

A Forecast assumptions

The forecast was prepared on the basis of data known as of 25 June 2009. No political decisions, newly released statistics, or world financial or commodity market developments could be taken into account after this date.

A.1 External environment

As a result of the financial market crisis that has spilled over into the real economy, the first **drop in global economic output** since the Second World War is expected during 2009. The American economy is absorbing the consequences of the dramatic events on financial markets, and the U.S. administration is actively trying to restructure banks and boost the real economy. There are indications of definite improvement, but this is expected to be very slow.

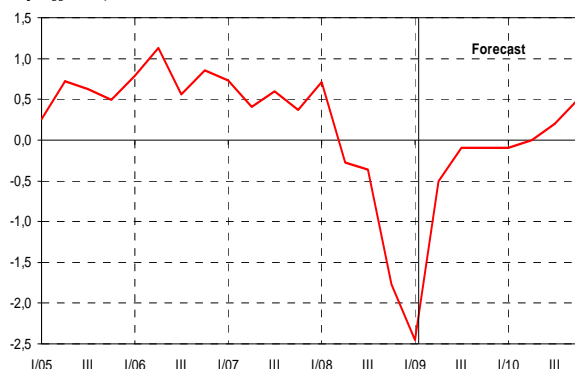
The problems in advanced economies have extended also to developing economies. The volume of world trade as well as of industrial production has fallen sharply in many countries. Inflation has approached zero, and the price of oil has begun to increase once again.

All countries that are important trade partners of the Czech Republic (excluding Poland) are now in recession.

Our projection is based on an assumption that no more distinct negative events will occur on financial markets. Similarly as in the previous forecast, we expect the problems in the real economy to persist in global terms until 2010 with slight indications of improvement.

Graph A.1.1: Growth of GDP in EA12

QoQ growth in % (adjusted for seasonal and working day effects)

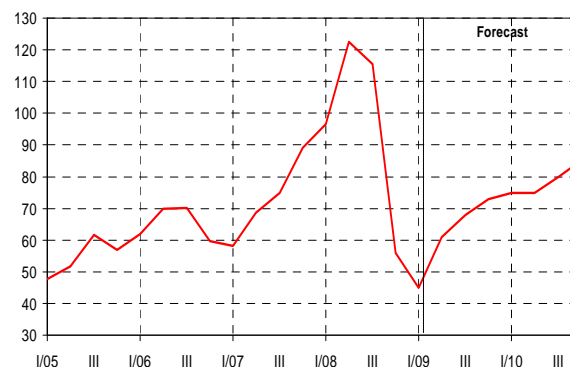


Considering the extremely high volatility of oil prices in 2008, it is not easy to estimate the future price development. It is clear that the price is also significantly influenced by more than just the fundamental factors.

Dollar prices for Brent oil, which had fallen sharply in the second half of 2008, stabilised

in the first quarter of 2009 and began to rise again in the second quarter. For the coming period, a scenario of recovery and with an increasing trend was chosen. So far, lower demand has been compensated by supply restrictions due either to cuts in OPEC's production quotas or to economic reasons among producers with higher extraction costs. An influence from speculation also can be seen.

Graph A.1.2: Dollar Prices of Brent Crude Oil
in USD per barrel



For more details on the external environment, see chapter C.8.

A.2 Fiscal policy

In previous years, the general government balance was positively influenced in particular by the peak phase of the economic cycle. However, the ongoing economic recession is worsening results and revealing even more the structural deficiencies on the expenditure side of public budgets.

According to preliminary CZSO data, the general government deficit reached **1.5% of GDP in 2008**, which is 0.9 percentage points poorer than in 2007. This was mainly caused by the worsening economic development in the second half of 2008.

At present, the general government deficit is expected to reach **5.5% of GDP in 2009**. This estimate is 1 percentage point worse than that in the recently published Fiscal Outlook, which was based on the April forecast. The reason is a deeper expected economic decline and the related disinflation, which will result in lower tax revenues. The presented scenario includes the measures of the National Anti-crisis Plan adopted so far. Their fiscal impact is presented in box A.1.

Box A.1: Overview of the government's National Anti-crisis Plan measures and their impacts on public budgets in 2009 (*annual basis*)

Measures	R&E General Govern.		
	ESA 95 (<i>in bill. CZK</i>)		
	Rev	Exp	Balance
I. Realised and approved measures			
1. Integration of resources from reserve funds		-1,5	1,5
2. Increase in guarantees to SMEs	-0,5		-0,5
3. Support of agriculture entrepreneurs		2,3	-2,3
4. Increase in the Program of Countryside Development		0,3	-0,3
5. Investments in R&D above the framework approved by the state budget		0,3	-0,3
6. Increase in investments into traffic infrastructure		7,2	-7,2
7. Increase in public sector wages	0,4	2,7	-2,3
8. Increase in expenditures on direct payments - co-financing		1,0	-1,0
9. Decrease in the social security contribution paid by employees	-18,4		-18,4
10. Decrease in the rate of the CIT	-6,0		-6,0
11. Increase in the base capital of the Czech Export Bank			0,0
12. Increase in the insurance coverage of the Export Guarantee and Insurance Corporation (EGAP)			0,0
13. Change of the law on the insurance of a state-supported export			0,0
14. Fiscal impuls of a support of R&D		1,9	-1,9
15. Decrease in advance payments on income taxes			0,0
16. Broadening of the VAT deduction on personal vehicles	-2,4		-2,4
17. Abolition of advances for taxpayers with less than 5 employees			0,0
18. Further increase in investments		4,0	-4,0
19. Subsidy programme of an energy buildings' demandingness reduct.			0,0
20. Boost of the subsidy programme "PANEL"		0,6	-0,6
21. Expenditure increase in the provision of transport services		3,2	-3,2
Total I.			-48,9
II. Law on economic growth boosting and social stability			
1. Faster depreciation in the 1st and 2nd depreciation group	-9,4		-9,4
2. Reductions for employers on SSC	-18,0		-18,0
3. Higher tax credit for children	-1,0		-1,0
4. Longer and extended unemployment benefits		1,0	-1,0
5. Higher allowance for children		0,8	-0,8
6. Scrapping premium for old cars		2,5	-2,5
Total II.			-32,7
Total I. + II.			-81,6
III. Proposed measures			
1. Guarantee and a support of SME's credits		2,1	-2,1
2. Decrease of VAT on selected services	-3,5		-3,5
Total III.			-5,6

On 15 May 2009, the Chamber of Deputies of the Czech Parliament approved the Act on Support of Economic Growth and Social Stability, an amendment to the Act on Social Security Insurance and an amendment to the Income Tax Act and submitted these to the Senate, which discussed and adopted them at its eighth meeting on 17 June 2009. The measures introduced from the Act on Support of Economic Growth and Social Stability become effective as from 1 July 2009 (except measures concerning unemployment benefits, which are valid as from 1 November 2009). Most of the measures from this Act are valid through the end of 2010, excluding that for accelerated depreciation concerning assets acquired before 30 June 2010. The car-scraping scheme, the provisions for which are so far only generally stated, presents a special case. The final decision will be made by the government formed on the basis of the early elections in autumn.

On 12 June 2009 in the first reading as part of the amendment of the Value Added Tax Act, the Chamber of Deputies approved the transfer of select services to a lower VAT rate. These are services with a high labour content, e.g. restaurant services, hairdressing, and bicycle, clothing and upholstery repairs. The bill was submitted to the parliamentary committees for discussion.

The impacts of the indicated measures are quantified using the ESA 95 methodology. For this reason, they may vary from the actual claims for public financing. For example, an increase in CEB's equity will take the assumed CZK 2bn while under the ESA 95 methodology such financial operation has no impact on the final balance as one financial asset (cash, which decreases) is simply exchanged for another (the state's ownership interest in CEB, which increases). Similarly, the involvement of resources from reserve funds to cover state budget expenses will represent income for the state budget, but it is not recognisable under the ESA 95 methodology. Not even a postponement of advance payments, representing a shortfall in tax revenues, constitutes a change in the amount of accrual taxes. In the case of the reduction in the VAT rate for the selected services, the yearly impact is given. Only half the amount is included in the amount of the reported deficit, however, as this change is assumed to be effective from mid-year.

Unlike the government's National Anti-crisis Plan, we do not indicate a positive impact from tying individual chapters' operational costs as these funds will be used to cover increased claims resulting from mandatory social expenditures.

It is likely that due to agreements between the parliamentary parties and the logistics of the election cycle additional anti-crisis or pre-election measures will be adopted that will further deepen the mentioned deficit. Due to the current situation, the MoF is presently unable to estimate which of the various proposed measures eventually will be approved, when they will be implemented, and what their fiscal impacts will be. Whatever the extent of the adopted measures, their financing may not be simple in future years. Both the absorption capacity of the bond market and the country's tax-collection potential will be affected by the ongoing crisis.

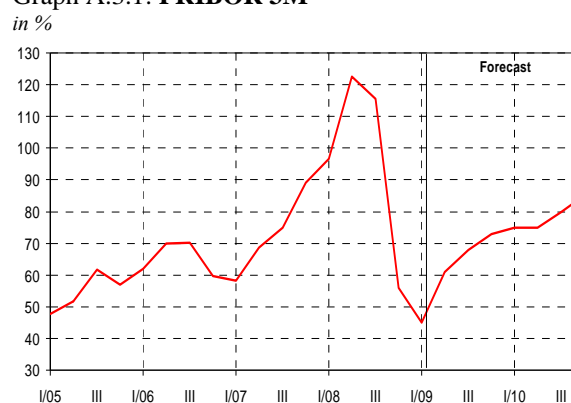
For more details on public budgets, see chapter C.7.

A.3 Monetary policy and exchange rates

CNB's monetary policy is based on an **inflation targeting** regime. The inflation target is defined as the year-on-year increase in the CPI. Through the end of 2009, it is set at 3.0% with a tolerance band of ± 1 percentage point, while a new target is set at **2.0%** from January 2010. The inflation target is set for the medium term with a monetary policy horizon of 12–18 months.

The absence of demand-related pressures with respect to the expected drop in real GDP in 2009 combined with the declining outlook for year-on-year inflation and the strengthening Czech koruna (CZK) create the possibility for further reduction in basic monetary policy-related interest rates. The movement of market interest rates, however, will continue to be influenced by the relatively high risk premium. The slow recovery of the economy that we expect in the 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 of market interest rates.

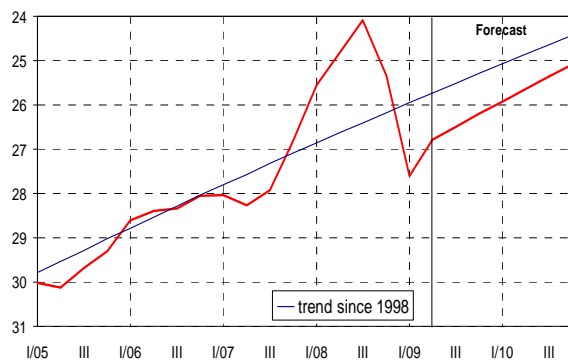
Graph A.3.1: **PRIBOR 3M**



For more details on interest rates, see chapter C.6.

On 21 July 2008, a historic record for the **exchange rate** was reported at CZK 22.97/EUR. A subsequent steep correction, caused by the outflow of financial investments from developing markets, resulted in the exchange rate's weakening to a low of CZK 29.47/EUR on 17 February 2009. The average value in May 2009 was CZK 26.74/EUR, which was 3.8% weaker than the trend value. The relatively weak exchange rate could help exporters to better cope with the drop in external demand.

Graph A.3.2: **Exchange Rate CZK/EUR**
quarterly averages



The adopted scenario assumes that in the third quarter of 2009 the exchange rate will hover around an average of CZK 26.50/EUR, tending toward moderate nominal and real appreciation. Nevertheless, it should remain weaker than the trend value.

A.4 Structural policies

National Anti-crisis Measures

The government is continuously executing a number of anti-crisis measures within its competence. Based on an agreement between political parties, both chambers of Parliament adopted the Act on Support of Economic Growth and Social Stability in June 2009. It contains anti-crisis measures requiring legislative changes. More details on the individual measures are presented in box A.1.

Business environment

The **Act on Free Movement of Services** was adopted by the Senate on 17 June 2009. This regulation implements into the Czech legal order the Directive on Services in the Internal Market, which considerably liberalises services provision in the EU. The Act is to become effective as at 28 December 2009, honouring the obligation of EU Member States to implement the Directive by the end of 2009.

The **Report on Fulfilment of the Plan to Reduce Administrative Burdens on Businesses by 2010 and Its Acceleration** was approved by the government on 20 April 2009. Other activities related to reducing administrative burdens will give priority focus to the ten most important standards, which, according to estimates, represent a burden on businesses of CZK 55 billion.

An amendment to the **Tax and Fee Administration Act** adopted by the Chamber of Deputies on 10 June 2009 is one of the planned

measures for reducing the administrative burdens on businesses. It exempts small and medium-size businesses from the obligation to keep a log book for recording expenditures related to trips made with a company car.

On 1 July 2009, the **Act on Electronic Operations and Authorised Document Conversion** (the eGovernment Act) became effective. The Act regulates the electronic operations of select public administration authorities and legal entities and introduces an information system of data boxes and the authorised conversion of documents. This change should gradually contribute to reducing hardcopy documents and increasing the speed and certainty of delivering official correspondence.

Financial market

An amendment to the **Act on Capital Market Undertakings** which transposes several EU directives into the Czech legal order was approved by the Senate on 17 June 2009. The Act amends the rights and obligations of businesses and other entities whose securities are traded on capital markets.

On 10 June 2009, the Chamber of Deputies approved an amendment to the **Banks Act** to allow the state in future to take over banks that would encounter serious difficulties. The Act simplifies the process of increasing a bank's capital and enables CNB to react more flexibly to banks' current problems.

Taxes

On 17 June 2009, as part of its regulation of the tax process, the Chamber of Deputies adopted a new **Tax Code**. It aims to reduce administrative costs and to simplify the administrative process, restricts certain powers of the Minister of Finance, and introduces a new approach for tax execution. The Act is to become effective as at 1 January 2011.

Education, science and research

At present, **Reform of the Research, Development and Innovation System** is being implemented. Its goal is to simplify administration, to utilise public funds for R&D more effectively, and to increase contribution to research, development and innovation for the Czech economy. As part of this reform, the Czech Government adopted on 8 June 2009 the **National Policy of Research, Development and Innovations of the Czech Republic for 2009**

through 2015, defining the state's attitude to an innovative environment and its future direction.

Energy and climate change

The amendment to the **Energy Act** is to take effect on 4 July 2009. This amendment simplifies business activities in the energy industry by specifying more definitively the level of control over the energy market, by creating space for agreement between customer and supplier, and by regulating the sanctioning of illegal consumers.

Labour Market

Several persisting structural problems (motivation to work, discrimination against certain groups of workers, insufficient harmonisation of the education system with the changing demands of the labour market, and low regional and professional mobility) are being joined by problems of economic recession, the solution of which should be aided by select stabilisation measures.

The amendment to the **Employment Act and the Act on Assistance in Material Poverty**, which increased the interconnection of job seekers' entitlements to material security with the system of assistance in cases of material poverty and introduced stricter rules of active employment policy, aims to strengthen economic activity. The support period for unemployment was shortened by one month, while unemployment benefits were increased – it is provided for the first two months at 65% of the average net monthly wage earned at the last job, at 50% for the next two months, and at 45% for the remaining part of the support period.

The anti-crisis package prolongs the support period once again by one month and increases unemployment benefits to 80% in the first two months and to 55% in the remaining period.

The method of paying material-poverty assistance benefits has changed: since the start of 2009, at least 35% and at most 65% have been provided in the form of vouchers for the purchase of goods.

In the **health insurance** system, the payment of benefits was abolished for the first three calendar days of illness and payment of the benefits by the employer was established for the fourth through fourteenth days of sickness. This measure should eliminate abuse of sick leave and reduce the rate of illness in the Czech Republic. The changes were accompanied by a cut in the **social security insurance** rate by 1.0 percentage point (in 2010 by an additional 0.9 percentage points for some employers). The insurance rate paid by employees also was cut by 1.5 percentage points (employees now pay only pension and health insurance), while the personal income tax rate and amount of tax allowances were preserved. The higher child benefits and increase in tax allowance/bonus per child from 2010 should ensure an increase in 2009 net income for persons having children.

The **first phase of the pension reform** extended the gradual increase of the statutory retirement age up to 65 years for men and 62–65 years for women (depending on the number of children raised). Furthermore, it extended the mandatory period of insurance to 35 years and excluded periods of study from the alternative periods of insurance. It also re-evaluated the definition of full and partial disability, introducing three tiers with differing amounts of the paid benefit. It reinforced the motivation for older persons to remain in the labour market by means of more severe cuts in retirement pensions in case of early retirement and by increasing the percentage calculation of a retirement pension in case of employment while drawing a full or partial pension.

The introduction of discounts to the social insurance premium for each employer paying for an employee whose wage is lower than 1.15 times the average wage is one of the measures mitigating the impact of the economic crisis on demand. The rate of the discount then decreases linearly after a certain income level of the employee is reached. This legal provision has a retroactive clause (also retroactive for 2009) and will be effective until 2010.

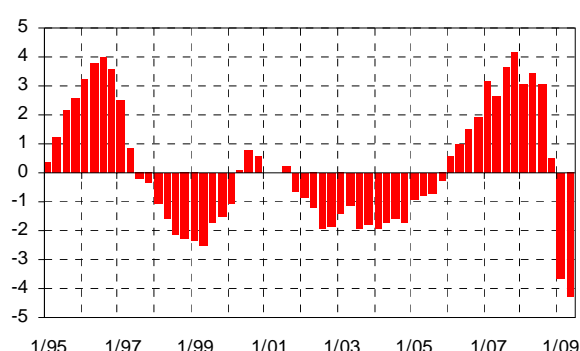
B Economic cycle

B.1 Position within the economic cycle

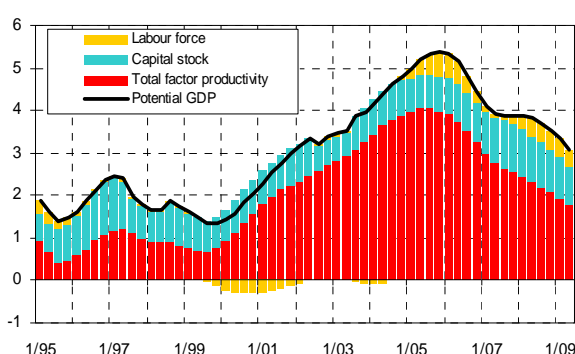
Potential GDP, specified on the basis of a calculation by means of the Cobb-Douglas production function, indicates the level of GDP achieved with average use of production factors. A rise in potential GDP represents possibilities for long-term sustainable growth of the economy free of imbalances. It can be broken down into contributions of the labour force, capital stocks, and total factor productivity. The output gap identifies the cyclical position of the economy and expresses the relationship between actual GDP and potential GDP. The concepts of potential GDP and output gap are used to analyse economic development and to calculate the structural balance of public budgets.

Under current conditions, however, when a steep decline in economic output is taking place, it is very difficult to distinguish the influence of a deepening of the negative output gap from that of a slowdown of potential GDP growth. The results of these calculations thus display high volatility and should be treated very cautiously.

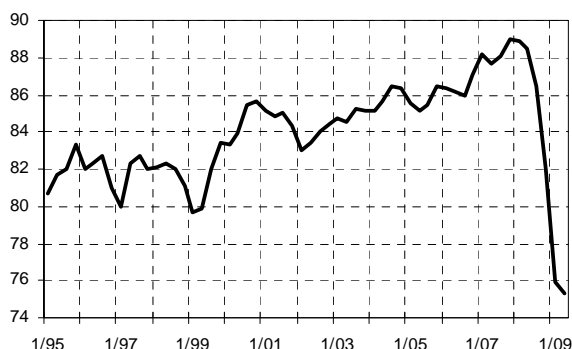
Graph B.1: Output Gap
in % of potential GDP



Graph B.2: Potential Product Growth
in %, contributions in percentage points



Graph B.3: Utilisation of Capacities in Industry
in %



Graph B.4: Total Factor Productivity
YoY growth in %

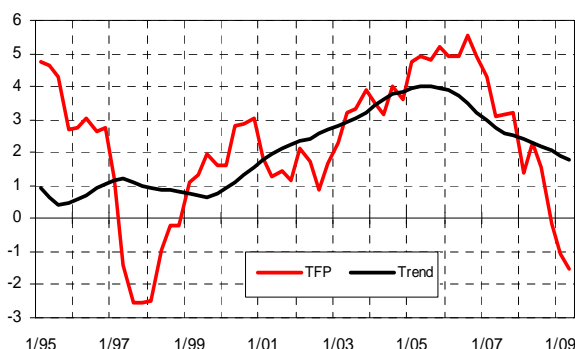


Table B.1: Output Gap and Potential Product

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 Q1-2
Output gap	per cent	0,0	-0,2	-1,5	-1,6	-1,6	-0,6	1,2	3,3	2,5	-4,0
Potential output	growth in per cent	1,7	2,6	3,3	3,7	4,5	5,2	4,9	3,9	3,7	3,2
Contributions:											
TFP	percentage points	1,2	2,0	2,5	3,0	3,7	4,0	3,6	2,7	2,3	1,9
Fixed assets	percentage points	0,8	0,8	0,7	0,7	0,8	0,8	0,9	1,1	1,1	0,9
Participation rate	percentage points	-0,5	-0,4	-0,1	-0,2	-0,2	0,2	0,2	-0,2	0,0	0,2
Demography ¹⁾	percentage points	0,2	0,2	0,2	0,2	0,2	0,2	0,3	0,3	0,4	0,2

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

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 reflected in the economy by the drastic decrease in utilisation of production capacities in industry to the lowest level since the fourth quarter of 1994, the steep rise in the unemployment rate, the reduction in the number of vacancies, and the decrease of inflationary pressures.

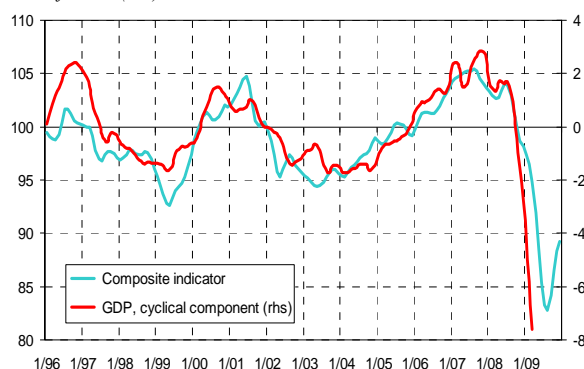
B.2 Leading composite indicator

The leading composite indicator is compiled from the results of business cycle surveys that fulfil the basic demands made on leading cyclical indicators – they are economically significant, demonstrate statistically observable leading relationships with regard to the economic cycle, and are regularly available on a timely basis.

Based on an analysis of the relationships between individual business cycle indicators and the cyclical component of real GDP, a change was made in the composition of the leading composite indicator in December 2008. Presently, the indicator is compiled from those business cycle indicators that showed a high level of correlation with an average lead time of six months.

Graph B.5: Leading Composite Indicator

average 2000=100 (lhs)
synchronized with cyclical component of GDP based on statistical methods (Hodrick-Prescott filter)
in % of GDP (rhs)



The leading composite indicator signalled a year-on-year decline in GDP for the first quarter of 2009. This signal was confirmed by the development of a relative cyclical component that showed a deepening of its negative value.

For the second quarter of 2009, the indicator signals further decline of the relative cyclical component of GDP.

The economic turmoil in the first half of 2009 resulted in a year-on-year drop in the observed **total factor productivity**, which was reflected in the 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 the year-on-year growth of **potential GDP**, which at present probably only slightly exceeds 3%. Further development of potential GDP will depend especially on the duration of the unfavourable economic situation.

Approximately for the entire second half of 2009, the indicator suggests a significant slowing in the decline of Czech economic output.

In evaluating this signal, however, it is necessary to take into account the development of the composite indicator's structure. The rise in its value in the second half is due to the growth of select business cycle indicators in industry (especially the three-month outlook for export demand and the six-month outlook for the economic situation). This was obviously caused by ongoing or planned measures to boost the economy, the impact of which will be clearly limited in time. At present, a downward correction can be seen in those indicators concerned.

Along with the worsening of the three-month outlook for the economic situation in construction, the indicator shows in the raw data a sequential decline in value in the last measured month (June). In the smoothed data, and with regard to the leading time of the indicator, this fact is reflected by the considerable slowdown in the increase of its value in the last predicted month (December).

The higher volatility of the estimated relative cyclical component of GDP is caused by a change in the seasonal adjustment method applied by CZSO and by the last revision of the data in the quarterly national accounts.

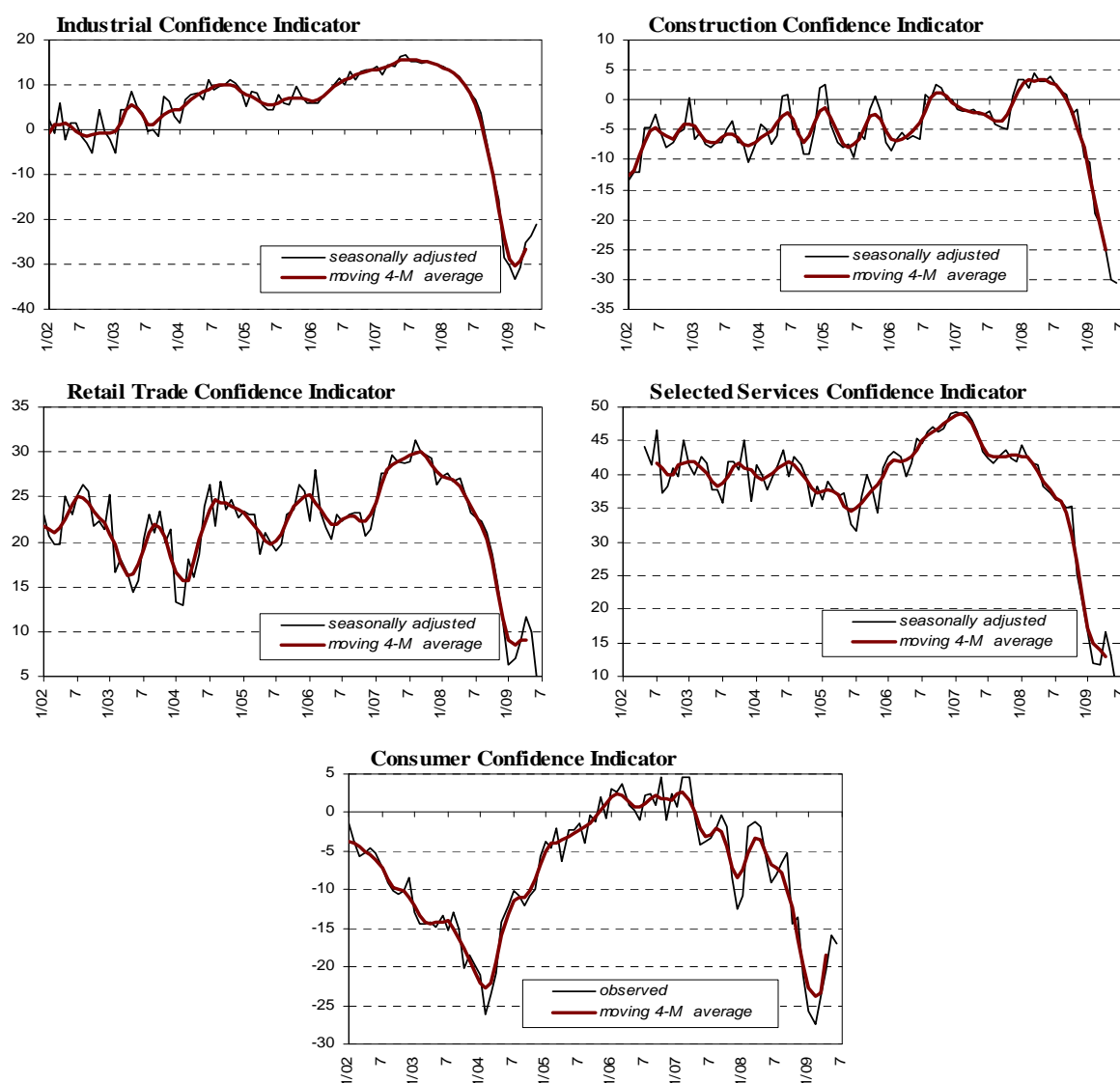
B.3 Individual business cycle indicators

Business cycle indicators express respondents' views on 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 effects that shape the expectations of economic entities.

The surveys share a common characteristic: respondents' answers do not provide a direct quantification but use more general qualitative expressions (such as better, the same, worse, or growing, not changing, falling, etc.). Trends are reflected in the business cycle balance, which is the difference between the answers "improvement" and "worsening", expressed in percentages of observations (see Methodology of the CZSO¹).

The aggregate confidence indicator is presented as a weighted average of seasonally adjusted indicators of confidence in industry, construction, trade and select sector services 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 trade 5% each, that for select sector services 30%, and for consumer confidence 20%.

Graph B.6: Confidence Indicators



¹ http://www.czso.cz/csu/redakce.nsf/i/konjunkturalni_przrkum

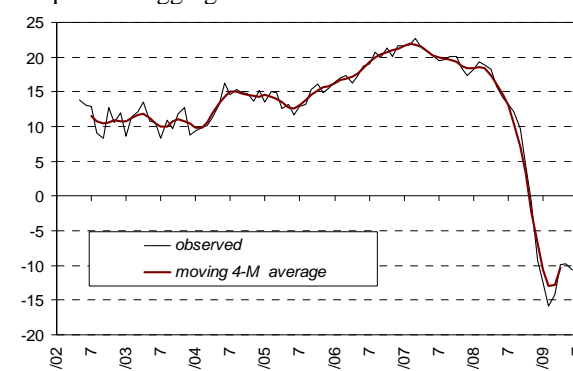
In **industrial and construction businesses**, the evaluations of both the current economic situation and demand worsened in the second quarter. Thus, we may assume that in the business sphere the deepening of economic problems continued. In the third quarter, respondents expect a recovery in industry as regards the pace of production activity and employment and a moderate acceleration in construction activity while employment remains unchanged. In three-month and six-month horizons, the expectations for the economic situation improved negligibly in industry and worsened slightly in construction. The improvement in industry is more significant on a shorter horizon and is obviously based on measures already adopted to boost the economy.

Slowing in total economic activity in the Czech Republic in the second quarter was reflected also in respondents' lowering their assessments of the current economic situation in **trade** and select sector **services**. When assessing expected development of the economic situation, respondents in services are modestly optimistic over a three-month horizon, while respondents in trade are modestly optimistic over a six-month horizon.

After three months of growth, **consumer** confidence fell slightly in the June survey. In the next 12 months, consumers expect slight worsening of the overall economic situation and slight improvement in

their own financial situations. The proportion of respondents expecting an increase in unemployment has slightly fallen but still remains high. A slight shift was seen in relation to savings, as the proportion of consumers intending to save fell after increasing in April and May.

Graph B.7: Aggregate Confidence Indicator



Based on the opinions of economic entities, it can be assumed that the slowdown of economic activity in the second quarter of 2009 was partly dampened (especially in industry). The survey indicates possible moderate successive improvement in the third and fourth quarters of 2009.

Box B.1: Has the Czech economy already reached the end of recession and the bottom of the economic cycle?

The present economic situation leads the expert and general public to ask whether the Czech economy already has left the worst behind after the dramatic decline in the first quarter of 2009 or whether we still can expect further difficult times ahead. Thus, we have endeavoured to make a methodical analysis of partial “hard” data with higher periodicity, to map their development, and to indicate possible signals of a turning point during the second quarter beyond what is already described in the data on GDP development.

a) Definitions

According to the common definition, an economy enters recession if quarter-on-quarter decline of GDP occurs in two successive quarters. Such a so-called technical definition, however, is not used in an analogous way for identifying the end of the declining stage of the economic cycle and the beginning of recovery.

Identifying turning points in the economic cycle raises certain problems of its own, as economic data are published with a delay. Moreover, some of the data – and especially the most important, which is real GDP – is subject to retroactive revision that can be carried out even several years after the first announcement. In addition to these issues, there is also the possibility of incorrect identification of the turning point due to analysts' being in a rush to find such a point. In theory, the bottom of the economic cycle is typically reached if quarter-on-quarter GDP growth returns to positive figures. In practice, however, the course of the economic cycle may not be as smooth as in theory. Let us imagine that the economic decline is replaced by a short phase of rising economic activity (lasting a few months) that is followed by additional recession². Should this be interpreted as a “new” decline or only as a continuation of the first recession?

To avoid the aforementioned problems, institutions dealing with the identification of individual stages of the economic cycle announce the reaching of a turning point with a certain delay. The National Bureau of Economic Research (NBER), for example, announces the reaching of a turning point in the economic cycle with an average delay of approximately one year.

Quarter-on-quarter growth of a relevant indicator is thus a necessary but not sufficient condition for signalling a turning point. For many time series that are considered, however, we do not have seasonally adjusted data available (e.g. because the time series is short) to enable comparison with a period shorter than one year.

² It is thus a W-shape recession according to today's almost fashionable comparison.

The oft-cited slowdown of year-on-year declines can only be a very gross approximation because in short cycles a return to growth can be seen even during the deepening of year-on-year declines (if an indicator specified the year before grew faster quarter on quarter). On the other hand, the slowdown of year-on-year declines provides a false signal of a possible turning point if a year ago there was a decline of the given indicator that was deeper than at present.

b) Analysed indicators

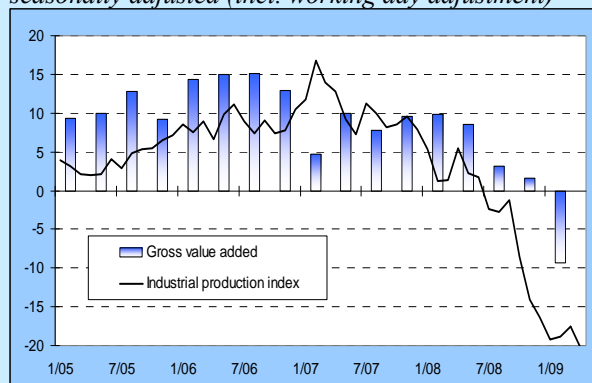
Industrial Production Index (IPI), published by CZSO on a monthly basis, by its own definition should theoretically approach the gross value added (GVA) indicator in industry, which is an important source of GDP creation. In a YoY comparison, these move in the same direction, albeit with different intensity. Since the start of the year, YoY IPI declines have ranged slightly below 20%, while industrial GVA decreased by “only” 9.4% in the first quarter (see Graph B.1.1.).

The quarter-on-quarter view is interesting. GVA in industry has been declining quarter on quarter for three successive quarters, while in the first quarter of 2009 the decline considerably deepened. In contrast, the change in monthly IPIs compared to the period three months earlier³ indicates that the deepest decline in industry already occurred during the fourth quarter of 2008. The promising development of recent months, which could lead to the conclusion that industry could be stabilised at the current low levels, is made rather relative by the very low correlation of the two indicators.

From a practical point of view regarding the many factors now influencing Czech industry (e.g. the gradual introduction of the car-scrapping scheme in EU countries), it is extraordinarily difficult to identify whether the situation in industry is already leading to stabilisation or will still worsen. Having reached a minimum in February 2009, however, the confidence indicator balance in industry is growing. Industrial enterprises even expect an increase in production in the next three months. The development of leading indicators thus may foretell the reaching of the bottom of declines in industrial production in the near future.

Graph B.1.1: **Industry**

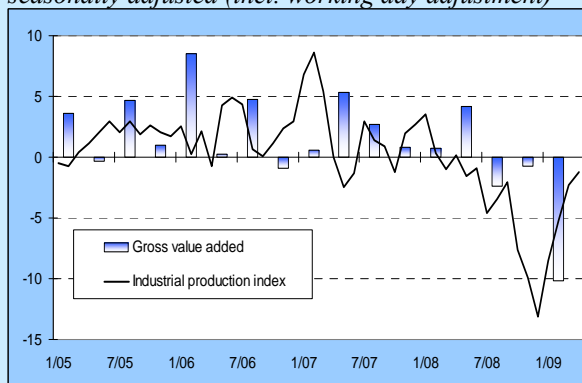
YoY changes in %, seasonally adjusted (incl. working day adjustment)



Source: CZSO

Graph B.1.2: **Industry**

QoQ changes in %, seasonally adjusted (incl. working day adjustment)



Source: CZSO, own calculations

The year-on-year decline in April of seasonally not adjusted **retail sales**⁴ represented already the seventh successive drop of this indicator. On the other hand, final consumption expenditures grew by 3.0% year on year in the first quarter of 2009 (see Graph B.1.3). The different specifications of the two indicators are probably the cause of their different behaviours. Items that are not part of retail sales, such as services, housing or utilities, may drive household consumption growth. Retail sales, on the other hand, include, for example, purchases made by business people for intermediate consumption, which, under the conditions of an economic crisis may fall much faster than do purchases made by households. Retail sales thus do not provide us with a reliable clue for the development of household consumption in the second quarter of 2009.

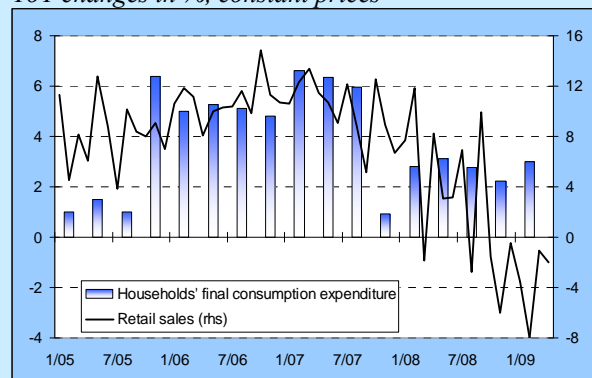
In contrast to industry, the QoQ increases in **construction** production and GVA in construction provide rather consistent information. After a series of QoQ declines, construction production grew quite strongly in April as compared to January (see Graph B.1.4). This result, however, was influenced by the favourable weather (as compared to a usual season) as well as additional billings for certain large structures (especially transport

³ The average of these changes for three months of the quarter for seasonally adjusted data should equal the quarter-on-quarter change of the quarterly data.

⁴ Retail (including retail sales of fuels) and sales and repairs of motor vehicles. Time series of this indicator are not published in a seasonally adjusted version.

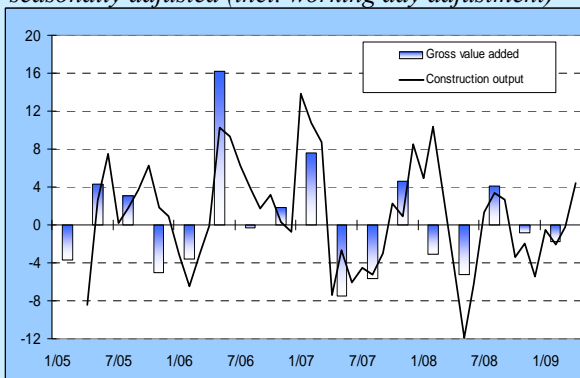
infrastructure). Additionally, the confidence indicator for this sector is worsening without any indication of changing for the better.

Graph B.1.3: Retail Sales (CZ-NACE 45+47) and Households' Final Consumption Expenditure
YoY changes in %, constant prices



Source: CZSO

Graph B.1.4: Construction
QoQ changes in %, seasonally adjusted (incl. working day adjustment)



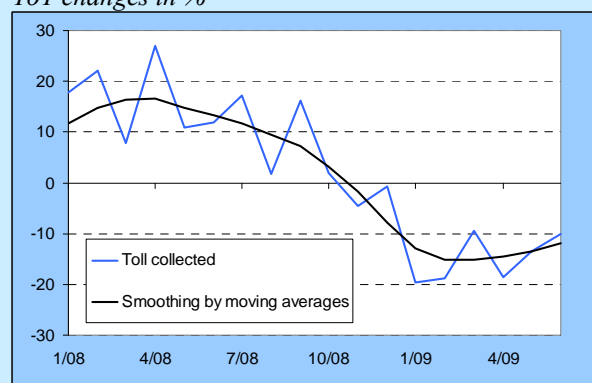
Source: CZSO, own computations

In addition to the standard indicators published by CZSO, there is also other interesting information that may indicate the course of the economic cycle.

For example, **toll collection** statistics for sections of motorways and high-speed roads subject to tolls may indicate the development in cargo transport in the territory of the Czech Republic. Year-on-year declines have slowed⁵ in recent months (see Graph B.1.5), but declines of more than 10% still occur. Unfortunately, this data cannot be adjusted seasonally, as the time series is too short. In interpreting the results, we must bear in mind that toll collection does not reflect economic activity just in the Czech Republic. Nevertheless, better toll collection could indicate the approaching bottoming out of economic activity.

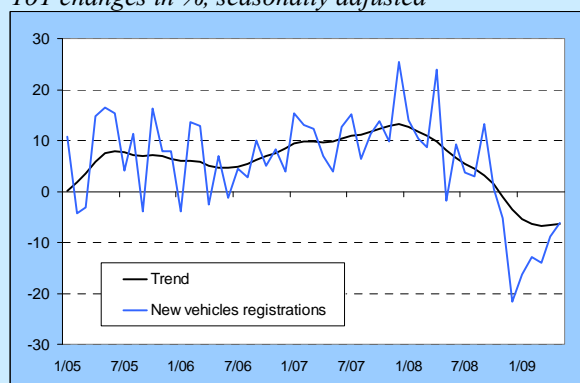
Although surveys on the economic cycle conducted by the CZSO ascertain the expectations of economic entities for the future, these cover a short-term period (up to one year). We may estimate the status of medium- and long-term expectations, which represent an important factor influencing of investments and expenditures on long-term consumer goods, from, for example, the development in **new vehicle registrations**. Graph B.1.6 shows YoY changes in the number of new vehicle registrations for categories M1 and N1⁶ (calculated together because of the newly introduced possibility for businesses to apply a VAT deduction also for a vehicle without a partition, which causes an artificial increase in registrations of M1 vehicles and, on the other hand, a decline in the N1 category). The trend indicates a stabilisation of year-on-year declines at approximately 5%.

Graph B.1.5: Toll Collected
YoY changes in %



Source: Road and Motorway Directorate, own calculations

Graph B.1.6: New Vehicles Registrations (M1 and N1)
YoY changes in %, seasonally adjusted



Source: Car importers association, own calculations

The data available so far (including the development of expectations abroad, and especially in Germany) does not yet indicate definitively that the bottom of the economic cycle has been reached. On the other hand, the data may indicate that the Czech economy is nearing it.

⁵ There are data available for a larger part of June.

⁶ M1 - motor vehicles for transportation of a maximum 9 persons and with a maximum weight of 3.5 tons; N1 - motor vehicles intended primarily for transportation of goods with a maximum weight of 3.5 tons.

C Forecast of the development of macroeconomic indicators

Data from the previous forecast of April 2009 are in italics. Data in the tables covering the years 2011 and 2012 present an extrapolative scenario indicating the direction of possible development and as such is not commented on in the following text.

The development of key macroeconomic indicators of the Czech economy and their forecasts are summarised in the following table.

Table C.1: Main Macroeconomic Indicators

		2005	2006	2007	2008	2009	2010		2008	2009	2010
					Prelim.	Forecast			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

C.1 Economic output

The Czech economy reached the peak of its cycle in the fourth quarter of 2007, proceeding then to a slowing phase. In the fourth quarter of 2008, a turning point occurred as the economic crisis from 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. According to current data, the YoY decline in real GDP totalled 3.3% (*versus the 0.7% decline estimated in the April Forecast*), which after adjustment for seasonal effects and working days amounted to 3.4%. Seasonally adjusted GDP also decreased QoQ by 3.4% (*versus a decrease of 1.1%*). At the same time, the CZSO revised the data for 2006 through 2008.

The business cycle indicators for the domestic as well as foreign economy contain signs of a

slowing of the decline. Similarly, the projections of the external environment have begun to reflect the reaching of the bottom of the cycle and the start of recovery. We expect that the economic decrease measured by the quarter-on-quarter rates will end already 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% against the previous year (*versus a decrease of 2.3%*). The central projection of GDP growth for 2010 is 0.3% (*versus 0.8%*). There is a risk that GDP will decrease even more in both years.

The forecasts involve an extraordinary degree of uncertainty. We also can expect considerable revisions of past data, especially in individual items. A discussion on this issue is presented in Box C.1.

Box C.1: From an uncertain past to an uncertain future

Every macroeconomic prognosis must rely on a valid data basis that describes past economic developments.

CZSO, as a creator of a comprehensive, balanced data set in the form of quarterly national accounts, has a difficult role in a period of economic instability. The collection and aggregation of source data and mutual balancing of sources and their use become no trifling matter. The facts newly obtained from data sources and which are available with a greater delay may not fit into the original mosaic. This leads to a considerably greater revision of the originally published data. Then, too, adjusting the time series for seasonal effects and the number of working days is a special issue.

Graph C.1.1 shows the process of a gradual revision of published data on real quarter-on-quarter GDP growth. In June 2008, for example, the first published figure for the first quarter of 2008 was 0.9%. After half a year, in December 2008, however, it was adjusted to 1.0%, then in March 2009 it was decreased to 0.6%, and the figure published for this quarter in the valid data basis for June shows a decrease by 0.1%.

The instability of data on past development makes using any quantitative methods within the process of creating macroeconomic prognoses considerably more difficult and brings with it the instability of their results.

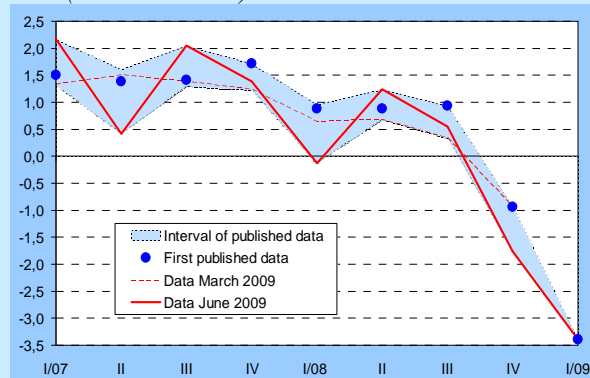
Within the risk analysis based on the past results of the process of revising the data, we therefore tried to prepare a probability distribution for further future adjustments of data on past development. In doing so, we based our work on the entire history of published time series of seasonally adjusted GDP from the beginning of 2002 and the real distribution of the revisions made. The results are shown in the left part of Graph C.1.2.

As regards the first published figure, we can expect (assuming the same results from the revision process as in the past) a 75% probability that the figure will be revised, from a decrease of 0.5 percentage points to an increase of 0.6 percentage points. In light of this information, we can assert that there is a 75% probability that after the appropriate revision the currently published quarter-on-quarter GDP decrease for the first quarter of 2009 in the amount of 3.4% will be in the interval between -3.9% and -2.8%.

In interpreting this finding, it is important to take into account two facts. First, the 25% probability that the “final” number will be outside the stated interval is certainly not insignificant. Second, as results from the presumption of stability in the results of revisions, the probability of more extensive revisions rises significantly during periods of shifts in economic development.

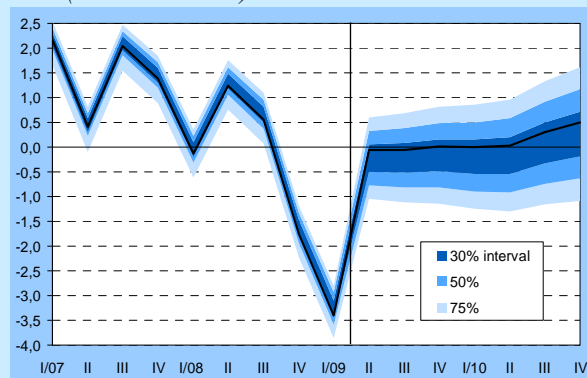
Graph C.1.1: Gradual Revision of the Real QoQ GDP Growth

in % (non-annualized)



Graph C.1.2: Backcast and Forecast of the Real QoQ GDP Growth

in % (non-annualized)



As regards future economic development, based on the available data we can conclude that the deepest QoQ slump seems already to have occurred in the first quarter of 2009. By the end of the year, the QoQ decreases should be more moderate, and, moreover, even a slight QoQ increase in economic output may occur.

Nevertheless, we continue to regard the situation as extraordinarily uncertain and **the risks of the published projection as skewed to the downside** (see the right part of Graph C.1.2).

A decrease in real dynamics is also reflected in the development of nominal GDP, which is a decisive quantity for fiscal forecasts. In 2008, nominal GDP growth slowed to the revised value of 4.6% (*versus 5.0%*). In the first quarter of 2009, an increase of 0.4% was recorded (*versus 1.3%*) due to a fact that greater-than-expected improvement in the terms of trade was unable to cover the deep slump in the real economy. For 2009, we estimate GDP to decrease in current prices by 1.7% (*versus a decrease of 0.4%*). Should this forecast be fulfilled, it would mean the first nominal GDP decrease in the history of the market economy in the Czech Republic. Already in 2010, we expect a rise of 1.2% (*versus a rise of 1.5%*).

In the income structure of GDP, we expect a slump in the profitability of the business sector.

Growth in the gross operating surplus fell from 9.3% in 2007 to mere a 0.6% (*versus 1.0%*) in 2008. Although the gross operating surplus increased by 2.4% (*versus a 0.3% decrease*) in the first quarter of 2009 compared with the same period of the previous year, we nevertheless expect a decrease of 2.8% (*versus a decrease of 2.6%*) in 2009. An increase in the gross operating surplus by 1.4% (*versus 1.5%*) is anticipated to occur no sooner than in 2010.

The slump in **real gross domestic income (RGDI)**, which reflects the income situation of the Czech economy, is considerably less than that in real GDP. An improvement in the terms of trade led RGDI to decrease by “only” 2.2% (*versus a 0.2% decrease*) in the first quarter of 2009. In 2009, we anticipate a drop in RGDI of 2.9% (*versus a 1.6%*

decline), while an increase of 0.4% (*versus 0.7%*) could occur in 2010.

Expenditures in GDP

A dominant component of the steep decline in economic output was a **change in stocks** on the expenditures side which contributed 3.3 pp to the YoY decrease of seasonally adjusted real GDP by 3.4%. Under tightened economic conditions and pressure to maintain their cash flow, businesses were clearly motivated to reduce their stocks. Nevertheless, we are unable to find a satisfactory explanation for such an enormous reduction in stocks.

Household consumption, on the other hand, has not yet been affected by the crisis development, despite losing its dynamics in 2008 after considerable growth in previous years. The year-on-year growth in real **household expenditures on final consumption** totalled 3.0% in the first quarter of 2009 (*versus 2.2%*). Further growth in consumption could be counteracted by households' efforts to accumulate savings to cover risks resulting from the crisis development as well as the worsening situation for household income. Furthermore, increase in unemployment could gradually effect consumption. On the other hand, the government's anti-crisis measures and the low level of inflation could help to boost the consumption. In 2009, household consumption should grow by 1.1% (*versus 0.9%*), thus becoming a stabilising segment of the economy. In 2010, we anticipate growth by 0.7% (*versus 0.9%*).

Government expenditures on final consumption grew by 5.3% (*versus growth of 2.2%*) in the first quarter of 2009. Extraordinary expenditures were recorded in this quarter in connection with the Czech presidency of the EU and continued in the second quarter of 2009. The thrifty behaviour of government institutions is expected to continue as regards both government sector employment and purchase of goods and services. In 2009, government consumption is expected to rise by 1.3% (*versus 1.8%*). In 2010, real government consumption should increase by 0.5% (*versus 1.2%*).

In the first quarter of 2009, the volume of **gross fixed capital formation** decreased by 3.4% year on year (*versus a 5.2% decrease*). Purchases of vehicles recorded the greatest decrease with a 16.3% drop, while investments in housing fell by 5.4%. Investments in other machines, on the other hand, rose by 1.2% year on year. In the current uncertain situation, it is necessary to take into account that many investment plans in the private sector will be reviewed or postponed. The willingness of foreign investors to make new investments or to reinvest the profits from their business operations in the Czech Republic will depend on their situations in their home countries. We anticipate that investments in housing construction also will continue to fall. On the

other hand, the decrease could be mitigated by certain NAP measures (VAT refund for company cars, faster depreciation of new investments, acceleration in highway construction) as well as by infrastructure investments with contributions from EU funds. The volume of investments could drop by 5.7% (*versus a 4.9% drop*) in 2009. For 2010, we anticipate a further decline of 1.5% (*versus a 0.2% decline*).

In 2008, **foreign trade** in goods and services contributed 1.9 percentage points (*versus 2.1 pp*) to real GDP growth despite very unfavourable external conditions and the record-breaking strong exchange rate of the Czech koruna. In 2009, however, the impacts of the global recession will be fully reflected in this indicator – we expect a contribution of -1.8 pp (*versus -1.6 pp*). In 2010, the contribution should reach +0.2 pp (*versus +0.5 pp*).

C.2 Prices of goods and services

Consumer prices

In May, the YoY growth in prices slowed further to 1.3% (*versus 1.6%*). The considerable disinflationary trend is in accordance with both the January and April forecasts. The contribution of administrative measures totalled 2.3 percentage points (*versus 2.4 pp*). Low food and fuel prices also contributed significantly to disinflation.

Food prices have been decreasing YoY already for six successive months, thus reflecting developments on global markets as well as developments in the prices paid to domestic agricultural producers. Currently, these hover just below the level from December 2007 when the Czech economy underwent a strong wave of price increases. We anticipate that food prices will continue to have an anti-inflationary effect in the remaining part of the year.

Prices in the transportation sector are affected especially by the decreasing prices of cars in response to the difficult economic environment and by the level of fuel prices. These have been growing for four successive months, but, due to the high comparative basis of the previous year, when the prices of oil and fuels reached record highs, they remain a significant factor in reducing the YoY consumer price index. We expect that the basic effect will gradually fade away during the year and oil prices will once again begin to constitute a pro-inflationary factor beginning in the fourth quarter of 2009.

Administrative measures also will have a great impact on consumer prices in the remaining part of this year, which will help to reduce inflation. The effects from abolishing certain regulatory fees in the health care system and a reduction in the yearly expenditure limit for select social groups, for example, were apparent already in April (0.1 pp), while gas prices decreased by 3% on average (with

an impact of 0.1 pp). From 1 July 2009, gas prices will decrease by a further 6.1% on average, having an impact of 0.2 pp. The impact of last year's increase in excise taxes on tobacco will also subside. The transfer of select services with a high share of human labour input from the basic to the reduced VAT rate should have a similar impact. Nevertheless, the real impact on prices and the date of effectiveness of this change are clouded by uncertainty. For the purposes of this forecast, however, we anticipate an impact of 0.2 pp and an effectiveness date of 1 October 2009.

The markedly weakening economic activity due to the slump in foreign demand, greatly negative output gap, worsening situation on the labour market, low rate of wage growth and uncertainty concerning future development also create room for stability in consumer prices.

The year-on-year weaker exchange rate of the Czech koruna relative to the two main foreign currencies will have an opposite effect, which nevertheless will affect prices only insignificantly. Although the loose monetary conditions may also have a pro-inflationary effect, their real impact will be dampened by the prudent behaviour of banks.

In view of the stated facts and assumptions, we estimate that the average inflation in **2009** will reach 1.1% (*no change*) while prices will increase by 0.7% (*versus 0.5%*) during the year. Net inflation should remain negative for the entire year.

In **2010**, the average inflation rate should also hover around 1.1% (*versus 0.9%*). The persisting weak performance of the Czech economy and the worsened conditions on the labour market along with the moderate growth in wages will continue to hold back price growth on the demand side. This will be supported by the impact of the YoY strengthening of the CZK exchange rate. On the supply side, on the other hand, pro-inflationary effects will come from the expected growth in oil prices (along with the lower comparative basis for the first half of this year) and the gradual return of global and domestic food prices to a growth phase. The loosened monetary policy of 2009 also will have a pro-inflationary effect.

The impact of administrative measures is a separate area. On the one hand, the spreading out of the increase in regulated rents during the period 2010–2012 and the expected decrease in electricity prices by 7% to 10% will reduce their contribution. On the other, certain measures adopted during 2009 will diminish and, furthermore, gas prices will probably grow in response to increasing oil prices.

Deflators

The YoY growth of the **gross domestic expenditure deflator**, which is a comprehensive indicator of price development in the economy, slowed to 2.4% (*versus 1.4%*) in the first quarter of 2009 due to lower inflation in household consumption. By contrast, the costs for investments

into machinery and equipment recorded the fastest growth, at 6.2%, perhaps due to the weakening of the exchange rate.

For all of 2009, following the overall loosening of inflationary pressures, the rise in prices of gross domestic expenditures should further slow to 1.3% (*versus 1.1%*). In 2010, it should come to 0.9% (*versus 1.0%*).

Growth of the **implicit GDP deflator** was 3.9% (*versus 2.0%*) in the first quarter of 2009. Unlike the gross domestic expenditure deflator, the implicit GDP deflator is influenced by the 2.0% growth (*versus a 1.1% growth*) in the terms of trade. In 2009, the effect of a slowdown in wage dynamics will probably outweigh the impact of the improvement in the terms of trade. Therefore, only 2.8% (*versus 1.9%*) growth can be expected. In 2010, we anticipate a rise of 1.0% (*versus 0.7%*).

C.3 Labour market

The economic recession is having strong impacts on the labour market. While in previous periods the labour market indicators adjusted to the level of economic output with a delay of three to four quarters, this interval has now shortened to only three months.

Employment

(Labour Force Survey definitions – LFS)

In the first quarter of 2009, employment declined by 0.2% year on year (*versus a 0.4% rise*) due to the substantial decrease in the number of employees (by 0.9%). The number of people working in the primary sector continued to decline. The decrease in employment was more apparent in the secondary sector, and especially in the manufacturing industry (by more than 60,000 persons). Similarly as in the previous quarter, the YoY decrease in overall employment was partially compensated by an increase in the number of persons employed in the tertiary sector.

Due to the reduction in jobs in industry, the number of registered foreign workers has been decreasing since the start of 2009. As at the end of May, 252,000 were registered. This represents a decrease of 16,000 year on year. However, there may be a risk that they have shifted from an employment relationship into the category of freelancers.

Though the supply of labour (the labour force) grew year on year by 47,000 persons, the number of employed persons decreased by 12,000 and the number of unemployed persons increased by 58,000.

Neither are the prospects for future periods overly optimistic. The economic problems and associated concerns are likely to lead to further closing of non-profitable operations and subsequent layoffs. On the other hand, the planned reduction in the security contributions paid by an employer for the most threatened, low-income groups could contribute

to preserving at least a portion of their jobs from the second half of 2009.

In 2009, we anticipate a YoY decrease in employment by 1.8% (*versus 1.0%*). Further development in 2010 will depend upon whether at least moderate economic recovery will occur and whether the labour market will continue to respond quickly in the rising phase of the economic cycle. Our prudent approach compels us to count on a decrease of 2.1% (*versus 1.6%*).

Unemployment

(MLSA statistics and LFS)

The rise in unemployment accelerated markedly at the beginning of 2009. The QoQ increase in the number of unemployed by 95,000 persons (after seasonal adjustment) from January to April 2009 was by far the greatest in the entire modern history of the market economy in the Czech Republic.

The increase in the number of new job applicants was accompanied by a decrease in the number of vacant job positions, which seems to have approached in May its probable limit reflecting structural unemployment.

The rise in unemployment hit the entire Czech Republic. The intensity of the impact depended on the importance of operations closed for any respective region and the possibilities of substituting the lost job opportunities. Regions or localities with considerable problems have especially included those where highly specialised operations are being closed down.

Nevertheless, minor positive signals can be seen. Firstly, the extreme rise in unemployment (after seasonal adjustment) somewhat slowed down in May. Secondly, for the first time since the start of 2007, the number of job applicants entering new jobs increased year on year in April and May.

In the next period, however, unemployment is likely to continue to increase due to the inflow of new job applicants. Besides the economic recession, this trend may be reflective of socially motivated extensions of the unemployment period and the increase in unemployment benefits.

The internationally comparable general unemployment rate under LFS should increase to 6.8% (*versus 6.1%*) in 2009 and to 8.5% (*versus 7.5%*) in 2010.

The average registered unemployment rate should increase to 8.2% (*versus 7.6%*) in 2009 and to 9.8% (*versus 9.1%*) in 2010.

Wages

According to the preliminary data from CZSO, a turning point occurred during the first quarter of 2009 as the YoY growth of wages and salaries, according to the national accounts, slowed to 2.6% (*versus 3.4%*). This was reflective of the decrease in employment and productivity. The

growth rate of the average wage showed a similar decrease according to the registered terms.

Salaries in the non-business sector increased rather significantly due to partial compensation of their real slump in 2008. This development again shows that saving funds for wages and salaries in the governmental sector is a relatively easy solution of the current economic problem. On the other hand, it results in two risks: in addition to a certain discouragement of state employees due to the involuntary “state loan”, in the future there will be a need to balance the overly significant differences.

Based on the results for the first quarter of 2009, and according to the signals from the business sector, we can anticipate very slight growth in wages in the coming period, stemming from the expected economic results as well as from efforts to maintain job positions. The slump in real wages, however, should not be considerable with regard to the fact that the level of consumer prices should remain almost stable. In 2009 and 2010, we expect the wage and salary bill to grow by only 1.0% (*versus 2.7% in 2009 and 2.3% in 2010*).

Households

(according to the household sector account from the quarterly national accounts)

Despite the reduction in social security contributions, we can expect a considerable slowdown of the high nominal dynamics of disposable income from 7.9% in 2008 to 3.5% in 2009⁷ due to the decline in employment and slowing of wage growth.

The uncertain situation and the risks resulting from the possibility of losing a job are likely to lead to a change in the behaviour of households towards increasing their savings by ca 1.5 percentage points in 2009 and 2.5 percentage points in 2010 in comparison with 2008.

Despite these limiting factors, very low inflation should help to maintain the positive growth in real household consumption in both 2009 and 2010.

C.4 External relations

(Balance of payments definitions)

In the first quarter of 2009, the external imbalance expressed by the **ratio of the current account balance to GDP** amounted to -3.2% on an annual basis (*in accordance with the Forecast*), which represents almost no change in comparison

⁷ According to the schedule of dates for publishing the outputs from the national accounts, the figures on the household sector account for the first quarter of 2009 including the revision of the figures for the preceding years were published on 3 July 2009, i.e. after the closing date for data sources for this Forecast. Therefore, the forecast for the household sector account is based on the data published on 3 April 2009.

with the same period of the previous year (-3.1% of GDP).

The decrease of the growth rate of **imports and exports** from the start of 2008 was associated especially with the fast strengthening of the Czech koruna. From October 2008, a sharp turning point occurred in the foreign trade. The general worsening of the global economic situation and the transition from a slowdown to a recession in most partner countries caused an abrupt slump in demand, and export and import volumes began to decline steeply. In the fourth quarter of 2008, export markets declined year on year for the first time since the second quarter of 2002.⁸ This trend also continued in the first quarter of 2009 with a decrease of 9.5% (*versus* 6.2%). Additionally, export performance, which indicates the share of Czech goods in export markets, worsened dramatically by 13.8% (*versus* 15.5%). This resulted in an even stronger slump in real exports of goods by 22.0% (*versus* 20.7%).

This led to a strong decline in nominal exports and imports by 18.6% and 19.9%, respectively. On the other hand, due to the faster rate of decline in imports than in exports, the trade balance surplus stopped decreasing. In the first quarter of 2009, the trade balance as a proportion of GDP totalled 2.8% (*versus* 2.4%) on an annual basis, which is only 0.5 pp less year on year.

With regard to the persisting extremely unfavourable prospects of the world economy, we estimate a decrease in export markets by ca 11.6% in 2009 (*versus* 7.7%) and by 1.5% in 2010 (*versus* 0.9%). Given the structure of our exports (a great share of motor vehicles), further worsening of export performance can be expected.

In the context of the global economic recession, the prices of raw materials, especially of oil, fell sharply, which is a positive factor for the trade balance. In 2009, we expect a decrease in the deficit of the fuel part of the balance (SITC 3) from -4.4% in 2008 to ca -3.0% of GDP (*versus* -2.7%).

The surplus in the non-fuel part of the balance is expected to decrease to 5.2% of GDP (*versus* 3.5%) in 2009. With the current drop in the deficit of the fuel part of the balance, the balance of trade (in balance of payments definitions) should amount to 3.0% of GDP⁹ (*versus* 1.7%). In 2010, the trade balance surplus is expected to total 3.1% of GDP (*versus* 1.7%) while a moderate recovery of foreign trade and higher prices of oil should be mutually compensated.

The long-term growth in the **balance of services** surplus continued in 2008 but was accompanied by an apparent slowdown in the growth rate of exports and, from the second half of 2008, by a decline in expenditures. In the first quarter of 2009, revenues from services fell sharply by 8.2%, to which all components of the balance of services contributed. As expenditures decreased, the proportion of the balance of services surplus to GDP declined by 0.2 pp QoQ on an annual basis. In a period of economic recession, we can expect an additional similar decrease in the intensity of both active and passive tourism as well as in the volume of transportation services. In aggregate, we expect the surplus to grow very slowly or to stagnate in the coming period.

The **balance of income** deficit, which includes reinvested and repatriated profits of foreign investors, has deepened steadily since mid-2006, reaching its historical minimum of -8.6% of GDP in the second quarter of 2008. Given the expected lower profitability in the economy, including foreign enterprises, we anticipate that the growth in the outflow of yields abroad will dampen. Since mid-2008, the net outflow of income from direct foreign investments has been decreasing and, similarly, the outflow of compensations for work of foreigners employed in the Czech Republic should not rise.

In 2009, we expect that the ratio of the **current account** balance to GDP will be -2.0% (*versus* -2.9%). The forecast for 2010 is -0.9% of GDP (*versus* -2.6%). A seemingly paradoxical forecast of decreasing deficit is given by the fact that the effect of lower oil prices, a slowdown in real imports (lower growth of domestic demand and high import intensity of exports) and a lower outflow of income should prevail over the slump in exports.

C.5 Demographic trends¹⁰

According to preliminary data as at the start of 2009, dynamic growth of 0.8% was maintained in the population of the Czech Republic.

The positive balance of migration remained at a high level of 72,000 persons and was the highest since World War II, with the exception of 2007.

The natural increase in population continued rising, reaching 15,000 persons, which is the greatest number since the population explosion in 1980. Total fertility¹¹ rose to 1.50 in 2008 compared with its minimum of 1.13 in 1999. Although it is still very far from the reference value of 2.04 that ensures long-term stability of the population, such development shows a certain promise for the future. Average life

⁸ A weighted average of growth in imports of goods from the seven most important trade partners (Germany, Slovakia, Poland, Austria, France, United Kingdom and Italy).

⁹ Costs on transport and insurance of imported goods amounting to some 0.8% of GDP, which cannot be assigned to individual items from available sources, represent another item.

¹⁰ Based on the medium variant of the demographic projection of CZSO 2009.

¹¹ Number of live-born children per one woman, should her fertility remain the same for her entire reproduction period as in the given year.

expectancy exceeded 80 years for women and reached 74 years for men in 2008.

In economic terms, the Czech population thus has a very favourable structure with a high share of working-age population.

According to the assumptions of the middle variant of the **new demographic projection of CZSO**, however, lower immigration can be expected from the start of 2009 as well as a consequent slight worsening of the demographic structure. This phenomenon should be supported by the decrease in the demand for workforce from abroad caused by the economic crisis.

Nevertheless, based on our calculations, a moderate decline in the working-age population should be largely compensated by an enacted extension of the retirement age. Therefore, the economy should not suffer from insufficient sources of labour.

On the other hand, a new projection confirms the coming **process of population ageing**. In 2007, for the first time in Czech history, the number of people under 20 years of age was less than the number of people over 60 years of age. In the future, the number and the share of senior citizens in the population will continue to rise due to the demographic structure and further extension of the mean lifespan. The structural share of persons over 65 years of age in the total population, which amounted to nearly 15% at the start of 2009, should increase to more than 20% by the beginning of 2020.

C.6 Interest rates

During the second quarter of 2009, CNB reduced the limit interest rate for **2W repo** operations by 0.25 pp to 1.50%. In the June situation report, CNB regards the risks as balanced. CNB has identified a significant anti-inflationary risk concerning a deeper decline in economic activity abroad. On the other hand, pro-inflationary effects can be seen especially in the expected core inflation and fuel prices. After a reduction in ECB's key refinancing rate by 0.50 pp to 1.00%, the interest rate differential in relation to the euro area was extended to 0.50 pp in the second quarter of 2009.

The US Fed preserved its primary interest rate for refinancing operations in the range of 0–0.25%. The US economy is currently driven by other monetary policy measures. Nevertheless, from about the start of 2010, along with the recovery of the US economy, we expect an increase in the reference interest rate.

The Czech banking sector continues to show favourable parameters – liquidity surplus, sufficient primary resources to provide loans, a low share of loans in foreign currencies and of unpaid loans, high capital adequacy and profitability. On the interbank market, however, risk premiums are still maintained at relatively high levels, but, according to our

expectations, they should begin to decrease starting the third quarter of 2009. Therefore, we estimate the average PRIBOR 3M rate to be 2.2% in 2009 (*no change*), due to the higher than previously predicted spreads between the interbank and monetary policy rates and the new expectation of a decrease in the key interest rate. In 2010, the basic interest rate will probably return to higher levels. Along with the expected faster narrowing of the risk spread, this will lead to an average PRIBOR 3M rate of 2.0% (*versus 2.3%*).

In May 2009, after increasing for the previous four months, average **yields upon maturity** of 10-year government bonds stopped growing. Sufficient demand for government bonds and decreasing interest rates could begin to drive yields downwards in 2009. Therefore, we predict the average yield of 10-year government bonds to be 4.5% (*versus 4.3%*) in 2009 and 4.4% (*versus 4.5%*) in 2010.

Average interest **rates from deposits** of households and non-profit institutions have been decreasing since the beginning of 2009, thus copying the development of interbank interest rates. Their average amount was 1.5% during the first quarter of 2009. We anticipate that they will continue to decrease slowly to 1.4% (*versus 1.3%*) in 2009 and approximately stabilise at 1.2% in 2010 (*no change*).

Average interest **rates from credits** to nonfinancial businesses totalled 5.0% in the first quarter of 2009. Due to a slight overestimation for this period and the possible decline in monetary policy rates in the third quarter of 2009, we decreased our estimate for 2009 to 4.6% (*versus 4.9%*). In 2010, the average rates could amount to 4.8% (*versus 5.0%*).

Average interest rates from new credits to households decreased during the first quarter of 2009. However, this decline was caused by a change in the structure of credits (they would stagnate if the structure was the same). Contrary to the previous forecast, the flow of the provided housing credits increased and the structure returned to the same form as at the end of 2008. In the first quarter of 2009, the interest rates totalled 13.8%. In contrast, the average interest rates on new credits to non-financial business declined for the major part of the stated quarter, amounting to 4.5% on average (with no significant changes in structure). In April, however, there was a moderate tightening in both rates which is likely to persist.

C.7 General government

According to CZSO's preliminary data, the **general government balance** totalled CZK -54 bill. in 2008, which represents -1.5% of GDP. Considering the current turbulent situation, it is very probable that this figure will be significantly revised in October. The presented preliminary data for 2008

thus carry the identical information as the data in the Fiscal Outlook from June 2009.

In 2009, the deficit is expected to worsen considerably, amounting to some CZK 198 billion, i.e. 5.5% of GDP. The Maastricht convergence criterion for the general government deficit of 3% will thus be exceeded after three years. However, increasing the general government deficit and exceeding the Maastricht limit are not likely to be in any way unusual for the EU27 countries.

In comparison with the original estimate in the July Fiscal Outlook (CZK 167 billion), certain facts have been revised. The current estimate is based on a new macroeconomic framework that presumes a considerably greater economic slump than was considered in the scenario from April 2009.

On the revenues side, tax revenues were revised and are now worse by almost CZK 25 billion in comparison with the original estimate. A shortfall can be seen in all important taxes except excises, which have continuously recorded a very low sensitivity to GDP.

Changes, though substantially less extensive, also were made on the expenditures side. They consisted especially in a revision of expenses on servicing the general government debt. Thus, the expenditures will be more than CZK 6 billion greater than previously expected. At the same time, the estimate includes an entire range of measures to fight the economic crisis, which contributes to a rather great extent to the current negative development of the deficit (see Box A.1 in Chapter A.2).

The current estimate still is burdened by a high level of uncertainty, especially due to difficulties in predicting the macroeconomic development. At the moment, however, risks are more or less balanced and a better-than-expected result of the general government balance is definitely not unrealistic, provided that the new forecast of the macroeconomic framework will be fulfilled.

At the end of 2008, the **general government debt** totalled ca CZK 1,106 billion, which represents 29.9% of GDP. Due to the unfavourable development of the general government deficit, it is expected to increase substantially to around CZK 1,253 billion by the end of 2009, which represents 34.5% of GDP.

C.8 World economy

Though the world economy is in recession, signs of moderate optimism appeared during the spring. Stock markets have improved; the Chinese economy is supposed to return to strong growth; the US economy, which is subject to intensive governmental stimulus packages, has reduced its rate of decrease. The EU economy, however, is showing less indications of the end of the recession.

The **US economy** recorded a QoQ decline of 1.6% and 1.4% in the fourth quarter of 2008 and the first quarter of 2009, respectively. The

unemployment rate increased to 9.4% in May 2009—the highest in the past 26 years—although the rate of layoffs slowed down this time. Inflation fell from 0% in January to -1.3% in May.

The significant reduction in household consumption in the second half of 2008 contributed to the recession. From the first quarter of 2009, however, consumption began to rise again due to the government incentives, including tax cuts. Consumer confidence indicators subsequently improved. It is obvious, however, that consumption will be limited by high unemployment.

There remains the question, “To what extent do the governmental plans for rescuing banks and improving their willingness to lend work?” This is one of the main reasons to remain cautious in preparing predictions. GDP growth will probably be poor due to, among other things, a reduction in investments, impacts of a decrease in real estate prices, and a greater tendency toward savings, which has already been seen in consumer behaviour.

We anticipate a change in real GDP in the USA of -2.8% in 2009 (*no change*) followed by a rise of 0.4% in 2010 (*versus -0.2%*).

The **euro area (EA12)** has been in recession since the second quarter of 2008 (change in GDP of -1.8% in the fourth quarter of 2008 and -2.5% in the first quarter of 2009), and the rate of decrease has been accelerating to date. The recession has been strong in Germany (-2.2% and -3.8%). The most affected economies are small economies depending heavily on export, especially of industrial products, in which case the slumps in industrial production have reached double-digit values. In April, this figure was 21.6% year on year in the euro area and 23.2% just in Germany. The unemployment rate increased to 9.2% in April, which was reflected in the further decrease of consumption. Inflation in EA12 fell to as low as 0.0% in May. ECB reduced its reference interest rate to a record-breaking low of 1.0%.

Nevertheless, the situation is not perceived as entirely bad, as consumer and business confidence indicators have already recorded minor increases. The situation in Germany is interesting because, after years of decline and stagnation, household consumption began to grow due to, among other things, an increase in income and a low inflation rate and the leading indicators have improved. The recovery in the EU seems to be behind that in the USA. This is of course partially caused by the high unemployment estimated to be as much as 12% in 2010. Nevertheless, an important presumption for recovery is that no greater crisis of European banks will occur.

We estimate that GDP in EA12 will change by -4.3% (*versus -3.3%*) in 2009 and then decrease by 0.2% in 2010 (*versus a 0.5% decline*).

The **Central European economies** for a long time have had greater dynamics than those in Western Europe, but the high share of industrial

production and dependence on export into the EU also have led to a decline in economic output in this region.

In 2008, the **Slovak economy** grew rapidly by 6.4%. A high proportion of exports, especially cars, and a decline in foreign investments led this small economy to a deep drop in GDP (-11.4% year on year) in the first quarter of 2009. The problems were already indicated by the steep year-on-year decline in industrial production at the end of 2008 (by 25.6% in February 2009 and by 18.0% in March 2009).

We anticipate a year-on-year change in GDP of -4.8% in 2009 (*versus* -2.0%), which should be followed by an increase of 1.5% in 2010 (*versus* 0.5%).

In 2008, the **Polish economy** grew by 4.8% and has yet to record a QoQ decline (it slowed to 0.0% and 0.4% in the past two quarters). The Polish economy thus is one of the few EU economies not in recession.

The growth is driven by household consumption. The size of the domestic market and the smaller share of exports stabilise the situation. It is possible that the external development will also lead to a decrease in GDP here, albeit a shallow one.

For 2009, we anticipate a change in GDP by -0.5% (*versus* -1.8%) and for 2010 a growth of 0.7% (*versus* 0.0%).

In recent months, the **price of oil** has increased by more than USD 20 up to the current level of around USD 70 per barrel of Brent, reflecting the expectations of economic recovery. Although the global recession keeps demand low, oil prices has been considerably independent from fundamentals. Due to the declining dollar, commodities also have once again become subject to investments.

In our forecast, we anticipate an average price level of USD 62 (*versus* USD 53) per barrel of Brent oil in 2009 and USD 79 (*versus* USD 66) in 2010. As in the previous forecast, we assume that the prices are likely to grow again in a medium-term horizon to values exceeding USD 80. Due to insufficient investments during the period of lower prices, among other things, the inability to significantly increase crude oil output will be seen more and more often on the production side.

C.9 International comparison¹²

Comparisons of the economic output of individual countries are made in PPS¹³. PPS is an artificial currency unit expressing quantity of goods that can be bought on average for one euro in the

EU27 territory after exchange rate conversion for countries that use a currency other than the euro.¹⁴

On the basis of a conversion using the current **purchasing power parity**, the process of economic convergence toward the EA12 average shows a stable tendency in the Czech Republic as well as in other Central European countries, except Hungary, even under the conditions of an economic crisis.

In 2009, GDP per capita in the Czech Republic should total ca PPS 19,700, which corresponds to 75% of the economic output of EA12.

An alternative conversion using the current **exchange rate** takes into account the market evaluation of the currency and ensuing differences in price levels. GDP per capita in the Czech Republic should then amount to some EUR 13,000 in 2009, which corresponds to 47% of EA12 levels. This means a decline in comparison with 2008 given by the correction of a disproportionate appreciation of the exchange rate.

The **comparative price level of GDP** should total ca 63% of the EA12 average in 2009. The impairment of the real exchange rate will be expressed as a year-on-year decline by 4 percentage points. Such development could help to increase price competitiveness and thus facilitate the overcoming of the difficult situation. A similar development can be expected in Poland where the price level decrease should be even more penetrative and exceed 10 percentage points.

The situation in countries with a fixed exchange rate (the Baltic states), as well as in Slovakia after adoption of the euro, is different. With the non-existence of the exchange rate channel and with an expected positive inflation differential against the EA12, they will have to face a further increase in the comparative price level and strengthening of the real exchange rate or take measures to significantly restrict wage development. In the case of Slovakia, it is even probable that for the first time since 1997 its comparative price level will considerably exceed that of the Czech Republic, and Slovakia thus will become a more “expensive” country.

¹²Comparisons for the period until 2008 are based on Eurostat statistics. From 2009, our own calculations based on real exchange rates are used.

¹³PPS stands for Purchasing Power Standard.

¹⁴For example, a purchasing power parity of CZK 17.40/PPS in 2008 expresses that the same set of representative goods could be purchased for the given sum in Czech korunas and for 1 euro within EU27 countries.

D Monitoring of other institutions' forecasts

The Czech Ministry of Finance monitors macroeconomic forecasts of other institutions that deal with forecasting future developments of the Czech economy. The forecasts of 14 institutions are continuously monitored from publicly available sources. Of these, 7 institutions are domestic (CNB, domestic banks and branches of foreign banks, investment companies) and the others are foreign (European Commission, OECD, IMF, The Economist's panel of forecasters, foreign banks).

The forecasts are summarised in the following table.

Table D.1: Consensus Forecast

		June 2009			July 2009
		m in.	max.	consensus	forecast MoF
Gross domestic product (2009)	%, const.pr.	-5,0	0,4	-3,0	-4,3
Gross domestic product (2010)	%, const.pr.	0,1	2,4	1,2	0,3
Average inflation rate (2009)	%	1,0	1,9	1,4	1,1
Average inflation rate (2010)	%	0,3	2,3	1,5	1,1
Average monthly wage (2009)	%	0,3	2,8	2,1	3,4
Average monthly wage (2010)	%	2,2	4,0	3,1	3,3
Current account / GDP (2009)	%	-3,7	-1,4	-2,4	-2,0
Current account / GDP (2010)	%	-3,4	1,0	-2,2	-0,9

Until mid-2008, consensus forecasts of **GDP** growth hovered at the level of 5%. The deepening of global economic problems at first was accompanied by forecasts of a slowing of growth. In 2009, however, estimates allowing for an economic slump have prevailed.

On average, the institutions assume that the Czech economy's performance will fall by 3.0% in 2009. The economy is expected to return to growth in 2010. Although its forecast ranks among those less optimistic, the Ministry of Finance anticipates these trends as well.

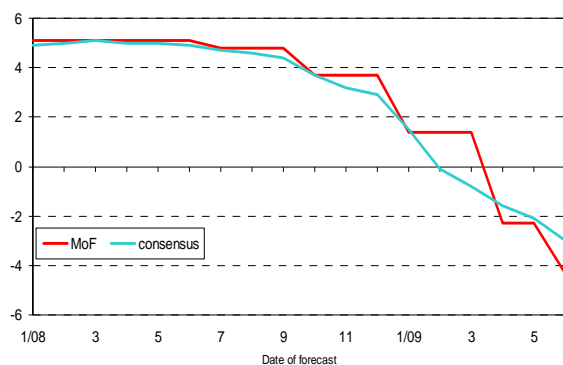
Current forecasts of the **inflation rate** count on an average inflation of 1.5% in both this year and the next. In comparison with the consensus, the Ministry of Finance's forecast contains a slightly lower inflation rate for both years. Nevertheless, the

inflation forecasts also show a tendency to decrease over time.

At the turn of 2008/2009, the forecast of **average wage** growth in 2009 was reduced significantly. The consensus forecast counts on an increase of the average wage by 2.1% in 2009 and by 3.2% in 2010. In comparison with the Ministry of Finance's forecast, this forecast is ca 1 percentage point less for this year and roughly the same for 2010.

The consensus forecasts on the **ratio of the current account balance to GDP** hover around -2.4% in 2009 and -2.2% in 2010. The Ministry of Finance's forecast features a lower current account deficit in both years.

Graph D.1: Forecast of Real GDP Growth for 2009
in %



Graph D.2: Forecast of Aver. Inflation Rate for 2009
in %

