in principle the forces, conditions and situations of large world regions. It led to the remarkable rise of the economic power of China, India and other dynamically growing economies, while the influence of the USA and Europe weakened. These movements also have their consequences on the pro economies of small Central European countries. Their economies are closely linked in the process of transformation to advanced West European countries. In some measure, they became their complement or 'pendant' in some cases, as subcontractors of low- or middle-intensive semi-finished products. Therefore, their position in international business is changing and will be changed.

The link of the Czech economy to Germany and the EU as a whole is closer today than the dependence on the economy of the USSR and Comecom countries in the Eastern Bloc era. Relations with other regions outside the EU weakened markedly after 1989. Due to a strong link to Germany, the Czech economy has the highest geographical concentration of business activities of all the new EU member states.[3]

At a time when West European countries and the USA have significantly slower economic growth than countries with dynamic development in Asia and on other continents, the diversification of foreign trade out of the European region and North America is greatly desired.

The difficult assignment of small Central European economies is to find a specific production profile and such a setting of activities in which they can assert their advantages under new conditions. However, the Czech economy unfortunately still has the weakening potential of a workforce with a long-term industrial tradition and relatively high qualificational and educational levels.

A certain guide for the assessment of existing assumptions could be data on the educational structure of inhabitants which confirm the trend of broad education on the secondary level with an extraordinary small proportion of inhabitants with basic level education (in international comparison). The proportion and dynamics of unemployment in professions with high qualifications are also well above the average.

The Czech Republic is still significantly behind most advanced countries in tertiary education (this is partly due to a discrepancy of statistical comparison methods). In recent years, the situation in the younger age groups has rapidly improved, but there is still low participation of graduates in the technical fields, which could be detrimental to the innovative abilities of the economy in the long-term view.[4] For this reason, it is important to emphasise

[4] From January to June 2015, one-third of the export from the Czech Republic was to Germany and approx. 82 % to EU 28. The export to Russia was only 2 % and to China 1.2 %, while imports from these countries amounted 3.1 % and 12.6 % of the total imports.

[5] Slightly over 10 % of working age inhabitants in the Czech Republic have no education or only primary or lower secondary education, while the average in EU 28 or Euro 18 is almost 30 %. (For instance, also in an advanced country such as Germany, this figure is approx. 20 %.) The value of this indicator (for 2014 – 12.4 %) in the Czech Republic is the lowest of all EU countries.

that the majority of new capacities in tertiary education are focused on Humanities, which will not produce an immediate solution to the lack of technical professions.

The positive prerequisites of the qualified structure of inhabitants are not adequately utilised, with the focus on the simple or medium technically demanding mass production of semi-finished products. It is only possible to face up to the competition of new industrialised young economies, with their undeniable advantage of much lower unit labour cost, by focusing on those original products and services which are unavailable or distant and also by flexible adjustment to individual specific customer requirements. This is the transition to qualitatively based competitive advantage.

Examples of Finland and Denmark, which prevail on the world market with innovative products and services of expertise-demanding branches, show the possibility and feasibility of such a focus. Both countries are currently on the top ranking of the highest educational level.[5] The importance of the strengthening of tertiary education, especially in technical fields, is obvious from this experience.

Surmounting the backwardness and the speed of the removal of the economic level gap in relation to advanced countries would depend on how individual countries and local communities can adapt to the new situation. It is more obvious that this task is linked with the need of new, deeper structural changes which the Czech economy has undergone many times.

A radical reconstruction of the total economic structure related to the search for new markets has taken place within the Czech economy many times in its past history. This was caused after the break-up of the quite big market of the Austro-Hungarian Empire after the establishment of the independent Czechoslovakia. At that time, the structure of industry and export in the interwar period underwent different forms compared to the former monarchy. After the Second World War, the orientation of production changed again because the economy adapted to the function of "smithy and machine worker" within the Soviet bloc. The end of central planning and the transition to a free market economy after November 1989 meant another important change in the economic structure.

The aim of the long-term strategy formation of the Czech economy is mainly to prevent the preservation of the existing structure and a change from the direction of a

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The proportion of inhabitants aged 25 to 64 years with higher secondary or post-secondary education is almost 70 % – average in EU 27 is only 47 %. On the contrary, the proportion of inhabitants with completed tertiary education is only 19 %, while the EU 28 average is 26 %.

In this comparison, we need to take into account that higher secondary education in the Czech Republic is comparable in some aspects (number of years of study) to the Bachelor's degree of university education in other countries. And there has also been an undeniable increase of this indicator during the past 10 years when its value rose by 8 percentage points. (Data for 2014. Source: Eurostat, Population and Social Conditions – Database.)

[6] Finland is ranked within the EU 28 countries with an above-average proportion of inhabitants with tertiary education at working age. In 2014, this was almost 35 %. The structural advantage of Finland is the absolutely highest proportion of students (and graduates) of technical schools out of the total number of students. These are in the following fields — Mathematics, IT, Machinery, Technical Engineering and Construction.

This is actually approx. 34 %, but at the beginning of the century it was almost 38 %. Comparing this indicator within EU 28, Finland, together with Germany, where this proportion has increased to 33 % during recent years, are far ahead of other countries, the proportions of which start at about 10 percentage points lower. From this point of view, we sadly remember the value of 30 % which the Czech Republic reached at the beginning of this century. The value of this indicator decreased by 5 percentage points in ten years and the Czech Republic lined up to the average of EU countries. (In conclusion, we add that the decrease of this indicator is partly influenced by a massive increase in the number of university students who are focused outside of technical fields.)

declining restructuring of the economy towards lower levels of processing. We believe that this precisely is the risk for the Czech Republic today.

As experienced by European countries, surmounting this condition and finding a way of more rapidly closing the gap in economic level in relation to advanced countries requires the co-operation of the main political forces to ensure agreement on a national effort to change the existing situation and to use the emerging new opportunities. Therefore, some small economies were able to utilise this opportunity and their hidden assets in the difficult situation. They managed the "Irish miracle" or the "Finnish modernisation". Whether such national agreement can be reached is a fundamental question for the future.

The Position of the Czech Economy Until 1989 (brief outline)

There was the widespread claim in general journalism that the Czech economy was ranked among the World's Top 15 most advanced countries in the past. Such an assessment – without producing any evidence – is considerably overstated. Using a sober evaluation of the facts, the economy of the region of the present-day Czech Republic can be ranked as a moderately advanced one in the whole historical evolution.

In the Austro-Hungarian Empire, the national income per capita in the 'historical' Czech lands reached about two-thirds of the former German level and one-half of the Swiss level. At the establishment of Czechoslovakia, its economy was below the European average and only surpassed countries of Eastern and Southern Europe (including Italy).[6]

According to studies and comparing the level of national income per capita, Great Britain, Switzerland, the Netherlands, France and Denmark were at the top, with Germany, Spain, Belgium and Norway also advanced. Because the national income of Czechoslovakia only reached 20 to 55 %, compared to moderately advanced Germany, it is not possible to mention Czechoslovakia as being in the first European league.

In the interwar development, the international economic situation of Czechoslovakia advanced. However, even in the top phase of evolution during the First Republic era, we can not mention the top economic position. According to the famous economist, C. Clark, who described the average quantity of national income per capita in the decade between 1925 and 1934, the national income of Czechoslovakia per capita reached an annual average of $455 (per integrated price bases in USA). In the USA and Canada, a level of more than three times higher was reached at about $1400. Among the former European countries, Great Britain and Switzerland were in top position, with the national income per capita between $1000 and $1100 — which is 2–3 times higher than Czechoslovakia. The Netherlands reached a figure of roughly two times higher. According to this calculation, Germany's economic level was up to 40 % higher and Austria's up to 23 % higher. The economic level of Czechoslovakia was between those of Austria and Greece.

"Historical countries" (Bohemia, Moravia and Silesia) naturally reached slightly higher levels than the entire state, because of the greater backwardness of Slovakia and much more in the case of sub-Carpathian Russia. According to authors of the study: "Myth and reality of the Czechoslovak economic advancement in the interwar period", who also used the studies of Slovak economist, Š. Heretík, and some calculations of M. Meszaros, income could have been up to $550 per capita (see Kubů, Pátek, 2000). According to C. Clark, the

[7] Also the authoritative studies by American economist, Angus Maddison of 1995 and 2001 reached the same conclusion on the middle economic advancement of Czechoslovakia: "Monitoring the World Economy 1820-1992"|, OECD, Paris 1995 and "The World Economy – A Millennial Perspective", OECD, Paris 2001.

economic advancement of the Czech countries ranked higher than that of Austria, was close to that of Belgium and was 15 % lower than Germany.[7]

If the whole of Czechoslovakia reached 17th place out of 23 monitored countries on all continents, then the "historical countries" were ahead of Austria and Norway and ranked 15th, which is so often mentioned. But to derive from this ranking the conclusion that the Czech economy belonged among the world's top would be an illusion, because the economic distance to most advanced countries was big.

The economic level of "historical countries" only reached 39 % of the USA and Canadian levels and only one-half of Great Britain or Switzerland's levels. Czech countries went through the industrialisation process relatively early, compared to Central European conditions, so they had the advantage over countries where this process started later. But they did not reach the level by far of the top world economies. The present economic level of individual countries compared to the beginning of industrialisation and the interwar era is more balanced and the economic distance between the Czech Republic and the most advanced countries is smaller.[8]

The aforesaid myth probably arose from the underestimation of the importance of the tertiary sphere. Considerations of former national economists often concerned mainly the production sphere. The relatively high industrial advancement reached in "historical countries" in the monarchy was changed by total economic advancement. Gross domestic product is not created only by industry. The development of business and especially finances slowed down in the Czech lands, because there were better conditions in the metropolis of the then monarchy. In pre-war Czechoslovakia, the evolution of the service field was faster, but the trend of industry to dominate became deeply rooted.

Maybe this myth is based on the assessment of the vision of the capital city, which undoubtedly was among very advanced cities. But as a whole, the Czech economy had many weaknesses, even when viewed separately. For instance, the impact of the economic crisis on the border regions, where the consumer industry was primarily concentrated (textiles, etc.), was not eliminated by the economic policy and therefore it was one of reasons for the taking-up of the nationalist movement ending in the Munich Agreement and break-up of the state. Also, before the Second World War, the efflux of labour from agriculture took place in the Czech countries before countries to the east. However, progress in agriculture required a lot of manual labour.

With regard to developed industrial potential, based on the legacy of the era of the Austro-Hungarian Empire and the restructured and modernised interwar period, Czechoslovakia had a bigger advantage than on the total economic level. The level of modernisation and advancement of the sector and field structure and also the technical and technological level corresponded to the middle economic level. The level of production concentration was similar (with the exception of the more concentrated metallurgical industry). Certain specifics were apparent in individual fields. Some sectors of the machinery

[8] Kubů, E., Pátek, J. and comp a.: *Myth and reality of the Czechoslovak economic advancement in the interwar period.* Karolinum, Praha 2000. Clark, C.: Internationaler Vergleich der Volkseinkommen. Weltwirtschaftliches Archiv, č. 1, 1938. These data are in some estimates seen as overestimated.

[9] In 2013, the economic level of the Czech Republic (GNP per capita in PPPs) reached almost 55 % relative to the USA and 75 % to that of Great Britain.

and arms industries, car production and the aero industry, shoe and beer-brewing industries were closer to the world level.[9]

In the bipolar divided world after the Second World War, the Czech economy started out as the economically most advanced part of the Eastern Bloc, playing the role of "smithy and machine worker" in this grouping. (When the German Democratic Republic was established, it was in the same situation.) This stated role must be discounted because of the small scope of the Czech economy, which could not more intensively influence the gradual backward slide of the whole community in international comparison.

Industrial production with the secured sales of products — heavy and general industry, metallurgical industry, mass production of consumer industry (shoes, clothing and textile industries) — developed quickly at first. The economic level of the country rapidly increased, measured by the physical volume of manufactured products (quality is not adequately covered in general indicators). The disparity in the progress of the advanced world led to a technical and technological backwardness and a gradual loss of motivation in the rigid command economy. Economic growth began to seriously decelerate. The existing focus of production, its field and product structure and especially the inadequate technical level were an obstruction to the utilisation and penetration of the wider free competition world market.

Development of Economic Performance After 1989

After November 1989, the Czech Republic began its development as a middle-income country. The economic level, measured GNP in purchasing power parity per capita was according to different estimations between 60 to 70 % relative to EU countries of the former structure (or to EU 15 countries before the EU enlargement in 2004). Compared to the former economically weakest EU countries, it was slightly lower than Ireland and slightly higher than Portugal and Greece. It was the highest among the transitional countries of Central and Eastern Europe. The same level was only reached in Slovenia at that time.

Specifics of the Czech economy in the transformation period (until the beginning of the economic crisis) were an initial level and structured and utilised transformation policy. In contrast to other new EU member states, which economic levels approximated systematically after the transformation crisis in the beginning to advanced countries (with the exception of some wobbles in Romania and Hungary), the GNP per capita in PPS,[10] i.e. purchasing power parity in the Czech Republic related to EU 15 countries, received a W-shaped curve. And in 2004 it surpassed its level reached in 1990.

It was mainly the slump of the economy in the second half of the '90s which severely worsened the international position of the Czech Republic and returned it in principle to the level of that from the beginning of transformation. Other EEC transitional countries restored and improved their initial international economic position during the '90s which was lost in the transformation crisis at the beginning of 1990.

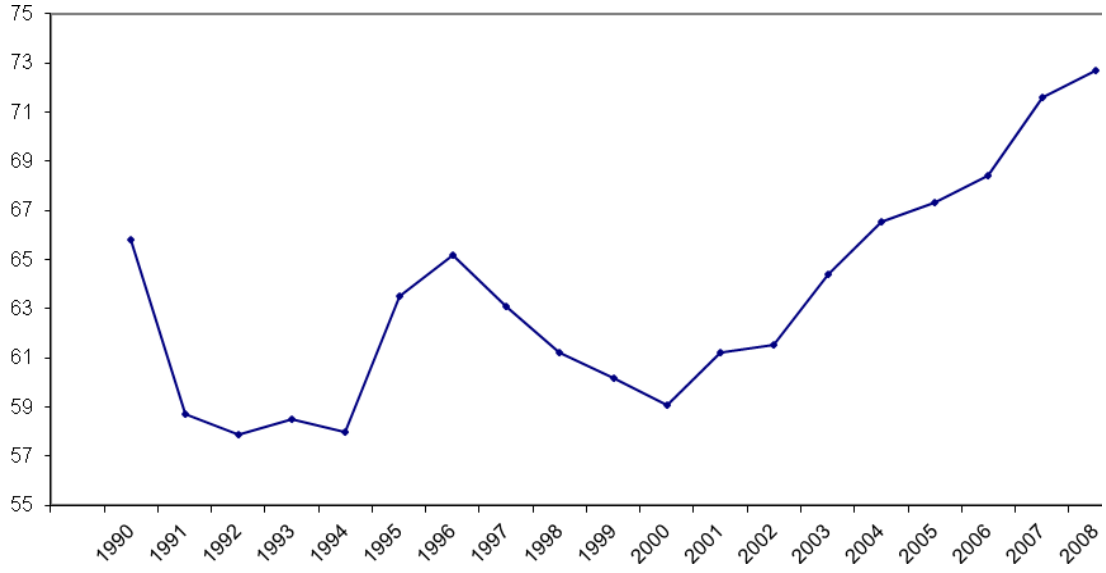
However, in the Czech economy, a return to the initial economic position was postponed for many years as a result of a long recession, increased by overdosed restrictive monetary and fiscal policy. GNP in purchasing power parity per capita at the end of the '90s

[10] The Czechoslovakian arms industry was ranked in one of the 30 top places and in 1st place in 1934 and 1935 (see Kubů, Pátek, 2000, p. 220).

[11] PPS = Purchasing Power Standard, i.e. standard purchasing power is an artificial currency unit which derives data from national currency units at the same currency – EURO – and at the same price level. 1 PPS signifies the average purchasing power of EURO in EU 27 countries.

related to advanced EU countries, was lower than at the beginning of the 1990s. Among other less economically advanced EU countries, the Czech economy was not only overtaken by the extraordinarily growing Ireland but by the less successful Portugal and Greece as well.

GNP per capita of the Czech Republic related to EU 15, 1990–2008 (v PPS, EU 15= 100)



Source: Eurostat – National Accounts (20. 2. 2010) for 1995–2008. The 1990–1994 years are reconstructed based on the ECP 1990 and ECP 1993 – UN, OECD and WIIW Handbook of Statistics 2009, p. 11. The split into the Czech Republic and Slovakia in 1990–1992 was recorded according to national accounts of FSÚ and ČSÚ.

Among the CEE 5[11], Slovenia advanced. Its economic level was about the same at the beginning of transformation. The distance between the economic level of the Czech Republic and that of other countries decreased markedly.

A similar development affected the Czech economy in the economic crisis between 2008–2009 and immediately in 2012 and 2013. When we gauge these two decades, we must conclude that the political elites of the Czech Republic forming its economic policy were obviously not able to learn from the unsuccessful development in the past, but stuck to the unsuccessful processes of the past.[12]

The impact itself of the economic crisis on the Czech Republic, measured by the real decline of GNP in 2009, from the point of view of CEE member states, was more moderate and comparable with the decline in Germany. However, the development in subsequent years differed markedly. While, after the crisis period, almost all the states followed the route of

[12] Besides the Czech Republic, this is Hungary, Poland, Slovakia and Slovenia.

[13] This recurrence is not surprising in reality, considering the fact that those political parties whose representatives were engaged in the previous formulation and realisation of economic transformation in the Czech Republic at the beginning of the '90s had a key influence on the direction of the economic policy in the economic slump time. We can not overlook the fact that many wrong steps in economic policy, which were very often furthered by tenacious dogma, were taken by the new political representatives of these political parties, who did not reflect on past experience and the obvious failure of such policies. Both generations of politicians proceeded from neoliberal economic theories which failed in those cases and not only in the Czech Republic but also in the rest of Europe.

economic recovery quite quickly[13], the Czech Republic repeated the plunge of the economy by excessive budgetary restrictions into the 2012–2013 recession again.

The consequences of this policy on **the convergence of the Czech economy** are more than obvious, as shown in the tables. In the second half of the last decade, promising growth started in the Czech Republic. It was to be short-lived and in the following years the Czech economy really stagnated. Certainly it was 'coincidental' that the breakpoint in economic growth came at the moment of the right-wing coalition government of Mirek Topolánek taking-up and starting its 'reforms'.

The comparison of average annual rates of growth in the past five years could also be especially significant i.e. in the after-crisis period. Between 2010 and 2014, the Czech economy attained the slowest rate of growth in the Central European region, but its growth was also one of the lowest among the new EU member states of the CEE. As a result of this, the Czech Republic was not able to balance the economic slump from the crisis year of 2009 until the end of 2014. Among the CCE states, Latvia also did not succeed (it recorded a three-times bigger slump in 2009 compared with the Czech Republic). Neither did the countries in crisis — Hungary, Slovenia and mainly Croatia.

Real GDP increase in CEE countries in 2003-2014 (%)

Country Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	5 y. aver.
CZE	**3.6**	**4.9**	**6.4**	**6.9**	**5.5**	**2.7**	**-4.8**	**2.3**	**2**	**-0.8**	**-0.7**	**2**	**0.95**
Latvia	8.6	8.9	10.2	11.6	9.8	-3.2	-14	-2.9	5	4.8	4.2	2.4	2.66
Lithuania				7.4	11.1	2.6	-15	1.6	6.1	3.8	3.3	2.9	3.53
Estonia	7.5	6.5	9.5	10.4	7.9	-5.3	-15	2.5	8.3	4.7	1.6	2.1	3.81
Hungary	3.8	4.8	4.3	4	0.5	0.9	-6.6	0.8	1.8	-1.5	1.5	3.6	1.23
Poland	3.6	5.1	3.5	6.2	7.2	3.9	2.6	3.7	4.8	1.8	1.7	3.4	3.07
Romania	5.1	7.1	4.7	7.4	7.1	7.2	-6.3	-1.7	1.1	1.6	3.4	2.6	1.38
Slovenia	2.8	4.4	4	5.7	6.9	3.3	-7.6	1.2	0.6	-2.6	-1	2.6	0.14
Slovakia	5.4	5.2	6.5	8.3	10.7	5.4	-5.3	4.8	2.7	1.6	1.4	2.4	2.57
Croatia	5.6	4.1	4.2	4.8	5.2	2.1	-7.4	-1.7	-0.3	-2.2	-0.9	-0.4	-1.1
Bulgaria	5.4	6.6	6	6.5	6.9	5.8	-5	0.7	2	0.5	1.1	1.7	1.2
EU 28	1.5	2.5	2	3.4	3.1	0.5	-4.4	2.1	1.7	-0.5	0	1.3	1.53
EURO 18	0.6	2.2	1.7	3.2	3	0.5	-4.5	2	1.6	-0.8	-0.5	0.9	0.63
Germany	-0.7	1.2	0.7	3.7	3.3	1.1	-5.6	4.1	3.6	0.4	0.1	1.6	1.95
Austria	0.8	2.7	2.1	3.4	3.6	1.5	-3.8	1.9	3.1	0.9	0.2	0.3	1.27

Source: Eurostat, own calculation

Mentoring of other CEE countries by some members of the political establishment of the Czech Republic, whose tendencies were sometimes in the past, was not appropriate. We should not tutor anyone on real economic policy. Let us view our neighbours for the sake of

[14] With the exception of Slovenia and Croatia, which are in a long-term crisis. A specific exception is Poland – but with a "reverse sign". It did not have any recession in the economic crisis period and its development is characterised by a long-term and relatively high rate of growth.

[15] In this respect, it is important to mention the historical success of the Federal Republic of Germany which is rarely valued. It succeeded "by the way" to restructure and modernise a state with 17 million inhabitants in the same historical period and in principle equal their living standard to the 'old' federal countries and still remain one of the most productive countries in the world economy

completeness. The economic recession of 2009 succeeded in changing Germany, Austria and Slovakia and there was no recession in Poland.

Only in the past year, after long years of factual divergence, did the Czech Republic start to draw closer to the advanced part of the European Union again. According to recent estimates in 2014, the performance of the Czech economy (GNP in purchasing power parity per capita) reached 84 % compared to (28) EU countries, approx. 78 % compared to the (18) Eurozone countries and approx. 68 % to that of Germany.

This means that we have reached the level of values of the pre-crisis period compared to the EU 28. (It is important to admit that the main part of this relative approximation was caused by the backwardness or slump of some EU member states.)

Convergence of economic levels of selected CEE states after entry into the EU 2005–2014

GNP per capita in PPS, %	2005	2007	2010	2014
CR/ EU28	80	84	81	84
CR / Euro (18)*	74	77	75	78
CR /Germany	69	72	68	68
CR/Austria	64	68	65	66
Slovakia/CR	74	80	90	90
Poland/CR	61	63	76	81
Hungary/CR	81	73	80	81
Slovenia/CR	108	104	97	99
GNP per capita in exchange rate, %	2005	2007	2010	2014
CR/EU 28	46	52	59	56
CR/Euro (18)*	41	47	52	49
CR /Germany	38	44	47	43
CR/Austria	35	39	42	39
Slovakia/CR	68	78	83	93
Poland/CR	60	61	62	71
Hungary/CR	83	75	65	68
Slovenia/CR	136	130	119	122

Source: Eurostat, own calculations

*) Belgium, Finland, France, Ireland, Italy, Luxembourg, Germany, Portugal, Austria, Spain, Greece, Slovenia, Cyprus, Malta, Slovakia, Estonia, Latvia, the Netherlands

Special warning should sound that:

- **The performance of our economy has shifted significantly away from our economically advanced neighbours during the past seven years. Between 2007**

and 2015, it was lower than the performance of Germany by more than 4 percentage points and a smaller depression is also recorded in comparison to Austria.

- **In the period under consideration, the performance of Slovakia and Poland remarkably approximated to the performance of the Czech Republic. The progress of Poland is especially impressive. It approximated to the level of the Czech Republic by 18 percentage points in 2007–2014. Also the Slovak economy reached a remarkable approximation of performance, which performance approached closer to the Czech economy by 10 percentage points,**
- **Convergence (approximation) of the Czech Republic to the advanced core of the EU can be characterised in the long-term view as very moderate or almost worthless. Statistical data indicate more than convincingly that the actual performance level of the Czech Republic compared to advanced EU countries is on the level of 7 percentage points higher than in 1990.**
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It is difficult to find briefer and more accurate characteristics of long-term results of the economic policy of the Czech Republic than those which are contained in the previous three points. Advanced states are drawing apart from us and, on the contrary, the formerly less advanced countries are rapidly approaching us. The Czech Republic is going nowhere fast.[14]

GNP per capita in the Czech Republic and selected EU states in 2005–2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
EU 28										
thousands EUR / year (PPS)	23.2	24.4	25.8	25.9	24.3	25.3	26	26.5	26.6	27.3
thousands EUR / year (rate)	23.2	24.4	25.8	25.9	24.3	25.3	26	26.5	26.6	27.3
Index ERDI (for GNP)	1	1	1	1	1	1	1	1	1	1
Euro (18)										
thousands EUR / year (PPS)	25.2	26.6	28	28.1	26.3	27.5	28.2	28.5	28.5	28.9
thousands EUR / year (rate)	25.9	27.1	28.4	29	27.8	28.5	29.2	29.3	29.5	29.9
Index ERDI (for GNP)	0.97	0.98	0.99	0.97	0.95	0.95	0.97	0.98	0.97	0.97
Germany										
thousands EUR / year (PPS)	26.9	28.2	29.8	30	27.9	30.2	31.8	32.5	32.6	33.5
thousands EUR / year (rate)	27.9	29	305	31.1	30	31.5	33	33.6	34.2	35.2
Index ERDI (for GNP)	0.96	0.97	0.98	0.97	0.93	0.96	0.96	0.97	0.95	0.95
Austria										
thousands EUR / year (PPS)	29	30.6	31,8	32.1	30.6	31.9	33.2	31.2	34	34.4
thousands EUR / year (rate)	30.8	32.2	34	35.1	34.3	35,2.	36.8	37.6	38.1	38.5
Index ERDI (for GNP)	0.94	0.95	0.94	0.91	0.89	0.91	0.9	0.91	0.89	0.89
CR										
thousands EUR / year (PPS)	18.6	19.8	21.6	21.1	20.2	20.6	21.6	21.8	21.9	22.5
thousands EUR / year (rate)	10.7	12.1	13.4	15.4	14.1	14.9	15.6	15.3	15	14.7
Index ERDI (for GNP)	1.74	1.64	1.61	1.37	1.43	1.38	1.39	1.43	1.46	1.54
Slovakia										
thousands EUR / year (PPS)	13.8	15.3	17.3	18.5	17.3	18.5	18.9	19.6	20	20.7

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thousands EUR / year (rate)	7.3	8.4	10.4	12.1	11.8	12.4	13	13.4	13.6	13.9
Index ERDI (for GNP)	1.89	1.82	1.66	1.53	1.47	1.49	1.45	1.46	1.47	1.49
Poland										
thousands EUR / year (PPS)	11.6	12.3	13.7	14.1	14.4	15.6	16.6	17.4	17.9	18.7
thousands EUR / year (rate)	6.4	7.2	8.2	9.5	8.2	9.3	9.8	10	10.3	10.7
Index ERDI (for GNP)	1.81	1.71	1.67	1.48	1.76	1.68	1.69	1.74	1.74	1.75
Hungary										
thousands EUR / year (PPS)	14,4	15,1	15,6	16,2	15,6	16,4	17	17,1	17,6	18,8
thousands EUR / year (rate)	8,9	9	10,1	10,7	9,3	9,8	10,1	9,9	10,2	10,5
Index ERDI (for GNP)	1,62	1,68	1,55	1,51	1,68	1,67	1,68	1,73	1,73	1,79
Slovenia										
thousands EUR / year (PPS)	20	21	22,5	23,1	207	21	21,5	21,6	21,8	22,4
thousands EUR / year (rate)	1436	15,7	17,4	18,8	17,7	17,7	18	17,5	17,5	18
Index ERDI (for GNP)	1,37	1,34	1,29	1,23	1,17	1,19	1,19	1,23	1,25	1,24

Source: Eurostat, own calculations

*) GNP per capita in purchasing power parity in 2014 was calculated based on the publicised values of GNP per capita in common prices and ERDI index. The ERDI index for 2014 was extrapolated by officially published values of development of a nominal exchange rate development of national currencies to EURO and GNP deflators. For Eurozone members, only by difference of the value of the GNP deflator in a given country and in EU 28. The evaluated year 2014 (calculation was made before the official publication of the indicator) slightly differs (in the range of approx. 1 percentage point) from the published data mentioned in the previous table and therefore it should be seen only as an orientation.

ERDI Index – Exchange Rate Deviation Index (index of deviation of the exchange rate calculated as the reciprocal difference of price levels) characterises undervaluation or overvaluation rate of the exchange rate of the national currency unit to the purchasing power parity. For instance, the ERDI value in the Czech Republic in 2014 in the high of 1.54 shows that for 1 EURO with the average exchange rate 27.8 CZK/EURO it was possible to buy 1.54 times more goods and services in the Czech Republic than in the EU 28 average (and 1.62 times more than in Germany).

II. Competitiveness of the Czech Economy

Starting Point

The economic level of the country develops from the competitiveness of its economy.[15] In the previous brief synopsis, the very low rates of growth shown are in fact a long-term problem or almost a characteristic of the Czech economy. (An exception of the past 25 years was only the short period between 2004 and 2007, i.e. shortly after the entry of the Czech Republic into the EU.)

This obvious fact becomes very frustrating, both for the economy itself and increasingly for Czech society. Very low rates of growth directly influence the very slow increase of incomes of inhabitants, but mainly the very slow approximation of living standards to advanced EU countries.

A reminder is that, after 25 years, the economic performance of the Czech Republic approximates to the economic performance of advanced EU countries by 7 percentage points and it has been even worse in recent years. It is necessary to surpass at least the next 30 points to reach the level of our neighbours in advanced EU countries.

Another example is that, after 25 years, the wage level — one of the main indicators of living standards — (according to an official exchange rate) reached almost 30 % of the level of our advanced neighbours.

In the light of these results, it is absolutely crucial to ask whether these results are the real possible maximum or if they could not be better regarding the relatively good initial conditions of the Czech Republic. It is necessary to consider the fact whether the tools and processes of the economic policy used in the past were effective. It is necessary to ask whether (evaluated over the passage of time) the Czech economic policy did not make wrong decisions and, if so, why? Such questions should be presented for public discussion.

We can not even exclude another group of opinions which consider the existing development of the Czech economy as successful and fully adequate to its potential and possibilities and therefore that the results achieved are the maximum possible to be achieved.

In other words, is this not the time to leave the actual used and even very comfortable economic strategy we could call a "gravity strategy"?[16] As seen above, it is a non-effective strategy and unsuccessful and therefore we assume it must be exchanged for another one.

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[16] The basis of the competitiveness of an economy is the competitiveness of companies acting within it. Companies must cope with many dimensions – not only macroeconomic but also political, social, cultural, educational, etc. Competitiveness is a result of a mutual – sometimes complementary, sometimes substitutional – interplay of different factors. First of all, there are – on one side – conditions of how to reach the market with products and, on the other side, the scope, structure and quality of available factors of production (work, capital and natural resources). No less important are the economic policies of the government, not only in its basic elements (monetary and fiscal policy) but also in supplementary policies (for instance, a considered system of the support of the competitive ability of companies). Institutional structure of the economy – mainly laws and rules of the game for behaviour of economic subjects – their enforcement by the legal system is very important, as well as the ability of the state to give sanction to the breaking of these rules. This is the second important factor. Internationalisation of the economy i.e. scope in which it participates in foreign trade and investments, plays an important role in the determination of competitiveness in a globalised economy. This has far greater importance. It also increases the importance of such factors of competitiveness as capital market performance and the quality of financial services, education, science and technology, modern infrastructure for activities of entrepreneurs and management ability to manage companies in an innovative and profit-oriented way, etc. Because of the scope and focus of this document, we deal only with some factors, mainly with those which are crucial in the long-term perspective.

[17] The question is whether to speak about a strategy. If the strategy is seen in general as meaning a target setting and measures or tools with which to reach it, the strategy does not have such features. In principle, it is a spontaneous development where target setting is absent. And when targets are not distinct, then we can not mention any tools by which we can reach them. It is not a strategy in fact - it is called that only by persistence

The strategy of active support of economic growth includes principal structural changes of the Czech economy and of course also principal measures to fight corruption, tax evasion, illicit work and other negative economic phenomena which are increasing prolifically in the Czech economy and Czech society to a great degree and which are one of the main reasons for our long-term stagnation.

Associated to these is the key question (apparently asked by nobody) i.e. What role does the Czech economy want to play, what role can or will it play in the future within the international division of labour?

Does it continue in the position of a "low-cost economy" – economy with low cost? Will it struggle in international competition with low wages, low or devalued exchange rate and low taxes and, unavoidably (sooner or later), by a lower rate of the social protection of citizens?

Such tools are typical of low-income economies of developing countries. Countries with lower wages (much lower compared to the Czech Republic), with minimal social protection, with low taxation reducing public services markedly and, in fact, closing to a majority of inhabitants any access to education and healthcare.

Do we really want to compete with these countries in poverty?[17] Is it really our aim to race against other economies to see "who will reach the lowest wages, lowest social standards", do we want to win the race of "who will reach imaginary rock bottom"?

Or do we try to enforce a more ambitious strategy, based on the qualitative competitive advantage which conforms to a country with a long tradition of education and industry? These questions should have been posed sooner in the Czech Republic. It seems that the developments over the past 25 years have in fact answered them.

In our opinion, it is still not too late to ask these questions and to depart from the current strategy of competing for "who will reach rock bottom?" Lost opportunities will not return and the way to fulfil this aim could be all the more exacting, complicated and expensive.

Factors of Competitiveness

The economic level of single countries differs partly in consequence of the different labour productivity, partly as a result of the different usage of work resources. Demographic factors also have an important influence in determining the rate of inhabitants of working age.

The Czech Republic lags behind **in labour productivity** compared to advanced countries. This is much more apparent on the total economic level, which is enhanced on the one hand by a high rate of work resource usage and, on the other hand, the still advantageous demographic structure of inhabitants with a small proportion of children and elderly people. While on the economic level measured by GNP per capita, the Czech Republic reached 16th

[18] The term 'poverty' is also relative. We are aware of the fact that there are probably more than 2.5 thousand million people in the world with less than 2 USD per day, i.e. more than one-third of the global population. The Czech Republic ranks among one-tenth of the global population, and is among the richest of the poor part of the global population. This problem is not mentioned. Even when requests for social measures or wage requests are called for, some Czech politicians do not forget to remind us that there are places in the world where people are much worse off, so whatever Czech employees want… We want the Czech Republic to retain its position in Europe and also in the economically developed part of the world and to advance, of course.

position among the EU 28, in GNP per person employed, it moves down to 22nd rank. In GNP per worked hour, it ranks 24th.

According to GNP per capita, the Czech Republic, together with Slovenia, is ranked among the group of middle-income economies, while the majority of new member states is in the low-middle income group. The latest two new member states – Bulgaria and Romania – are in the low national income group. According to GNP per person employed, the Czech Republic falls among countries with lower middle income, at 50 to 74 % of the average. [18]

GNP per person employed and per hour worked in PPS in EU 10 countries in 2013 (EU 28 = 100)

	GNP person employed	GNP per hour worked
Czech Republic	71.9	60.7
Hungary	70.6	62.0
Poland	74.6	57.3
Slovakia	82.6	60.4
Slovenia	81.1	83.2
Estonia	70.0	48.6
Lithuania	74.6	54.2
Latvia	66.9	38.3
Bulgaria	43.4	32.1
Romania	51.5	34.9

Source: Eurostat, own calculations

The lagging behind advanced countries is much more noticeable on the level of labour productivity per hour worked, because the number of hours worked per 1 person employed is high above the average in the Czech Republic. Among the new CEE member states, only Poland has lower productivity per hour worked than the Czech Republic.

In 2013, the GNP indicated the following results — per inhabitant 68 %; GNP per person employed 67 %; but GNP per hour worked only almost 48 % (related to Germany). To reach the economic level of Germany, the Czech Republic would need a totally different economic policy with the worsening age structure of its inhabitants.

Usage of work resources is above average in the Czech Republic compared to the rest of Europe. The employment rate is quite high and the unemployment rate is low. Compared to Hungary, there is a higher employment rate in the Czech Republic. Hungary has a total low rate of economic activities (the difference is about 10 percentage points in the long-term view). A lower unemployment rate markedly improves the position of the economic level compared to Slovakia, which ranked high above average within the EU 28. The highest unemployment rate was in Slovakia and Poland, which had to struggle against fairly high unemployment during the boom (resolved partly by the export of workforces).

[19] Because of insufficient accuracy of volume indexes based on purchasing power parities, the OECD ranks countries according the level of GNP per capita into 6 groups: 1. High-income with 125 % and above related to the average; 2. High-middle income with 100–124 %; 3. Middle income with 75–99 %; 4. Low-middle income with 50–74 %; 5. Low income with 25–49 %; 6. Very low income with less than 25 %. There are no economies with very low income among EU countries. In Europe, these are Albania, Bosnia and Herzegovina, Moldavia and Ukraine.

During the 2008–2009 crisis, the unemployment rate increased in all the surveyed countries. In the EU 5 countries, the Czech Republic, together with Slovenia, remained the lowest.

Employment rate and unemployment rate in EU 5, Euro 18 and EU 28 countries

	Employment rate		Unemployment rate		
	2007	2014	2007	2010	2014
Czech Republic	66.1	69.0	5.3	7.3	6.1
Hungary	57	61.8	7.4	11.2	7.7
Poland	57.0	61.7	9.6	9.7	9.0
Slovakia	60.7	61	11.2	14.5	13.2
Slovenia	67.8	63.9	4.9	7.3	9.7
EU 28	65.2	64.9	7.2	9.6	10.8*
Euro 18	65.5	63.9	7.5	10.1	11.9*

Source: Eurostat
*) year 2013

The possibilities of increasing the economic level by increasing employment are limited in the Czech Republic. The influence of this factor on real convergence would be more neutral in the long-term development.

In general terms, the ranking of countries by the productivity of labour differs slightly from the comparison of GNP per inhabitant, when considering a different economic activity rate. While, for instance, the Czech Republic has a much higher economic level than Hungary and Slovakia, the labour productivity is slightly higher in those two countries. The Czech economic level is reached by a high rate of employment of inhabitants; the Hungarian economic level is decreased by a low rate of economic activity and Slovakia has high unemployment.

The question remains of the priorities of the economic policy in individual countries — whether to give an advantage to the higher engagement of employable inhabitants or quicker productivity growth. It is not possible to create new workplaces for released workforces quickly enough during rapid structural changes.

Demographic factors will act very negatively on the reduction of the gap in the economic level in comparison to advanced countries in the long-term perspective, because the actual advantage of a low proportion of economically dependent persons will change in the opposite direction when inhabitants grow old.

Currently, the total demographic dependency ratio (dependent people – not of working age– to total number of inhabitants) only reaches approximately 30 % and is lower than the EU average by 4 percentage points. The economic dependency ratio, measured to inhabitants of working age reaches about 40 % and is lower by 8 percentage points compared to the EU.

This fact has significantly assisted in increasing the economic level in the recent period. However, a low proportion of children and young people leads to a lowering of the share of economically active persons within the horizon of the next decade (after the retirement of people born during the Second World War years) and in the future perspective also "Husák's children" from the 1970s' baby boom. The proportion of inhabitants older than 65 years within the whole population, which reached almost 15 % in 2008–2009, should

increase to 20 % by 2020. The process of the ageing of inhabitants will slow down the speed of the growth rate of GNP per inhabitant in the longer time scope.[19]

Labour Productivity and Length of Working Time

The basis of economic competitiveness is labour productivity. At the national economic level, this is measured by the indicator **GNP per hour worked in purchasing power parity**. The labour productivity in individual CEE countries, is balanced between one-quarter and one-half of the Germany level, with the exception of Slovenia, which is close to two-thirds. Convergences of this indicator after entry into the European Union are shown in the following table for CEE 5.

Convergence of labour productivity of selected CEE states after entry into the EU in 2005–2013 (Productivity of labour per hour worked in PPS, %)

	2005	2007	2010	2013
CR/EU 28	**67.3**	**66.9**	**57.3**	**62.8**
CR/Euro (18)	**60.0**	**59.0**	**52.3**	**55.8**
CR /Germany	**52.8**	**51.2**	**44.8**	**49.4**
CR/Austria	**59.8**	**58.8**	**51.0**	**56.5**
Slovakia/CR	96.7	93.6	102.1	97.4
Poland/CR	74.8	70.2	91.4	91.8
Hungary/CR	85.1	81.8	102.4	102.3
Slovenia/CR	122.6	124.0	135.9	131.6

Source: Eurostat, own calculations

Just at first sight, there is obviously a very similar development of individual values with regard to the economic performance measurement. **It is clear that, in the indicator of productivity of labour (GNP in PPS per hour worked), the Czech Republic is underdeveloped in the long term, relative both to the EU 28 as a whole and its most advanced members**. It is alarming that the relation of this indicator decreased by almost 5 points, both with regard to the EU 28 average and the Eurozone (Euro 18) between 2005 and 2013. In relation to Germany and Austria, this decrease was slower. However, this does not change the markedly negative development in fact during the period surveyed.

From the given data, it follows that the Czech economy must put forth a lot of hours worked to retain the value of the total output (GNP in purchasing power parity) compared to other countries. This goes hand in hand with decreasing productivity, or (in other words) the productivity growth in the Czech economy remains behind the productivity growth of those countries. Therefore the Czech economy is not able to maintain the relationship of created products in the total output compared to other countries – both to advanced and also to countries with a lower economic level. The hour worked has a relatively lower value in the Czech economy than in other countries. Therefore, if the Czech economy wants to maintain

[20] According to OECD statistics, the Czech Republic ranks in the first third of countries threatened by the ageing of inhabitants. According to calculations, the number of pensioners per 100 inhabitants of productive age will be close to 60 in 2050. This indicator ranks the Czech Republic in 9th place among the 30 countries of OECD. Japan has 1st place with 82 pensioners; the last place is shared by the USA and Turkey with 37 or 30 pensioners. The average of OECD countries is less than 48 pensioners.

progress in relation to those countries, it must expend more hours in order to achieve that result.

The given data show that the development of productivity in the Czech economy surpasses to a great extent all CEE countries, which attain very marked convergence both to the Czech Republic and other advanced countries. It is obvious that the substance of this negative development of labour productivity on the national economic level is the development of the GDP (as well as performance). The problem is more complex and therefore it is also necessary to deal with the declared labour productivity and prove the ability of its value and deeper factors which could be involved.[20]

The unconventional view on the development of **the indicator of labour productivity in exchange rate conversion** wipes out the previous strict evaluation, but it does not change the trend in principle. (Compared to the previous comparison, it reflects the development of this indicator and the value depression of the Czech crown, i.e. its devaluation in 2013.)

The importance of this indicator is not primarily the trend characteristics, but the level itself. It shows how the level of undervaluation of the exchange rate to the purchasing power parity decreases the productivity level (calculated by nominal rate) to the value of less than one-third of the productivity per hour reached in Germany.

This level is a key level in fact, because, from this level, the level of nominal wages in the Czech Republic is derived.

Convergence of labour productivity in selected CEE states after entry into the EU in 2005–2013

(Productivity of labour per hour worked in rate, %)

	2005	2007	2010	2013
CR/EU 28	**38.7**	**41.5**	**41.4**	**40.8**
CR/Euro (18)	**33.6**	**36.1**	**35.8**	**35.1**
CR /Germany	**29.3**	**31**	**31.1**	**30.6**
CR/Austria	**32.4**	**34.1**	**33.4**	**32.8**
Slovakia/CR	88.9	90.8	94.6	100.8
Poland/CR	71.8	67.7	75.4	80.9
Hungary/CR	91.4	85.4	84.6	87.8
Slovenia/CR	155.6	154.6	158.5	163.4

Eurostat, own calculations

[21] Nobody raises this question today. One-half of labour productivity compared to Germany, Austria or other advanced countries on the national economic level is taken as a proven fact, without consideration of its dynamics, which also predict possibilities of growth of consumption, etc. On the other hand, the low level of productivity in the Czech Republic raises strong doubts in actual practice (especially in companies, branches or fields where this level of 'financial' labour productivity can be compared with the amount of real or (better said) natural productivity – the number of products per time unit. See further on).

Productivity of labour per hour worked in EUR in EU states including Norway in 2004–2013 (exchange rate recalculation)

Country/Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Norway	72.3	73.1	72.5	71.1	68.8	69	69.3	68.9	69.5	69.6
Luxembourg	60.9	63.1	63.9	62.9	60.8	59.4	60	59.35	58.2	
Denmark	50.5	51.4	51.9	52.2	51.1	49.8	52.4	52.5	52.6	53.4
Ireland	43.8	44.1	44.6	45.1	45	46.5	48.2	50.1	50.4	48.8
Belgium	45	45.4	45.8	46.2	46	45.3	45.9	45.8	45.7	45.9
Netherlands	43.8	44.7	45.5	46.2	46.2	45.1	46	46.1	45.6	45.8
France	43	43.6	44.9	44.9	44.5	44.2	44.7	45.3	45.4	45.6
Sweden	41.5	42.7	44	44.1	43.3	42.3	44	44.4	44.9	45.5
Germany	39.4	39.9	41.3	42	42	40.9	41.7	42.4	42.6	42.8
Austria	35.3	36.1	37.3	38.1	38.3	38.2	38.9	39.1	39.5	39.9
Finland	37.7	38.5	39.5	40.8	40.3	38.2	39.4	40	39.5	39.7
G. Britain	38.1	38.9	39.7	40.8	40.3	39.3	39.8	40	39.3	39.2
Eurozone 18	**34.4**	**34.8**	**35.5**	**36**	**35.9**	**35.5**	**36.3**	**36.7**	**37**	**37.3**
Italy	32.1	32.4	32.5	32.6	32.4	31.7	32.5	32.5	32.2	32.2
EU 28	**29.8**	**30.2**	**30.9**	**31.3**	**31.2**	**30.7**	**31.4**	**31.8**	**31.9**	**32.1**
Spain	27.7	27.9	28.1	28.5	28.7	29.4	30	30.4	31.5	32.1

Country/Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cyprus	19.7	20.1	20.4	20.8	21.2	21	21.3	21.2	21.5	21.6
Slovenia	17	18.2	19.3	20.1	20.1	20.1	20.6	21.4	21.3	21.4
Greece	20.1	19.8	20.8	21.5	22.2	21	20.4	19.9	20.2	20.2
Portugal	15.4	15.6	15.8	16.1	16.1	16.1	16.7	16.9	17	17.1
Malta	16	15.3	15.5	15.4	15.4	14.6	15.2	14.2	14.5	
Slovakia	10.1	10.4	11	11.8	12.1	11.8	12.3	12.6	12.8	13.2
CR	**11.1**	**11.7**	**12.4**	**13**	**13**	**12.8**	**13**	**13.3**	**13.2**	**13.1**
Hungary	10.3	10.7	11.1	11.1	11.3	10.9	11	11	11.3	11.5
Estonia	8.7	9.2	9.7	10.3	10	10.3	10.9	10.8	11.2	11.4
Poland	8.2	8.4	8.6	8.8	9	9.1	9.8	10.2	10.4	10.6
Lithuania	7.5	7.7	8.2	8.7	8.8	8.3	9.4	10.1	10.3	10.6
Latvia	5.5	5.9	6.3	7.9	7.3	7.2	7.6	7.9	8.2	8.4
Romania	4.4	4.6	4.9	5.2	5.6	5.4	5.3	5.4	5.4	5.6
Bulgaria	3.9	4	4.1	4.3	4.3	4.3	4.5	4.7	4.8	4.9

Source: Eurostat (database)

Convergence of labour productivity per employee in selected CEE states after entry into the EU in 2005–2013

Labour productivity per employee in PPS, %

	2005	2007	2010	2013
CR/EU 28	73.1	76.4	74.3	72
CR/Euro (18)	67.5	70.4	68.4	66.2
CR /Germany	67.3	70.4	69.6	67.2
CR/Austria	61.7	65.2	64.6	63.4
Slovakia/CR	94.1	100.1	110.8	109.4
Poland/CR	84.5	81.5	94.3	96.5
Hungary/CR	92.6	87.3	96.5	102.8
Slovenia/CR	113.8	108.9	107	112.8

Source: Eurostat, own calculations

Labour productivity per employee in rate, %

	2005	2007	2010	2013
CR/EU 28	42.1	47.4	53.7	46.8
CR/Eurozone*	37.8	43.1	46.8	41.6
CR /Germany	37.3	42.7	48.3	41.6
CR/Austria	33.4	37.8	42.3	36.8
Slovakia/CR	86.3	96.8	102.6	118.8
Poland/CR	81.0	78.4	77.7	91.0
Hungary/CR	99.2	90.8	79.7	84.2
Slovenia/CR	144.1	135.4	124.7	139.9

Source: Eurostat, own calculations

An interesting comparison is shown by the next indicator of labour productivity – **GNP per employee in PPS.** For the Czech Republic, this means first of all a markedly higher level of labour productivity reached compared to the previous indicator — productivity per hour.

The difference is high between these two indicators. On the EU 28 level and Euro 18 level, it reaches 10 percentage points, in Austria 6.5 points, but in Germany an unbelievable 17.6 points (productivity per hour is 49.4 % while productivity per employee is 67 %). We can see similar differences in these two indicators in the exchange rate, where the differences are about 6 percentage points on the level of Communities, 4 percentage points in Austria and 11 points in Germany.

It is obvious that differences between indicators are caused by differences in the **scope of worked time in individual countries.** The Czech Republic, with its low productivity and low wages derived from it, extensively ensures the creation of GNP by a higher volume of hours compared to the majority of advanced countries (mainly our neighbours).

The following table provides an orientation view of this obvious problem of the Czech Republic.[21]For example, in 2012 the difference in number of hours worked per year was 108

[22] This view is only a rough orientation in reality. The Eurostat calculation of productivity per hour is estimated on the assumption of the total volume of hours worked in a given state. In the table, we state only a comparison of individual countries relevant to persons in full-time employment. In our point of view, the comparison shows

hours between Germany and the Czech Republic. With an 8-hour working day, this means almost 14 working days which a Czech employee must work on a full-time basis longer than an employee in Germany (compared to France, it is more than 24 working days per year i.e. one working month).

Annual volume of hours worked per employee*
in individual EU countries in 2008 and 2012

Country/Year	2008	2012	Different
Norway			
Denmark	1588	1571	-17
Luxembourg	1790	1773	-17
Belgium	1541	1462	-79
Sweden	1665	1673	8
Ireland	1706	1616	-90
Netherlands	1747	1757	10
Finland	1656	1610	-46
Germany	1650	1641	-9
Austria	1774	1751	-23
France	1583	1555	-28
Eurozone 18	**1661**	**1629**	**-32**
Italy	1614	1565	-49
G. Britain			
EU 28	**1750**	**1735**	**-15**
Spain	1738	1719	-19
Slovenia	1719	1704	-15
Cyprus	1711	1794	83
Greece	1707		
Malta	1861	1961	100
Portugal	1716	1680	-36
Croatia	1811	1764	-47
Estonia	1760	1787	27
Slovakia	1715	1705	-10
CR	**1735**	**1749**	**14**
Poland	1698	1685	-13
Hungary	1782	1780	-2
Latvia	1806	1792	-14
Lithuania	1734	1749	15
Romania	1852	1850	-2
Bulgaria	1755	1723	-32

relatively accurately the considerable differences in the number of full-time hours worked. (Source: Eurostat, Labour cost in the EU No 56/2015, 30. March 2015, *)

However, there is another interesting fact which completes the position of the Czech Republic in the sphere of labour productivity, or rather in the situation on the labour market. In the crisis years, almost all advanced EU states used the decrease in the volume of hours worked as a relatively important tool of employment support, since, with a reduction of number of hours worked per one employee, it is possible to employ more persons. Only in a few countries did the volume of hours worked increase in the monitored period (preference of earnings to employment). These were the Baltic States and 'island' states. They were joined only by the Czech Republic among the CEE 5. This atypical behaviour of the Czech Republic – additional increase of hours worked per employee, despite the already high level – (and in an economic crisis, in fact, quite desperate) is another demonstration of the very low level of wages in the Czech Republic.

Unit Labour Cost and Competitiveness

The cost competitiveness expressed in unit labour cost (ULC), measured as average labour cost in EURO per GNP unit in a real expression (i.e. in PPS), in the new CEE member states is still much higher than in the average of the EU 27 countries, despite the ULC significantly increasing as a consequence of the quicker growth of wages in the past decade.[22]

The Czech Republic has a much lower ULC than Slovenia, but much higher than the other EU 5 countries. A substantial distinction of a decrease of ULC among Central and Eastern European countries is shown in Bulgaria and Romania. According to this indicator, in 2013 "the most competitive" within the CEE (5) was Hungary, which has roughly equally as low wages as the Baltic states, but in comparison has much higher productivity – see next table.

Compared with advanced EU member states, the CEE countries feature a much bigger gap between nominal wages and total labour cost than real productivity. Thus, these 'created' low unit labour costs are their main competitive advantage, by which they actually attempt to establish themselves on European and global markets.

The ULC expressed in percentage moved between 24 % and 32 % and in PPS between 40 % and 52 % of the German level in 2013. Wages and labour costs are very low in countries entering the EU later – Bulgaria and Romania. Higher cost (wage) competitiveness of new member states which entered the EU last is shown in tendencies of foreign capital to move some simple productions to these territories within the EU.

The average labour cost in the Czech Republic was only 31.6 % of the German level in 2013, while GNP per hour worked reached 47.9 %. This means that, for labour cost per 1 hour worked in Germany, more than 3 hours of work can be hired in the Czech Republic (3.16). Our example shows that the price (cost) competitiveness is still too high, because for these 3.16 hours, more than 1.5 times higher added value is produced than in Germany.

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[23] To distinguish – compared to competitiveness – labour costs and unit labour cost are difficult even for some economic analysts mainly from the Czech Republic to understand. The ULF indicator, simply said, compares the level of total labour costs (the entrepreneur's costs of labour). That there are some low labour costs does not mean in reality that these are also competitive.

ČMKOS is often reproached for such an understanding of the meaning of the "competitiveness indicator" in discussions – generally concerning wage requests. In that case, the most competitive workforce in the world would be in countries where (reduced to absurdity) people live on less than 2 USD per day. Labour costs per workforce would be the lowest there. Still, investors are not rushing there. This workforce is still too expensive, even with the minimal costs per workforce, with regard to the possible productivity of its work.

Hour productivity, labour cost and unit labour cost in member states of the European Union (from CEE) in 2013

	Productivity in PPS (EUR)	Productivity in exchange rate (EUR)	Productivity in PPS FRG = 100 %	Labour cost in rate (EUR)	Labour cost in rate BRD=100
Slovenia	26.4	21.4	64.9	15.3	49.4
Hungary	19.9	11.5	48.9	7.4	23.9
CR	**19.5**	**13.1**	**47.9**	**9.8**	**31.6**
Slovakia	19.4	13.2	47.7	9.2	29.7
Poland	18.4	10.6	45.2	8.1	26.1
Lithuania	17.4	10.6	42.8	6.3	20.3
Estonia	15.6	11.4	38.3	9.2	29.7
Latvia	12.3	8.4	30.2	6.2	20
Romania	11.2	5.6	27.5	4.4	14.2
Bulgaria	10.3	4.9	25.3	3.7	11.9
Germany	40.7	42.8	100	31	100

	Unit labour cost (EUR)	Unit labour cost (FRG=100 %)	Volume of hours reached in given country for hour labour cost in in FRG	Total productivity reached (FRG=100)
Slovenia	0.58	76.1	2.02	131.1
Hungary	0.37	48.6	4.18	204.4
CR	**0.5**	**65.6**	**3.16**	**151.4**
Slovakia	0.47	61.7	3.37	160.7
Poland	0.44	57.8	3.83	173.1
Lithuania	0.36	47.3	4.93	211
Estonia	0.59	77.5	3.37	129.1
Latvia	0.5	65.6	5	151
Romania	0.39	51.2	7.04	193.6
Bulgaria	0.36	47.3	8.4	212.5
Germany	0.76	1	1	100

Source: Eurostat, own calculations

The combination of relatively less backward productivity with very low labour cost (and long working time which the labour force must work) allows the creation of this "economic miracle", and even places the Czech economy in a position where its labour force is more productive than the German one. This is because the Czech labour force is very cheap, it has very low "purchase and operational costs". The setup of these fundamental proportions allows less advanced countries to produce goods much more cheaply than advanced countries (price competitiveness).

This "economic miracle" (often highlighted today in connection with the policy of the crown devaluation carried out by the ČNB) has another side. It has its costs which are not low. Besides the prospect of lower living standards and maintaining this advantage for as long as possible by some states (which must very often result in some system of wage increase delay), it

also means an undervaluation of national labour with an export to foreign countries. There can be no discussion of discarding national labour for that of labour abroad – without any compensation.. In the long-term perspective, this means remarkable declining changes in the economic structure, resulting in its continuous backward slide.

Comparison of productivity of labour level, labour cost level and wage level in states of the European Union in 2013

	Unit labour cost (%)	Productivity Euro/hour (PPS)	ERDI GNP (EU28=1)	Productivity Euro/hour (rate)	Labour cost Euro/hour (PPs)	Labour cost Euro/hour (rate)	Non-wage NP Euro/hour (rate)	Wages Euro/hour (rate)	Wages Euro/hour (PPS)
Norway	126.3	44.6	0.64	69.6	36.1	56.3	10.6	45.7	29.2
Denmark	101.8	39.2	0.73	53.4	29.3	39.9	7.5	32.4	23.7
Belgium	95.2	40.8	0.89	45.9	34.5	38.8	7.3	31.5	27.9
Sweden	113.2	33.7	0.74	45.5	28.3	38.2	7.2	31.0	23.0
Luxembourg	72.9	48.0	0.82	58.2	28.9	35	6.6	28.4	23.4
France	86.2	39.8	0.87	45.6	29.9	34.3	6.5	27.8	24.3
Netherlands	80.3	41.7	0.91	45.8	30.5	33.5	6.3	27.2	24.8
Finland	99.1	32.2	0.81	39.7	25.9	31.9	6.0	25.9	21.0
Austria	85.4	35.7	0.89	39.9	27.3	30.5	5.8	24.7	22.1
Germany	76.1	40.7	0.95	42.8	29.5	31	5.9	25.1	23.9
Ireland	67.3	44.3	0.91	48.8	27.0	29.8	5.6	24.2	21.9
Euro 18	81.6	35.4	0.95	37.3	27.4	28.9	5.5	23.4	22.2
Italy	88.0	31.9	0.99	32.2	27.9	28.1	5.3	22.8	22.6
EU 28	75.4	32.1	1.00	32.1	24.2	24.2	4.6	19.6	19.6
G. Britain	58.1	36.0	0.92	39.2	19.2	20.9	4.0	16.9	15.6
Spain	60.0	35.3	1.10	32.1	23.3	21.2	4.0	17.2	18.9

	Unit labour cost %	Productivity Euro/hour (PPs)	ERDI GNP (EU28=1)	Productivity Euro/hour (rate)	Labour cost Euro/hour (PPs)	Labour cost Euro/hour (rate)	Non-wage NP Euro/hour (rate)	Wages Euro/hour (rate)	Wages Euro/hour (PPPs)
Cyprus	65.1	25.1	1.16	21.6	18.9	16.3	3.1	13.2	15.3
Slovenia	57.4	26.7	1.25	21.4	19.1	15.3	2.9	12.4	15.5
Greece	61.7	23.7	1.17	20.2	17.1	14.6	2.8	11.8	13.9
Portugal	60.2	21.9	1.28	17.1	16.9	13.2	2.5	10.7	13.7
Malta	65.1	18.6	1.28	14.5	15.5	12.1	2.3	9.8	12.6
Estonia	58.8	15.6	1.37	11.4	12.6	9.2	1.7	7.5	10.2
Slovakia	47.4	19.4	1.47	13.2	13.5	9.2	1.7	7.5	11.0
CR	50.3	19.5	1.49	13.1	14.6	9.8	1.9	7.9	11.8
Poland	43.9	18.4	1.74	10.6	14.1	8.1	1.5	6.6	11.4
Hungary	37.1	19.9	1.73	11.5	12.8	7.4	1.4	6.0	10.4
Latvia	50.2	12.3	1.47	8.4	9.1	6.2	1.2	5.0	7.4
Lithuania	36.2	17.4	1.64	10.6	10.4	6.3	1.2	5.1	8.4
Romania	39.2	11.2	2.00	5.6	8.8	4.4	0.8	3.6	7.2
Bulgaria	35.9	10.3	2.10	4.9	7.8	3.7	0.7	3.0	6.3

Source: Eurostat. own calculations

Labour Cost and Wages

Low unit labour cost, i.e. price competitive advantage, is calculated on the numerator side, i.e. labour cost by two factors – wage in national currency and its exchange rate to the purchasing power parity. The wage level influences the size of the first factor or maintaining very low wages (labour cost) in national currency to productivity ("wage cushion").[23] The second factor is marked undervaluation of the exchange rate to purchasing power parity ("rate cushion").

The consequence of the impact of these two cushions is that wages (or labour cost) are in a position that, from the point of view of potential investors outside the Czech economy, it is in reality a fraction of the wages in advanced countries.[24] Their low level (compared to foreign countries) is possible by the marked lower price level of goods and services on the domestic market in comparison to prices abroad.

In other words, a quantitative formulation of the wage level (labour cost) in EURO does not correspond to the buying power in the domestic market. Here the purchasing power of wages is much higher than in foreign countries. The Euro has a much stronger buying power due to undervaluation of the Czech currency on the Czech market.[25]

The so-called economic transformation applied in the Czech Republic was based precisely on this process, because the marked devaluation of the Czech crown and a strong depression of wages under the productivity of labour level were a basic point of the transformation strategy.

The remarkable wage decrease at the beginning of the economic transformation significantly involved the international position of the Czech Republic in cost (price) competitiveness. After the multiple devaluation of the crown during 1990, Czech nominal wages (in exchange rate) reached a fraction of the level of wage levels in Western Europe.

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[24] A policy of cheap wages (labour costs) is in fact more part of a complex policy of "cheap labour force". It is based on the total decrease of social standards. This philosophy included (and includes) several levels in the Czech Republic:
- in the sphere of non-wage labour costs in the company sphere, it means reduction of all non-wage costs per workforce (decrease of costs on the company level, reduction or abolition of social funds in companies, etc.). This trend is supported by changes in tax and other regulations;
- on the national economic level, pressure was created on the reduction of systems of social care protection (pensions, unemployment benefits, illness benefits) which is reflected in proposals on the regulation of taxes and social security insurance;
- the third level was the reduction of Labour Law protection of employees. Besides wages and labour costs, as costs on the employer level are also seen the level of securing the right to work in a given country or membership of Trade Unions. Attention is also paid to national legislation regarding conditions of employee dismissal, level of labour market protection (e.g. child labour prohibition, legal restriction of working time, protection of employees' representatives and of collective bargaining), conditions in the case of total cancellation of production in given countries, etc.

[25] This basic factor of cost competitiveness is of course supported by other factors, e.g. a low level of corporate taxation, low level of environmental protection or – as described in the previous note – the factor of very low social protection and reduction of Labour Law standards.

[26] According to estimates, the rate of undervaluation of the Czechoslovak crown, measured by the ERDI index (Exchange Rate Deviation Index) based on GNP to DEM in 1990, was at the value of 5.17 i.e. at that time in the former Czechoslovakia, the German Mark (DEM) had 5.17 times higher buying power at the official exchange rate than in former West Germany. In fact it was a "clearance exchange rate" which became evident very 'successfully' after the subsequent flat privatisation of the Czech economy. See: Social and economical impacts of the Integration of the Czech Republic to the European Union, Czech Government Council for the economic and social strategies, July 2001, page 112.
In 2014, the Index ERDI GNP (i.e. total price level) compared to Germany was on the level of approx. 1.62.

Because of the strongly devalued rate of the crown during 1990, the level of Czech wages in the exchange rate was decreased, for instance, to approx. 10 % compared to Germany. The Czech Republic entered economic transformation and liberalisation of prices and privatisation at this level.

Czech wages (in exchange rate) dropped below the wage level of Poland and Hungary i.e. countries with much higher national economic labour productivity and economic level. At the same time, the disparity arose between the purchasing power of Czech wages by foreign countries and the purchasing power on the domestic market. (Purchasing power of Czech wages abroad also fell to less than one-fifth of their purchasing power on the domestic market.)

The marked drop of the purchasing power of Czech wages in foreign countries was accompanied by a marked decrease of their purchasing power on the domestic market as well. In 1991, the decrease of real wages was 30 % (known as "belt-tightening"). This double drop of the purchasing power of wages (i.e. decrease on domestic and foreign markets) was the fundamental determining factor of wage development during subsequent decades.

Such a setting of low wage level in the Czech Republic was further supported by other accompanying measures, which task was to break the wage increase and keep wages at the lowest possible 'competitive' level for as long as possible. Besides a restrictive monetary and budgetary policy, this mainly involved wage regulation (ended in the half of 1995), wage regulations determining individual wage setting, long-term deliberate maintaining of minimal wage under the minimum subsistence level, usage of so-called "cold progression" for wage taxation and specific systems of wage setting in the budgetary sphere. All these 'transformation' tools caused a long-term and systematic fossilisation of low wage levels in the Czech economy.[26]

There is another factor in the practical economic policy — in particular the right-wing blocs (mainly in the 1990s and from the first decade of the 21st century) – processes were applied which in fact widened the gap between the mechanism of wage creation in the Czech Republic and the practice in advanced EU countries and contributed to maintaining the cheap labour force concept.

The effort to keep low wages as long as possible led, for instance, to the limitation of a tripartite dialogue on state level, to a restraining position towards the ratification of the European Social Charter and some ILO conventions, to an aversion to the broadening of collective agreements on a higher level (branch level), to a reduction of socio-economic function of the minimum wage, etc. This is also reflected in the sphere of the scope and quality of collective bargaining on all levels.

According to the authors of economic transformation, the above-mentioned "transformation cushions" and other supporting steps ensured a transitional transformation advantage for the Czech Republic, to secure the rapid growth of the Czech economy and fast convergence of our living standards with the most advanced countries of the European Union. Somehow everything disappeared during the transformation, privatisation, liberalisation and many different "reforms of public finances". The only thing which remained and still remains in the Czech Republic as a sad legacy of the economic transformation of the '90s is a very low nominal wage and salary level.

[27] Fassmann M., Rusnok J. The True Effects of Wage Regulations in the Czech Republic, In. Vaughan-Whitehead (ed.) Paying the Price – The Wage Crisis in Central and Eastern Europe, London, Macmillan Press 1998, New York St. Martins Press 1998.

In 2014, the level of hourly gross wages in the Czech Republic reached 29 % of the Austrian level and 28 % of that of Germany. In other words, for the average wage of one Austrian or German employee, companies from these countries could hire three Czech employees abroad and still save money. Czech wages have approximated to approx. 7 percentage points of the wages of our neighbours during the past ten years.[27] This would not be such a bad result at first sight, considering the crisis of recent years. But thanks to "the enchantment of speed", they forget that the Czech Republic started the process from a very low wage level. From a level artificially created at the beginning of the economic transformation by the strong depression of the rate of the Czech crown under the purchasing power parity level and by squeezing of wages by wage regulations to below the labour productivity level.

Development of nominal hourly labour costs in 2012–2014 in European Union (incl. Norway) (EUR per hour)

YEAR	2012*	2013	2014
Norway	45.74	45.66	44.23
1. Denmark	34.51	34.95	35.02
2.Luxembourg	32.91	33.60	31.02
3. Belgium	27.08	27.73	28.23
4. Sweden	22.61	23.35	25.58
5. Ireland	29.57	29.57	25.78
6. Netherlands	24.47	25.23	25.47
7. Finland	24.38	24.85	25.13
8. Germany	23.23	23.85	24.40
9. Austria	22.36	22.72	23.25
10. France	20.14	20.14	23.15
Eurozone 18	**21.12**	**21.41**	**21.58**
11. Italy	19.92	20.20	20.32
12. G. Britain	20.24	20.50	18.62
EU 28	**16.56**	**15.95**	**18.60**
13. Spain	15.49	15.56	15.76
14. Slovenia	14.33	13.90	13.15
15. Cyprus	13.01	12.76	13.10
16. Greece	12.70	11.81	11.50
17. Malta	12.24	12.14	11.45
18.Portugal	9.52	9.76	10.40
19. Croatia	7.28	7.78	8.00
20. Estonia	6.52	6.74	7.22
21. Slovakia	**7.32**	**7.17**	7.13
22. CR	**6.95**	**7.03**	**6.85**

[28] In 2014, the average hourly labour cost in the Czech Republic was 6.85 EURO, in Austria 23.3 EURO and in Germany 24.4 EURO: Eurostat, Labour cost in the EU No 56/2015, 30. March 2015. Source: Eurostat. own calculations

*) data estimated by extrapolating the labour cost value in 2012 and share of non-wage labour costs in 2013

23. Poland	6.58	6.75	6.83
24. Hungary	5.58	5.58	5.61
25. Latvia	4.68	4.92	5.27
26. Lithuania	4.22	4.50	4.68
27. Romania	3.15	3.38	3.55
28. Bulgaria	2.86	3.12	3.19

Labour cost per hour worked in 2004–2014 in European Union
(EUR/hour)

	2004	2008	2012	2013	2014
Norway	30.1	37.8	56.4	56.3	54
Denmark	29.6	34.6	39.4	39.9	40.3
Belgium	29.2	32.9	38	38.8	39.1
Sweden	29	31.6	37.3	38.2	37.4
Luxembourg	30.3	31	33.9	35	35.9
France	28.2	31.2	34.3	34.3	34.6
Netherlands	27.3	29.8	32.5	33.5	34
Finland	24.4	27.1	31.3	31.9	32.3
Austria	25.2	26.4	29.7	30.5	31.5
Germany	26.8	27.9	30.5	31	31.4
Ireland	25.5	28.9	29.8	29.8	29.8
Eurozone 18	**23.3**	**25.5**	**28.5**	**28.9**	**29.2**
Italy	22.4	25.2	27.7	28.1	28.3
EU 28	**19.8**	**21.5**	**23.9**	**24.2**	**24.6**
G. Britain	21.5	20.9	21.7	20.9	22.3
Spain	16.5	19.4	21.1	21.2	21.3
Cyprus	12.6	16.7	16.8	16.3	15.8
Slovenia	11.2	13.9	15.6	15.3	15.6
Greece	15.3	16.8	15.7	14.6	14.6
Portugal	11.3	12.2	13.3	13.2	13.1
Malta	9.6	11.4	11.8	12.1	12.3
Estonia	4.3	7.9	8.6	9.2	9.8
Slovakia	4.1	7.3	8.9	9.2	9.7
CR	5.8	9.2	10	9.8	9.4
Croatia	6.9	9.2	9.5	9.6	9.4
Poland	4.8	7.6	7.9	8.1	8.4
Hungary	5.9	7.8	7.4	7.4	7.3
Latvia	2.9	6	5.9	6.2	6.6
Lithuania	3.2	5.9	5.9	6.3	6.5
Romania	1.9	4.2	4.1	4.4	4.6
Bulgaria	1.6	2.6	3.4	3.7	3.8

Source: Labour costs in the EU, Eurostat news release 56/2015, March 2015, incl. Norway

In 1990, the level of Czech wages was – as mentioned before – at one-tenth of the German level expressed in exchange rate. From this level, the Czech economy was actually able to 'approach' approximately 28 % after 25 years. This means that **the convergence speed of nominal wages – approx. 7 percentage points per ten years – is not a matter of the past decade but of the whole 25 years.** (We must admit that the share of individual convergence channels i.e. rate and wage differential changed over time.[28])

Therefore it is important also to take into account these data for the evaluation of 'success' of the economic transformation in the Czech Republic and its contribution to the majority of inhabitants of the Czech Republic.

It is not only the speed of the convergence. **A result of the 25 years of economic transformation is the fact that the Czech Republic — still seen as one of the most advanced economies among all new CEE member states — is among the group of countries with the lowest wages within the whole EU!**

Even being ranked in 22nd place among all 28 member states probably does not sufficiently characterise the gap of backwardness of Czech wages compared to the most advanced countries of the European Union.

Not long ago, Czech society was shocked by our simple calculation: if we converge in the wage sphere at the same speed as we have done to date, we will reach the German wage level in 100 years.

But Germany is not the country with the highest wages. It currently 'only' ranks (also because of German unity) 8th in the EU. There are higher wages than in Germany in the Scandinavian countries, for example. To calculate whether we will reach their level within a historically reasonable time does not make any sense…

The actual problem of Czech wages of recent years – and we stress that it is their development in the context among other countries – is their factual divergence, the increase of the relative gap between them and advanced EU countries.

This process has medium-term characteristics, because wages, in fact, diverge from 2008. For instance, for the 2008–2014 period, the difference in nominal wages between the Czech Republic and FRG increased by approx. 3 percentage points, and between 2012–2014 by 2 percentage points. It is obvious that the devaluation of the crown in autumn 2013, which depreciated Czech wages by approx. one-tenth, has a marked share in this.[29]

On the contrary, other CEE states, mainly our neighbours, have markedly converged the wage level during the same time (labour costs). In 2004, labour costs in the Czech Republic were 21 % higher compared to Poland, but were only 11 % higher after ten years i.e. in 2014. Much quicker convergence was recorded in Slovakia. In 2004, the hourly labour costs were 41 % lower than the Czech Republic; in 2014 the labour costs in Slovakia were 0.3% higher than in the Czech Republic! (This is an indisputable consequence of the wrong

[29] Since the nominal wages are recounted to EURO by nominal rate, and of course convergence or divergence of this indicator is influenced not only by a comparison of wage development in the monitored countries (or better, a wage differential, for instance, between the Czech Republic and Germany), but also the exchange rate development – in this case CZE/EURO.

[30] Depreciation of the Czech crown by intervention of ČNB meant a decrease of approx. 8 % to the EURO; the average salary of every employee decreased by 90 EURO per month.

economic policy of the Czech government of that time, combined with the Czech crown devaluation by the ČNB at the end of 2013.)

Working on the presumption of the famous argument of wage competitiveness, it seems that not one country lost its 'competitiveness', as mainstream economists and journalists often feared, even with the small increase in wages (or even with a minimum wage increase) in the Czech Republic.

At the end of this subchapter, it is necessary to mention the discussions which arose in the Czech Republic recently. In these discussions, different analysts and politicians attempted to find a reason for the obvious fact that the wage level in the Czech Republic, formerly the most advanced country among the new EU member states in the CEE, is the lowest within the European Union.

Suddenly one part of these analysts 'discovered' the fact that Czech wages are very low and that this fact can no longer be hidden. Finally, why not have this as one of the interesting topics when others do not offer the possibility of being as popular a topic as wages which concern everyone?

A paradox of this discussion is the fact that in 2014, when 25 years of the start of economic transformation was being commemorated, this transformation was evaluated as successful. At that time, discussions concluded unanimously that there is nothing to change about this transformation and that it was unambiguously successful. Almost nobody ventured to show the development of the position of the Czech economy in an international comparison and of course in wages – how else?

Evidently nobody from the political representation nor from the economic mainstream wanted to stand in front of citizens — voters — to state how far the Czech wage development is removed from the trends of other states and that this is the inevitable consequence of the Czech economic transformation.

Maybe also some analysts were of the opinion that it was the fault of Trade Unions because they did not exert sufficient pressure on employers regarding wages. Going a few years back, we may see these same people criticising the Trade Unions for their unrealistic wage demands which intensified the crisis, etc. And of course they added the famous liberal mantra which has been stated for 25 years – that Trade Unions prevent healthy competition on the labour market, etc.

The fundamental reason for the actual low wage level is undoubtedly to be found at the beginning of the economic transformation. And, more importantly, in its realisation. It is a direct consequence of the implementation of the long-term economic policy based on cheap labour, low taxes and low social standards.

Regarding the participation of Trade Unions in this development, the wage level in specific companies or individual branches is in fact set according to the total wage level in the relevant country (or region) and not according to the level of productivity reached in a particular company. The cost calculations are also dependent on this.

The total setting of the wage level is not and was not bargained for in the collective bargaining, but only the wage increase. If the level of Czech wages was set at the beginning of the transformation by the macroeconomic manoeuvre "rate and wage cushion" to one-tenth of FRG level and at the same time was accompanied by wage regulation and other administrative tools to hold back wage increases for the next five years (including further budgetary restrictions on a long-term basis), then the possibilities for collective bargaining were fundamentally flawed.

From the initial given conditions, it is evident that such a deep squeeze of wage levels at the beginning of transformation — and this alone —prefigured the wage levels for a very long period – up to the present time, in fact. These wage level deformations – as compared to foreign countries – are not possible to be removed in even the next 10–15 years. For that, Czech economic policy and the perception of the role of wages would have to change significantly.

The actual Czech practice shows that, with such an intense rate of the squeezing of wage levels, it is not possible in the short and medium-term horizon to achieve such rates of growth of labour productivity together with wage increases, to balance out this suppression.

The wage level of the Czech Republic is actually more dependent than we can admit on the initial strategic selection of the strong undervaluation of wages under productivity level and mainly on the policy of the low exchange rate of the crown up to the present time.

This is the main danger of the "exchange rate operation of CNB", started in 2013, that resulted in the squeezing of wage levels. This devaluation of the Czech crown resulted in the devaluation of the purchasing power of wages abroad, even when accomplished by a single hike. To combat its consequences i.e. return to the previous buying power of wages, will take a few years (especially with the declared blocking of the strengthening of the exchange rate of the crown)— and this time can not be regained in any case. From the viewpoint of wages and relative wage levels, it is definitely a regressive step.

Unfortunately, it is in a way another example how the Czech economic policy is not able to react to the development of neighbouring economies and stands by obsolete neoliberalist dogma.

One reservation about Trade Unions can be stated after 25 years. That they let themselves be betrayed in principle by political representatives **at the beginning of the economic transformation.** The "General Agreement" concluded in 1990 by representatives of government, Trade Unions and employers, was based on the assumption of 30 % increase of inflation and 10 % decrease of real wages (from this also arose the system of wage regulation). The devaluation of the crown at the end of December 1990 principally changed these parameters without correction of the conditions of the General Agreement and wage regulation. As a consequence, inflation increased by 56 % and real wages decreased by almost 30 %. (It is not necessary to mention the fact that even another obligation of the General Agreement was not fulfilled i.e. regular valorisation of minimum wages according to inflation.)

But it is difficult to impute them. Warning voices before this form of transformation were in the minority. There was generally the illusion that it would only take a few years before everybody would be living well…

Key Problem of Labour Productivity Backwardness – Product Evaluation

As previously mentioned, about one-half of labour productivity compared to Germany, Austria and other advanced countries very often arouses in actual practice marked doubts – especially in companies or branches – as to whether it is possible to compare a level of reported 'financial' i.e. labour productivity shown in usual prices, or in stable prices, with the level of the real (or rather, natural) productivity (number of products per time unit).

It is obvious that we must investigate the problematic of labour productivity backwardness in detail. Especially when the total wage level in the Czech Republic is derived from the thus shown low labour productivity.

The point is to analyse in depth a relatively simple fact, which can be illustrated by the example that one Czech employee produces the similar volume of products in one shift as his colleague from abroad. This is the example when natural productivity is in principle the same and it is even not possible to increase it (for technological reasons, for instance). However, productivity expressed in value differs basically. For example, this is a totally real problem seen today in the automotive industry, where the productivity of production lines in Czech companies compared to companies abroad is the same, the quality of products is the same, but wages by far do not reach the level of a parent company somewhere in Western Europe.

On the general level, we can mention that the backwardness of productivity is caused in particular by two decisive factors (especially in the current post-industrial sphere).

The first factor is mainly the lower level of materialisation of the findings of scientific and technological development in the product itself. In general, the price for a technically excellent product increases much faster than the main technical parameters by which it is possible to be expressed. On the contrary, a low level of implementation of the latest findings of science and technology of products causes a steep decrease in price and, in an extreme case, makes the product unsalable. The dependence of price on the product parameters' level is surely important in the evaluation of competitiveness level.[30]

Let us investigate how important this factor is in the Czech economy. As is known, almost two-fifths of the Czech production is exported, of which almost 85 % goes to EU country markets. Approximately three-quarters of the export is created by products of a higher manufacturing industry level (machinery, consumer industry, semi-finished products, etc.) Realising the fact that part of the GNP (major part of service sector, production of food industry, etc.) can not be the subject of exports, this is a relatively high rate of participation in international business. Would participation in international business be possible in the case of these products being old or of a low level of processing?

The majority of Czech export is created by the automotive industry — cars with comparable quality to competitors — and spare parts and assembly. Also in this case, these products must fulfil very demanding requirements of quality of the usable features and also of materialisation of scientific and technical knowledge. If not, they could not be exported and assembled in vehicles of leading global brands.

The well-known fact that Czech companies manufacture products here which are finally labelled as a product of another famous company, even though this product does not pass through the other company, can not be concealed. It is also similar with regard to other export products. It can not be said that they are backward or lag behind the competition.

The second and, in our opinion, crucial factor in determining the product price are selling prices or broader conditions of sale.

[31] Labour productivity is measured in international comparisons as GNP per employee or hour worked in purchasing power parity to eliminate differences in price level of individual countries, but methods used in international comparisons take into consideration these influences only partly and therefore are only approximate in fact. On the total productivity level (GNP per person employed) a 5 % error is not seen as statistically significant, on the level of part (branch) disaggregation it could also be bigger. (OECD Purchasing Power Parity and Real Expenditures, Paris 1999).

Global markets are at present fairly saturated. The major part of the markets for goods is driven by multinational companies which govern the market and set prices.[31] On the consumers' side, there is the custom that continuity and orientation of proven brands, as well as companies with tradition and goodwill are credible. All of this is regulated by aggressive advertising. Czech companies delivering final products in the same segment as multinational companies invariably occupy the position of an outsider on the market. This is given mainly by the fact that they originate from an unknown country "somewhere in the East", which is generally labelled as being of low quality, lacking consumer confidence and a priori with a poor image. Entry into saturated markets therefore requires, of necessity, considerable price concessions, especially for products the parameters of which are similar to the competition.

In addition, a level of set inter-concern selling prices operates markedly within international companies. For example, this is so in the case of the export of products or components from CR and also their import into the Czech Republic. These prices can be compared to real costs, including the profit rate, lower for export and higher for import. It is also possible that the product is made by a trading company outside the Czech Republic and so the majority of profit is deducted, etc. There are many possibilities for shifting profit elsewhere. The reason is mainly in the redistribution processes in these concerns, the aim of which is the tax optimisation within the group (political factors are not excluded).[32]

Thus expressed, the productivity level also includes subjective factors such as 'unequal' product pricing. Its consequences have a marked impact on manufacturers today. In the case of lower technical parameters and product quality, even this impact is "rounded off" in many cases in the concern where it acts.

In summary, all these factors result in a lower selling price and, from the national economic view point, result in lower contribution to GNP and finally also in low productivity. However, in fact this selling price is at least 20– 25 % lower than the price of similar products of the competition and, in many cases, much lower.

The aforementioned finding that the backwardness of productivity level of less advanced countries – and especially the Czech Republic – is decisively caused by the backwardness of prices reached, was indirectly confirmed by the STEM research in 205 selected companies, among which 74 companies with export superiority. This research estimated the productivity level to 72 % of Germany and Austria and the rate of backward prices also reached 75 %.[33]

Evaluating the productivity and its relationship to wage level, we should not forget one important factor i.e. the long-term low setting of the exchange rate of the crown, or, in other

[32]Two-thirds of global business participates in in-house deliveries of multinational companies and deliveries from agreements on co-operation. (Collective, 2001, Social and economic impacts of the integration of the Czech Republic into the European Union, RASES, 2001).

[33] "Non-price redistribution of added value" functions similarly for similar reasons. It has the same influence on the shown productivity in the Czech Republic as price redistribution has. It is an outflow of the added value between companies i.e. from a daughter company in the Czech Republic to its mother abroad, or another daughter company using intercompany loans, expensive advisory services and many another channels. The reason is mainly tax optimisation of the whole group (profit is transferred mainly where there is a tax shield i.e. where no taxes are paid).

[34] This research was done in relation to the elaborated study "Social and economic impacts of the integration of the Czech Republic into the EU from 2001", followed by other research (Sofres Factum) in 2002 which was elaborated for another study: "Social and economic connections of the integration of the Czech Republic into the EU". According to our information, these were the last official researches within the company sphere on this very serious topic.

words, the difference between the official exchange rate and the purchasing power parity of the crown. Its undervaluation is not only the consequence of price discounts, but also their cause.

Typical evidence of this influence, for example, is the Czech form of transformation and also the recent steps of CNB leading to the devaluation of the Czech currency. Such devaluation could mean an actual enforcement of competitiveness of some companies using price dumping on the market (companies which are out of international company nets and unassigned to long-term agreements), but mainly a massive redistribution of the GNP of the Czech Republic.[34]

Let us illustrate this problem in the case of the Czech Republic. The real exchange rate of the Czech crown measured by comparison with the total price level (GNP deflator) was approx. 17.20 CZK per EURO in 2014. This indicator shows that, without appropriate substitution, in 2014 with the export of each EURO received, goods to the value of 10 crowns and 30 haler were given almost free of charge abroad (difference between 27.53 CZK official rate and 17.20 CZK for the real rate of the crown).

This rate channel means a marked redistribution of financial means out of the Czech Republic. We can accurately illustrate this type of redistribution by an example of the crown exchange rate devaluation in 2013. For clarity, we specify the effect the weakening rate had on the export side. For the expression of pure effect of the devaluation (implemented at the beginning of November 2013), we compare the years of 2012 and 2014.

In 2012, the total export amounted to 3 072.6 billion crowns, with the average rate of the crown to EURO of 25.14 CZK. This amounted to 122.2 billion EURO. In 2014, the total export amounted to 3 616.6 billion crowns. With the average rate of the crown to EURO of 27.53 CZK/EURO, it amounted to 131.4 billion EURO. The increase of export by 9.2 bil. EURO corresponds to an export increase of 544 billion crowns. CZK (1/3 of increase was covered by a price increase and 2/3 by a volume of goods increase). So, for an increase of export in EURO by 1 EURO, we pay 56.1 CZK. If the rate in 2012 had been the same as it was in 2014, we would have exported abroad with the same collection in EURO more goods with a value of 291 billion CZK. It is a paradox, taking into account that the active balance in foreign trade increased – from 305 billion CZK in 2012 to 441 billion CZK in 2014.

The 2013 devaluation of the crown caused one more key problem. The official aim of it was to move the domestic price level, which according to the Central Bank aimed at deflation, and bring back the price move in the hope that the price stagnation would be broken on the domestic market, prices would increase and the economy receive the necessary impulse to speed up growth.

Such consideration has a certain logic. Its fulfilment requires a 'collaboration' of foreign markets to the effect that the price development will be in compliance with the price development on the domestic market. This did not happen in our case and foreign markets continued price decreases mainly of raw materials and energies. This caused the import for devalued crowns leading to some price increases. However, with a simultaneous decrease of purchase prices on foreign markets, it was not possible to receive an inflation impulse for the

[35] We should not forget that exporters who, thanks to devaluation, could markedly decrease prices, could not do so at the moment when devaluation reached costs, to return prices back to the starting level. This is the reason this method has disastrous consequences, because it produces pressure on other devaluation after time. In the case of the devaluation of the Czech crown in 2013, the support of export was the primary aim. Its cause was the unsuccessful attempt to start inflation.

Czech domestic market. The price decline of main imported raw materials was higher and so compensated for the price increase caused by devaluation.[35]

The sphere of exports showed a similar development. Higher collection reached due to the devalued crown on one hand and actual stagnation and decrease of selling prices in foreign currency on the other hand. Therefore, there was a very limited or almost zero effect. The effort by our internal tool 'defeated' development on the global market and is shown as being totally ineffective and in fact naive.

A consideration that devaluation stimulates export copies to a large extent general textbook rules. In the contemporary economy, prices for exported products are set for longer periods and are fixed in principle (not endlessly flexible, as given in textbooks – also because the market is monopolised). An increase in the quantity of products on the foreign market is not possible, because the exact schedule of supplies is given, etc. Moreover, with the actual structure of goods of main export commodities, especially in component deliveries, the sale price of Czech suppliers is set by the exact calculation of costs, working time requirements, etc. on the purchaser's side. Foreign purchasers have the exact price calculation of delivered parts or components and do not allow any increase in it. Therefore, the idea is very questionable of a stimulation of exports within the larger scope by devaluation (sale of large volume of pieces, etc.).

The way out of the deadlock where this policy is now, is sought by the Central Bank by a stimulation of wages and increase in salaries. It is an effort to start a growth of cost and later price growth by pressure on wage growth. This effort will inevitably prove futile, due to the high share of export to compensate for an increase in local costs by a price increase on foreign markets. This is especially true under current conditions, because of an inclination of foreign markets towards a price decrease.

As shown above, prices on the inter-concern level are controlled totally independently from the price development on the local market – primarily according to concern needs – and prices for other deliveries are negotiated on the long term, and are fixed, or on the basis of mutually agreed rules of price formation.

Therefore, the pressure on a wage increase, although seen as desirable, is hardly acceptable on the company level because it will worsen the cost structure. And it is obvious that with the price structure on the company level, wage costs are one of the items a company can control. The majority of costs in company accounting – about two-thirds – is constituted by materials and purchased components, as well as depreciation. The company can not affect any of these items. Approximately another one-tenth is wage costs, with profit being a separate item. The actual situation of price decline on the foreign market and also on the domestic market, does not allow for the realisation to a great extent of a faster wage increase, as the authors of devaluation supposed.

Therefore the decision for devaluation with the aim of not increasing export, but to call up inflationary pressures, can be considered as irresponsible. With the actual balance of power on the market, its intention could only be realised under extraordinarily favourable conditions, especially in the external environment. To use sporting terminology, it was a chance bet.

[36] This effect can be well documented on the development of fuel prices, the prices of which relatively narrowly copy global oil prices and thus import prices. In 2013, the average price of diesel fuel was 35.85 CZK per litre on the Czech market; in 2014 it was 35.80 CZK/litre and in the first half of 2015 the price fell to 31.36 CZK/litre (linked with global price decline). Devaluation here – as one of the basic cost items of some type of services, etc. – did not have any influence on the price level of the direction the Central Bank monitored by devaluation.

In our opinion and following the line correlation between Czech wages with wages in advanced EU countries i.e. the rate of their backwardness, then the effect of the 2013 devaluation, in hindsight, had the opposite effect to that intended. This backwardness increased due to the devaluation (of course, when we mention wage level in the exchange rate).

The process of convergence of wage levels was halted for approx. 5 years. It will last as long as the wage and salary increases balance the decline of their level of currency (in rate) due to the devaluation of the crown, i.e. increase in the level of average wage by approx. 10 %.

Only after the wage level returns to the level before devaluation, can the process of its approximation to other countries begin. The rate of approximation will depend not only on the rate of wage growth in the Czech economy, but also on the rate of wage growth in other countries. Nevertheless, the rate of wage approximation will be sped up by the expected maintaining of the fixed rate of the crown to the EURO and the unavoidable strengthening of the rate of the crown to the EURO.

This was also the case before the devaluation and so it must be after the maintaining of the fixed rate, based also on the Central Bank intervention to maintain the rate. In the situation when the Czech economy generates a constantly increasing surplus of balance of trade in the amount of 13–15 billion EURO annually, it can not be expected that currency depreciation will not take place. This will have a positive influence on the convergence of Czech wages with advanced states.[36]

As mentioned in the Introduction, labour productivity in less advanced countries like the Czech Republic, is retrogressive, mainly by its involvement in the extremely low product prices reached, especially because of unequal pricing of products in relation to advanced countries. Therefore the path of price cost competitiveness, which is based on the devaluation under actual market conditions of advanced countries, is extremely expensive.

In the long-term horizon, this path widens the gap of stagnation of the prices reached – it motivates companies to the easier method of price dumping, rather than to an increase of the quality and complexity of their products.

[37] Regarding the date of the end of the present intervention for the devaluation of the Czech crown, such a date may not be too far off. The decline of prices has lasted for a long time and price levels of the majority of products are undoubtedly close to rock bottom and so are consumer prices as a whole. To reach it, prices will not decrease and unavoidably will rise in the next period. But even this should not be credited to the intervention of the Central Bank, because the impulse towards such a price move can be, and probably will be, price movement on the global market. So the present regime of rate intervention is so much more independent of the Czech Central Bank's activities. Not to mention its lack of sense.

III. Final Reflections on the Economic Strategy of the Czech Republic

The existing progress of the Czech Republic clearly shows that the long-term strategy of the country can not be based on price (cost) competitiveness – low wages, low rate of Labour Law and social protection, low taxes and low crown exchange rate (even price competitiveness can be replaced step by step).

The very cheap workforce limits not only the replacement of a life career with the objectification of work, but mainly forms the long-term structure of an economy towards the strengthening of production based on cheap labour and thus low qualifications, and leads finally to technical and technological backwardness.

Price competition, based on low wages and labour costs, increases economic inefficiency because it supports the outdated structure of production. By increasing the level of undervaluation of the wages of their employees, companies avoid radical measures like structural reconstruction of manufacture, reorganisation of company management and replacement of old management by modern technology.

The strategy of low wages (in the environment where the competition uses the processes of product development), the aim of which is to keep profitability of still outdated equipment and production lines, only provides temporary relief. It is important to highlight that there exists the lower limit of wages and labour costs on every labour market. On the contrary, on the long-term horizon, a limit for the decrease of costs as the effect of technical improvements is extremely low.

If companies invest insufficiently in new technology, they can gradually reach the state that their product is so old that it can not be sold at any price. In such an environment, companies and the economy move in a downward spiral, follow increasingly short-term targets, with their survival increasingly dependent on cost reduction. The result is the transfer of structure to low sophisticated production of the assembly type (among others, reacting very fast to a boom development or change of external conditions).

It is obvious that this direction of the Czech economy, driven by its own inertia, can not change by itself. Therefore it is important to return to a discussion on the real economy and on resources and opportunities for strengthening long-term competitiveness. Only on the basis of clarification of the next process, or (in other words) the determination of priorities and aims, can the date for the adoption of the EURO be stated. Manipulation of the exchange rate could be a limited aid to the real economy and only for a limited time. In no case can the principal restructuring measures in the real economy be replaced.

The Czech economy must demonstrate its viability and competitiveness without exchange rate assistance and then can the adoption of the EURO be considered. According to the ČMKOS, this is a lesson from the last 25 years of the economic development of the Czech Republic and it is the only possible way to a failure-free adoption of the EURO.

Whether we realise it or not, the Czech Republic today stands before the choice of whether to continue and further the policy of cheap labour: cheap rate of the crown, low wage policy, low social standards and low taxes, or to set out on the road to modern progress.

Naturally, based on these facts, we can ask whether it is realistic today to change in principle the enforcing direction of economic policy, whether actually to consider some economic strategy in a situation when the "cards are dealt", when the Czech economy is profiled and maybe is still increasingly being profiled as the reserve economic space of the German economy. Which is the correct way to reach, in the current situation of the landless and in many cases right destructive privatisation, the cutting edge in some modern and developed sectors and branches? The cutting edge is where it is possible to obtain equal prices and high labour productivity.

The answer to this question is definitely unclear, because it is not obvious if such a turn in the economic policy in the Czech Republic can be managed. But we well know after 25 years' experience what will happen if we continue on the same route of a cheap labour policy. It is the route of technological backwardness and a downward spiral to lower processing stages, with a lower added value, lower valuation, lower productivity and, of course, lower wages too. It is the way of locking the Czech Republic into the trap of poverty.

In 2012, when the ČMKOS elaborated its Vision for the Czech Republic – as a first step to undertake before all concrete considerations on the real economic draft – it was considered as crucial to form measures leading to an alignment of the economic environment and its greater transparency.

Therefore, the battle against corruption as a fundamental measure must precede any further measures. Since publication of this Vision, several years later, it can still not be claimed that corruption is rooted out of our society. It is still present – maybe in other forms, but its influence on public life is too strong.

Actually, corruption is, in fact, the tip of the iceberg, one of the tentacles of the multilevel system which has different names — most frequently the shadow economy. Part of the "fight against the corruption" should be the intensive combatting of organised crime, tax avoidance, money laundering, illicit work i.e. to fight negative socioeconomic phenomena. Without this measure completed as the first of all measures in the economic and social spheres, the efficiency and effectiveness of the adopted measures of economic policy can not be guaranteed.

Negative phenomena have increased so widely in the Czech economy that they undermine the functioning of market principles, rules of equality and, in some instances, also the decisions of market subjects. Massive tax evasion erodes the integrity of the tax system, outflow of means from the official into an unofficial economy destroys the state economy, mainly the financial system. Under such conditions, it is difficult to reach and maintain macroeconomic stability.

Creeping corruption, increase of tax evasion, general theft, increasing new corruption scandals which reach the highest floors of policy, neglect of agreements — all these distort stability, effectiveness and mainly the credibility of institutions, the legal system and the entire social system.

Obvious changes which have an almost irreversible character are implemented into the formal and informal structure of the social relations of Czech society. After their institutionalisation after lobbing of different groups, they become a part of the daily lives of citizens and companies. This naturally destroys the basic pillars of the functioning of the state and the democratic system. The increase of corruption, as one of the most remarkable displays

of the shadow economy, discourages the entry of foreign capital and attracts the financial means (and involvement) of mafias and criminal organisations. As a consequence, the markets are deformed and overall efficiency is reduced. Apart from the war against corruption, it is absolutely necessary to work out and link with this document a plan for the war against tax evasion, money laundering, illicit work and other negative economic phenomena.

Even if the present government adopts some measures to suppress corruption, these are only proposals which have not been approved by law. In some cases, these are measures which do not function, are abridged and with a smaller impact than needed. There is also an obvious tendency – which is alarming – of some part of the present political spectrum to avoid these measures or to reduce them to a form which is not too effective. Therefore the urgency of the fight against corruption is the same as years ago.

Measures to elevate the Czech economy to higher performance, which would change the existing character of the economy with low added value, with low wages and thus lower living standards, can be formulated only in general outlines – except for the above-mentioned.

We regard it as very important that the Czech economy and also the Czech Republic as a whole, do not have or are not realising any major projects. Such projects must be realised regardless of the type of government or political coalition which is governing, whether right or left wing. Such projects should include the accelerated completion of the construction of the highway network. But this is not a project to advance the performance of the economy– and it is a project which could demonstrate the inability to be realised or completed.

Another such project should be the network of a high-velocity railway, securing the connection between our main centres with the European system of rapid rail transport — this time also in connection with deliveries of necessary technology by local manufacturers. Another project should also be the increase of self-sufficiency of Czech agriculture with regard to future international development. There is also the project of economical water saving under conditions of the expected climate change, for which we need to be ready, etc. These kind of projects need to be seriously discussed and introduced to expert commissions.

In this respect, the higher utilisation of the capacities of the relatively educated and qualified Czech workforce, allowing for the orientation towards non-price (qualitative) competitive advantage, is one of the possible directions of reflection on the future of the expected Czech economic change for which we need to be ready. These kind of projects need to be seriously discussed and introduced to expert commissions.

In this respect, one of the possible direction reflections on the future of the Czech economy is the higher utilisation of capacities of the relatively educated and qualified workforce in the Czech Republic, which allows for the orientation towards non-price (qualitative) competitive advantages. In contrast to some present considerations which rely on the creation of workplaces with state support, requiring less qualified workers (therefore with low under-average wages) and which unavoidably attract a workforce mainly from abroad, this is a move to activities with higher added value. These activities should focus on the production of more sophisticated products, on technologically complicated segments of the production chain, on removal of discounts for "goods from the East", on an engagement in international sales networks, etc. These qualitative factors can improve targeted foreign and domestic prices and thereby also national economic labour productivity, without increasing the 'physical' or 'natural' productivity.

Human capital and technological progress in economic growth are decided on the long-term horizon. The competitiveness of the economy depends on the promotion of

innovations in Research and Development, the education and qualification of the workforce, investment in the restructuring and modernisation of production capacities within the adoption of new technology.

Which expectations exist here for the development of the key growth factor – human capital? The past century brought about a certain level of civilisation, besides other impressive developments in the technical abilities and engineering skill of local labour forces. To this day, this is shown, for example, in the speed of expectations of technical qualitative parameters of production, which surprises foreign investors. According to some comparisons, it is evident that what takes years in some branches, our engineers and technicians are able to adapt within months. There is the spin-off!

The problem is that the innovative capacity was severely weakened at the time when the country lost contact with the advanced world for half a century. Some priorities which previously existed in human capital were partly lost. After centuries of accumulated tradition, this does not disappear instantly. There is still time to recommence, through massive investments in the wide-ranging abilities of the country, to allow for the more rapid transfer of new technologies from abroad.

To close the gap on the economic level it is necessary to close the technological gap at the same time. Persistence in the position of a "low cost economy" could result in being stuck in the poverty trap – the "low-growth trap".

During the transition to the market economy, attention was focused on the realisation of systemic and institutional changes. The certain delay of these changes at the beginning of transformation is generally perceived as the main cause of the slower economic growth in the Czech Republic. The previously selected type of privatisation also led to an extensive distortion of motivation, because it tended rather to stimulate property transfers and financial leverages than long-term development of newly acquired companies.

Continuation in systemic reforms and measures – forming a positive environment and motivation for entrepreneurs — still remains extremely important: an adequate tax burden, the mechanisms for company restructuring and bankruptcy, improvement of enforceable laws and combatting corruption, and the elimination of bureaucratic barriers. In addition, there is the need for the fundamental reform of public finances to assure the fiscal consolidation and tenability of the financing of pension and health systems. Overcoming regression in the quality of the institutional environment is one crucial assumption in the acceleration of economic growth.

However, this is the right time to pay greater attention to the development of long-term growth factors. Practical steps towards the development of the innovative capacity and technologically attractive abilities are related to a wide sphere of activities. They concern investment in knowledge and the adaptability of the human factor (lifelong learning, increase of the proportion of tertiary education, general computer literacy, language training). In addition, practical steps include the improvement of the transfer of research findings into economic practice, the release of the access to risk capital and generally professional and territorial mobility on the labour market.

Suggestions also include surmounting the separation of universities and technical universities from the entrepreneurial sphere and the consolidation of former traditionally developed technical and apprentice education. Discussions have been ongoing for many years about the necessity of consolidation of technical education, consolidation of apprentice education, development of technical professions, etc. Here too is the opportunity finally to do something real to resource school-leavers for technical professions for the benefit of the

Czech economy. This could also be one of the projects to secure future conditions for the Czech economy.

Expenditure on Human Resources in 2011

Country	Public expenditure on education in % GNP
EU 28	5.25
Germany	4.98
Finland	6.76
USA	5.13
Slovenia	5.68
Poland	4.94
Hungary	4.71
CR	4.51
Slovakia	4.06

Source: Eurostat, Structural Indicators, June 2004

Gross Domestic Expenditure on Research and Development in 2012

Country	Total in % GNP	Financed by companies from that (% GNP)
EU 28	2.01	1.10
Germany	2.88	1.90
Finland	3.43	2.16
USA	2.79	1.66
Japan*	3.38	2.59
Czech Republic	1.79	0.65
Hungary	1.27	0.60
Poland	0.89	0.29
Slovakia	0.81	0.31
Slovenia	2.58	1.60

|Source OG, International comparison of indicators R&D,
*) year 2011

Expenditure on Human Resources — defined as public expenditure on education related to the economic level — in the Czech Republic is under the European average level and also under the average of new CEE member states.[37] Total expenditure on Research and Development in the Czech Republic is above the level of new member states, but markedly under the EU average level. Participation by the entrepreneurial sphere in these costs is especially low.

[38] The Czech Republic has the fifth lowest public expenditure on education among the new CEE member states. Only Croatia, Slovakia, Bulgaria and Romania have lower expenditure in Europe.

Investment in the modernisation and restructuring of productive capital should be directed towards more sophisticated manufacture and services with higher added value, towards technologically more demanding segments of the production chain and the use of a qualified workforce. There should be a greater proportion of expenditure on Research and Development. For that purpose, measures should serve in the tax sphere and in the restructuring of expenditure of public budgets, together with a review of the investment incentive system. Tax relief should concern both amortisation and investment reliefs, which are much better incentives for investment than lower tax rates, as well as expenditure on Science, Research and Development support. Investment incentives should be directed towards more sophisticated manufacture and services and towards the expansion of component production in small and middle-sized companies collaborating with big investors.

It is surprising that in the Czech manufacturing industry, the intensity of Research and Development in companies under foreign control is much less than in local companies. For example, in 2013, the proportion of expenditure on Research and Development from the gross value added amounted to 4.8 % of foreign investments, while it was 8.58 % in national companies. Foreign investors are mainly orientated towards a cheap workforce and their companies are in the major part only "assembly companies" (see especially the production of electronic and optical devices). Even in the automotive industry, which is markedly above average, expenditure of foreign affiliates on Research and Development related to gross value added was in these average figures. However, we must admit that the situation has improved during recent years. This shows that it is necessary in principle to reorient investment incentives in this sphere, so that the proportion of domestic added value increases in manufacture and services.

Current evidence shows these facts indirectly, as well as the fact that the Czech economy is profiled as a subcontractor economy, without its own higher finalising capacity. In the past few years, research centres were built, intended to provide their findings to Czech industry, by the utilisation of EU grants for the total of tens of thousands of million crowns. Practical experience of their operation, even in the short term, shows that they are not able to work independently and have so far not been able to function without other state allocations towards their operation.

These centres are not receiving orders in the expected volume from industrial companies for their problem solution. Alternatively, there is no interest in the practical realisation of outputs from these centres. The main cause of this situation is considered as the fact that big multinational companies, which have their production capacities in the Czech Republic, have their research centres abroad and therefore do not need Czech facilities. Local companies – which could eventually be interested in the output of these centres – do not have adequate financial resources. Moreover, (what is really fundamental) they do not need output from these centres because they function as subcontractors to foreign concerns and obtain the relevant assignment or production documentation from their customers.

Under such conditions, it can not be expected that the position of the Czech economy is able to be transformed or that more rapid rapprochement of its economic level to EU advanced countries could take place.

It is obvious that certain beginnings exist of an actual curve change in the Czech economic progress. A real turnaround in economic strategy requires not only an adequate concept but also a change of attitude of citizens and entrepreneurs. The Czech Republic can gain a lot from this process, if it learns from "the best practice" and if it succeeds in stimulating its own innovative abilities. Its position in the community of countries in the

European Union could start to improve markedly and better correspond to historically given assumptions as well.

Currently, the Czech economy is recording rapid economic growth and this leads to the creation of additional new workplaces. It is estimated that the number of free workplaces has increased to more than 100 000 and is 50 % higher than in 2014. Technical professions are most often required by manufacture, as well as drivers, healthcare professionals, etc. Since the shortage in these workforces is not possible to be filled by domestic sources, proposals have been submitted for the 'import' of these workforces, partly from neighbouring non-EU countries, or from more distant countries on other continents.

It can be understood that such proposals may be submitted in the case of a short-term bridging of the shortage in the workforce, mainly in the manufacturing and service industries. Linked to this idea is the consideration that, after surmounting the shortage of workforce, it will be possible to return these workers to their former countries.

In our opinion, submitting these proposals as conceptual i.e. a long-term solution is more likely proof that the Czech economy, or (in other words) the companies operating here, want to continue the actual trend of their progress — a reliance on cheap workforces and in that way to realise their comparative advantage.

It is difficult to justify such an approach in the long term and it will unavoidably lead to the preservation of the existing economic structure. It is known from economic history that where a shortage of qualified workforces has been shown, successful economies have resorted to replacing human labour by technology. So machines were introduced. Modern findings included labour organisation in production and thereby labour productivity — in short, the total product manufactured — was multiplied. To employ one extra person to work in the existing manufacture can not be as effective as when a new solution is adopted, a new technology which often results in greatly multiplied productivity.

However, this would naturally entail another route — one which is totally different from that which some representatives of the Czech industry and business are trying to propose and afterwards asking for its support from the government in the form of some incentives, etc. This is undoubtedly the route to counteract efforts to eliminate the differences in the standard of wages between the Czech economy and EU advanced countries.

ČMKOS

Czech-Moravian Confederation of Trade Unions, 2015