

B Economic Cycle

B.1 Position within the Economic Cycle

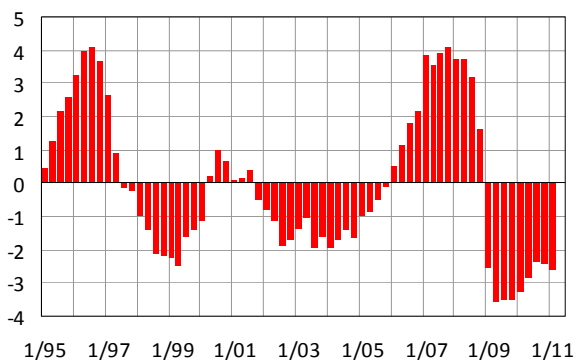
Potential product (PP), specified on the basis of a calculation by means of the Cobb–Douglas production function, indicates the level of GDP to be achieved with average utilisation of production factors. Growth of PP expresses possibilities for long-term sustainable growth of the economy without giving rise to imbalances. It can be broken down into contributions from the labour force, capital stock, and total factor productivity. The output gap identifies the cyclical position of the economy and expresses the relationship between GDP and PP. The concepts of potential product and output gap are used to analyse economic development and to calculate the structural balance of public budgets.

Under current conditions, however, when abrupt changes in the level of economic output have occurred, it is very difficult to distinguish the influence from deepening of the negative output gap from a slowing in PP growth. The results of these calculations thus display high instability and should be treated very cautiously.

Sources of tables and graphs: CZSO, CNB and Ministry of Finance's own calculations.

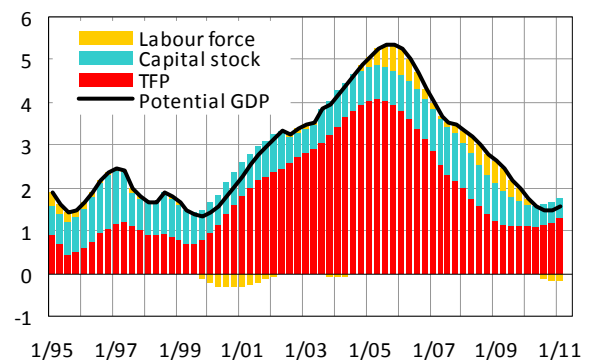
Graph B.1.1.: Output Gap

in % of potential GDP



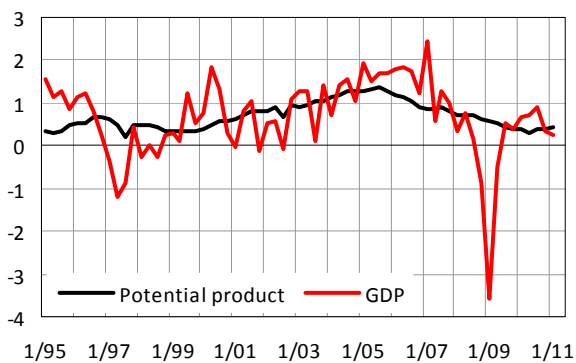
Graph B.1.2: Potential Product Growth

in %, contributions in percentage points



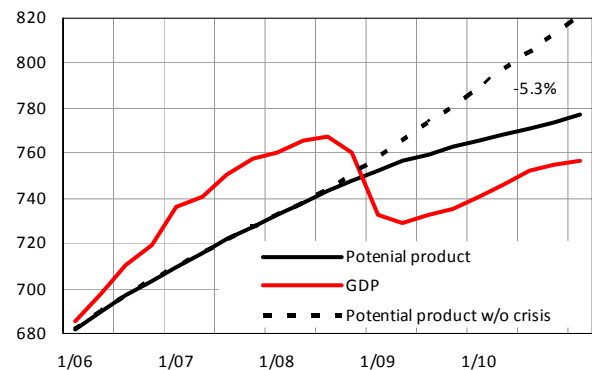
Graph B.1.3: Potential Product and GDP

QoQ growth in %



Graph B.1.4: Levels of Potential Product and GDP

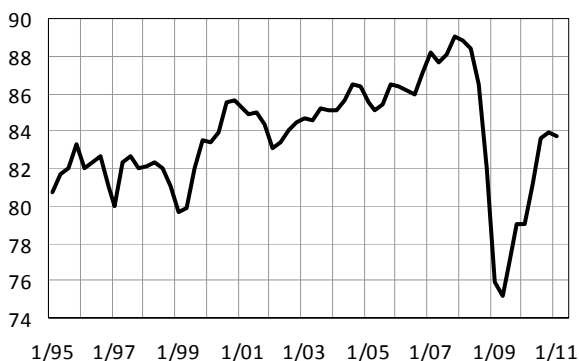
in bill. CZK of 2000



Note: „Potential product w/o crisis“ in graph B.1.4 is a hypothetical level of PP steadily growing from Q4/08 by the average QoQ growth of years 2001–2007.

Graph B.1.5: Utilisation of Capacities in Industry

in %



Graph B.1.6: Total Factor Productivity

YoY growth in %

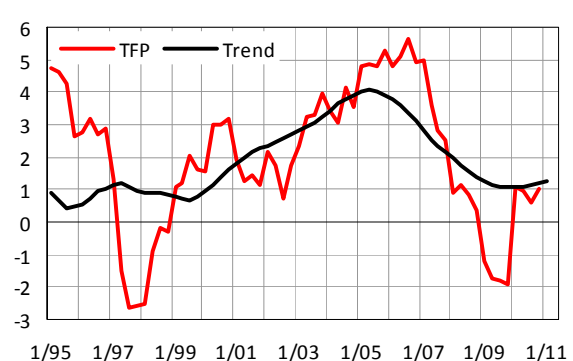


Table B.1: Output Gap and Potential Product

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Output gap	<i>per cent</i>	-0.1	-1.4	-1.5	-1.6	-0.6	1.3	3.7	3.1	-3.4	-2.7
Potential output	<i>growth in %</i>	2.6	3.3	3.7	4.5	5.2	4.8	3.7	3.1	2.3	1.6
Contributions:											
TFP	<i>perc. points</i>	2.0	2.5	3.0	3.7	4.0	3.5	2.5	1.7	1.2	1.1
Fixed assets	<i>perc. points</i>	0.8	0.7	0.7	0.8	0.8	0.9	1.1	1.0	0.7	0.5
Participation rate	<i>perc. points</i>	-0.4	-0.1	-0.2	-0.2	0.2	0.2	-0.2	0.0	0.3	0.2
Demography¹⁾	<i>perc. points</i>	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	-0.2

¹⁾ Contribution of growth of working-age population (15–64 years)

Economic recession in the turn of 2008 to 2009 gave rise to a deeply negative **output gap**. According to the current calculations, it hovered at about the –3.5% mark from the end of the recession in the second quarter of 2009 until the first quarter of 2010, thus indicating the lowest utilisation of economic potential in the post-transformation period. The intensity of economic recovery during the first three quarters of 2010 significantly exceeded the growth of potential product, and the output gap began to close to roughly –2.5%. However, a marked slowdown in growth in the fourth quarter of 2010 and estimated growth for the first quarter of 2011 resulted in this process coming to a halt, at least temporarily.

The foregoing is supported by the fact that the sharp increase in use of capacity in industry also came to a halt just under the long-term average of 84%.

The YoY growth of **potential product** dropped according to calculations to as low as 1.6% in 2010. With regard to the above-mentioned instability of results, we believe, however, that this estimate rather underestimates reality. On the other hand, these calculations show that the QoQ growth could already have reached its minimum during 2010.

The PP component most seriously affected was **total factor productivity** (TFP). The recession led to YoY decline in TFP by 1.8% in 2009 and slowing of the TFP trend growth rate to 1% in 2010 compared to a peak of 4.0% in 2005. In 2010, however, TFP's trend growth showed signs of stabilising. Preparations to increase

labour market flexibility should improve the situation substantially.

A major drop in investment activity led to a decrease in **capital stock's** contribution from 1.1 p.p. in 2007 to 0.5 p.p. in 2010.

The labour supply, measured as a levelled ratio of labour force to the number of inhabitants aged 15–64, paradoxically accelerated its growth during the recession in 2009, and in 2010 it contributed to a rise of PP by approx. 0.2 p.p. It thus compensated the moderate decline in the number of inhabitants aged 15–64.

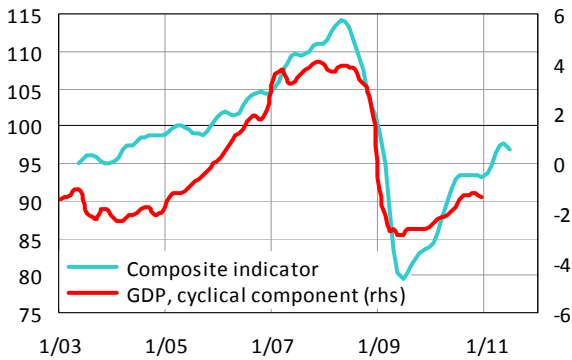
Graph B.1.4 illustrates that the recession and the slow overcoming of its consequences have so far resulted in a loss of approx. 5.3% on the PP level.

Future PP development will depend on the pace of economic recovery. To close the negative output gap and re-accelerate potential growth, the economy will need to achieve constantly higher paces of GDP growth relative to PP.

B.2 Composite Leading Indicator

The composite leading indicator is compiled from the results of business cycle surveys that fulfil the basic demands made on leading cyclical indicators: that they are economically significant, demonstrate statistically observable leading relationships with regard to the economic cycle, and are regularly available on a timely basis. Since October 2010, the indicator is compiled from those business cycle indicators that have showed a high level of correlation with an average lead time of three months.

Graph B.2.1: Composite Leading Indicator
 average 2000 = 100 (lhs), in % of GDP (rhs)
 synchronized with cyclical component of GDP based on statistical methods (Hodrick-Prescott filter)



For the fourth quarter of 2010, the composite indicator signalled stagnation of the cyclical components of GDP, with the data published in March 2011 confirming this.

For the first quarter of 2011, this indicator signals growth of the cyclical components of GDP, especially due to higher expectations in the industrial sector. In the second quarter of 2011, the cyclical components of GDP should again stagnate according to the composite indicator, with the reason for this being lower expectations in the trade and service sectors.

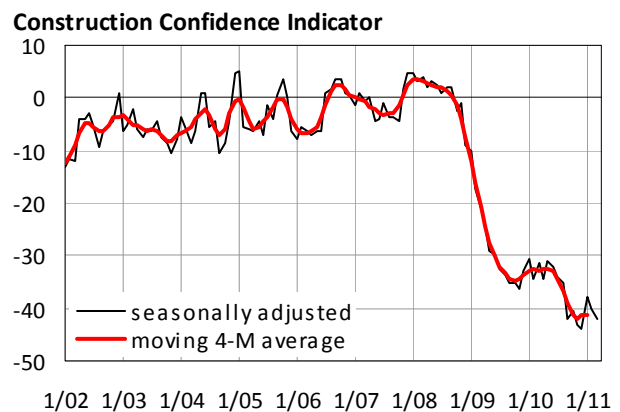
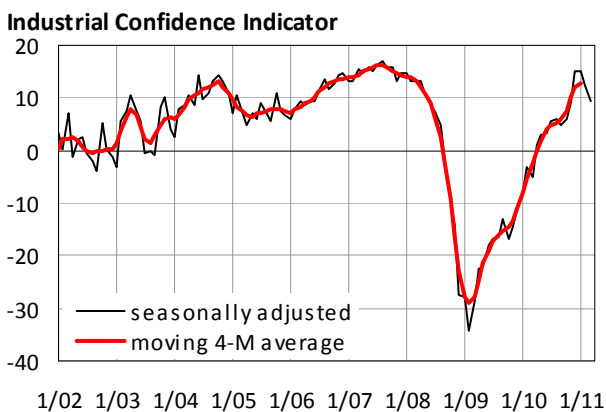
B.3 Individual Business Cycle Indicators

Business cycle indicators express respondents' views as to the current situation and short-term outlook and serve to identify in advance possible turning points in the economic cycle. The main advantage lies in the quick availability of results reflecting a wide range of influences that shape the expectations of economic entities.

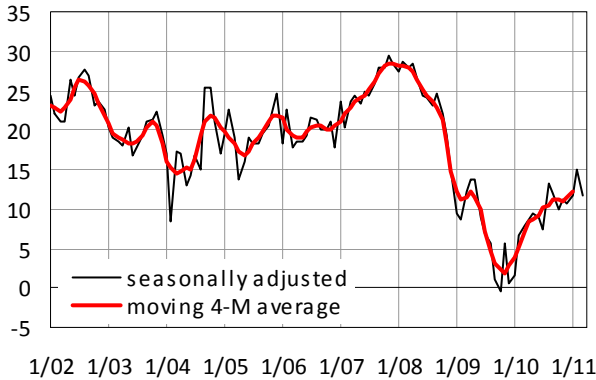
The surveys share a common characteristic in that respondents' answers provide not direct quantification but rather use more general qualitative expressions (such as better, the same, worse, or growing, not changing, falling, etc.). Tendencities are reflected in the business cycle balance, which is the difference between the answers "improvement" and "worsening", expressed in percentages of observations.

The aggregate confidence indicator is presented as a weighted average of seasonally adjusted indicators of confidence in industry, construction, retail trade and selected services sectors as well as of consumer confidence. Weights are established as follows: the indicator of confidence in industry is assigned a weight of 40%, those for construction and retail trade 5% each, that for selected services 30%, and that for consumer confidence 20%.

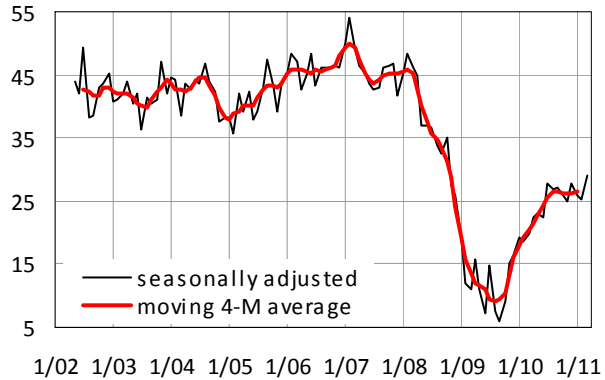
Graph B.3.1: Confidence Indicators



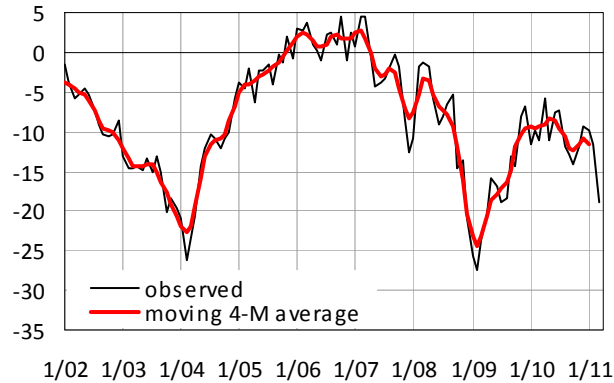
Retail Trade Confidence Indicator



Selected Services Confidence Indicator



Consumer Confidence Indicator



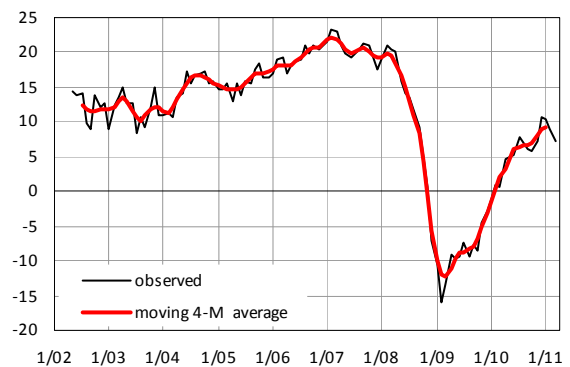
At the beginning of 2011, respondents from **industrial enterprises** were careful in their evaluation of the economy. While they continued to give the economic situation an ever higher evaluation, their evaluation of foreign demand stagnated and their evaluation of overall demand went down slightly. For the second quarter of 2011, respondents, with regard to restricted demand, expected growth in production activity to slow down along with a reduction in employment. This less positive development is also reflected in the evaluation of the future economic situation, especially over the next six months.

In **construction**, evaluation of the economic situation and demand stabilised. When assessing construction activities for the second quarter of 2011, a hint of improvement can be seen, but without an increase in employment. An improvement occurs in the assessment of the development of the economic situation over both the three-month horizon and the six-month horizon.

Retail trade respondents improved their assessment of the current economic situation, as did **service** respondents. While retail trade respondents expect a deterioration of the economic situation, respondents from certain service sectors expect steady demand.

Consumer confidence dropped quite markedly in the March survey. The survey showed that for the next 12 months, consumers are worried about a deterioration of the overall economic situation and even their financial situation. Furthermore, expectations related to unemployment deteriorated and concerns over increasing prices grew.

Graph B.3.2: Aggregate Confidence Indicator



Based upon the individual business cycle indicators, it could be assumed that QoQ growth in the first quarter of 2011 could moderately slow and maintain a similar level in the second quarter. Development of demand remains a risk.