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CZECH REPUBLIC
THE SHAPE WE'RE IN

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Jatka 78 (Jateční 1530/33, Prague 7 – Holešovice)

ECONOMIC POTENTIAL

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Oldřich Bajer, Tomáš Víšek

The Czech economy is currently the fastest growing in Europe. The annual growth rate in the second quarter of 2015 reached 4.6 %, the best result since 2007. Czech exports have been growing continuously: they no less than tripled between the years 2003 and 2014. Should we be satisfied with these figures? Do they express the real competitive standing of the Czech economy?

The answer to both questions is 'No'. The overall performance of the economy is far from stellar. Would you believe that over the last 10 years we have not made up any ground on Germany, Finland or the Netherlands? Or that Poland and Slovakia have grown faster and Estonia overtook us outright? In many ways, the past 10 years can be considered a lost decade with almost zero productivity growth. Those are the facts.

The Czech economy grew by only 4 % per year (measured by purchasing power parity) in the 2003 – 2013 period compared to 7.0 % in Poland, or 6.6 % in Slovakia. In terms of per capita GDP, today's Czech Republic lags behind Estonia, despite a head start of 47%. So, the much repeated claim that we are the richest among post-Communist countries no longer applies. Thanks to reforms at the turn of the century, even significantly wealthier Germany has grown faster than the Czech Republic over the last 10 years.

If someone had predicted anything of the kind in 1993, would you have believed them? There are several reasons why the Czech Republic's economic growth, particularly over the last decade, has been unsatisfactory. During the last 10 years, our investment level per full-time employee has been about half that of Germany, Ireland or the Netherlands. Labor productivity in the Czech Republic has been stagnant since 2007, while in the other economies of Central and Eastern Europe it has grown by some 2 – 3 % each year.

What is to be done to put us back on a path of long-term growth? In order to maintain objectivity while looking for answers, and to draw on well-founded data, we went through a series of competitiveness reports (World Economic Forum, IMD, World Bank, OECD,...) and looked at the strategies of those countries that have been very successful in recent decades.

As for growth factors, we first selected 11 topics relevant to the Czech Republic. After analysis and quantification of their impact on the Czech Republic's GDP, we focused on the most important ones, and grouped them into three categories:

- Long-neglected "homework", which needs to be addressed at last:
    1. Remedying the institutional environment.
    2. Improving the outcomes of education.
    3. Ensuring labor market competitiveness in relation to other Central and Eastern European countries.
- Creating a strong "vision for the future" based on:
    1. Entrepreneurship, innovation and technology.
    2. A far more "urbanized" population – with people living in or commuting to centers of business and life.
    3. Mobilization of sources of domestic and foreign investment.
- Focusing on burgeoning high-productivity sectors, i.e. the already very successful sectors of manufacturing and IT, engineering services, consulting, pharmacy and FMCG.

Let us now take a look at each of these areas. First, we will focus on each of the "homework" tasks, then on our "vision for the future", and finally on the sectors that merit being at the center of our attention as we move toward a highly productive economy.

* Analytical support provided by McKinsey & Company

WELL-KNOWN HOMEWORK TASKS

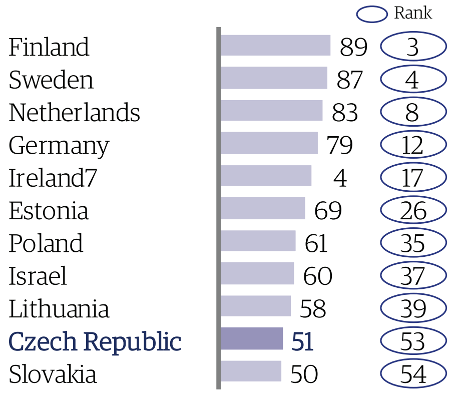
Homework task no. 1:

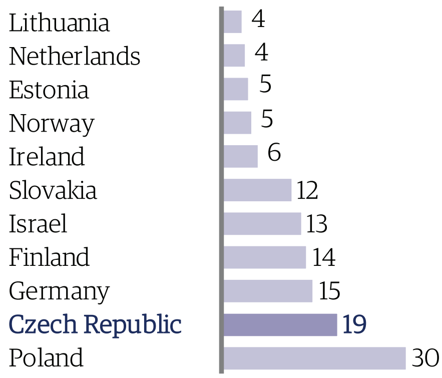
To improve the institutional environment: *The Czech Republic lags behind in many aspects of the institutional environment. No matter whether we consider the quality and stability of the regulatory environment, level of corruption, efficiency of institutions, or administrative burden on doing business, the comparison with other countries is unflattering.*

Figure 1a: Corruption perceptions index
Index value

Figure 1b: Time to start a business
Days

Source: Transparency International, World Bank - Doing Business





For example, according to a Transparency International study on perceived corruption (Figure 1a), the Czech Republic ranked 53rd; out of the peer group only Slovakia fared worse. According to the Ease of Doing Business analysis, it takes 19 days to start a company in the Czech Republic, almost five times longer than in Lithuania (Figure 1b). The Czech Republic also has room for improvement in the area of state regulation, where it takes 120th place, way behind successful Estonia (23rd place) and Lithuania (103rd place). Last but not least, one of the most important decision-making factors for investors in choosing a country to invest in is the reliability of the legal system in resolving disputes. Here the Czech Republic comes 90th, far behind Estonia (39th) and Lithuania (67th).[1]

Inefficiency of the legal and regulatory system is indicated by other metrics. According to a CERGE-EI analysis, the number of words in the Income Tax Act quadrupled between 1995 and 2005, and the number of sentences with the phrase "with the exception of" in the Act doubled.

What can we improve and how is it done elsewhere?

Success is an option even in the post-Communist sphere. This is clearly exemplified by the Baltic countries, where Lithuania and Estonia have taken the following steps:

- Digitizing major public services (e.g. changing permanent address, issuing documents, company formation).
- Shortening the company formation process to 4 days (Lithuania), and replacing today's system of "authorization" with a simple "declaration" process.
- Improving financial efficiency of institutions, by means of e.g.:
  - » Publication of all public contract documentation.
  - » Separating decision-making on state-owned non-strategic enterprises from political decisions, and making it compliant with the best practices of the private sector.
- Stabilizing the judicial system with faster decision making, and ideally including a fast-track appellate procedure.

1 World Economic Forum, competitiveness index 2006 – 2015

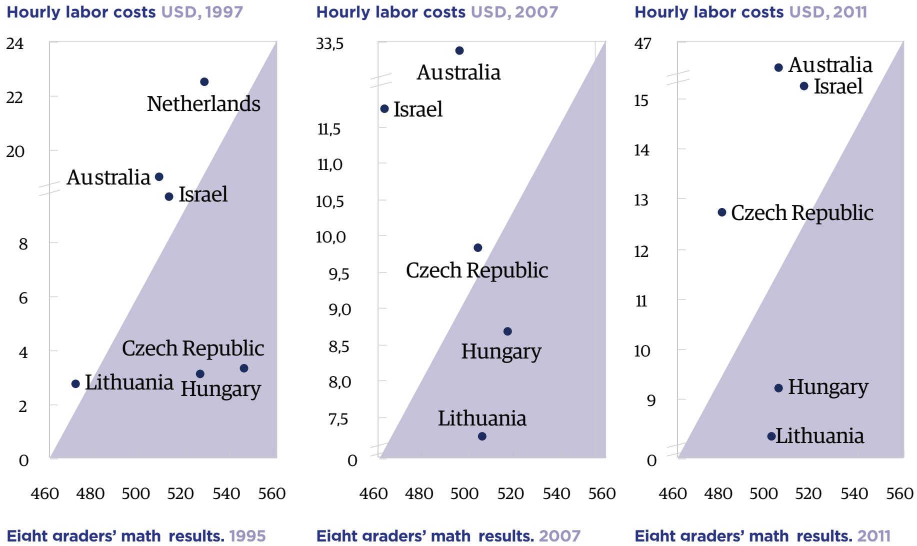
Homework task no. 2:

Improving education: *Over the last 20 years the Czech Republic has achieved partial success. The proportion of students in tertiary education has risen to the standard level of other EU countries, even if quality remains open to question. The eighth grade pupils of elementary schools are also showing the best computer skills in their category. Yet the same survey demonstrates that this corresponds to the amount of time spent on computer at home.*

A number of problems remain to be resolved. The quality of education has dropped, as is apparent from a comparison of mathematics results among eighth graders (Figure 2). Also notably absent are certain basic language capabilities. Although many students pass foreign language tests, the percentage of those able to communicate in a foreign language fluently is dramatically low – 27%, as compared with, e.g. 90% in the Netherlands. Shocking! Cooperation between businesses and schools is very limited. Our parents could make use of what they learned at school over their lifetime. Those days are over.

Figure 2: Eight graders' math results related to labor costs

Source: TIMSS, EIU, McKinsey analysis



What can we improve and how is it done elsewhere?

Regarding the future of Czech education, fundamental expert discussions are underway. Some measures can, however, be introduced without changing the overall concept. These include:

- Resetting expectations about knowledge of foreign languages. We might, for example, raise the number of compulsory hours of foreign language study at entry-level schools from the current roughly three per week to five or more per week, as has been done in Poland, and later on, ideally teach some subjects directly in a foreign language. We could also allow foreign language learning to go on beyond the classroom by increasing the proportion of un-dubbed programs by bringing the television broadcasting regulation closer to the Scandinavian model. The new definition of literacy should be "to be able to read, write and talk fluently in a foreign language".
- Cooperation between educational institutions and industry should increase substantially, to allow for flexible response to changing economic needs, and to strengthen adult education.

Additional improvement levers to follow up with include:

- Regular and frequent exchange of best practice (e.g. sample hours, weekly teaching plans, appointing individual coaches for each school and coaching teachers, such as in the Boston school system in the USA).

- Improving quality through effectual and quality-focused school principals.
- Making structural changes, whose importance is exemplified by Poland. The country has greatly reformed the system of elementary and secondary schools. This change has led to an objectively significant improvement. Specifically, Poland shortened elementary schooling from 9 to 5 years and established a mandatory follow-up 4-5-year grammar school program. Only after completing this can the student decide whether to go on to an apprenticeship or to academic education.

Homework task no. 3:

Ensure the competitiveness of the labor market in comparison with the other countries of Central and Eastern Europe: *The Czech labor market looks very positive at first glance. Unemployment has stayed at between 6 and 8% over the last 15 years, putting the country among the leaders in the EU.*

But a closer look shows a somewhat different story. The labor market does not include at all some 9% of the working-age population – in other words, nearly every tenth person is not working, by their own choice.

In addition, over the last 20 years the self-employed portion of the workforce has grown from 13 to 18% and the CR is today in this regard 1st among comparable countries. While this might be seen as clear evidence of the growth of entrepreneurship, there is much to show that this is either due to the so-called Švarcsystém or occasional part-time working. These people probably do not use their full potential nor developed their skills in a broader social context.

The picture is not too positive either when looking at immigration trends: 29% of immigrants have low education. This proportion is 11 percentage points higher than for the native CR population, which is the biggest discrepancy among the reference group of countries. Only 19% of immigrants have reached tertiary education – the lowest percentage among comparable European countries.

The CR also has a lower participation of women in the labor market than in most of the developed countries in Europe. Only some 56 % of Czech women are economically active – far less than in the Netherlands (69 %) or Norway (73 %). In view of the fact that the German economy has over the last 10 years (2003 – 2013) grown faster than the Czech one, the reform of the labor market in Germany at the beginning of the 21st century may serve as inspiration.

What can we improve and how is it done elsewhere?

Germany has simplified new job creation by:

- Introducing the possibility to renew open-ended work contracts with fixed-term ones.
- Creating systems of educational vouchers, which allow people to pay for training courses of their choice
- Introducing short-term and part-time employment schemes (i.e. "mini-jobs") with higher ceilings for tax and social contributions for employees to provide encouragement for recruitment and to reduce job protectionism.

Make unemployment and economic inactivity still less attractive by:

- Introducing tiered unemployment benefits, according to employability and previous contributions to the social security system.
- Making it obligatory to accept a "reasonable" job offer or provide a valid reason to reject it (and therefore shifting the burden of proof from social workers to the unemployed).

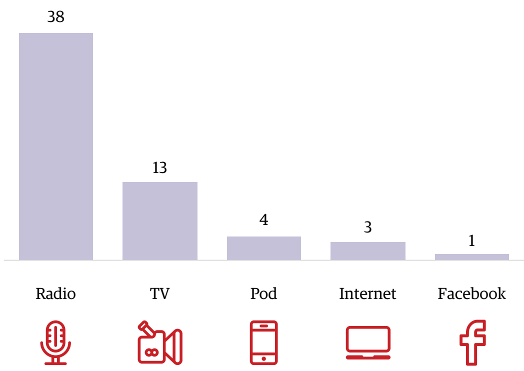
Vision for the future no. 1:

An economy founded on entrepreneurship, innovation and technology: *The last decade saw an unprecedented number of changes due to the growing speed with which new technologies emerged.*

The chart in Figure 3 shows how quickly lifestyles and the business environment can change. For example, the Uber concept moves taxi driving job from one group of people to another at night. If electric cars become widespread, this will mean major changes for makers of catalytic converters and gearboxes.

Figure 3: Years to reach 50 million users

Source: McKinsey Global Institute analysis



The good news is that Czechs are open to new technologies. They were the quickest of European nations to adopt mobile phones and contactless payment cards. Even more encouraging is the 1st place of Czech eighth graders in the International Computer and Information Literacy Study (ICILS 2013). There is room for improvement, nevertheless, and we should make use of it. In the Bloomberg innovation index, the country came 31st out of 50 countries studied, falling behind its neighbors, Germany (3rd), Austria (17th), and Poland (25th). In the Global Entrepreneurship Index, Czechs show several undesirable characteristics, in particular low tolerance to business risk, a negative view of entrepreneurs (as value creators), and a skeptical view of business opportunities.

A lack of ambition to be a world player is also probably a contributing factor to the fact that the Czech economy is a supplier economy. Yet the highest added value comes to those owning the brand, the technology and the business risk.

What can we improve and how is it done elsewhere?

At this time, when a whole generation separates us from the change of regime, we need to raise our aspirations and start comparing ourselves to countries like Finland, Denmark, South Korea, or the Netherlands, not just to our direct neighbors. Possible steps include:

- Ensuring the greatest possible entry of innovations and technologies into everyday life, as in the case of Estonia, where most public services have been digitized.
- Improving cooperation between the private sector and universities – including new mechanisms for allocating research funding and evaluating the results of scientific work.
- Promoting entrepreneurship as a positive, value creating part of the economy, both through financial incentives (low taxes, etc.), as well as through PR campaigns, recognition by state representatives, and media coverage of role models.
- Supporting the creation of innovative and technological clusters and incubators in order to foster the exchange of ideas and create a place where ideas and financing meet.
- Steering the young towards transferable skills and professions that build on technologies, rather than those that are replaceable with technologies.

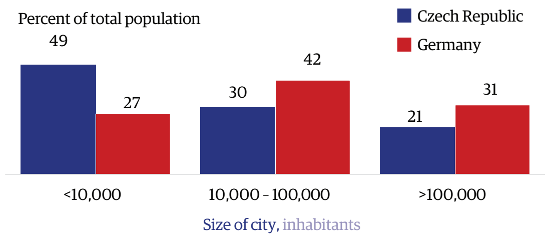
Vision for the future no. 2:

A more urbanized population – people living or willing to commute to the centers of business and life: *People living in larger urban areas generate more GDP than people in smaller (rural) areas. According to the American Bureau for Economic Analysis, areas with 200,000 and more inhabitants generate at least 37% higher GDP per capita than areas with 50,000 and fewer inhabitants. These differences are due to differences in the employment, educational and recreational opportunities.*

According to Eurostat, the Czech Republic is the second least urbanized country of the reference group[2] with only Slovakia being less urbanized. The GfK study (Figure 4) shows that 49 % of Czechs live in cities with fewer than 10,000 inhabitants, compared to only 27 % in Germany.

Figure 4: Urban population in cities by size

Source: GfK



A closer look at the Czech Republic shows significant differences in GDP between regions and employment levels. In Prague, 52 % of all citizens are employed (recalculated by hours worked), compared to only 36 % in the Ústí nad Labem region. Moreover, the average wage in Prague is about 62 % higher than in the Karlovy Vary region. Such differences either indicate significant economic potential in the low-productivity areas, or the need to motivate Czechs to travel more to work.

What can we improve and how is it done elsewhere?

The theme of urbanization is not just an economic issue. The solution should be a combination of people's willingness to travel to work and a greater population concentration in and around major urban centers. This may include e.g.:

- Incentivizing workers to move to higher-productivity areas (i.e. to growing regional cities) by facilitating easier-to-obtain accommodation for young people and supporting the creation of entry-level jobs in cities.
- Strengthening of cooperation and mutual support between local educational institutions and regional centers to ensure a quick response to regions' changing economic needs and to facilitate employment.
- Improving utilization of our high-density transport infrastructure for commuting to work.

For example, Finland has helped to develop regions by:

- Incentivizing cities to identify what they are best known for and good at, and thus to attract more inhabitants.
- Inviting all regional cities to create a clear plan for sustainable growth through the assimilation of smaller municipalities around them (following the example of the Finnish town of Kuopia at the beginning of the 21st century).

2 The reference group comprises Slovakia, the Netherlands, Estonia, Finland, Sweden, Germany, Poland and Ireland. An urbanized area is defined as an area with a minimum population density of 1,500 per square kilometer, and at least 50,000 inhabitants

Vision for the future no. 3:

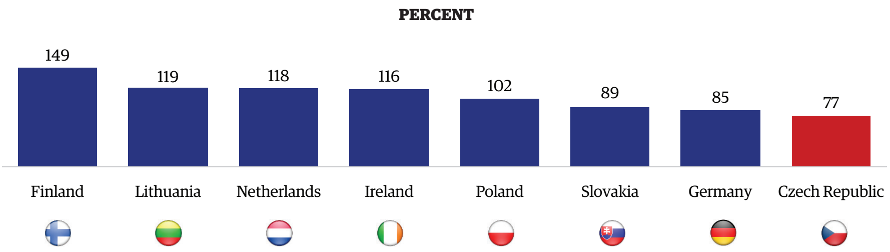
Mobilization of capital: *Labor is but one component of economic productivity; an analysis of Czech GDP shows that labor contributes around 40 %, while invested capital accounts for a whole 50 % (the rest being net taxes). In the last decade the Czech Republic has invested considerably less per full-time equivalent than Germany, the Netherlands and Finland. If the Czech Republic were to close the gap to these countries, it would have to invest an additional EUR 376 billion (CZK 10 trillion), or double its annual GDP.*

The required capital could come from foreign or domestic investors. Foreign direct investment (FDI) has decreased significantly since the beginning of the century. While it hovered around 7 % of GDP back then, it has barely exceeded 3 % since 2007. The situation is improving slightly: the CzechInvest agency announced an additional CZK 78 thousand million, which would raise FDI above 4 % of GDP in 2015.

Domestically, the situation looks completely different. As shown in Figure 5a, the Czech Republic has the lowest ratio of bank loans to deposits. On the one hand, these numbers illustrate the conservative approach of the Czech banking sector. On the other hand, they suggest low willingness of Czech companies to invest – the share of their loans to GDP is 20 %, which is the second lowest number in the reference group. All of this is further amplified by the country having one of the smallest capital markets in proportion to GDP.

Figure 5a: Bank loan-to-deposit ratio

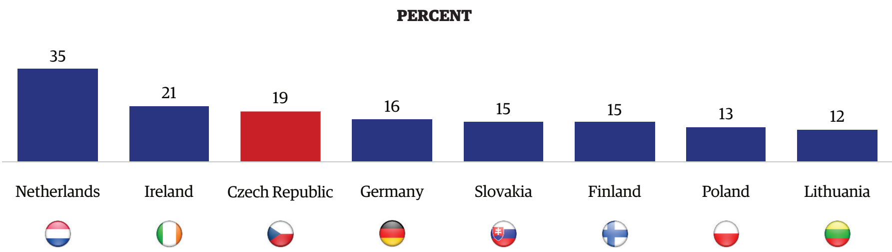
Source: ECB



Czech companies also hold a very high level of own funds, as shown by company deposits as a share of GDP in Figure 5b (19 % in the Czech Republic, the third highest in the reference group).

Figure 5b: Corporate loan-to-GDP ratio

Source: World Bank, IMF



What can we improve and how is it done elsewhere?

The first set of measures relates to FDI. This could include:

- Further strengthening of CzechInvest as the agency responsible for attracting investment to the Czech Republic.
- Greater involvement of other state institutions (including municipalities) in this task.

In terms of mobilizing domestic resources, the Czech Republic is in a relatively distinctive position. Partly, this task comes back to entrepreneurship and the promotion of innovation. In any case, success will require a combination of regulatory and legal changes that need to result from debate involving Czech banks, their foreign owners, the Czech National Bank, and the Government. The recipe is not straightforward, but the objective is. The Czech banking sector must significantly strengthen its role as a facilitator.

WHERE WILL GROWTH COME FROM: THE MOST PRODUCTIVE AND EXPORTING SECTORS

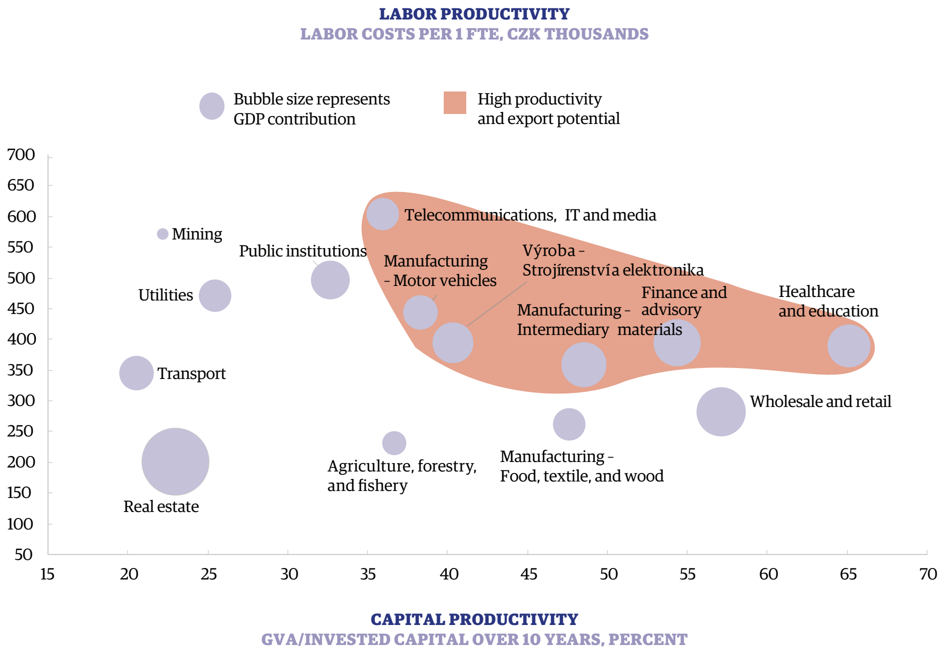
So far we have discussed the general principles that the Czech Republic should abide by in the short and long term. However, it is also key to be clear about which sectors create value for the country.

The Czech economy is export-oriented, with over two-thirds of export value generated by industry in general and two sectors in particular, namely mechanical engineering and electronics (28%), and motor vehicles (22%).

In terms of comparative labor and capital efficiency, good conditions for further growth are found in six sectors: health & education, financial and other consulting, telecommunications, IT and media, and three manufacturing sectors (engineering and electronics, motor vehicles, and production materials) – see Figure 6. Upon closer examination, the chemical, automotive, pharmaceutical and FMCG industries as well as IT and consulting stand out.

Figure 6: Productivity by sector

Source: ČSU, team analysis



The Czech Republic should thus focus on three areas of the economy:

- The three main manufacturing sectors, which make up the majority of Czech exports (engineering and electronics, motor vehicles, and production of materials).
- "Niche" sectors, which are today perhaps less significant in size but which have high productivity and equity (e.g. the pharmaceutical and FMCG industries).
- Sectors of the knowledge economy (IT, programming, engineering services, consultancy), which are export oriented and capital productive.

CONCLUSION AND NEXT STEPS

We see that in order to ensure good competitiveness we have to work on how our government and state apparatus function, as well as on education, entrepreneurship, where we work and how we treat capital. Perhaps the most important aspect is how we think about ourselves, our capabilities and the ambitions we set ourselves.

In its first year, we focused the Conference on topics which, based on our analysis, are of high priority, and ones we can start working on right away. For this reason we have not included some of the already widely debated and far-reaching themes, such as introducing the Euro, or the pension and health system reform.

It is hoped that this Conference will spawn a series of successful and regular meetings in the future. And perhaps our future seasons will, apart from opening up other topics, report on the progress we have made in our competitiveness.

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QUALITY OF LIFE

QUALITY OF LIFE

Michael Žantovský

We all want good quality of life, but no one knows exactly what that means. We can all agree that it is better to be healthy and wealthy than poor and ill, but answers as to whether it is better to be poor and healthy as opposed to rich and ill may vary. Money can't buy you happiness, but a cynic may add that happiness can't buy you money. Our satisfaction is also spread over time. Is a long life of value in itself, or would we swap it for a life shorter and more fulfilled?

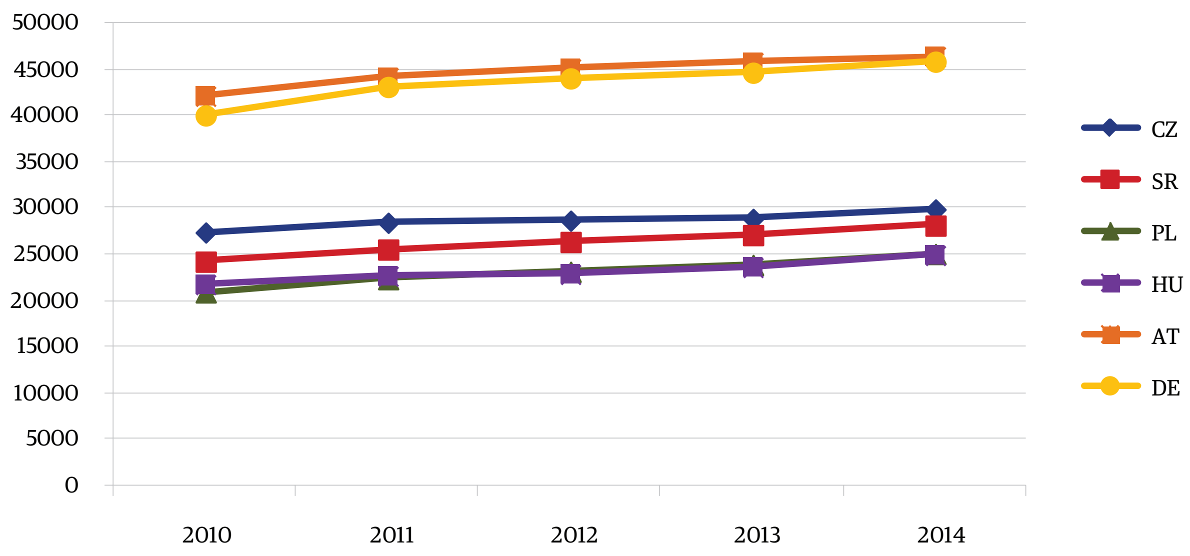
All these and many more questions come to mind when we start to think about something as difficult to pin down as quality of life. The term itself, originally based on medical studies of the chronically ill, is a compromise to replace emotionally charged concepts such as happiness, satisfaction or fulfillment.

Quality of life cannot be measured directly, but we can monitor its constituent parts. Thus, we measure e.g. health-related quality of life, when generating indicators such as *Quality Adjusted Life Year* (QALY). Overall quality of life is the product of multiple factors, especially when we try to capture it over time. Nevertheless, we might say that momentary satisfaction, that is quality of life at one point in time, often stems from a single feeling or percept, which overrides all other considerations. Looking at a beautiful picture, acute infatuation, being charmed by a sunbeam or the fragrance of a flower often brings an intense feeling of life fulfilled. Our reasoning cannot account for these moments, but we should not forget that they exist.

Having touched on the fleeting nature of overall quality of life, let us focus on those indicators that a number of studies[1] show to be closely related to the subjective degree of life satisfaction. Of course, among them we cannot overlook the satisfaction of material needs, which without exception positively correlates with life satisfaction. However, this relationship is not linear. A number of studies show that above a certain level, any additional income growth does not significantly contribute to the feeling of life satisfaction. This borderline, which in the US hovers around 50,000 USD per year, i.e. roughly 150% of median personal income, will of course vary with the standard of living in the given country.

Chart 1: GDP PPP trends in Central Europe 2010 – 2014 (USD)

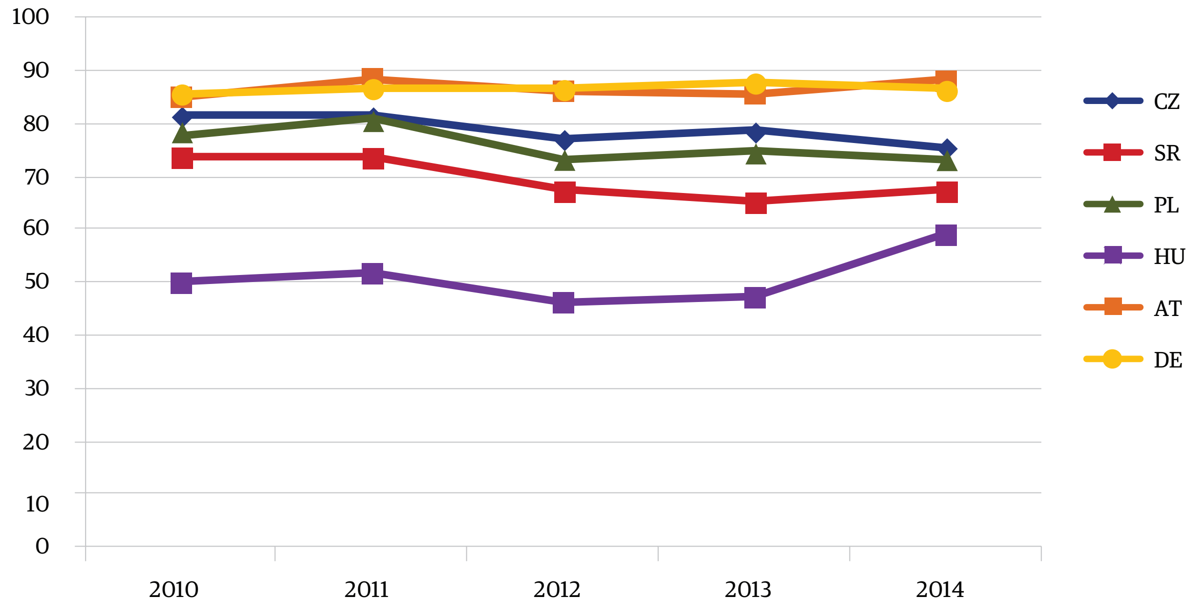
Source: World Economic Outlook Database, IMF



1 e.g. the Marist Institute of Public Opinion, Money Matters, April 2012

Chart 2: Trends in Satisfaction with life in Central Europe (%)

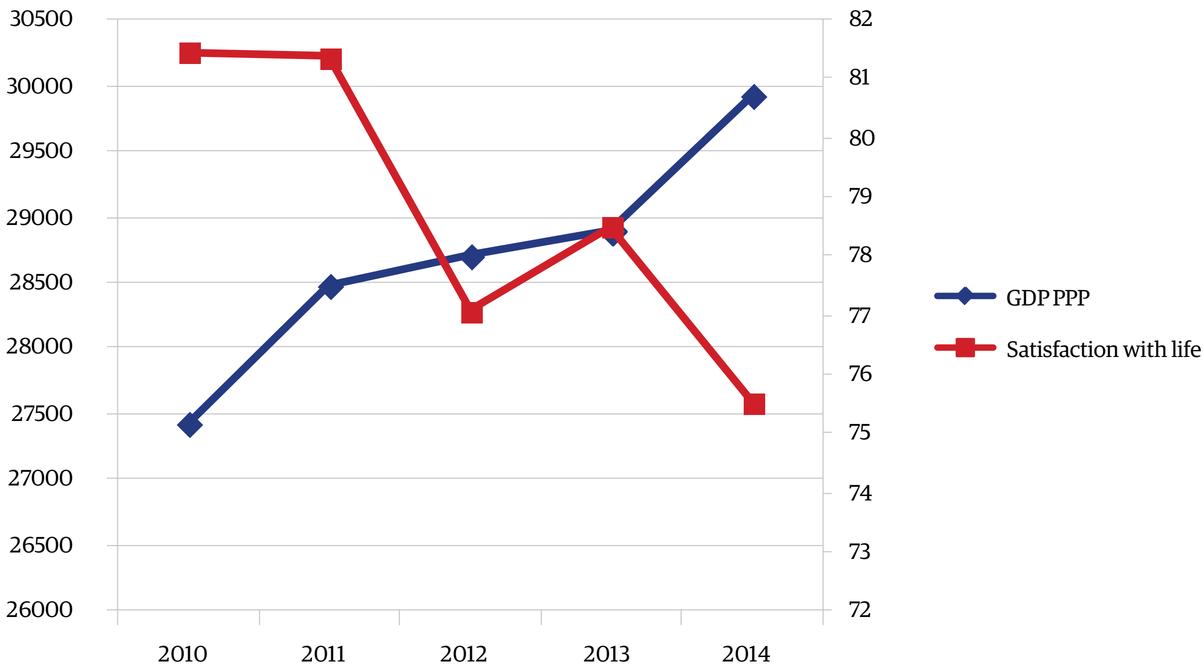
Source: Eurobarometer



In the Czech Republic the development of this relationship over the last five years has been almost paradoxical: While GDP per capita in terms of purchasing power parity (GDP PPP) is rising, life satisfaction is decreasing.

Chart 3: GDP PPP and satisfaction with life in the Czech Republic 2010 – 2014 (USD, %)

Source: IMF, Eurobarometer



The notion that wealthiest does not mean happiest is supported by the differing ranking of the "richest" and the "happiest" countries. Only Switzerland and Norway placed in both tables.

Tab. 1 Ranking of ten "happiest states" against their GDP PPP

Source: World Happiness Report (Gallup World Poll) and IMF

"Happiness"	GDP PPP
Switzerland	Qatar
Iceland	Luxembourg
Denmark	Singapore
Norway	Brunei
Canada	Kuwait
Finland	Norway
Netherlands	UAE
Sweden	San Marino
New Zealand	Switzerland
Australia	USA

Due to the above mentioned nonlinearity, we have chosen as our indicator of material quality of life not GDP, but **ability to meet basic living needs.** In this respect the Czech Republic belongs among the countries with the best quality of life. The Social Progress Index 2015 ranks it 11th, ahead of countries like New Zealand, France or the United States, and even Germany. A high degree of ability to meet basic living needs is also found in Slovakia (20th), a little less in Hungary (27th) and in Poland (34th) /Tab. 2/

Tab. 2: Meeting basic living needs – country ranking

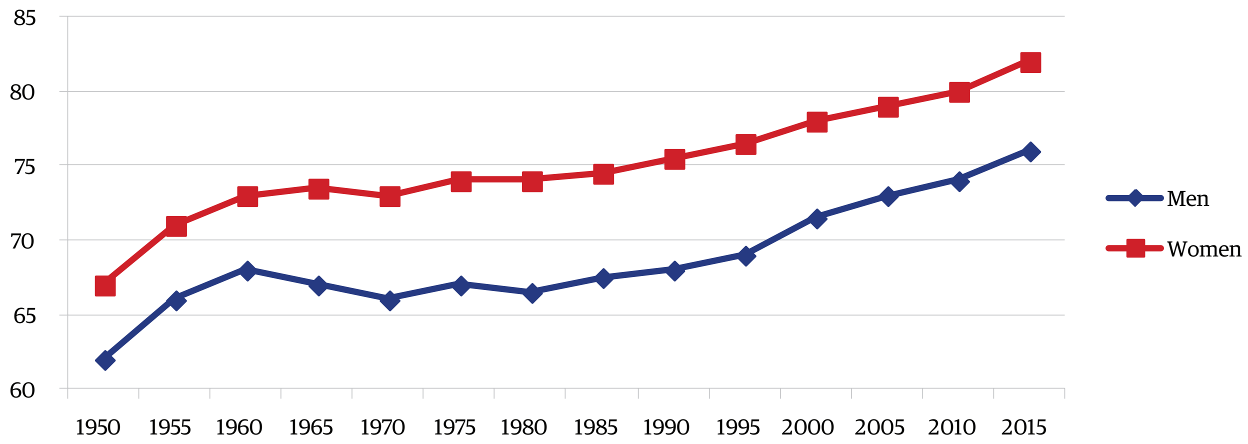
Source: Social Progress Index 2015

	2015	2015 – overall SPI ranking
Czech Republic	11	22
Slovakia	20	25
Poland	34	27
Hungary	27	32
Austria	4	13
Germany	12	14

Basic living conditions are another essential prerequisite for quality of life. In a series of studies, the label "Foundations of Well-being" reveals a somewhat incongruous conglomerate of indicators such as access to education, the quality of ambient air, health care etc. One might, however, have some doubts about whether e.g. access to information technologies, which is measured by the number of mobile phones per 1,000 inhabitants, is a good indicator of basic living conditions. At the expense of great simplification we can say that the lack or low level of fulfillment of basic living conditions adversely affects **life expectancy.** Therefore we have chosen life expectancy as a relatively objective and easily measurable indicator, a rough measure of meeting basic living conditions. The Czech Republic, with its life expectancy of a little below 78 years, holds 30th place in the world. One of the most potent responses to those nostalgic for the previous regime as an era of stability, caring for the individual and providing life's certainties is to look at a chart showing the stagnant or even declining life expectancy of men during the years of real socialism (1960 – 1989), and its upsurge over the last 25 years. Although life expectancy has been rising over the last quarter century in most parts of the world, in the Czech Republic and Central Europe it has grown significantly faster. While in 1990 the CR held 61st place in the longevity rankings, by 2013 it was already 42nd – highest among the V4 countries.

Chart 4: Life expectancy at birth in the CR, 1950 – 2014 (in years)

Source: Czech Statistical Office (https://www.czso.cz/csu/czso/nadeje_doziti_pri_narozeni_v_letech_1950_2014)



The finer grained view taken by some studies, which also follow the duration of reduced quality of life due to illness or shortened by premature death, the *Disability-Adjusted Life Year* (DALY), only confirms and clarifies this statement. Virtually all indicators, i.e. causes of illness or premature death, show an improvement in the period 1990 – 2013. The same is true for other V4 countries.

Opportunity and freedom

Life comes full of hope, a sense that things can be better than they are. On a personal level the basis for such hope is the sense of opportunity, stepping out into the future, beyond today. This might be a job opportunity, an opportunity for better earnings, better housing or better social status. Any society that provides such opportunities brings a better quality of life. There are many ways to measure opportunity, but perhaps the least contentious is to bring it down to the level of basic rights, such as freedom of expression, freedom of association, freedom of movement and economic freedoms, which are the freedoms one needs to capitalize on all other opportunities. In terms of opportunities, the Social Progress Index 2014 ranks Czech Republic 31st, right next to Slovakia (30th), a little lower than Poland (24th) and slightly higher than Hungary (36th). If we were to take as an opportunity marker the subjective worldwide survey by Gallup, the CR falls to 64th place, whilst 1st place, ahead of Switzerland, is taken by Cambodia, reminding us to be cautious when dealing with surveys based on the respondents' subjective evaluation. The Czech Republic undoubtedly ranks among countries with a high degree of personal freedom. However, it is striking that in some surveys this level drops quite markedly, both absolutely and in relation to other countries. The Legatum Institute Prosperity Index placed the CR 42nd in 2012, 47th in 2013 and 62nd in 2014.

Chart 5: Personal freedom in Central Europe 2010 – 2014 (country ranking)

Source: Legatum Prosperity Index

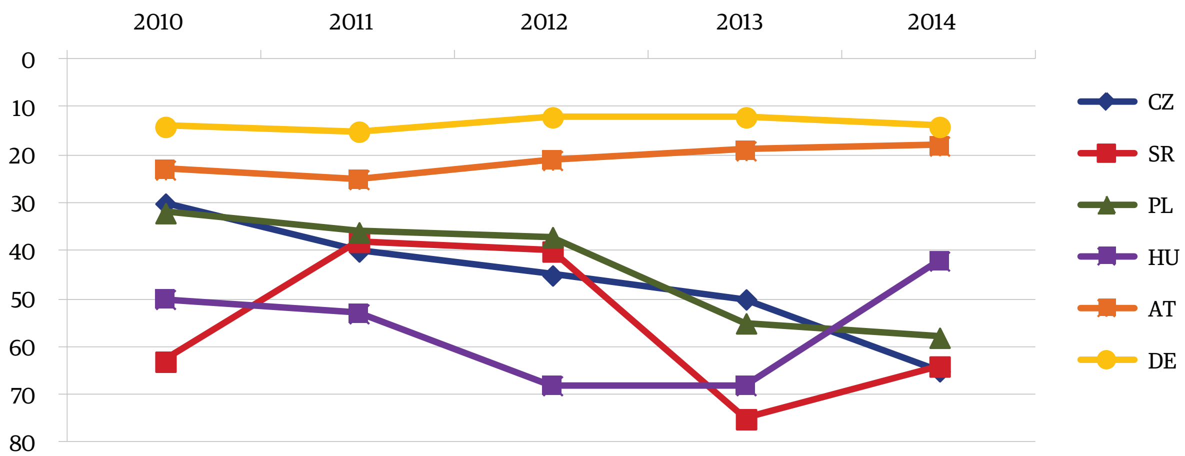
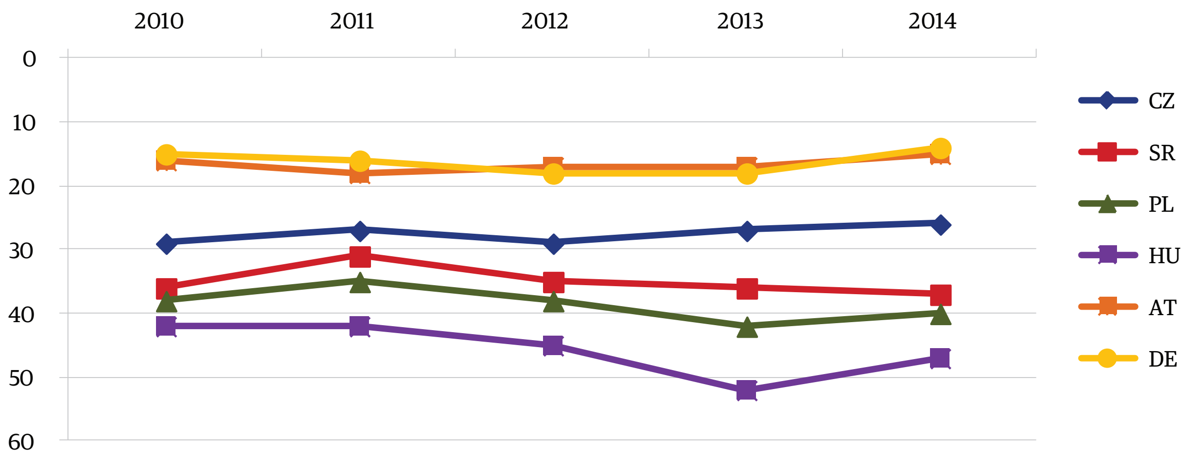


Chart 6: Opportunities in Central Europe 2010 – 2014 (country ranking)

Source: Legatum Prosperity Index



The sense of security and safety makes all other aspects of quality of life seem relative. All we have achieved does not amount to much, if we might irretrievably lose it at any moment. One of the major factors contributing to the quality of life in the Czech Republic is currently the feeling of safety, which has ranked our country this last year, according to the Index of Social Progress, as the 6th safest among other countries in the world. Among the top thirty are Slovakia, Poland and Hungary. The CR is evaluated similarly high and with a slightly rising trend by the Legatum Prosperity Index as well as the Global Peace Index.

Tab. 3: Ranking of Central European countries by perceived personal safety

Source: Social Progress Index 2015

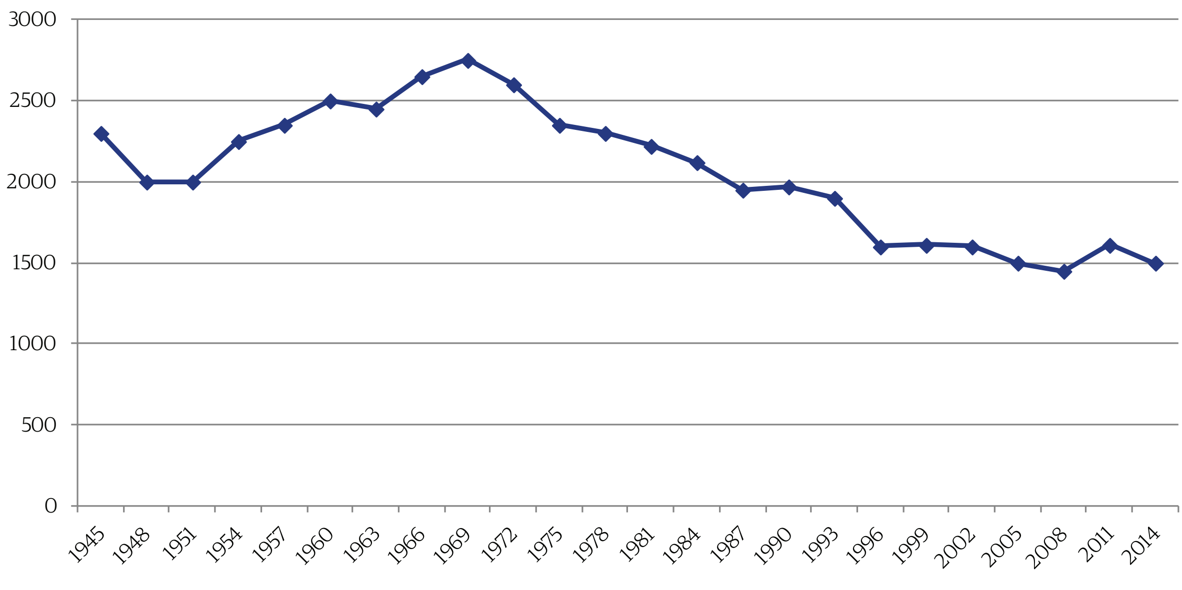
Year	2015	2015 - overall SPI ranking
Czech Republic	6	22
Slovakia	19	25
Poland	21	27
Hungary	29	32
Austria	7	13
Germany	14	14

Suicide rate is an independent, primary indicator of an absenting quality of life, even though we can say that in different countries there are different base rates of suicide, stemming from cultural, religious, climatic and perhaps even biological factors. As already pointed out in the works of T.G. Masaryk, suicide rate is also a tell-tale sign of the social climate. Suicide statistics in different countries are not completely reliable due to social and religious pressures, making comparison difficult. Nevertheless, some general trends, as well as generally reliable comparisons over time and in the region are worth noting. Suicide rate decreases where there is a high degree of social and national cohesion. This may account for why suicide rates have a history of declining during wartime. By contrast, suicide rate goes up in times of economic uncertainty, but is not directly linked to poverty. Loneliness is a contributing factor to suicide rate. Women account for a greater number of suicide attempts, while men for a greater number of completed suicides. In the post-communist countries in general, and the European countries of the former Soviet Union in particular, high suicide rates are characteristic.

Suicide rate developments in the Czech Republic are interestingly illustrative of some of these trends. Suicide rate was historically low during the two world wars. After 1946 the suicide rate gradually went up and reached its postwar peak value in 1970, and has since gone down, quite significantly in some periods. Over the same period, however, the discrepancy between male and female suicide rates has increased. While in 1945 for every completed female suicide there were almost 2 male ones, in 2009 the ratio was more than one to five. Since 2007, however, the suicide rate has risen again, by 20 percent in the five-year period 2007 – 2012. This is a Europe-wide trend, which probably relates to the economic crisis, and has not been sustained – since 2013 the suicide rate in the Czech Republic has dropped again. Slovakia has a significantly lower suicide rate as compared to the Czech Republic, although a certain convergence is apparent over the last twenty years. The Social Progress Index 2014 ranks the Czech Republic's levels of suicide as 35th highest in the world, out of the 131 countries investigated (or 98th in least-first order). In terms of neighboring countries, Hungary has a significantly higher suicide rate.

Chart 7: Suicide rates in the CR 1945 – 2014 (# of suicides)

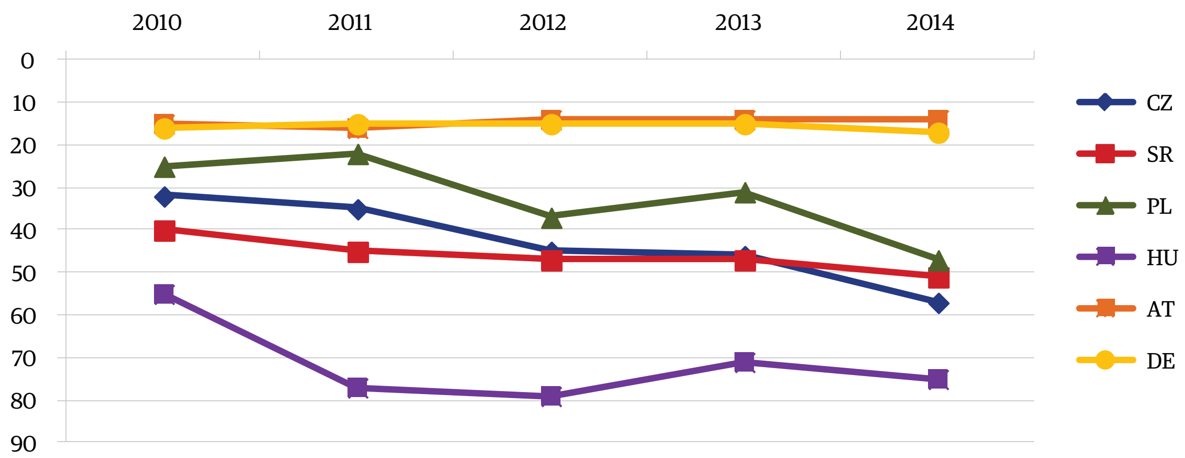
Source: CSO



The quality of life of a person as a social creature is also affected by their firm rooting in society, in the form of mutually supporting relationships, their willingness to participate for the general good and to help others, as well as their expectation to get support and assistance from others when necessary. This complex essence is variously referred to as social support or **social capital**. In the Legatum Institute Prosperity Index the Czech Republic places lower in this respect than would correspond to its overall rating. Even more worrying is the fact that in the past five years its relative position has gotten much worse in this respect. This applies to the entire V4 region.

Chart 8: Social capital in Central Europe 2010 – 2014 (country ranking)

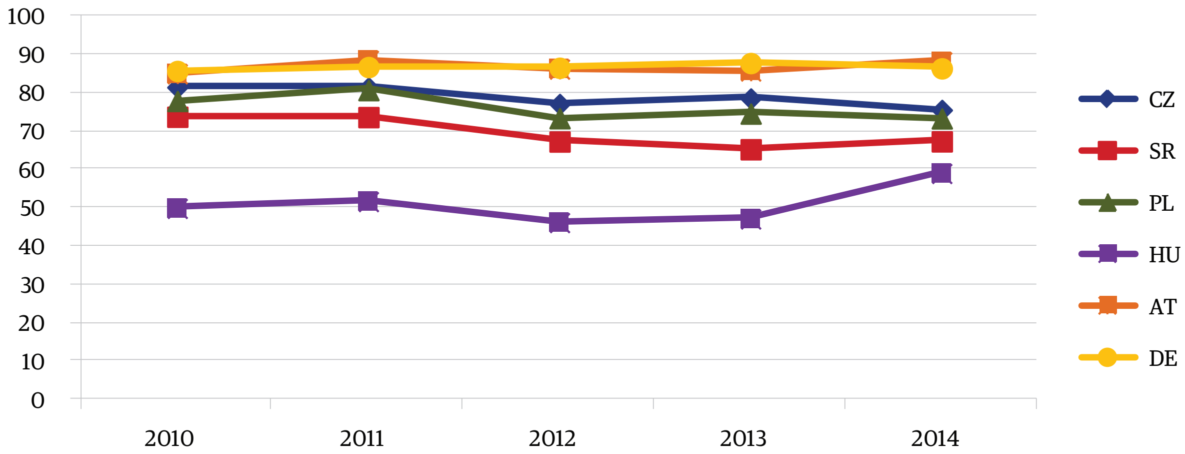
Source: Legatum Prosperity Index



And finally, as we have indicated at the beginning, quality of life includes the subjective **feeling of contentment** or happiness. That is of course related to the indicators described above, but is not completely reducible down to them. Just as people vary in height or the vital capacity of their lungs, they also have personal and individual tendencies to satisfaction and happiness. The "Cool dude" and "Grouch" archetypes do correspond to real people. Their relative incidence in different societies may stem from factors we have explored here, and those which we may not know how to explore. The feeling of contentment is thus our tentative sighting of the quality of life in the Czech Republic. The Legatum Prosperity Index, World Gallup Poll, or Happy Planet Index show various indicators of subjective happiness. For our first approximation let us turn to the World Happiness Report, which compares data on subjective happiness between countries. For the 2012 – 2014 period, we find the Czech Republic in 31st place. It is indeed remarkable how many different indicators from various studies place the CR consistently around the high thirties and low forties mark. For comparison, Slovakia is in 45th place, Poland 60th and Hungary 104th. Yet the comparison is not nearly as flattering for us once we look at developments in the past five years, when our satisfaction has been dropping. A similar trend is shown by the Eurobarometer, although it is hard to explain Hungary's sudden jump toward satisfaction.

Chart 9: Satisfaction in Central Europe 2010 – 2014 (country ranking)

Source: Eurobarometer



CONCLUSION

It would be premature to draw far-reaching conclusions from these piecemeal and unsystematic comparisons. We hope that next year we will be in a position to declare with greater confidence, on the basis of monitoring, how we are doing in terms of quality of life. However, we are prepared to formulate some of our value judgments as hypotheses:

1. The Czech Republic belongs among the countries with a **high quality of life;**
2. The quality of life in the Czech Republic is **somewhat higher** than the economic performance of the country;
3. In terms of quality of life the Czech Republic fares **best among the V4 countries;**
4. Factors contributing significantly to quality of life are **a high degree of meeting living needs, very good basic living conditions, rising life expectancy, great opportunity scope, and a strong sense of security.** The relatively less good factors are **a considerably high suicide rate, relatively declining level of social capital, and more limited scope for choice.** This general formula also accounts for the comparably high but stagnating level of **subjective satisfaction.** It gives us pause for thought that although **virtually all the monitored indicators of the Czech Republic after 1989 show a rising trend, in the last decade the trend has slowed or completely stopped.** The Lost Decade Syndrome is thus not just a matter of economic competitiveness.

The fragility of our findings must necessarily be reflected in the cautiousness of any recommendations we make. Were we, however, to put a word in for **reopening public debate on the promotion of social capital** and how it is handled, as well as for **the careful protection of the personal freedom sphere** in all its forms, we would not be wide of the mark.

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ASPEN INSTITUTE
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CZECH REPUBLIC
THE SHAPE WE'RE IN

October 20, 2015

Jatka 78 (Jateční 1530/33, Prague 7 – Holešovice)

NATIONAL SECURITY

NATIONAL SECURITY

Tomáš Pojar

The Czech Republic is experiencing an unprecedented period of long-term security. We have good relations with our neighbors and we are living on what is still a relatively safe continent. We are among the safest countries in the world when it comes to external threats as well as from the standpoint of inland security. The situation in the world and in the immediate European neighborhood has taken a turn for the worse in recent years, however – Russia has unleashed armed conflict in Ukraine, the Middle East is degenerating into increasing chaos and millions of refugees are on the move.

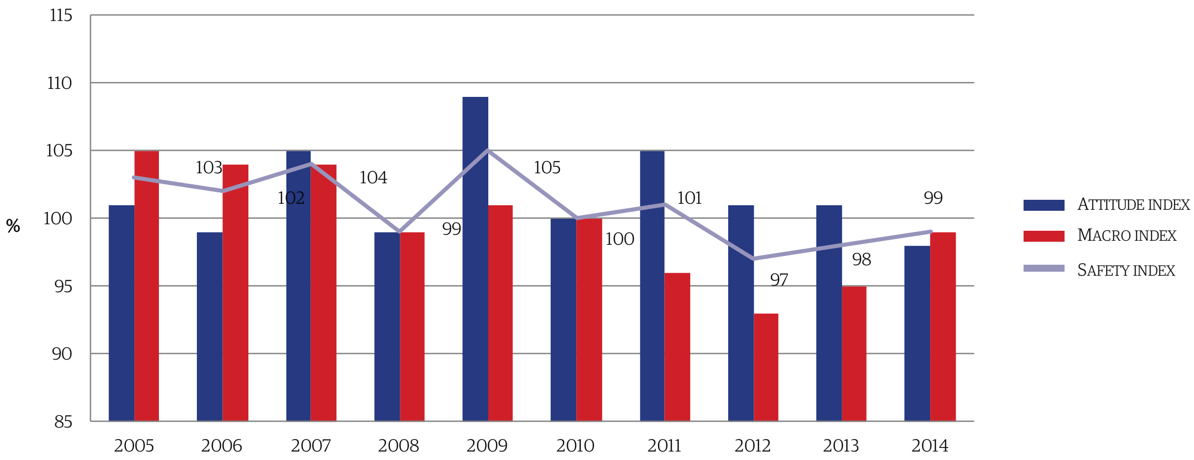
Czech public opinion has a stable and positive long term view of NATO's role as a fundamental pillar of Czech external security. Despite the deteriorating security situation in Europe and its immediate surroundings, the growing sense of threat felt by the Czech public and the strengthening feeling that defense spending is putting an unnecessarily strain on the State budget, even despite the coalition parties proclaiming they will increase defense spending to 1.4% of GDP by 2020, the actual drawdown on the defense budget in the last year fell below one percent of GDP. We are thus failing to meet even 50% of our prevailing undertaking as part of the North Atlantic Treaty Organization.

The slightly deteriorating security situation is reflected in the Aspen Institute Index values. Although in comparing the years 2005 to 2009 with 2010 to 2014 there has not been any dramatic downturn, yet the changed security situation in Europe and its immediate surroundings has shown up clearly in the Index values. The situation is also reflected in public attitude, which has begun to regard all sorts of threats as more pressing in recent years. The worsening international security situation thus far has not however been reflected in the functioning of the Czech State – namely to increase defense and security funding as well as increasing the capabilities and ranks of the armed and security forces.

Index 2014

The Aspen Institute Index, dedicated to the defense and security of the Czech Republic, consists of four macroscopic indicator axes and four attitude dimensions based on public opinion polls. The macro indicators include the Global Peace Index, criminality and imprisonment, staffing of enforcement and security bodies and defense spending. Attitudinal indicators include the feeling of safety and impression of police work, the sense of external threat, and the perception of the country's defenses as well as of NATO.

Index bezpečnosti



The data are pegged to the year 2010, and all indicators for the year 2010 are equal to the index value of 100. A higher index value or score for each dimension means higher security. An increase in the respective indicators is constructed as a percentage change against 2010. Change can be seen at a significance level of five index points, and trends followed. The most dynamic component of the index is, as expected, the perception of external threats. It is precisely this factor that has lowered the index value in recent years[1].

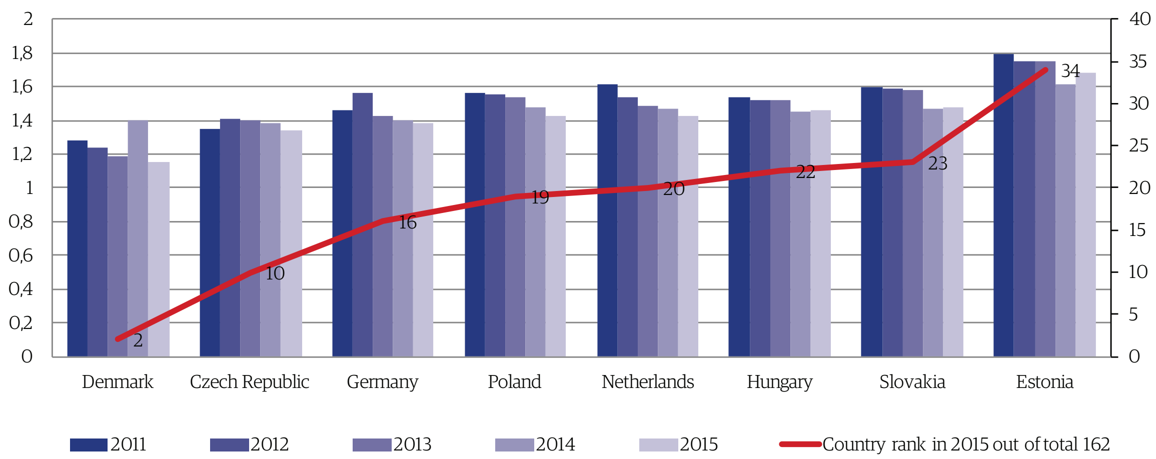
In 2005, at a time of economic growth, six years after entry into NATO and a year after entering the European Union, and at a time of Czech troop deployment in farflung Afghanistan and Iraq, the Index reached a value of 103. Overall one can say that before the burgeoning of the so-called "Arab Spring" and the subsequent deepening of chaos on the southern and eastern coast of the Mediterranean Sea and until the unleashing of war in Ukraine, the Index value had been above 100 in the longterm (100 – 105). The exception was the year 2008, with the uncertainty ensuing from the onset of the economic crisis. Since 2012 the Index values have been below 100 (97 – 99). Thus, in principle, the index faithfully reflects the security situation in the world and in particular in Europe and its immediate surroundings. **In 2014, the Index reached a value of 99.**

Security threats

When it comes to the Global Peace Index, compiled by the Institute for Economics and Peace /IEP/ based in Sydney, Australia, we are regularly ranked among the safest countries in the world. In 2015 the Czech Republic took 10th place out of the total 162 countries monitored. Although e.g. Denmark was in second place, we had overtaken Germany (16th), Poland (19th), the Netherlands (20th), Hungary (22nd), Slovakia (23rd) and Estonia (34th), albeit from a global perspective the discrepancies are rather minor. The feeling of security is something the Czech public is aware of. There has been a steady rise in the numbers of citizens who feel safe around their home (over 80%) as well as in the Czech Republic, as such (70%).

GPI score – international comparison

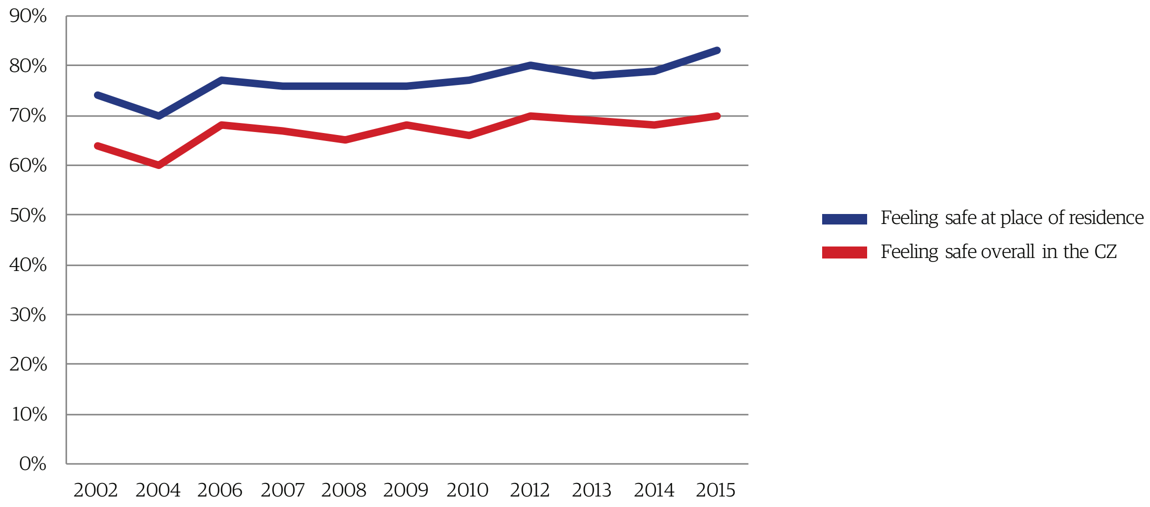
Source: Institute for Economics and Peace, Global Peace Index



1 Overall it holds true that there is a lack of relevant comparable data in the defense and security field. Where data has been obtainable (Eurostat, SIPRI, Europol, GPI), the Czech situation on the ground is compared with Denmark, Estonia, the Netherlands, Hungary, Germany, Poland and Slovakia. However, due to the absence of a substantial portion of comparative data, we cannot build the same Index for any other countries.

Subjective feeling of safety among CZ inhabitants

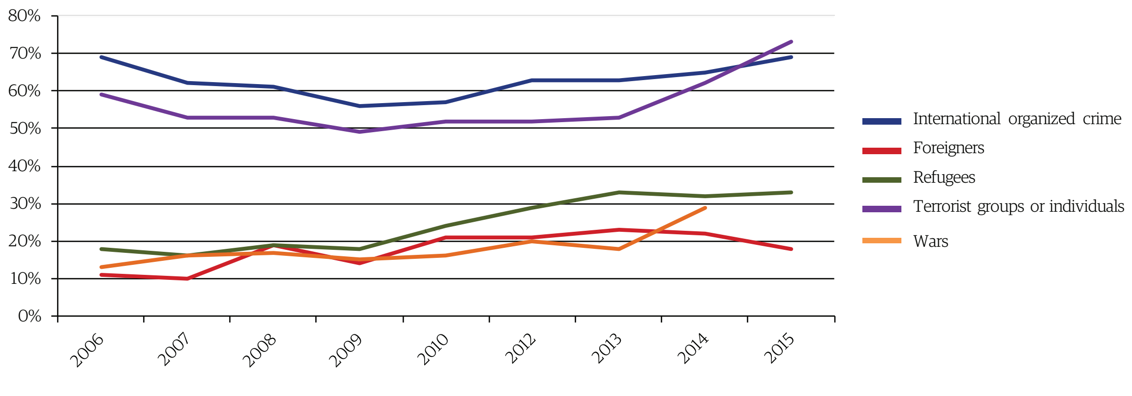
Source: CVVM SOÚ AV ČR v. v. i.; Institute for Economics and Peace, Global Peace Index



Since 2009 the sense of threat has been on the increase. This does not, however, apply to perceived threat from foreigners living on Czech territory, where, on the contrary, there has been a decline. Roughly 70% of Czech citizens consider terrorism a major threat to society (a more pronounced increase over the last two years), together with international organized crime (slight long-term growth). However, an increasing number of people are afraid of major war (a significant increase)[2] and of refugees (a less dynamic rise)[3]. Some 30% of the respondents are worried about war and refugees.

What constitutes a great social threat?

Source: CVVM SOÚ AV ČR, v. v. i.



2 In 2015 we shall be posing the question regarding major war no earlier than November.

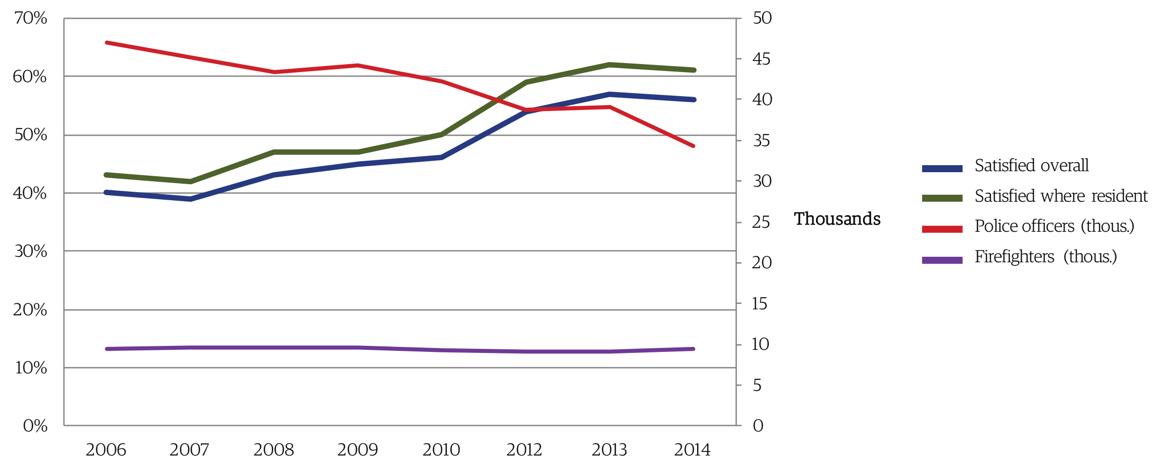
3 The question was last posed in the Spring, i.e. in the earliest days of the current migration crisis in Europe.

Internal Security

Despite the long-term decline in the number of police officers in recent years, people express ever greater satisfaction with the work of the police, albeit from 2013 onward the trend has leveled off. Currently over 60% of the respondents are satisfied with policing at their place of residence, the police thus virtually matching the level of trust enjoyed by the military. In recent years the crime resolution rate is rising slightly (though still less than 50%) and total crime incidence is reducing. Despite the above mentioned decline, the number of police officers per 100,000 citizens is significantly higher in the Czech Republic than in Germany, Poland, Hungary, the Netherlands and Denmark. Denmark has half as many police officers compared to the Czech Republic, the other countries mentioned have two thirds to three quarters as many. Slovakia has more police officers and Estonia only slightly fewer

Satisfaction with the police/ police numbers

Source: CVVM SOÚ AV ČR v. v. i.; Czech Police



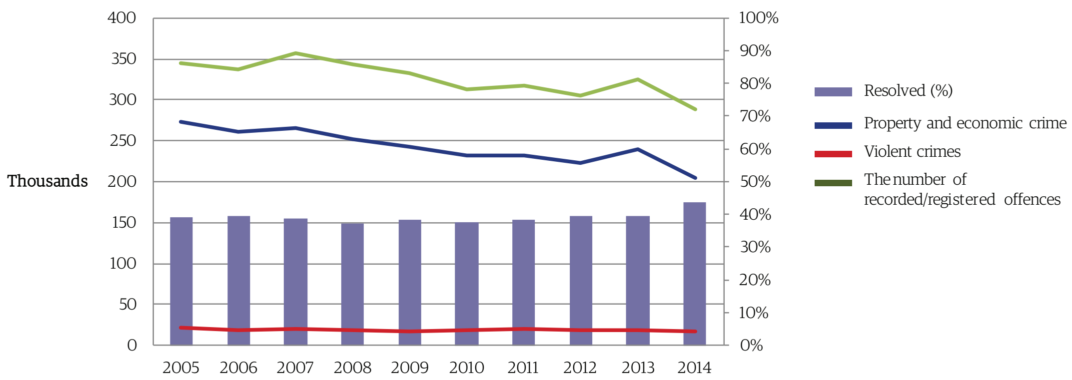
Source: Eurostat

Total # of police officers per 100 000 inhabitants (average for period)		
Country	**2007 - 09**	**2010 - 12**
Slovakia	430	444
Czech Republic	418	383
Estonia	240	337
Germany	302	298
Hungary	147	267
Poland	244	256
Netherlands	218	231
Denmark	197	196

The trend in crime levels in the Czech Republic is generally for the better. There is a decrease in the total number of criminal offences, in property and economic crime and in the number of criminal offence victims. The number of violent crimes is stagnant and the number of criminal offences committed by children and adolescents is declining. Adverse trends are apparent on the other hand in terms of rising crime by re-offenders, where we have some of the highest values within the European Union. This might have been partially affected by Václav Klaus' presidential amnesty dated January 1st, 2013.

Crime trends in the Czech Republic

Source: Czech Police

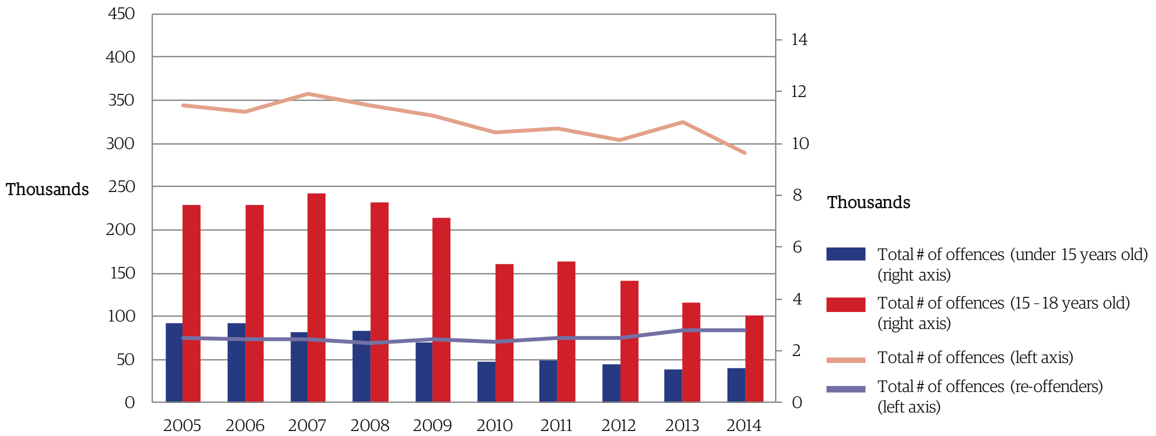


Source: Eurostat

Homicides per 100 000 inhabitants (average for period)		
Country	**2007 - 2009**	**2010 - 2012**
Estonia	6,1	5,7
Slovenia	1,7	1,6
Hungary	1,4	1,3
Poland	1,3	1,1
Denmark	1,4	1,1
Czech Republic	1,1	0,9
Netherlands	0,9	0,9
Germany	0,9	0,8

Under-aged, young offender and re-offenders

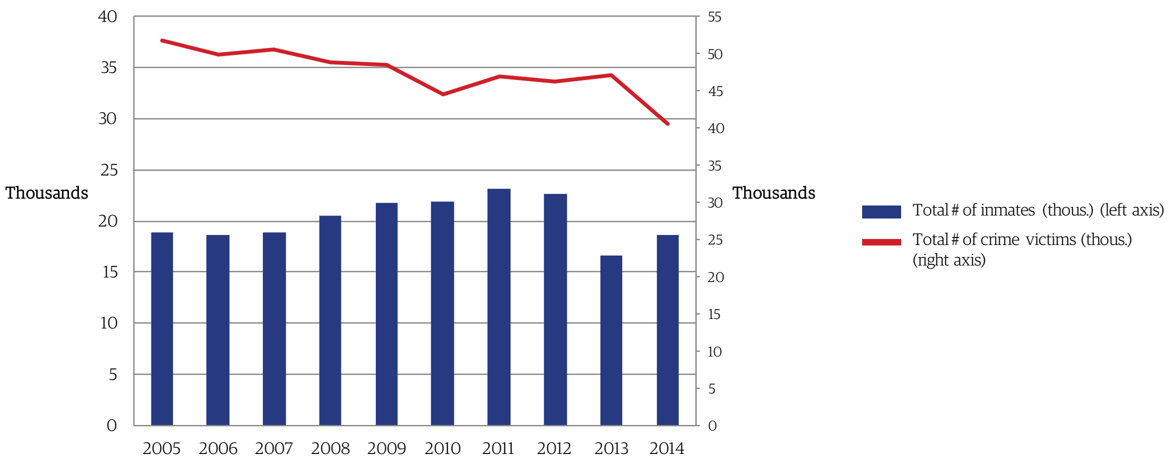
Source: Czech Police, Eurostat



After the initial significant drop in the number of prison inmates as a result of the amnesty, the capacities of Czech prisons are once again steadily filling up and are expected soon to reach pre-amnesty levels. The Czech Republic has fewer long-term prison inmates per 100,000 residents than Estonia, is comparable with Poland and Slovakia, and exceeds Hungary. Germany, the Netherlands and Denmark have about a third as many prison inmates per 100,000 people as compared with the Czech Republic. A change in this trend might be brought about, subject to the successful introduction of electronic bracelets.

Total # of inmates and victims of crime

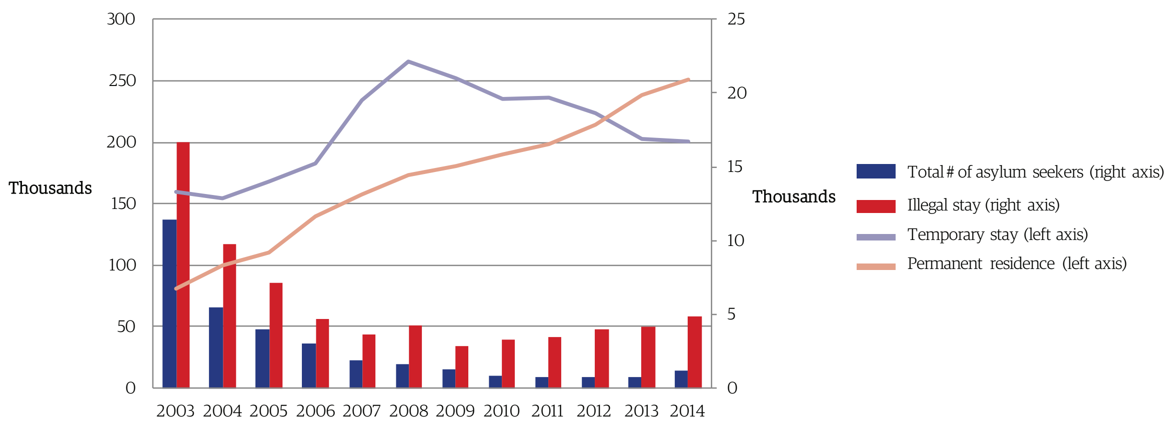
Source: Czech Prison Service, Czech Prison Statistical Service



Some 4% of those living in the Czech Republic are foreigners, which is almost the same as the EU average, namely 4.1%. In comparison with the Czech Republic there are about twice as many foreigners living in Germany; in Denmark it is two thirds more and in the Netherlands the number of foreigners amounts to 4.3%. In Hungary and Slovakia the level is only one fourth that of the Czech Republic[4] and in Poland, lesser still.

Migration to Czech territory

Source: Czech Police, Czech Ministry of Interior



Source: Eurostat

FOREIGNERS' IN THE POPULATION (2014)	
Country	**Foreigners' proportion (%)**
Estonia	14,9
Germany	9,6
Denmark	6,7
Netherlands	4,3
EU	4,1
Czech Republic	4
Hungary	1,4
Slovakia	1,3
Poland	0,2

Over the long term we see an increasing number of foreigners with permanent residence in the Czech Republic, while in contrast there has been a decline in recent years in the number of foreigners with temporary residence. Since 2009, the number

4 A large group of the "foreigners" living in the CR are Slovaks. Likewise in other EU member countries the rule is to include in the foreigners count the citizens of other EU countries. In the case of Estonia a high number of foreigners belong to the local Russian minority, who do not have Estonian citizenship

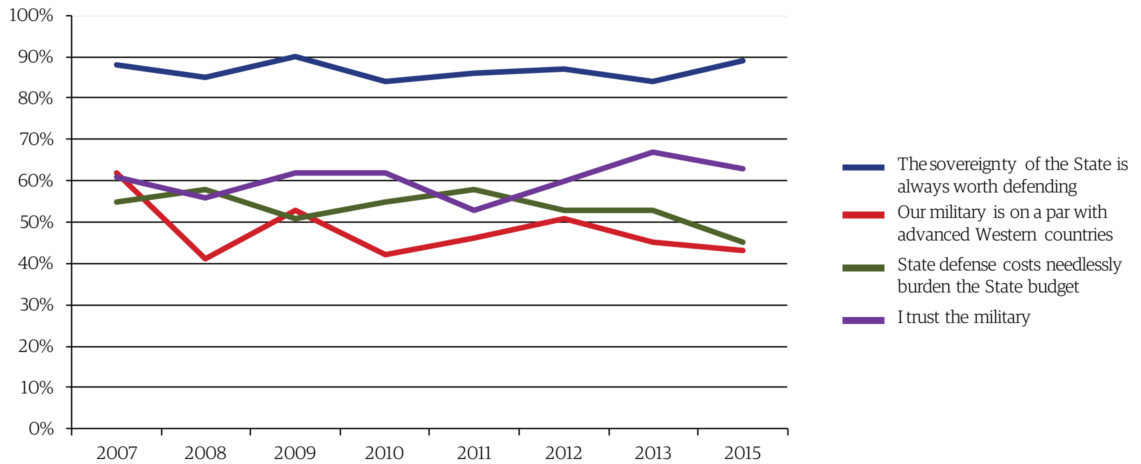
of detected illegal stays has been growing. In 2014 the number of asylum seekers went up for the first time in ten years. With regard to the current increased level of migration into Europe, we can anticipate a significant rise in 2015 and in subsequent years, for both indicators.

Defense

The military is one of the institutions which over the long term has the confidence of a majority of Czech citizens. As a rule, the army is trusted by around 60% of the population. Confidence grew between 2011 and 2013, while over the last two years confidence has decreased slightly. Slightly down to forty percent, from 2012, is the belief that the Czech Army is on a par with the armies of Western countries. On the other hand, under half the people now think that the cost of defending the State is an unnecessary burden on the State budget. Meanwhile the number of people who believe that the sovereignty of the State needs to be defended at any cost has risen to ninety percent. The public is now more aware than ever of the need to strengthen investment in their own defense.

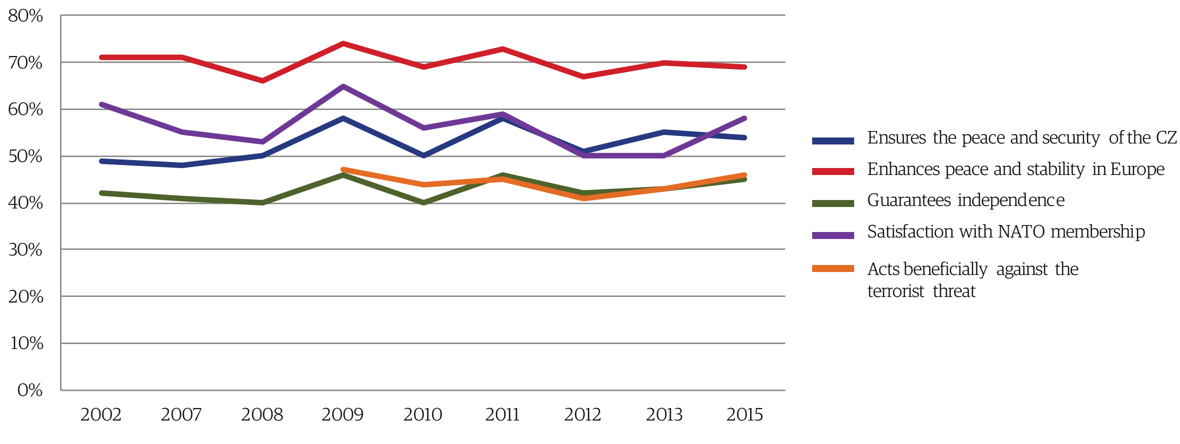
Statements about defense

Source: CVVM SOÚ AV ČR, v. v. i.



Statements about NATO

Source: CVVM SOÚ AV ČR, v. v. i.

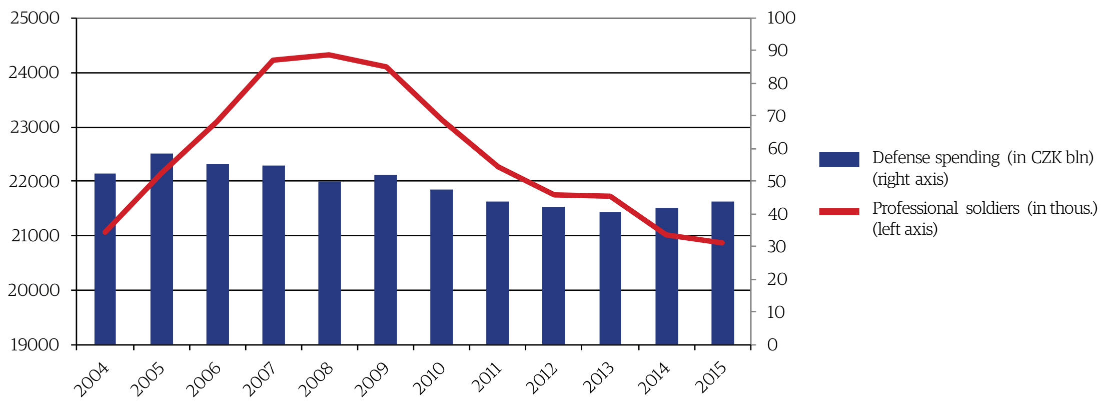


In the long term 70% of the people believe that NATO increases stability and peace in Europe and 60% are satisfied with membership of the alliance. Recently, the positive perception of NATO is going up slightly overall. In principle, the more the Czech public is cognizant of threats, the more positive the attitude to the NATO alliance.

The decline in professional troop numbers continues steadily, albeit 2014 saw a halt in the decline of the Defense Ministry (MoD) nominal budget and in the decline of defense spending, as a proportion of the State budget. This should also have stopped the decline in defense spending, given the level of GDP. Unfortunately, the data shows that due to the continued inability to draw down defense funds and given the growth of GDP in 2014, defense spending in real terms fell historically for the first time below 1% of GDP.

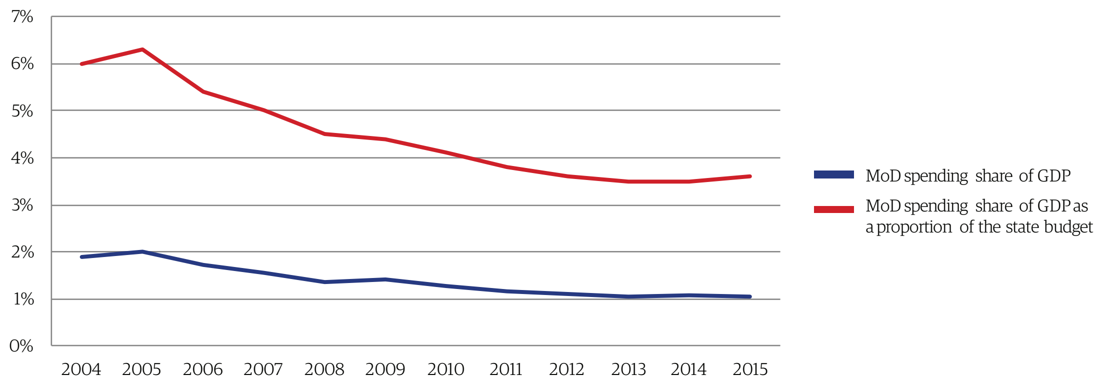
Professional soldiers (in thous.) and defense spending (in CZK bln)

Source: Czech Ministry of Defense



Defense spending in the Czech Republic

Source: Czech Ministry of Defence

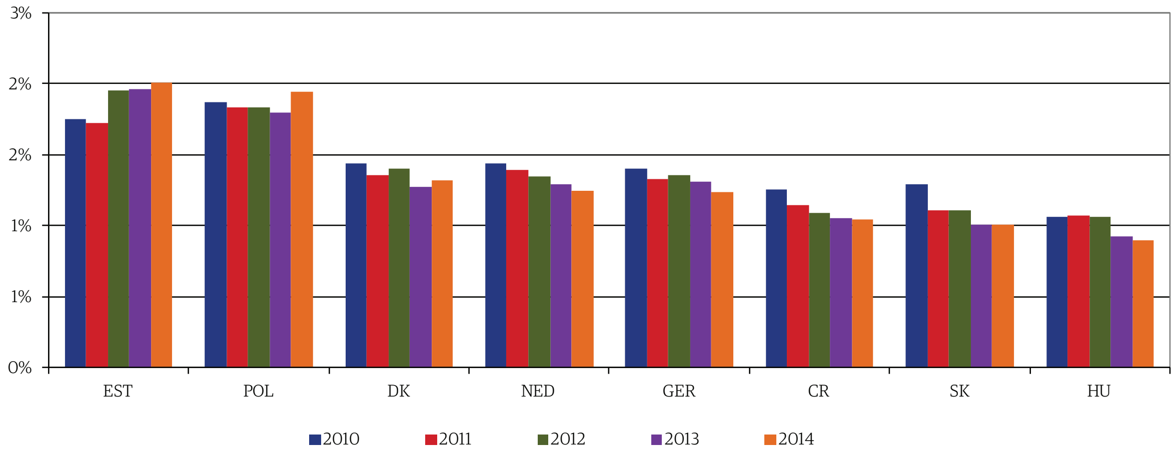


The Czech Republic therefore does not even half meet its commitment of two percent, applicable under the terms of the alliance. This is despite the fact that the coalition parties have, on the eve of the alliance summit in Wales in September 2014, committed to a gradual increase in the budget to a value of 1.4% of GDP[5]. Since 2013 there has once again been an increase in the MoD budget resources that remain unutilized. At present, this amounts to some 4 thousand million crowns, thus virtually eliminating the nominal budget increase. There is a shortage of planning (too much change management), and respective phases of the acquisition process are subject to delays. This results in deficits failing to be met and the modernization of the armed forces failing to happen in line with stated objectives.

In view of the continuing problems of the MoD as regards drawing on their financial resources and, in particular, with regard to the significant growth of GDP in 2015, there can be no expectation of the trend reversing this year either. The draft State budget for 2016 and outlook to 2017 and 2018 do count on a nominal increase in the MoD budget, but no significant increase in proportion to the GDP can be expected. This is in no small part due to the relatively high GDP growth this year. If the Czech economy continues to thrive coupled with the inability to draw on resources, we can expect either continued stagnation, or in the worst case, a further decline in the ratio of actual defense expenditure to the country's GDP.

Defense spending against GDP – International comparison

Source: SIPRI, Military Expenditure Database



The two percent threshold for defense expenditure as a proportion of GDP is met by Estonia and nearly so by Poland. Approximately one and a quarter percent obtains for Denmark, the Netherlands and Germany. Dropping below one percent are Slovakia and Hungary. The Czech Republic has in recent years unfortunately quite clearly fallen in with those alliance countries that expend the least resources in proportion to their GDP on securing their own defense, and so contribute least to collective defense.

5 No agreement has been reached with the opposition, which had sought even more ambitious increases, or rather a longer-term commitment aiming toward the two percent.

Index 2015

The Index values for 2014 or indeed the Index compiled for the years 2005 – 2014 is not based on detailed data from the State final account, whereas the Index for the year 2015 should include them. Their use will allow greater Index accuracy, because it will be possible to reflect not only the nominal status of the budgetary chapters based on actual drawdown, as well as their percentage relationship to the GDP, or to the State budget as a whole, but also the ratios of actually issued funds spent on staff, operating expenditure (maintenance) and investments (development). In addition to the MoD and Czech Army comparisons, there should be more detailed comparison of budgetary trends and actual resource drawdown for the Interior Ministry, Police force and the Intelligence services of the Czech Republic.

The Index aspires to serve as the basis for a deeper debate on ensuring the defense and security of the Czech Republic in the long term. This debate is gaining importance in direct proportion to the deteriorating security environment in the world and in Europe and its immediate surroundings. It is also unequivocal that unless our security is ensured, our competitiveness is not guaranteed and a deterioration in our quality of life will follow.

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