

B Economic Cycle

B.1 Position within the Economic Cycle

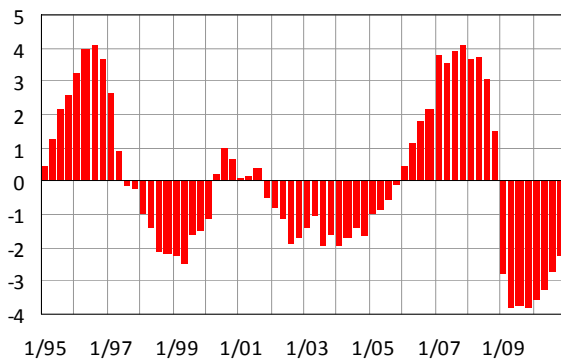
Potential product (PP), specified on the basis of a calculation by means of the Cobb–Douglas production function, indicates the level of GDP to be achieved with average utilisation of production factors. Growth of PP expresses possibilities for long-term sustainable growth of the economy without giving 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.

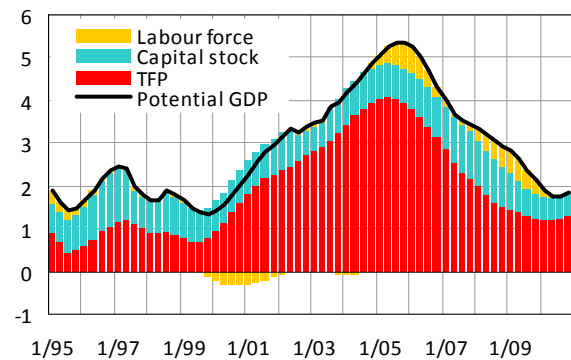
Graph B.1.1.: Output Gap

in % of potential GDP



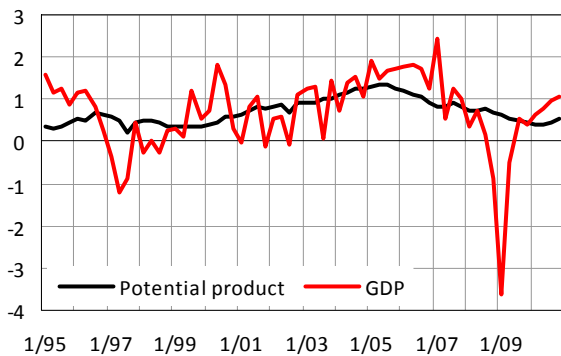
Graph B.1.2: Potential Product Growth

in %, contributions in percentage points



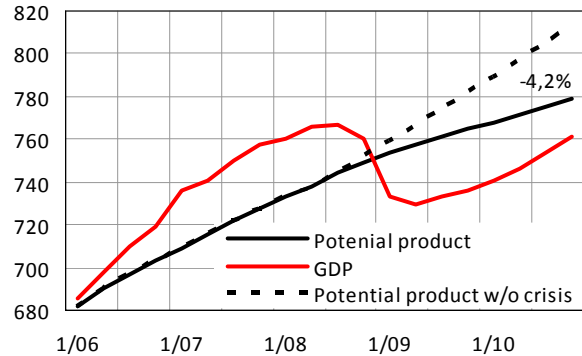
Graph B.1.3: Potential Product and GDP

QoQ growth in %



Graph B.1.4: Levels of Potential Product and GDP

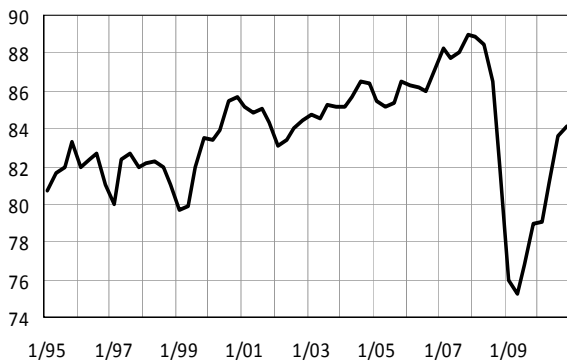
in bill. CZK of 2000



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 %

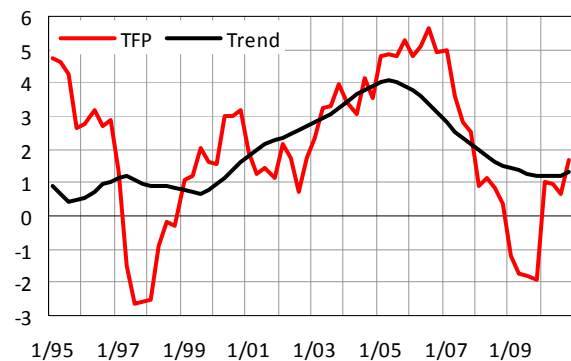


Table B.1: Output Gap and Potential Product

		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	-3,6	-3,0
Potential output	<i>growth in %</i>	2,6	3,3	3,7	4,5	5,2	4,8	3,7	3,1	2,5	1,8
Contributions:											
TFP	<i>perc. points</i>	2,0	2,5	3,0	3,7	4,0	3,5	2,5	1,7	1,3	1,2
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 from the turn of 2008 to 2009 gave rise to a deeply negative **output gap**. According to the current calculations, it hovered slightly above the –4% 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. Since the second quarter of 2010 the intensity of economic recovery has exceeded the growth of potential product and the negative output gap began to close. Calculations show that in the fourth quarter of 2010 it reached circa –2.3%.

Closing of the negative output gap has been reflected in the economy by a sharp increase in industrial production capacities utilisation to 84.2% in the fourth quarter of 2010, which corresponds roughly with the long-term average. An increase of seasonally adjusted registered unemployment in the fourth quarter was apparently only temporary and was caused more by changes in the conditions of providing benefits and the process of fiscal consolidation (see more in Chapter C3).

The YoY growth of **potential product** probably fell to as low as 1.8% in 2010. The calculations show, however, 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 1.3% compared to a peak of 4.0% in 2005. In 2010, however, TFP's trend growth showed signs of stabilising. The economic reforms in preparation, and

especially those increasing labour market flexibility, should improve the situation substantially.

A deep drop in investment activity led to a decrease in **capital stock's** contribution from 1.1 p.p. in the fourth quarter of 2007 to 0.5 p.p. in the fourth quarter of 2010.

The labour supply, measured as the 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 ca 0.2 p.p. Thus, it compensated the moderate decline in the number of inhabitants aged 15–64.

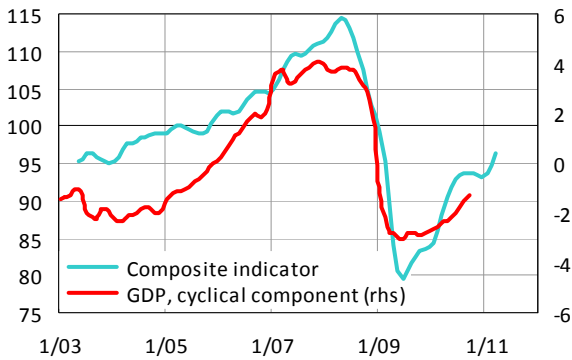
Graph B.1.4 illustrates that the recession and overcoming its consequences have so far resulted in a loss of ca 4.2% in the PP level.

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 third quarter of 2010, the composite indicator signalled growth in GDP's cyclical component, as supported by data published in December 2010.

In 2010's fourth quarter, the indicator value stagnated, while for the first quarter of 2011 the indicator is signalling further growth in the cyclical component of GDP. The indicator's stagnation in the fourth quarter had been caused especially by the indicators 3-month demand outlook for construction and economic situation among retailing trading enterprises. The indicator's growth in the first quarter of 2011 is due to moderate gains in substantially all contributing sub-indicators.

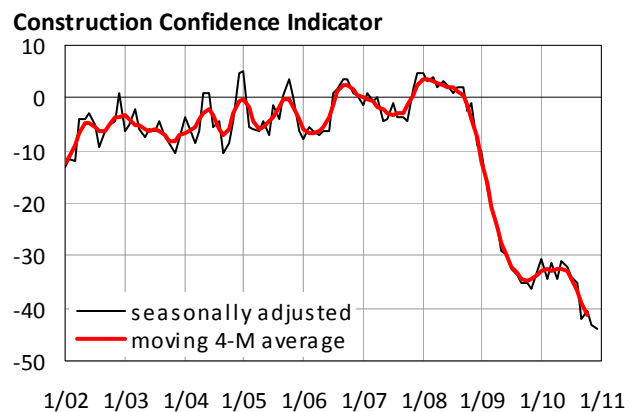
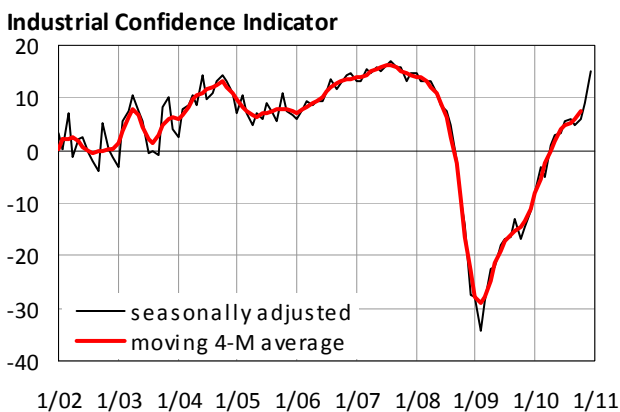
B.3 Individual Business Cycle Indicators

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.

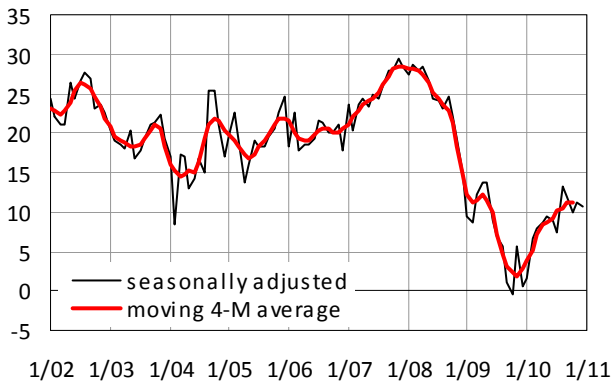
The surveys share a common characteristic in that respondents' answers provide not direct quantification but rather use more general qualitative expressions (such as better, the same, worse, or growing, not changing, falling, etc.). Tendencies are reflected in the business cycle balance, which is the 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%.

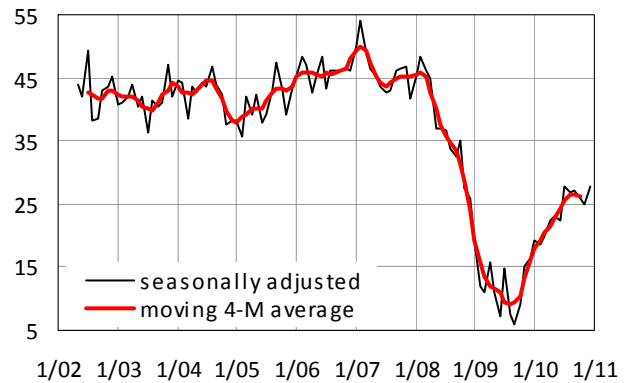
Graph B.3.1: Confidence Indicators



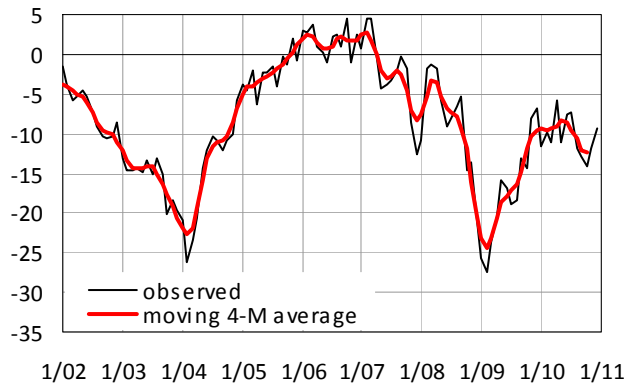
Retail Trade Confidence Indicator



Selected Services Confidence Indicator



Consumer Confidence Indicator



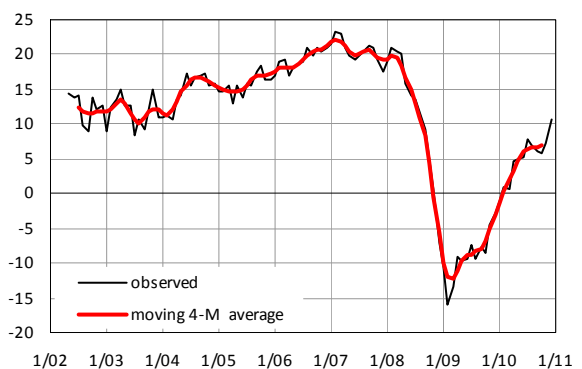
In the fourth quarter of 2010, respondents from **industrial enterprises** continued in their positive evaluation of the economy, and that includes their views of economic situation as well as overall and external demand. In the outlook for the first three months of 2011, assessments modestly improved for both production activity and employment. On three-month and six-month horizons, respondents were more cautious in assessing the economic situation. Demand development (and especially domestic) remains a risk.

In **construction**, there continued an unfavourable assessment of the economic situation, with low demand and weak construction activities. Only in assessing construction activities for the first quarter of 2011 was there seen a hint of improvement, and anticipated employment begins to stabilise. A minute improvement occurs also in the assessment for the economic situation on the three-month horizon, while it stagnates for the six-month horizon.

Although **retail trade** respondents gave a slightly worse assessment of the current economic situation, they are more optimistic in the outlook. For **selected services**, the situation is stable while the assessment of expected demand and the economic situation improved slightly.

Consumer confidence modestly increased late in 2010. The December survey showed that for the next 12 months consumers expect improvement in the overall economic situation. Expectations concerning their financial situations and unemployment also improved slightly.

Graph B.3.2: Aggregate Confidence Indicator



Based upon the individual business cycle indicators, it could be assumed that QoQ growth in the fourth quarter of 2010 could have been similar to that of the third quarter and that QoQ growth in the first quarter of 2011 could moderately slow. Further gain in demand remains a risk here.