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THE BUSINESS CYCLE IN THE CZECH REPUBLIC: TRENDS, CONTEXT AND ECONOMIC POLICY IMPLICATIONS

Abstract: *The goal of this analysis of the current business cycle in the Czech Republic is to identify the causes and consequences of fluctuations in economic activity in the period 2000–2009. The paper deals with the 2000–2007 expansion phase and the 2008–2009 contraction phase of the business cycle. A description of the links between changes in the economic environment, the nature of the demand and supply side of the economy and the character of the external and internal balance provides the economic framework for the analysis. Segmentation of supply and demand into its components enables us to identify their sensitivity to the business cycle. Special emphasis is put on the indicators of internal and external balance, which signal in advance the possibility of an economic slowdown or a drop in economic activity. The objective of this analysis is also to identify the position of the Czech Republic in international comparison as regards macroeconomic indicators connected with the monitoring of the business cycle. A macroeconomic forecast and economic policy implications form the last part of this article.*

Keywords: *economic cycle, financial crisis, recession, gross domestic product, demand components, supply components, sources of growth, monetary policy, fiscal policy, employment policy, economic outlook*

JEL: E 21, E 23, O 11

Introduction

Since the mid-80s, business cycles have tended to become smaller in amplitude and longer during expansionary phase with fewer recessions. Some changes in the nature of the business cycle can be seen within the global financial and economic crisis 2007–2009. In the period leading up to the crisis, cycles became more synchronized, while asset crises became more volatile. The banking sector has become more pro-cyclical due to a number of factors which can make the cycle more volatile. Shocks originating in the financial sector could spread rapidly abroad. Macroeconomic policies helped to reduce volatility, but vulnerabilities emerged.

Changes in the economic environment form an important part of the background that influences the business cycle. These changes include in particular the level of the economy, the characteristics of internal and external macroeconomic imbalances, the financial instability of the banking sector and the orientation of economic policy, particularly monetary and fiscal policies, which have a major stabilization mission. The nature of the business cycle is also substantially influenced by globalization processes, by the structure of the national economy, by the level of participation in the international division of labour and by the level and ratio of savings and investment in the pre-crisis period.

The aim of the analysis of the business cycle in the Czech Republic is to contribute to the discussion about national specifics and foster a deeper understanding of issues connected with the causes, development and impacts of the global financial and economic crisis.

The goal of the analysis is to assess several groups of connections: (i) which major macroeconomic and economic policy trends were noticed in the pre-crisis period and which of them contributed to the emergence of the economic crisis; (ii) how economic policy responded to the global financial and economic crisis; and (iii) what impacts the financial crisis had on the real economy. The aim is also to identify internal and external conditions which supported or hampered the economic development of the Czech small and open economy.

Methodological Aspects

Methodological approach to the analysis of the business cycle in the Czech Republic arises from the theories which create background for methods that were chosen for assessment and explanation of ups and downs along macroeconomic trends [9] Among theories which can explain causes of the financial crisis and recession has an important role namely the general equilibrium theory and monetary theory. K. J. Arrow [1] made fundamental contributions to the renewal of the general equilibrium theory. M. Friedman [7] contributed to the knowledge of monetary history and theory, including observations of the complexity of stabilization policy. R. Lucas [25] developed and applied a hypothesis of rational expectations into the framework of macroeconomic analysis and deepened our understanding of economic policy.

The macroeconomic balance concept plays a key role in the analysis of the business cycle. We can distinguish internal and external parts of macroeconomic balance. The internal balance is characterized by the balanced state of the main four macroeconomic indicators/ objectives: economic growth, unemployment rate, inflation rate, and public finance balance. The external balance can be judged through the indicator of current account of the balance of payments converted to GDP.

Internal balance is judged by the deviation of actual and potential products and the difference between actual and natural rates of unemployment. In case of an excess rate of the real gross domestic product growth over the potential product growth, the situation signals two potential risks. First, increasing inflation and second, the risk for economic growth sustainability in next period. The opposite situation shows that potential capacity of the economy is not fully utilized because the demand side of the economy is constrained. When the current rate of unemployment is above the natural rate of unemployment, the situation shows an imbalance between supply and demand on the labour market and low flexibility of this market.

High inflation indicates excessive inflation pressures from the demand side of consumer markets and an unfavourable situation for economic growth in the next period. When the situation between the supply side and the demand side of the consumer market is well-balanced, then inflation expectations are usually anchored and inflation is low.

In a situation when fiscal deficit is generated also in the expansion phase of the business cycle the state debt is then excessively growing and such country is not attractive, safe and trustworthy for foreign investors. In a situation when the state debt is growing over more years more quickly in comparison with the GDP and the debt to GDP ratio is higher than an international standard (in Eurozone this ratio equals 60% of GDP) then a risk of problems with financing the state debt arises. If there is an internal imbalance between savings and investments, this deficit gap must be financed from external sources, which then creates an external imbalance. In a situation when the deficit of the current account to GDP is higher than 5%, foreign investors may move away from the country because the exchange rate is overestimated and future development of the economy is therefore uncertain.

Stress check of banking sector may be indicated with a help of a set of indicators which characterize credit intensity, capital assets, liquidity position, default and other indications of financial vulnerability. When the cash position of banks is weak, there is a threat of systemic risk connected with credit crunch which may have strong negative consequences and may cause a deep and long recession.

On the basis of some elements of the macroeconomic balance concept, it is possible to formulate some rules for the configuration of stabilization policy, which is an important part of both the monetary and fiscal policy. Macroeconomic stabilization policies were applied in some developed, namely Scandinavian countries in previous decades. The approach of the stabilization policy is based on creating / ensuring such conditions which would promote a consistent development of the four key macroeconomic objectives, i.e. economic growth, inflation, external economic relations, and employment. The approach strives to:

– Limit adverse effects of business cycles on the performance potential of the economy;

– Prevent the development of certain macroeconomic objectives at the expense of others, which would – in medium / long term – become bottlenecks or limitations of a sustainable economic growth;

– Maintain reasonable internal / external economic balance of an economy, without excessive inflation and deficits of trade balance / current account of the balance of payments, which usually result in the longer declining stage of a business cycle;
– Prevent the economic growth rates from reaching levels, which are not sustainable on long-term basis.

The second perspective of the methodological approach to the analysis component contributing to the occurrence of crises is the method of international comparison. The objective of the method is to identify the position of the Czech Republic as well as other countries within the international comparison of components associated with the financial and economic crisis. The results should also include the identification of resistance of individual countries to external shocks on the supply and demand side of the economy. The ascertained findings could serve as an inspiration for deliberations on the nature of configuration with regard to stabilization policies or control mechanisms preventing the occurrence of financial and economic crises.

In the approach to business cycle analysis are used the equities which help to identify the contributions of the components of the supply- and demand-side economy to gross domestic product. Segmentation of supply and demand into their respective components enables us to identify their sensitivity to the business cycle. Movements on the supply side of the economy are traced using gross domestic product and gross value added in agriculture, industry, construction and services. The demand side of the economy is analysed on the basis of indicators of domestic demand, private consumption, gross fixed capital formation, net exports, and government consumption. Output gap indicator is used for identification of the macroeconomic balance, respective position economy in the business cycle. Production function is used to represent the relationship of an output to inputs.

1/ $Y = C + I + G + NX$

Y = Gross domestic product, C = Private consumption, I = Investment, G = Government consumption, NX = Net export

2/ $VA = A + I + BI + S$

VA = Value added, A = Agriculture, I = Industry, BI = Construction, S = Services

3/ $OG = PP - Y$

OG = Output gap, PP = Potential product, Y = Gross domestic product

4/ $PP = AL\alpha K\beta$,

PP = Potential product L = Labour input, C = Capital input, A = Total factor productivity, α and β are the output elasticities of labour and capital, respectively.

The paper focuses on the following phases of the business cycle in the Czech Republic: the expansion periods in 1994-1996 and 2000-2007 and the contraction periods – connected with falls in economic performance – in 1990-1993, 1997-1999, and 2008-2009. The last part of the article discusses the short-run economic forecast and the implications of the economic policy response to the economic crisis.

A Short History of the Business Cycle in the Czech Republic

A short excursion into the history of the business cycle in the Czech Republic shows that in the last two decades the Czech economy has experienced three recessions and two expansion phases of the business cycle.

The transition from a centrally planned economy to a market economy was associated with fundamental changes in the economic environment during the 1990 –1993 transformation recession. They included price and foreign trade liberalisation, banking sector deregulation, taxation reform, currency convertibility and privatisation of property. The decline in gross domestic product in cumulative terms reached double digits, but the rate of unemployment remained low, at about 3%. Economic policy was restrictive, with the aim of avoiding significant inflation.

Several factors contributed to the fact that no substantial macroeconomic imbalance was recorded in the course of the transformation recession. The economy entered the transformation process with low foreign indebtedness and a negligible inflation differential. These elements of the macroeconomic environment thus did not create upward pressures on the external and internal imbalance.

The period 1994–1996 was the first expansion phase of the business cycle. The average annual rate of economic growth reached 4.7%, inflation fluctuated around 10%, and the rate of unemployment remained the same as during the recession. A loose monetary policy played a decisive role in forming the macroeconomic environment. Owing to large inflows of foreign capital in 1994 and 1995, the money supply experienced a dynamic growth of around 20% annually. The combination of a fixed exchange rate and high interest rates, representing a significant incentive for the inflow of foreign capital, was among the major causes of the uprise of the financial crisis that followed. The excessive liquidity of banks led to less prudent lending and thus to an increase in unpaid debts. The money supply grew notably faster than gross domestic product in nominal terms, fostering a further acceleration of economic growth. There was too much credit and investment in the economy. The gap between savings and investment created a considerable external imbalance, signalling to foreign investors that the economy might run into problems with funding economic growth.

The Czech Republic has historical experience of a financial crisis during the economic contraction in 1997-1999. The country's economic policy during the recession was restrictive. The aim was to consolidate the banking sector and to reduce the external imbalance. The economic response to the monetary shock included changing the fixed exchange rate regime, which was replaced by a more flexible regime of managed floating. The essence of the consolidation process in the

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banking sector was the transfer of bad debt outside the balance sheets of commercial banks and the subsequent sale of banks to foreign investors.

A credit crunch resulting from increased interest rates had a substantial impact on the undercapitalised and insufficiently restructured business sector. As a result, GDP fell by 0.4% on average during 1997-1999. The individual components of the demand and supply sides of economy were affected in different ways. Among the demand components, gross fixed capital formation experienced the largest decrease, falling on average by 2.9% per year. This confirmed the key role of the investment cycle in fluctuations in economic activity.

On the supply side of the economy, the effect of the economic cycle was most prominent in construction (a 5.8% slump) and less so in industry. There was a dynamic growth in exports, which benefited from an upward phase of the business cycle in the European Union. Restructuring processes took place simultaneously with the economic downturn.

A 1 p.p. decline in GDP growth relative to the three-year average of the previous period led to a 1.2 p.p. increase in the rate of unemployment. At the same time, employment fell, dropping in the final year of the recession (1999) by more than 2% year on year. Its course was determined in particular by a fall in new job creation and an acceleration of restructuring processes.

Macroeconomic restrictions and banking sector consolidation reduced the internal and external imbalances. The external imbalance, as measured by the current account deficit to GDP ratio, dwindled from 7.1% in 1996 to 2.2% in 1998. The rate of investment fell from 34.2% of GDP in 1996 to 28.1% in 1999. Simultaneously, the gap between the rate of investment and the national saving rate halved. The differential between wage growth and labour productivity also narrowed markedly. In the banking sector, growth in loan defaults halted and the volume of credit in the economy stabilised at a sustainable level.

However, the recession also generated a rise in the labour market supply and demand mismatch. A combination of cyclical and structural factors swelled the registered unemployment rate, which went up from 3.1% in 1996 to 8.5% in 1999. An excess of budget outlays over budget receipts was also recorded. It increased both the public finance deficit and the accumulated government debt. The recession was characterised by monetary policy efforts to eliminate the external imbalance and implement a disinflation process. Yet, its cost was destabilisation of internal balance components, primarily involving growth in the negative output gap to 2.7% in 1999. The second upward phase of the business cycle in the Czech Republic came in 2000 -2007. It preceded the crisis that started in 2008 and is useful in explaining the context of the current trends and in assessing whether financial and economic conditions were created for the emergence of recessionary forces.

The 2000 - 2007 Expansion Period

An expansionary period of the business cycle occurred in the Czech Republic during 2000-2007. High economic growth accompanied by macroeconomic stability was the main feature of the Czech economy during this period. GDP recorded yearly average growth of 4.6%, twice as high as the EU-27 average. It is useful to divide this expansionary phase of the business cycle into two stages with differences in economic environment and in the rate of economic growth. In the recovery period of 2000–2003, the economic environment was not so favourable and economic growth not so high.

External conditions during 2000–2003 were characterised by a downward phase of the business cycle in the European Union. Real GDP growth in the EU sank from 3.3% in 2000 to 0.5% in 2003, which weakened the export performance of the Czech economy. The internal economic conditions were shaped by expansionary macroeconomic policy, both fiscal and monetary. The average nominal interest rate on credit fell from 8.7% in 1999 to 4.7% in 2003, while the real interest rate went down from 7.7% in 1999 to 4.6% in 2003. Growth-stimulating policies also included incentives encouraging the inflow of foreign investment, which reached the highest figure among all central European transition economies when expressed in cumulative terms per capita.

The good internal conditions for stable economic growth were interrupted only in 2002, when flood damage caused economic losses in agriculture, transport, incoming tourism, accommodation, and inventories. The supply failures were estimated at about 2% of GDP. In this period, the debt of households, firms and in particular the government was increasing. Foreign direct investment generated not only gains, but also repatriation of profit and dividends to foreign countries.

In 2000–2003, domestic demand grew on average by 4.1% per year. On the demand side, capital formation experienced the fastest growth (5.1% on average). Household consumption gradually picked up speed from 2.3% in 2000 to 5.5% in 2003. It was affected by extremely favourable circumstances in the form of a decreasing inflation rate (from 3.9% in 2000 to 0.1% in 2003) and high growth of real wages (from 2.4% in 2000 to 6.7% in 2003).

GDP rose on average by 2.9% yearly. On the supply side of the economy, differences between firms under foreign control and the segment of small and medium-sized enterprises became evident. Firms under foreign control enjoyed faster growth of output and exports. Their share of total revenues increased from 31% in 2000 to 47% in 2003, while their share of exports grew from 54% to 72% in the same period. Return on equity doubled in enterprises under foreign control.

In this period, several components of the external and internal imbalances had a tendency to grow. This was indicated by movements in the current account of the balance of payments, public budgets, government debt, the rate of saving and investment ratio, and the gap between supply and demand on the labour market. The current account to GDP ratio climbed from 2.7% to 6.5% in 2003. It was affected particularly by growing profit repatriation and a shrinking surplus in the services segment. From a different structural point of view, this problem once again mirrors the build-up of a gap between the saving and investment rate.

The growth of the public budget deficit in relation to GDP from 4.5% in 2000 to 13% in 2003 was mainly due to growth of budget outlays determined by the costs of preceding transformation costs as well as growth in mandatory expenditures, specifically on the pension account. A rise in registered unemployment from 8.5% in 1999 to 9.9% in 2003 was a consequence of both cyclical developments in the EU and in the country and structural factors creating a gap between supply and demand on the labour market.

The period 2004-2007 was the most favourable. The rate of growth reached 5.9% on average and peaked in 2006 at a record 6.8%. This result narrowed the gap between the economic level of the Czech Republic and the average economic level of the EU-27 to 80% (Graph 1 and 2)

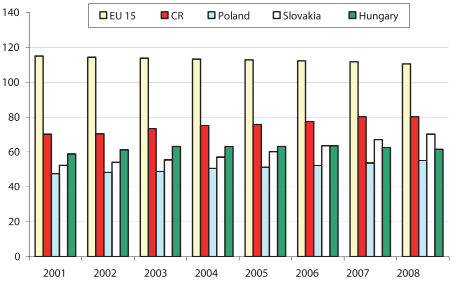
Graph 1

Gross domestic product (in %, year-on-year, constant prices of 2000)

Source: Eurostat, own calculations.

Graph 2

Gross domestic product per capita (in PPS, EU-27 = 100)



Source: Eurostat.

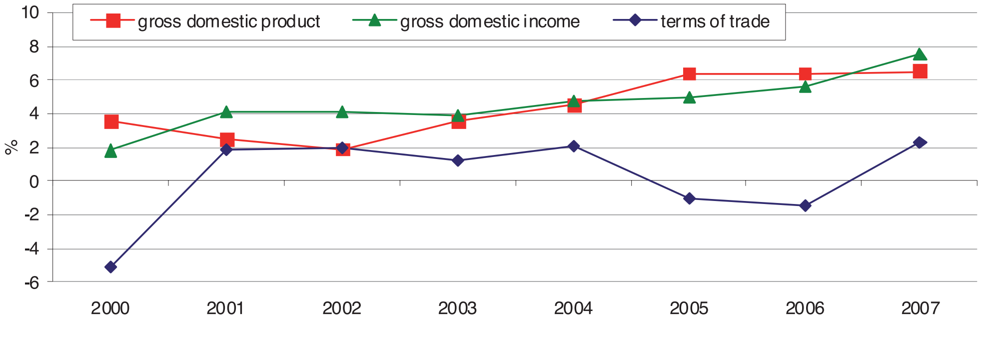
The dynamic growth of the world economy and world trade, which accelerated in 2004-2007, had a very significant positive influence on economic growth in the Czech economy. The deepening process of globalisation, concerning free cross-border movement of labour, capital, goods and services, also contributed in large measure to the growth in economic performance. The benefits of foreign direct investment for the host country consisted above all in availability of capital, know-how and sales networks in foreign countries. The other parameters of the external economic environment showed strong instability and a weakening positive effect on the Czech economy. The price of crude petroleum more than doubled, and the Czech koruna strengthened significantly against the euro and the dollar.

Economic performance was supported by expansionary monetary and fiscal policy. The interest rate was at a record low level and helped to improve the ability of firms and households to take out loans for investment projects. Also, fiscal policy had a pro-growth orientation, with higher government expenditure supporting long-term growth factors such as education, research and development and transport infrastructure. Joining the EU also had a favourable stimulating effect on economic growth in the Czech Republic. Membership of the EU encouraged foreign firms to invest in the Czech Republic. In 2004, Czech exports began to be higher than imports and the trade surplus started to contribute to economic growth.

Moreover, the conditions contributing to economic growth were not as favourable in 2007 as in 2006. Interest rates rose, cost competitiveness fell due to the strengthening of the koruna, and prices of energy sources increased. In 2007, a positive change was recorded in the relationship between GDP growth and gross domestic income (GDI) growth. Favourable terms of trade resulted in GDI growth in real terms of 7.5%, which was higher than the growth of GDP. Gross national disposable income in 2007 increased by 5.2%. Its growth was higher than GDP and GDI growth, mainly because of a bigger outflow of net primary income from the Czech Republic abroad (Graph 3).

Graph 3

Gross domestic product, gross domestic income (current prices of 2000) and terms of trade (y-o-y change in %)



Source: Czech Statistical Office.

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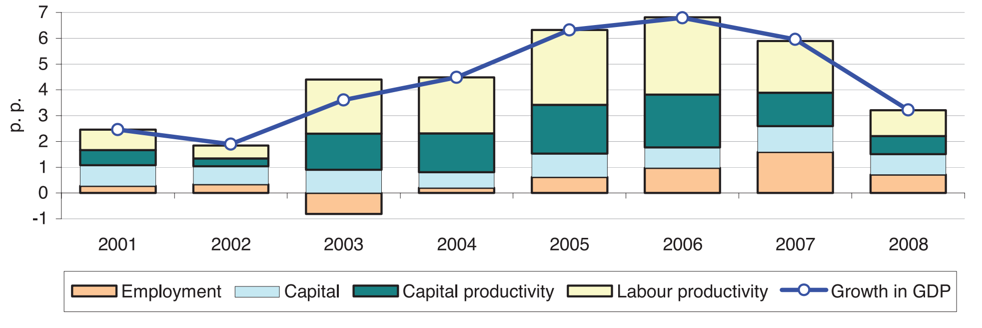
In 2007, and especially in Q4, some leading indicators were signalling future changes in GDP growth. The use of production capacities in industry increased to 88%, while the long-term level had been fluctuating around 82%. A gradually increasing positive output gap between real GDP and potential output – estimated by the OECD at 1.5 p.p. for 2007 – also signalled an excessive utilisation of production capacities and a potential risk of rising inflation pressures and an overheating of the economy.

In the expansionary phase of the business cycle, labour and capital productivity recorded larger growth contributions than employment and fixed capital. Labour productivity in 2001-2007 increased at an average y-o-y growth rate of 4.0%. The contribution of labour productivity to GDP growth rose continuously from 2002 onwards and reached 2.9 p.p. in 2007, significantly exceeding the average for the period under review (Graph 4).

Graph 4

Contributions of production factors and their productivity to GDP growth (percentage points, constant prices of 2000)



Source: Czech Statistical Office.

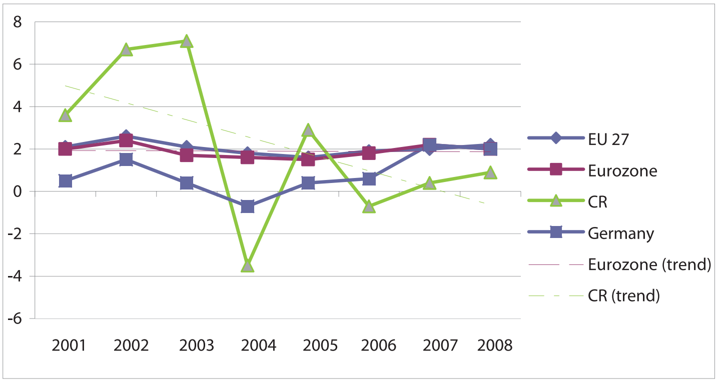
Demand and Its Components

In 2004-2007 the components of domestic demand showed different growth rates and thus contributed differently to GDP growth. Household consumption accelerated from 5.4% in 2006 to 5.7% in 2007, markedly exceeding the average for 2001-2006 (by 2.2 p.p.) and also contributing significantly to GDP growth (2.7 p.p.). The growth in household consumption was supported by real wage growth (4.4%), more intensive use of household savings and increased consumer credit supply. Households' debts increased by more than a third year on year, while mortgage loans for housing exceeded consumer credit. These processes reflected the wish of households to have their own dwelling and also the existence of negative real interest rates eroding the value of savings in the banking sector. An international comparison reveals that the share of household consumption in GDP fluctuated around 50% for many years and was lower than the average for the advanced countries of the EU, which was more than 60% of GDP.

Investment activity intensified in 2005-2007. In 2007, gross fixed capital formation increased by 10.8%, exceeding the 2001-2006 average by 4.1 p.p. There were several reasons for this, most notably the favourable investment climate in Europe, and especially in Germany, where investment increased by 4% and exports by 8.5% in 2007. The Czech Republic was thus able to benefit from this investment and export wave. The causes of the acceleration in the investment process also included a marked increase in profit growth. An important determinant was the inflow of foreign direct investment. In 2007, FDI totalled CZK 185 billion, the highest value recorded in 2000-2007 (Graphs 5 and 6).

Graph 5

Government consumption (in %, year-on-year, constant prices of 2000)



Source: Eurostat, own calculations.

Graph 6

Gross capital formation (in %, year-on-year, constant prices of 2000)

Source: Eurostat, own calculations.

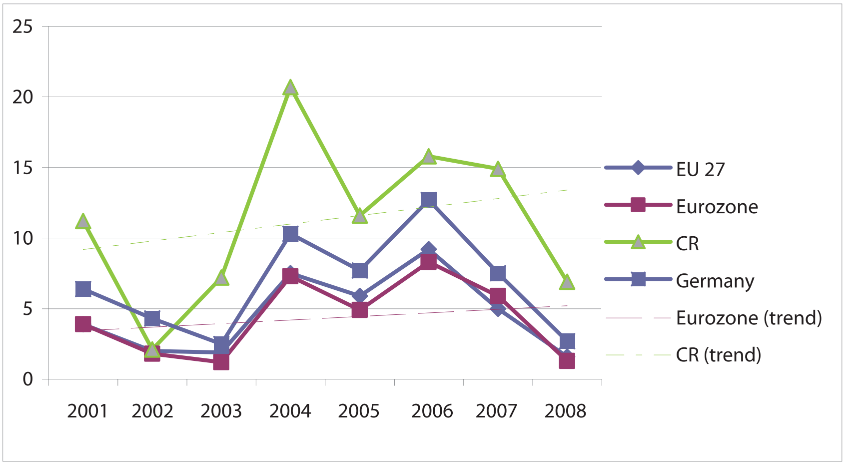
Despite rising somewhat, interest rates were lower than in the EU countries and affordable to small and medium-sized Czech companies. The contribution of gross fixed capital formation to GDP growth increased in 2005-2007, reaching 1.5 p.p. in 2007. The excess of the investment rate over the gross national saving rate decreased, also providing a basis for improvement in the external economic imbalance.

An international comparison reveals that the investment rate was about one-third higher than the average in the Eurozone, which is reasonably stable and fluctuating around 20% of GDP. The gap between the investment rate in the Czech Republic and that in other countries can be explained to a considerable extent by processes of convergence, with medium-developed economies reducing the gap between their economic level and that of the developed countries.

In 2007, foreign trade recorded the best result in the history of the independent Czech Republic. At current prices there was a record excess of the value of exports over imports. The results were affected mainly by continued high growth rates in industry, more favourable terms of trade, FDI inflows and a decrease in mineral fuel imports (graph 7 and 8).

Graph 7

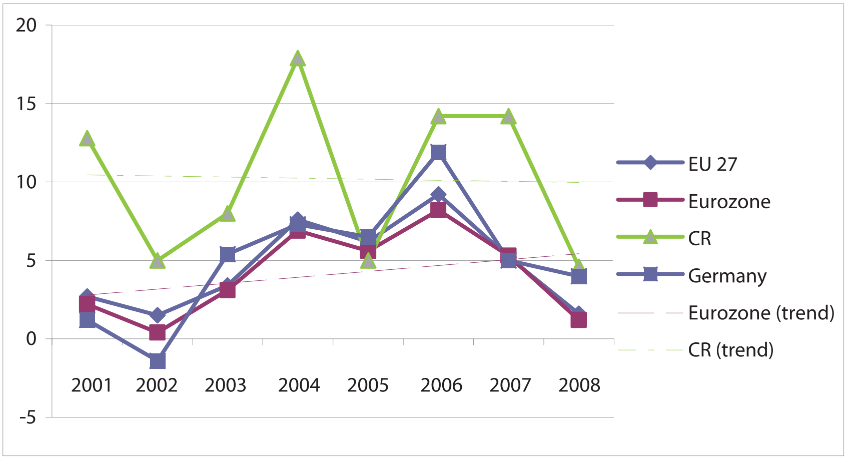
Exports of goods and services (in %, year-on-year, constant prices of 2000)



Source: Eurostat, own calculations.

Graph 8

Imports of goods and services (in %, year-on-year, constant prices of 2000)

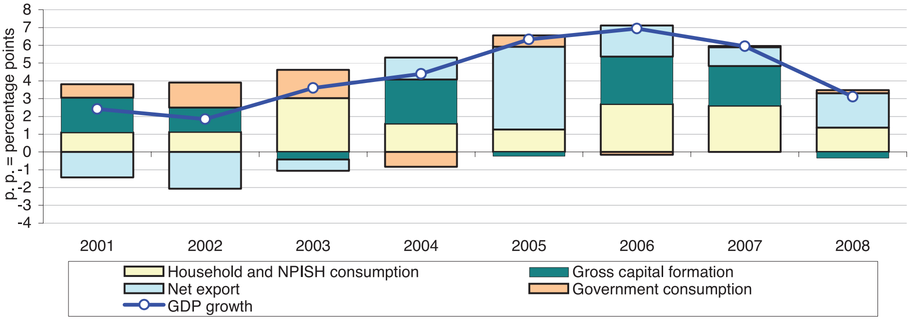


Source: Eurostat, own calculations.

The contribution of net exports to GDP reached a record high of 4.8 p.p. in 2005. In 2007 the contribution was 1.1 p.p., thus exceeding the long-term average for 2001-2006, namely 0.5 p.p., thanks to an increase in goods and services export performance recorded for three years in a row (Graph 9).

Graph 9

Contributions of demand components to GDP growth (in percentage points, constant prices of 2000, seasonally adjusted)



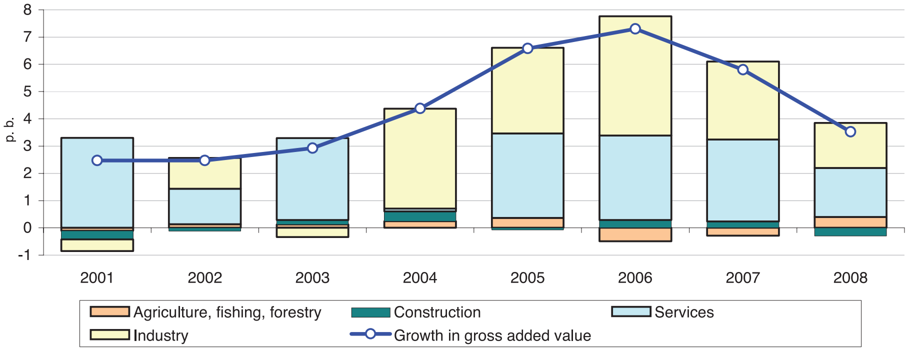
Source: Czech Statistical Office.

Supply components

In 2000-2007 the sector structure of the economy, in terms of shares in total gross value added at current prices, was volatile. The share of the secondary sector (industry and construction) after two years of weakening increased to 38.4%, thereby also strengthening its position compared with the medium-term average (37.5%). The tertiary sector (services) dropped by 0.5 p.p. compared with 2006 and its average for 2001-2006 was 59.3%. In the medium term, the secondary sector strengthened to the detriment of the primary and tertiary sectors (Graph 10)

Graph 10

Contributions of selected branches to growth in gross added value
(in percentage points, constant prices of 2000, seasonally adjusted)



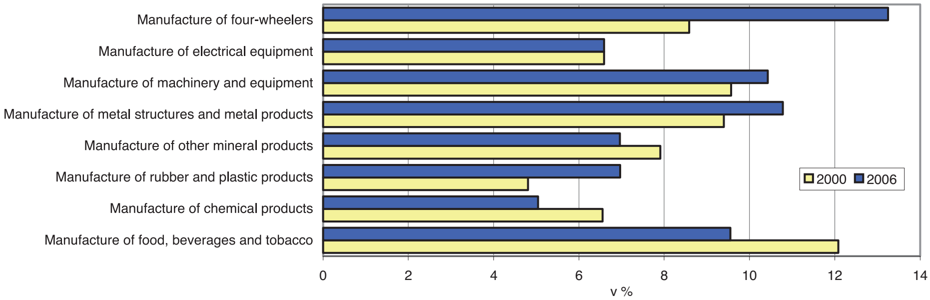
Source: Czech Statistical Office.

Industry had a significant pro-cyclical influence on the acceleration of economic growth. The manufacturing sector increased by 7.9% y-o-y on average in 2001-2006. In 2007 it recorded an above-average increase of 11%. The trend of high growth started as early as 2004 and peaked in 2006 at more than 18% y-o-y. The high growth rate of performance (gross value added) in manufacturing was affected by growing capacities, labour and capital productivity and, in 2005-2007, also by an increase in the labour force.

The specialisation process in industry continued. Machinery and transport equipment increased their share in total gross value added at current prices from 8.6% in 2000 to 13.3% in 2006. Growing shares in the industrial structure were recorded for manufacturing of metal structures and fabricated metal products, manufacture of machinery and equipment and manufacture of electrical products and rubber and plastic products (Graph 11).

Graph 11

Change in contributions to gross value added in manufacturing – selected industries (current prices)



Source: Czech Statistical Office.

In services, the categories of retail sale, maintenance and repair of motor vehicles and financial intermediation and insurance, which both grew in 2001-2006 by 6.0% y-o-y, recorded the highest average growth rates, followed by transport, storage and communication with annual average growth of 4.6%. These categories followed this trend also in 2007, accelerating to double digit y-o-y growth of 12.1% and 13.7% respectively.

An international comparison of value added reveals differences in the proportions of the main sectors between the Czech Republic and the advanced countries. This applies especially to differences between the shares of industry, including construction, and the service sector. While in the advanced countries the share of services is approximately 70% and continues to grow, in the Czech Republic the share of services was higher in 2003 (61%) and then dropped under 60%. The following of the trend in the advanced countries, where economic growth was accompanied by a change of the supply structure to the benefit of services, was therefore interrupted. This trend is important in several respects. It corresponds to changes in the consumption of the population in respect of the service sector, with high demand for services such as education, healthcare and science and research. In addition, the service sector is less intensive in terms of energy and materials and in comparison with industry it is less sensitive to downward trends in the business cycle.

The 2008–2009 Contraction Phase

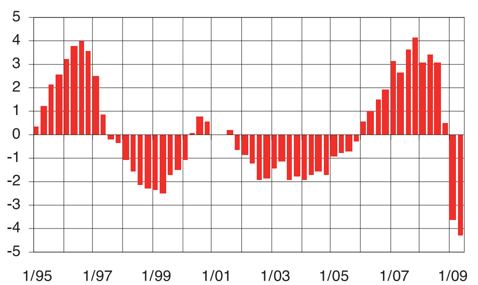
The economic growth in the world economy peaked in 2007 and a rapid fall occurred in 2008. This unfavourable external economic development was significantly influenced by the development of the US economy and the global financial crisis. It was preceded by a long period of rapid credit growth, low risk premia, abundant liquidity and real estate bubbles. The Czech economy was hit indirectly through contagion of falling confidence in autumn 2008, but suffered the full impacts of the global economic recession in 2009.

GDP growth in the Czech Republic slowed significantly in 2008 (to 3.2%). A turning point occurred in the fourth quarter of 2008 as the economic crisis in the external environment fully affected the domestic economy and the economy entered into recession. The slump in the economy further accelerated in the first quarter of 2009, when, according to current data, the y-on-y decline in real GDP was 3.3%, increasing in the second quarter to 5.5%. The contraction in real GDP largely reflected the specialisation in export-dependent manufacturing. Production in industry declined by more than 20% and exports by 18%.

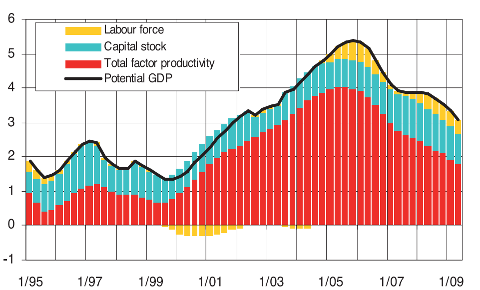
The impact of the economic crisis on the Czech economy was reflected in a y-o-y drop in the registered number of employees of almost 188,000 persons in the second quarter of 2009. This was linked with massive dismissals and cancellation of jobs, especially in industry and related activities (transport and storage), where the average number of hours worked per employee is also decreasing.

It is obvious that the ongoing economic crisis has plunged the economy into a deep negative output gap. According to current calculations, it was approximately -4% in the first half of 2009, which indicates the lowest utilisation of economic potential in the post-transformation period. The increasing negative output gap is being reflected in the economy by a dramatic decrease in utilisation of production capacities in industry to the lowest level since the fourth quarter of 1994, a steep rise in the unemployment rate, a reduction in the number of vacancies, a decrease in inflationary pressures and an external imbalance (Graphs 12 and 13).

Output gap Graph 12
(in % of potential GDP)



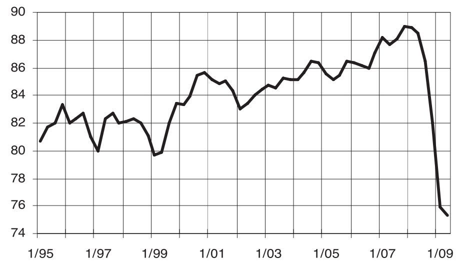
Potential output growth Graph 13
(in %, contributions in percentage points)



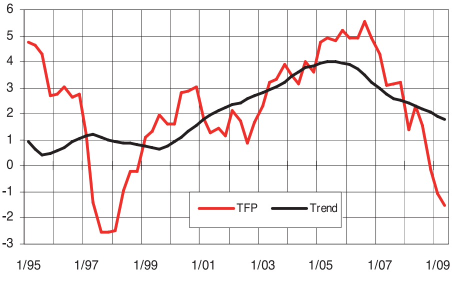
Source: Czech Finance Ministry, 2009.

The economic turmoil in the first half of 2009 resulted in a year-on-year drop in observed total factor productivity. This was reflected in a slowdown in its trend growth to below 2%, compared to 4% in 2005. The slowdown in the growth of total trend productivity is directly reflected in y-o-y potential GDP growth, which will probably only slightly exceed 3%. The further development of potential GDP will depend especially on the duration of the unfavourable economic situation (Graphs 14 and 15).

Utilisation of capacities Graph 14
in industry (in %)



Total factor productivity Graph 15
(y-o-y growth in %)



Source: Czech Finance Ministry.

Short-run Forecast

Numerous prognostic approaches are used to estimate the short-run outlook for the Czech economy for 2009-2010. The estimates are based on the trend in confidence indicators, which signal expected developments in advance, as well as on results from the simulation of a macroeconomic model and on estimates made by experts. The methodological approach to the prognosis is underpinned by an analysis of the position of economy in the business cycle, by the expected development of external and internal conditions and by the direction of the effects of monetary and fiscal policy in the period in question.

The business cycle indicators for the domestic as well as the foreign economy (industry, export and economic sentiment indicators) in the second half of 2009 contain signs of a slowdown and in some cases a halt in the declining trend. Similarly, the projections for the external environment have begun to reflect the reaching of the bottom of the cycle and the start of a recovery. The economic decline as measured by the quarter-on-quarter GDP growth rates will end in the second half of 2009. The economy thus should stabilise at the current low level and recover moderately during 2010.

In 2009, annual real GDP should decrease by 4.3% from the previous year. The central projection of GDP growth for 2010 is 0.3%. There is a risk that GDP will decrease even more in both years. The forecasts involve an extraordinary degree of uncertainty, so the road to recovery may be either short or long and more complicated. A difficult journey to recovery may be caused by the fact that financial crises are usually longer than crises not primarily caused by the financial sector. There might also emerge some latent problems we do not know much about today.

One of the risks is the expectation of default on bank debts. The provisional estimate is close to 7% of all loans, with corporate loans growing faster than loans provided to households. This trend will lead to worse results of banks and other financial institutions and to a deterioration in their balance sheets. The domestic financial sector should be able to withstand these coming shocks to a great extent. However, the lowered interest rates of the Czech National Bank can be expected to be offset by growth in the risk margins of commercial banks in the long term.

Other potential risks which may prolong the recession include a high share of cyclically sensitive branches of the economy, a high share of contributions of pure exports to GDP, the low elasticity of the labour market, and political instability reducing the attractiveness of foreign direct investment in the Czech Republic. Nevertheless, the Czech economy has very good aptitude to cope with the crisis, much better than many other countries.

Compared to other countries, the strengths of the Czech Republic include low external indebtedness, a long-term low rate of inflation and low anchored inflation expectations, a high rate of competitiveness, an elastic exchange rate ensuring adjustment mechanisms in economy, and a healthy banking sector. The strengths of the economy thus outweigh its weaknesses (Table 1).

Table 1

Main Macroeconomic Indicators

		2005	2006	2007	2008 Prelim.	2009 Forecast	2010 Forecast	2008 Previous forecast	2009 Previous forecast	2010 Previous forecast
Gross domestic product	increase in %, const.pr.	6,3	6,8	6,1	3,0	-4,3	0,3	3,2	-2,3	0,8
Consumption of households	increase in %, const.pr.	2,5	5,2	5,0	2,7	1,1	0,7	2,8	0,9	0,9
Consumption of government	increase in %, const.pr.	2,9	1,2	0,7	1,7	1,3	0,5	0,9	1,8	1,2
Gross fixed capital formation	increase in %, const.pr.	1,8	6,0	10,8	-0,1	-5,7	-1,5	3,1	-4,9	-0,2
Contribution of foreign trade to GDP growth	p.p., const.pr.	4,6	1,5	1,1	1,9	-1,8	0,2	2,1	-1,6	0,5
GDP deflator	increase in per cent	-0,3	1,1	3,4	1,6	2,8	1,0	1,7	1,9	0,7
Average inflation rate	per cent	1,9	2,5	2,8	6,3	1,1	1,1	6,3	1,1	0,9
Employment (LFS)	increase in per cent	1,2	1,3	1,9	1,6	-1,8	-2,1	1,6	-1,0	-1,6
Unemployment rate (LFS)	average in per cent	7,9	7,1	5,3	4,4	6,8	8,5	4,4	6,1	7,5
Wage bill (domestic concept)	increase in %, curr.pr.	6,9	7,9	9,4	10,8	1,0	1,0	8,4	2,7	2,3
Current account / GDP	per cent	-1,3	-2,6	-3,1	-3,1	-2,0	-0,9	-3,1	-2,9	-2,6
Assumptions:										
Exchange rate CZK/EUR		29,8	28,3	27,8	24,9	26,8	25,5	24,9	26,9	25,0
Long-term interest rates	% p.a.	3,5	3,8	4,3	4,6	4,5	4,4	4,6	4,3	4,5
Crude oil Brent	USD/barrel	54	65	73	98	62	79	98	53	66
GDP in Eurozone (EA-12)	increase in %, const.pr.	1,8	3,0	2,6	0,8	-4,3	-0,2	0,8	-3,3	-0,5

Source: Ministry of Finance of the Czech Republic.

Monetary Policy Implications

Before the global financial crisis broke out, the Czech financial system was among the most stable in the EU and entered the recession in a relatively strong position. Banks remain well capitalised and profitable. The Czech banking sector recorded a very moderate decline in profit in 2008. Czech banks are conservative in terms of capital adequacy (13.5% in April 2009) and leverage ratio (14%). The external position of the banking sector is also favourable. The external debt of the

Czech banking sector is very low. The net external investment position is positive, the best in the Central Europe region. There is excess liquidity in the banking sector. No loans are needed from international institutions. Deposits exceed loans by 30%, the highest figure in the European Union. Only very few of loans are denominated in foreign currency [42].

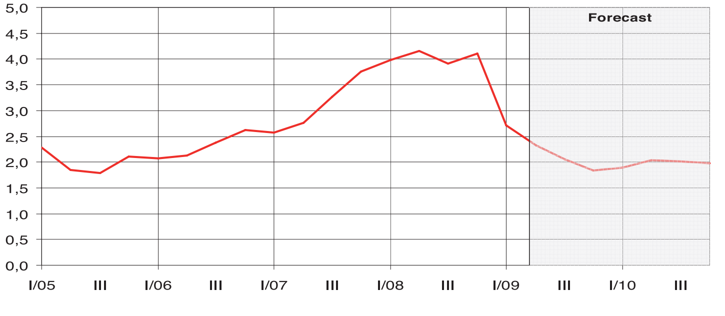
An adverse feedback loop between the real economy and the financial sector is expected in the future. This will involve a slowdown in credit growth, not a credit crunch. The weak economic activity has caused an increase in bad loans, although they are still at very low levels. The low vulnerability of the Czech financial system is supported by appropriate monetary policy aiming at low inflation and low interest rates. The crisis has proved that an integrated supervision within the central bank works well [34].

Drawing on the experience from former economic crises, the state fulfilled its role of last resort in its response to the crisis. This was expressed mainly by a significant increase in state guarantees of bank deposits of the population. This measure was intended to stop the public panicking and to prevent a massive run on the banks. The strengthening of state guarantees can be considered reasonable, even though the Czech banking sector was not in liquidity difficulties, as there was a risk that the population might move their deposits to countries which had increased their guarantees, in some cases with no limits.

The main feature of monetary policy during the crisis was its relaxation. There were several reasons for this step. The absence of demand-related pressures owing to the expected drop in real GDP in 2009, combined with a declining outlook for y-o-y inflation and the strengthening of the Czech koruna, creates scope for a further reduction in basic monetary policy interest rates. The movement of market interest rates, however, will continue to be influenced by the relatively high risk premium. The slow economic recovery expected in the first or second half of 2010 and the return of inflation to the 2% target at the end of the year will be accompanied by a gradual rise in market interest rates (Graph 16).

Graph 16

Interest rate, 3M PRIBOR
(in %)



Source: Ministry of Finance of the Czech Republic.

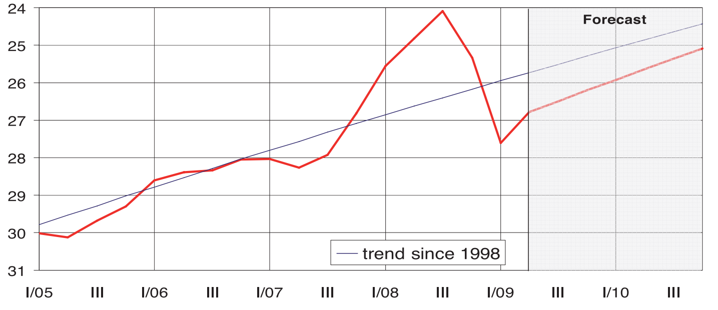
A policy of substantially lowering interest rates is a common procedure for tackling a recession. The aim is to enable banks and non-financial institutions whose liquidity is weakened or threatened to have access to money under less costly conditions. However, the realisation of this aim may be slowed by the unwillingness of banks to lend money when loan interest rates are extremely low, loan repayment is problematic, and low interest rates on deposits may lead to a limited level of saving by the population and thus threaten bank liquidity.

One can thus assume that commercial banks will postpone their plans to lend to any greater extent until leading indicators start to clearly signal the end of the economic decline or the beginning of a recovery. It remains unclear if cheap money is the correct response to a former long-running monetary expansion [20].

For the period ahead it would be useful to create a policy tool framework which reduces imbalances in the financial system. It is important to know the degree of pro-cyclicality of financial intermediation and financial regulation compared with the effects of macroeconomic policies. For these reasons, the challenge is to improve monitoring and analysis of the stability of the financial system as a whole (Graph 17).

Graph 17

CZK/EUR exchange rate (quarterly averages)



Source: Ministry of Finance of the Czech Republic.

The discussion about the Czech Republic's readiness to join the euro area has been going on for years. The factors supporting the introduction of the euro include the high and increasing openness of the Czech economy and its close trade links with the euro area. The euro area accounts for 60% of Czech exports and 50% of Czech imports. The Czech economy is also characterised by high direct investment inflows from the euro area. The Czech economy's strong economic integration with the euro area creates preconditions for increased cyclical alignment with this area.

The main obstacle to the fulfilment of the Maastricht criteria remains the unconsolidated state of public finances, which increased during the global financial and economic crisis. The euro adoption date will therefore depend on resolving these problem areas in a fundamental reform of public finances. The risks also include a large difference in the consumer price level between the Czech Republic and the euro area, which is about 40%. For this reason it would be difficult to fulfil the Maastricht inflation criteria.

The third problem of the Czech economy is its low resilience to the asymmetric shocks generated during the recession by the large deviation of the Czech industrial structure towards a high share of the car industry. The crisis also showed that the flexible exchange rate regime helped to weaken the Czech currency and improved the terms of trade in exports. The impact of these economic factors proves that under the given conditions there are insufficient economic arguments in favour of the Czech Republic joining the monetary union.

A consumer price inflation target is one of the main aims of monetary policy in the Czech Republic. It should be said that consumer prices relate to private consumption, which amounts only 50% of GDP, and that other prices are not included. For this reason, the indicator has only narrow relevance. The key impulse of the current global finance crisis was a strong rise in prices of housing. In this regard, it is an open question whether prices of assets need to be incorporated into the main goals of monetary policy. The technical question is whether we need to have two indicators of price stability – one for consumer prices and another for asset or housing prices. Alternatively, we could have just one composite indicator that explains price stability in the whole economy.

Fiscal Policy Implications

Several factors influenced the fiscal policy response to the crisis. Firstly, the global nature of the financial and economic crisis necessitated a globally coordinated approach. Secondly, the strong impact of the crisis on the real economy forced countriesto use non-standard tools to react to the recession. Thirdly, differences in macroeconomic imbalances and in the health of banks predetermined the dimensions and structure of the anti-crisis stimulus packages in each country. Fourthly, the limited room for growth of budget deficits provoked a need to enhance the effect of fiscal policy above all by means of labour market elasticity. The benefit of this approach consists in its multi-channel positive influence not only on employment and unemployment, but also in terms of reducing state budget expenditure and supporting both the demand and supply side of the economy.

In previous years, the general public fiscal balance in the Czech Republic was positively influenced in particular by the peak phase of the economic cycle. However, the ongoing economic recession is worsening the results and revealing even more structural deficiencies on the expenditure side of the public budgets. The recession is having a strong negative effect on the fiscal position. The general government deficit is expected to reach 6.6% of GDP in 2009. In late 2008 and early 2009, the government adopted two fiscal stimulus packages, overall amounting to 2.8% of GDP over 2009 and 2010 (Table 2)

Table 2

Anti-crisis package

Measures for 2010		ESA 95 (mld. K⊠)		
		Rev	Exp	**Balance**
I. Saving measures				
1.	Property taxes	3,0	0,0	**3,0**
2.	Income tax	0,1	0,0	**0,1**
3.	Excise tax	10,9	0,0	**10,9**
4.	VAT	13,4	0,0	**13,4**
5.	Social security contributions and state employment policy	31,0	0,0	**31,0**
6.	State social support	-0,6	-0,6	**0,0**
7.	Sickness benefit	0,0	-2,4	**2,4**
8.	Employmnet	0,0	-3,5	**3,5**
9.	Health insurance	-4,5	0,0	**-4,5**
Total I.		53,3	-6,5	**59,8**
II. Other measures				
1.	Salaries	-2,3	-5,4	**3,1**
2.	Other	-7,5	-17,7	**10,2**
Total II.		-9,8	-23,1	**13,3**
Total I.+II.		43,5	-29,6	**73,1**

Source: Ministry of Finance of the Czech Republic.

The stimulus packages were elaborated in accordance with the European Economic Recovery Plan agreed by the European Council on 11 and 12 December 2008. This plan calls for a fiscal stimulus introduced at the level both of individual Member States and of the European institutions in an amount of approximately 1.5% of EU GDP. This effort should help the economies to adjust better to the current unfavourable conditions.

In the fiscal packages, several areas have been identified that should receive priority state support within the ongoing economic crisis: employment, easier financing of SMEs, environmental investment and regional transport accessibility. The government has made it clear a number of times already that the debt burden cannot be unreasonably increased and the short-term economic stimulus cannot make the government abdicate from its long-term responsibilities, such as healthcare and pension reforms. There is a strong commitment to budgetary discipline and expenditure ceilings.

When we try to assess the effect of anti-crisis measures, it is convenient to apply the practices from former crisis situations. An analysis of the effectiveness of fiscal policies in past financial and economic crises shows that due to the length of approval procedures changes in tax adjustment or outlay structures of the public budget have a certain delay. This has resulted later in disharmony with the downward phase of the business cycle and has not generated timely expected growth benefits. It should become a desirable rule of budget policy to propose only such measures which have not only a short-term, but also a long-term effect and which apply across the board and do not discriminate against other branches and segments of the market.

Such multi-dimensional effects can be expected particularly for measures to increase the elasticity of the labour market. They mainly involve reducing the indirect costs of labour, which are high, and whose reduction motivates employers to stabilise or increase employment and yields benefits for the competitiveness and performance of the economy. A positive long-term effect on requalification and educational activities and more common use of part-time jobs can be expected as well. The recession can thus be used for the benefit of consolidation and restructuring processes, which would have positive effects in the future.

In the past, aggregate assessments of the effects of state anti-crisis measures in a recession have repeatedly shown that the short-term benefits can be outweighed by negative destabilisation impacts on financial and economic development in the medium or long run. In particular, the growth in inflationary pressures generated by the need to finance the growth in government debt can be included among the future undesired impacts on the economy. A higher level of state intervention in the protection of the domestic market and intervention procedures usually have a spiralling negative effect, meaning that state assistance is also required by other companies that get into insolvency problems.

The efforts of economic authorities to support non-financial companies, particularly in the automobile industry, are particularly problematic. Such measures are protectionist and discriminatory against other industries. They also establish a precedent to be followed, returning us to interventionist policy. This leads to an artificial increase in competitiveness in international markets. The economic policy responses to the economic crisis differ from country to country.

The Czech Republic has a relatively good general government debt position in international comparison. Over the medium term, the debt has been hovering around 30% of GDP. Nevertheless, a significant increase is expected in 2009 to over 35% of GDP. The Czech Republic could still easily meet the Maastricht debt convergence criterion for the time being, but great caution is necessary in view of the increasing rate of debt growth (Table 3).

Table 3

General government balance and debt in selected EU countries

		Balance					Debt				
		2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
EU27	(in % GDP)	-2.4	-1.4	-0.8	-2.3	.	62.7	61.3	58.7	61.5	.
Czech Republic	(in % GDP)	-3.6	-2.6	-0.7	-2.1	-6.6	29.7	29.4	29.0	30.0	35.6
Slovakia	(in % GDP)	-2.8	-3.5	-1.9	-2.3	-6.3	34.2	30.5	29.3	27.7	36.4
Poland	(in % GDP)	-4.1	-3.6	-1.9	-3.6	-6.3	47.1	47.7	45.0	47.2	51.2
Hungary	(in % GDP)	-7.9	-9.3	-5.0	-3.8	-3.9	61.8	65.6	65.9	72.9	78.4
Germany	(in % GDP)	-3.3	-1.6	0.2	0.0	-3.7	68.0	67.6	65.0	65.9	74.2
France	(in % GDP)	-2.9	-2.3	-2.7	-3.4	-8.2	66.4	63.7	63.8	67.4	77.1
United Kingdom	(in % GDP)	-3.4	-2.7	-2.7	-5.0	-12.6	42.2	43.2	44.2	52.0	71.9
Italy	(in % GDP)	-4.3	-3.3	-1.5	-2.7	-5.3	105.8	106.5	103.5	105.8	115.1

Source: Ministry of Finance of the Czech Republic, 2009.

For the Czech Republic, where automatic stabilisers are weak and political factors contribute to fiscal procyclicality, it is great challenge to change fiscal policy to a more counter-cyclical direction. The main criteria for changes in fiscal rules ought to be first of all fiscal sustainability and the position of the Czech Republic in international comparison, which can indicate weaknesses in the fiscal structure.

Most of the changes require above all expenditures from public budgets. The main reason is an excessive share of mandatory expenses, which reduce the room for structural manoeuvring in line with changes in the internal economic conditions, specifically ageing of the population. Government consumption is also abnormally large, amounting to more than 20% of GDP. The oversized public administration expenditures are connected primarily with the large number of ministries and large numbers of state employees.

The revenue side of public finances requires structural changes in two components that differ significantly from the norm in advanced countries. Firstly, individual income tax in the Czech Republic is markedly lower than the current EU level and higher income is not accompanied by progress in taxation. The consequence of this country fiscal position is vulnerability in the functioning of automatic stabilisers during recession.

Secondly, the volume of social contributions to budget revenue will not be sustainable and sufficient for coverage of the dynamically growing financing of the pension and health care systems. The solution is to reform this part of fiscal policy. The position of the Czech Republic in international comparison for other revenue components such as corporate income tax and value added tax is close to the level in EU countries and so their settings do not need to be changed markedly.

Conclusion

This analysis of the business cycle in the Czech Republic in the last two decades has shown that progress was made in 2000-2009, as the number of years of expansion significantly exceeded the number of years of contraction by a ratio of five to one, while in the former decade the ratio was the opposite in favour of more years of contraction. In particular, expansionary monetary and fiscal policies and increased inflow of foreign direct investment contributed to dynamic economic growth.

Importantly, all three components of demand, i.e. private consumption, investment and net exports, contributed to the economic growth (with just small differences in their contributions). Growth in private consumption was underpinned to a decisive extent by prevailingly high growth in real wages supported by fast growth in labour productivity. In the second half of the decade, household savings and growing consumer loans and mortgages accounted to a larger extent for growth in consumption and other segments of the standard of living.

Favourable conditions for investment were created not only by the inflow of foreign direct investment, but also by extremely low interest rates, decreasing taxes, growth in demand for investment in transport infrastructure and, after 2004, also by the good investment climate in European countries in general. The investments were directed mostly into manufacturing industry and services, which were the driving forces of the growth on the supply side of the economy.

After the Czech Republic joined the European Union in 2004, a goods trade surplus started to contribute substantially to the growth in GDP. It was favourably influenced not only by a boom in European countries, but also by a strengthening link to the growth in the performance and exports of the German economy. The Czech Republic's good terms-of-trade results, in the form of faster growth in export prices than import prices, signalling growth in competitiveness in foreign markets, also had a positive influence.

No financial instability in the banking sector has been registered so far. Lending has continued, although its dynamics have slowed compared with the previous period. Banks are not showing liquidity problems and are recording profits. This situation results from the fact that banks were purged of the bad debts that emerged during the transformation of the economy in the previous decade, and also from the existence of a large excess of deposits over loans, from very low issuance of risky loans in foreign currencies and from prudent and conservative management of banks.

The major weaknesses and risk-creating parts of the growth process in the economy in 2000-2007 included a growing outflow of profits and dividends in the income component of the balance of payments. This trend can be explained by the phases of activity of foreign investors in a host country, as a period in which profit was reinvested has been replaced by a period when investment opportunities are weakening and capital is increasingly being transferred back to parent companies abroad. It will thus be necessary to count on the risk of growing undercapitalisation of economy.

The second example of growth in imbalances in the economy is an increase in public debt and the creation of a current account deficit. Admittedly, the internal and external imbalances are not too big compared with other European countries, but the government did not adhere to the principles of prudent behaviour, according to which reserves for years when the economy is in recession should be created at times of growth.

Other problematic issues include the economy's continuing high level of energy demand. This is almost twice as high as the average in the EU-27 countries, and in 2008 it rose further in terms of value. The period of cheap energy is probably now over, owing to growth in world demand, so the burden on the balance of payments will grow after the crisis.

The downward phase of the business cycle started in the Czech Republic at the beginning of 2008. The performance of the economy fell by 3.3% in the first quarter of 2009 and by 5.5% in the second quarter, which was slightly above the EU-27 average. The slump mainly concerned industry, particularly car production on the supply side and investment and exports on the demand side, and was caused by a collapse of external demand. As in other countries in Europe and around the world, the national authorities in the Czech Republic responded to the relatively dramatic fall in GDP, which to some extent resembled the speed of the slump during the Great Depression, by implementing expansionary monetary and fiscal policy.

The anti-crisis packages may increase the public budget deficit to more than 6% of GDP, which is not much different from the plans in other European countries. However, some fiscal support items do not have sufficient economic grounds, as they entail support for specific segments of the market and so lobbyist pressures cannot be avoided. This method not only discriminates against other producers, but also protects the domestic market against foreign competition, which is out of step with the principles of pro-competition policy.

This analysis of the business cycle in the Czech Republic proved a need to improve some elements of stabilisation policy in the post-crisis phase. First, the key medium-term challenge for economic policy makers is to shift fiscal policy pro-cyclicality towards more counter-cyclicality in order to reduce the likelihood of future booms and busts. Second, it is important to refrain from activism as regards expansionary and restrictive monetary policy, as this creates conditions for over-investment in the economy. Third, a more diversified structure of industry might help protect against the negative impacts of external asymmetric shocks on the real economy. Fourth, the priority for employment policy is to increase the flexibility of the labour market, as this could stop the rate of unemployment increasing during recession. Fifth, there is a need for responsible adherence to prudential banking rules, which help to sustain financial stability. Sixth, the main targets of energy policy should include reducing the risks arising from sharp increases in prices of energy-producing commodities, which requires above all technological progress as regards energy saving.

The crisis can be expected to end in a situation where world trade and investment processes recover. Likewise several other medium-developed economies, the Czech Republic has some comparative advantages for post-crisis economic growth compared with the advanced countries. Its favourable economic conditions consist in lower wage, price and debt levels, which are a prerequisite for achieving cost-competitiveness in European markets. The convergence processes – associated with a narrowing gap in economic level between the Czech Republic and the advanced nations – are highly likely to continue. However, progress with structural reforms – pension, healthcare and tax reforms and reforms of the state administration and university education – is a challenge with regard to public finance stability and sustainability.

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