INFLATION REPORT / III

2011

CNB CZECH NATIONAL BANK

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In 1998, the Czech National Bank switched to inflation targeting. In the inflation targeting regime, the central bank's communication with the public plays a significant role. One of the core elements of this communication is the publishing of quarterly Inflation Reports. Section II of the Inflation Report contains a description of the Czech National Bank's new quarterly macroeconomic forecast, and section III presents its assessment of past economic and monetary developments.

The inflation forecast and the assumptions underlying it are published with the aim of making monetary policy as transparent, comprehensible, predictable and therefore credible as possible. The Czech National Bank is convinced that credible monetary policy effectively influences inflation expectations and minimises the costs of maintaining price stability. Maintaining price stability is the Czech National Bank's primary objective.

The forecast for the Czech economy is drawn up by the CNB's Monetary and Statistics Department. The forecast for inflation at the "monetary policy horizon" (about 12–18 months ahead) is of greatest relevance to the decision-making on the current interest rate settings.

The forecast is the key, but not the only, input to the Bank Board's decision-making. At its meetings during the quarter, the Bank Board discusses the current forecast and the balance of risks and uncertainties surrounding it. The arrival of new information since the forecast was drawn up and the possibility of asymmetric assessment of the risks of the forecast and divergent views of some board members on the development of the external environment or the linkages between the various indicators within the Czech economy mean that the Bank Board's final decision need not correspond to the message of the forecast.

This Inflation Report was approved by the CNB Bank Board on 11 August 2011 and contains the information available as of 22 July 2011. Unless stated otherwise, the sources of the data contained in this Inflation Report are the CZSO or the CNB. All the Inflation Reports published to date are available on the CNB website. Underlying data for the tables and charts presented in the text of this Inflation Report, minutes of Bank Board meetings, and time series of selected economic and monetary indicators (available in the ARAD database) are published at the same internet address.

CHART I.1

FULFILMENT OF THE INFLATION TARGET

Headline inflation was just below the CNB's inflation target in 2011 Q2
(annual percentage changes)

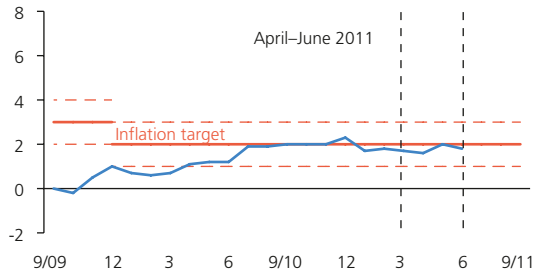


CHART I.2

HEADLINE INFLATION FORECAST

Headline inflation will temporarily get just above 3% in 2012 owing to a VAT increase
(annual percentage changes)

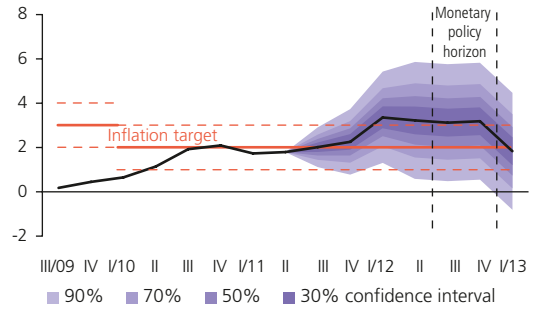
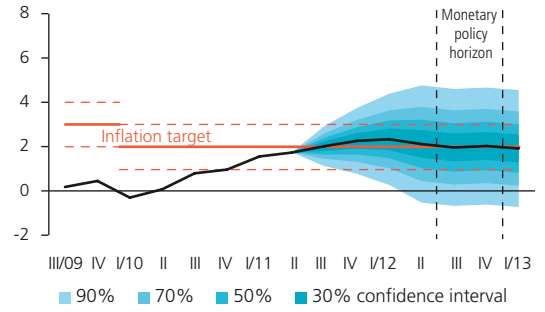


CHART I.3

MONETARY-POLICY RELEVANT INFLATION FORECAST

Monetary-policy relevant inflation will be close to the target over the entire forecast horizon
(annual percentage changes)



I. SUMMARY

In 2011 Q1, the Czech economy recorded an upturn in growth, which until then had been driven mainly by net exports. In Q2, however, the economy apparently started to slow. Headline inflation and monetary-policy relevant inflation are both just below the target. The inflation pressures from the domestic economy are not significant and commodity prices are currently the main source of inflation. GDP growth will be slightly above 2% this year and the next. Its pace will be dampened by fiscal restriction and a slowdown of external demand growth. Real economic activity will show higher growth only in 2013. Monetary-policy relevant inflation will be close to the target over the entire forecast horizon. Headline inflation will be just above 3% in 2012 owing to a VAT increase, but will return to the target at the start of 2013. Consistent with the forecast is broad stability of market interest rates at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012.

The **annual rate of growth of the Czech economy** accelerated to 2.8% in 2011 Q1. This was due mainly to net exports and, to a lesser extent, to fixed investment. The other contributions were negative or neutral. A modest slowdown in annual growth to 2.5% is expected in 2011 Q2.

Headline inflation was just below the CNB's target in 2011 Q2 (see Chart I.1). Monetary-policy relevant inflation was rising towards the target and merged with headline inflation at the end of 2011 Q2 as the final lagged effects of last year's increase in indirect taxes disappeared. Global commodity prices and food prices, whose growth accelerated in Q2, are still the main source of inflation. Adjusted inflation excluding fuels remains negative and continues to reflect weak domestic demand. Import prices are weakly inflationary overall, as the increase in prices abroad is being partially offset by appreciation of the exchange rate. Despite a modest pick-up in wage growth, the domestic inflationary pressures are insignificant at present owing to weak domestic demand. Profit margins are squeezed slightly below their equilibrium level.

Economic growth in the euro area increased in 2011 Q1, but for the year as a whole it should reach approximately the same level as in 2010. In 2012 the rate of growth is expected to decline. The market outlook for interest rates in the euro area is still rising over the entire forecast horizon, but its slope has decreased significantly despite a further tightening of ECB monetary policy in July 2011. This lower slope reflects above all the escalation of the debt crisis in some euro area periphery countries and the related outlook for slower growth in ECB interest rates in the future. The ECB's monetary policy tightening fostered a recent appreciation of the euro against the dollar, but the euro is expected to depreciate gradually at the forecast horizon. Prices of oil and other commodities have recently been quite volatile. A very slow decrease in prices on the commodity markets is expected in the longer run.

According to the forecast, headline inflation will rise slightly above 3% in 2012 owing to a VAT increase, but will return to the target at the start of 2013 (see Chart I.2). **Monetary-policy relevant inflation**, i.e. inflation adjusted for the first-round effects of changes to indirect taxes, will be close to the target over the entire forecast horizon (see Chart I.3). Its modest rise will be fostered, in addition to administered prices, by gradually strengthening pressures from the domestic economy linked with the pick-up in wage growth and, in the longer run, also with a more robust recovery in economic activity. These pressures will be largely offset by gradual appreciation of the exchange rate and by the unwinding of commodity price growth, which are factors that will manifest themselves mainly in lower annual food and fuel price inflation. Adjusted inflation excluding fuels will gradually rise and turn positive at the start of 2012.

Consistent with the forecast is broad stability of market **interest rates** at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012 (see Chart I.4). The rate stability at the start of the forecast horizon is chiefly a result of low expected foreign interest rates and insignificant domestic inflationary pressures. Interest rates do not react to the temporary rise in inflation above the target caused by the first-round effects of the changes to indirect taxes. In the longer run, as domestic inflationary pressures gradually renew and interest rates abroad creep up, rates increase towards their long-term equilibrium level. The forecast assumes a gradual appreciation of the **koruna-euro exchange rate** (see Chart I.5) owing to a favourable outlook for net exports, a declining risk premium owing to fiscal consolidation and renewed real convergence in the longer run. By contrast, low domestic interest rates are expected to attenuate the appreciation of the exchange rate via a temporarily negative interest rate differential.

The **growth of the Czech economy** will slow this year owing to fading investment in inventories and to fiscal consolidation (see Chart I.6). The main source of growth, which will reach 2.1% for the year as a whole, will be net exports. In 2012, all components of domestic demand will contribute to GDP growth. However, household consumption will be dampened by the VAT change. An upturn in the economy will also be hampered by a temporarily negative contribution of net exports, due, among other things, to a slowdown abroad. GDP growth will thus increase only marginally, to 2.2%. In 2013, real economic activity is expected to grow more strongly. On the **labour market**, the aforementioned developments will cause total employment to be broadly stagnant this year. Employment will start rising slightly in 2012. This will be reflected in a decline in the unemployment rate. Wage growth in the business sector will gradually rise, whereas wage growth in the non-business sector will remain subdued.

At its monetary policy meeting on 4 August 2011, the Bank Board decided by a majority vote to **leave the interest rates unchanged**. The risks of the new forecast were assessed as being balanced. Lower foreign interest rates are a downside risk to inflation, while the weaker koruna implies an upside risk.

CHART I.4

INTEREST RATE FORECAST

Consistent with the forecast is broad stability of market interest rates at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012
(3M PRIBOR, %)

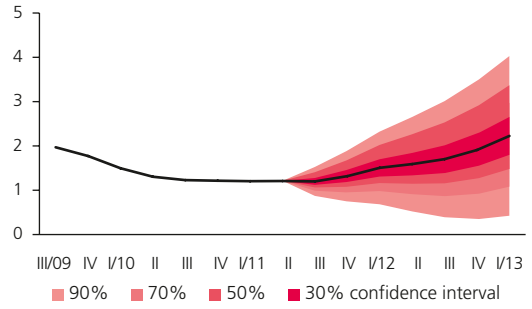


CHART I.5

EXCHANGE RATE FORECAST

The nominal exchange rate is gradually appreciating over the forecast horizon
(CZK/EUR)

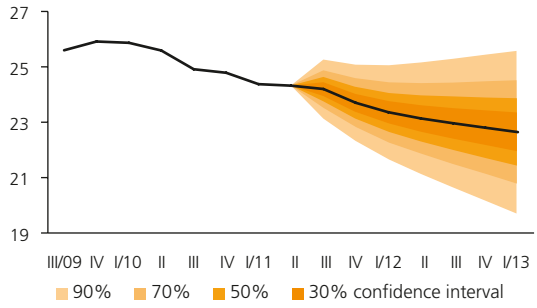


CHART I.6

GDP GROWTH FORECAST

GDP growth will slow temporarily in 2011 and at the start of 2012
(annual percentage changes; seasonally adjusted)

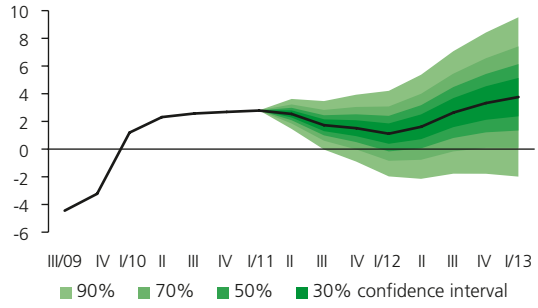


CHART II.1.1

EFFECTIVE GDP IN THE EURO AREA

After recording faster growth in 2011 Q1 the euro area economy is expected to slow

(annual percentage changes; differences in p.p. – right-hand scale)

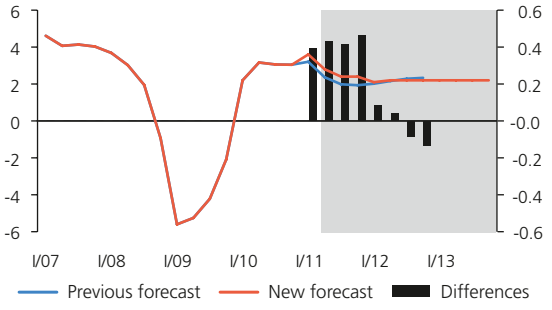


CHART II.1.2

EFFECTIVE PPI IN THE EURO AREA

The sharp growth in industrial producer prices in 2011 is due to high commodity prices

(annual percentage changes; differences in p.p. – right-hand scale)

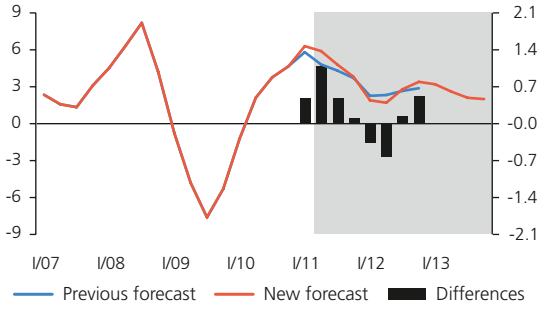
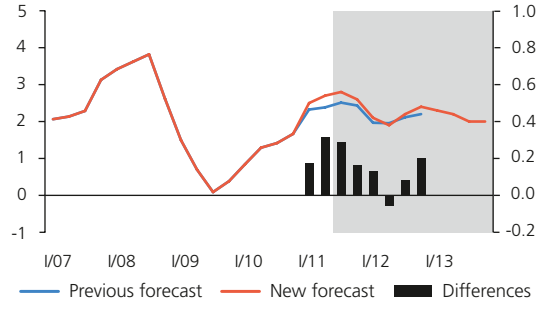


CHART II.1.3

EFFECTIVE CPI IN THE EURO AREA

The outlook for effective inflation is fluctuating above the 2% level over the entire forecast horizon

(annual percentage changes; differences in p.p. – right-hand scale)



II THE FORECAST, ITS CHANGES AND RISKS

II.1 EXTERNAL ASSUMPTIONS OF THE FORECAST

Economic growth in the euro area should be roughly at the 2010 level this year. In the next two years the growth should slow, but will continue to exceed 2%. High commodity prices passed through to a rise in both producer and consumer price inflation, and their outlooks were raised as well. The ECB reacted to the growing inflationary pressures by raising its key interest rates further in July. The expected 3M EURIBOR rate path is still rising, but its slope is decreasing significantly owing to heightened uncertainty about the future evolution of the debt crisis in the euro area. The ECB's current monetary policy settings were reflected in an appreciation of the euro against the dollar. However, the dollar is expected to strengthen gradually over the entire forecast horizon. Prices on the commodity markets are still high and are expected to decline very slowly.

The outlook for the **effective indicator of euro area GDP** foresees growth of 2.8% this year, i.e. just 0.1 percentage point lower than in 2010 (see Chart II.1.1).[1] The sizeable upward revision of the forecast is due above all to faster growth of the German economy in 2011 Q1, which has benefited, among other things, from high competitiveness, low interest rates and an extraordinary contribution from construction. The growth in smaller Nordic economies was even faster. By contrast, some southern periphery countries are having a dampening effect on euro area growth. However, the upward revision of the outlook for foreign economic activity relates only to this year. In the next two years the rate of growth of external demand is expected to fall to 2.2% as a result, among other things, of expected fiscal consolidation in the majority of euro area countries.

The outlook for the **effective indicator of producer prices in the euro area** reflects the fact that global prices of almost all commodities have been at historical highs since mid-2010 (see Chart II.1.2). The outlook for this year is thus shifted upwards overall by 0.5 percentage point to 5.2%. In light of the expected calming on commodity markets, the annual rate of growth of producer prices is expected to slow to about 2.5% in the next two years.

The higher outlooks for both producer prices and economic growth are also reflected in the outlook for the **effective indicator of consumer prices in the euro area** (see Chart II.1.3), which is 2.7% for this year.

1 The outlook for external variables, which is based on Consensus Forecasts (CF) and prices of market contracts, was updated on 11 July 2011. The market outlook as of 8 July was used for EURIBOR rates. The outlook is indicated by the grey areas in the charts. This convention is used throughout this Report.

In the next two years – after the effect of higher commodity prices unwinds and given the expected slowdown in domestic demand growth in most euro area countries – the rate of growth of consumer prices is expected to decrease to about 2.1%. Inflation will thus fluctuate above the 2% level over the entire forecast horizon.

The **3M EURIBOR rate path** is still rising, but its slope is lower than in the previous forecast (see Chart II.1.4). The slope has decreased despite the fact that the ECB again raised its key refinancing rate by 0.25 percentage point to 1.5% on 7 July in response to rising medium-term inflationary pressures. Market expectations thus primarily reflect developments associated with the escalation of the debt crisis in the euro area periphery countries and expectations that in this situation the ECB will not raise its rates as quickly as previously assumed. The expected three-month rate for 2011 is 1.5%. The market data are in line with the opinion of the CF analysts, who do not expect ECB rates to rise before the end of this year. The 3M EURIBOR should reach 2.0% and 2.3% on average in 2012 and 2013 respectively.

The recent appreciation of the **euro-dollar exchange rate** reflected the tightening of monetary policy of the ECB as well as the outlook for that policy. This appreciation was also affected by the fading effects of the quantitative easing in the USA, the unconvincing signs of recovery of the US economy and by the US public finance deficit. However, the forecast expects the dollar to appreciate gradually from about USD 1.45/EUR to USD 1.36 at the end of 2013 (see Chart II.1.5). Compared to the previous forecast this means a weakening of the dollar of about 7% this year and 3% in the next two years.

The outlook for the path of the **Brent crude oil price** based on market prices is little changed (see Chart II.1.6). The forecast assumes a very gradual decline in prices from their current values of about USD 120 a barrel to roughly USD 113 at the end of 2013. As regards the future oil price, the risks at the forecast horizon can be assessed as balanced. The expected slowdown of the Chinese economy and the uncertain evolution of the US economy may foster lower prices. By contrast, a renewal of the Fed's liquidity-providing programme and continued political instability in the Middle East could push oil prices to higher levels. The CF analysts expect a modest rise in the WTI oil price at the one-year horizon, which would reduce the current extraordinary difference in the prices of the two types of oil.

CHART II.1.4

3M EURIBOR

The risks associated with the potential spread of the euro area debt crisis have shifted the market rate outlook downwards significantly

(in %; differences in p.p. – right-hand scale)

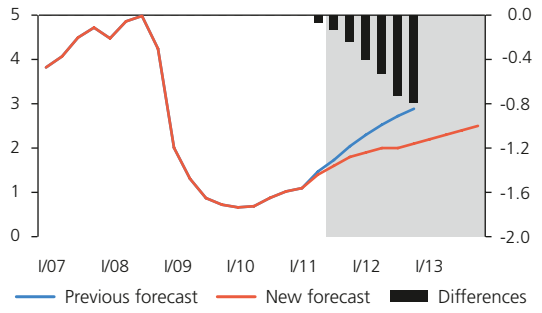


CHART II.1.5

EURO-DOLLAR EXCHANGE RATE

The dollar is expected to appreciate gradually over the entire forecast horizon

(USD/EUR; differences in % – right-hand scale)

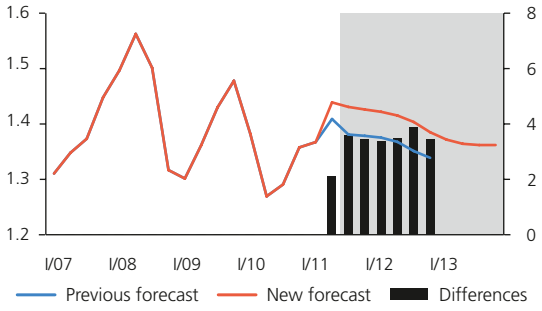


CHART II.1.6

PRICE OF BRENT CRUDE OIL

The forecast assumes a very gradual decline in the price of oil

(USD/barrel; differences in % – right-hand scale)

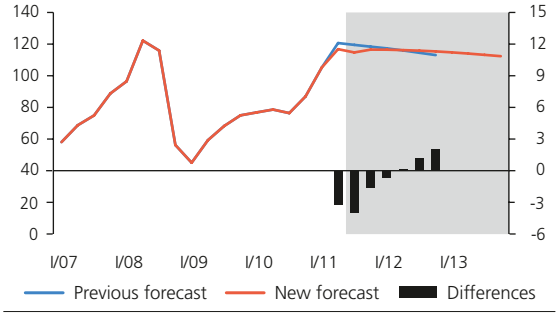


CHART II.2.1

HEADLINE INFLATION AND MONETARY-POLICY RELEVANT INFLATION

Headline inflation will be just above 3% in 2012, while monetary-policy relevant inflation will be close to the 2% inflation target
(annual percentage changes)

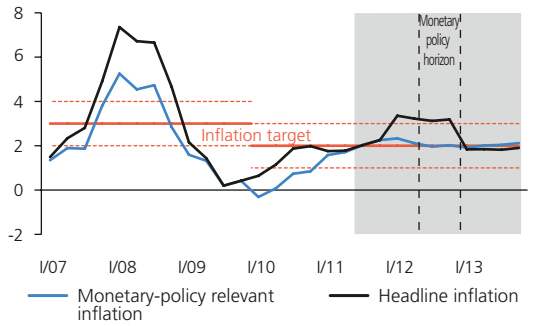


CHART II.2.2

ADMINISTERED PRICES AND FUEL PRICES

Administered prices and fuel prices will be affected by higher commodity prices on world markets, while administered prices will also be affected by a VAT increase
(annual percentage changes; fuel prices excluding first-round effects of indirect tax changes)

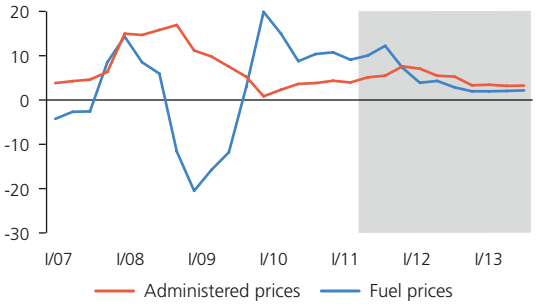


TABLE II.2.1

FORECAST OF ADMINISTRATIVE EFFECTS

The growth of administered prices will be due mainly to growth in regulated rents and rising energy prices
(annual percentage changes; impact in p.p.)

	2010 actual		2011 forecast		2012 forecast		2013 forecast	
Administered prices – total [a]	3.8	0.66	5.6	0.98	5.2	0.95	3.3	0.62
of which (selected items):								
Regulated rents	16.8	0.23	12.0	0.19	15.0	0.26	10.0	0.20
Electricity	-2.5	-0.09	4.8	0.17	5.0	0.18	-0.1	0.00
Natural gas	6.7	0.16	11.3	0.28	2.0	0.05	-0.1	0.00
Heat	3.3	0.08	3.0	0.07	5.6	0.13	5.1	0.13
Healthcare	7.8	0.16	4.5	0.09	3.6	0.08	3.4	0.08
First-round impacts of tax changes in non-administered prices		1.02		0.00		0.95		-0.29

a) Including effects of indirect tax changes

II.2 THE FORECAST

Headline inflation was 1.8% and monetary-policy relevant inflation 1.7% on average in 2011 Q2. Global commodity prices and food prices are still the main sources of inflation. From the point of view of import prices, growth in foreign industrial producer prices is being partly offset by appreciation of the koruna. Despite a modest pick-up in wage growth, the domestic inflationary pressures are insignificant at present owing to weak domestic demand. Monetary-policy relevant inflation will be close to the 2% target over the entire forecast horizon. Headline inflation will be just above 3% in 2012 owing to VAT changes. A modest rise in monetary-policy relevant inflation will be fostered, in addition to administered prices, by gradually strengthening pressures from the domestic economy linked with the pick-up in wage growth. However, their impact will be largely offset by gradual appreciation of the exchange rate and by the unwinding of the inflationary effect of commodity prices. GDP growth will be slightly above 2% this year and the next. Its pace will be dampened by fiscal restriction and a slowdown of external demand growth from its currently high levels. In 2013, GDP growth will show a pronounced upswing. Consistent with the forecast is broad stability of market interest rates at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012.

Annual **headline inflation** was 1.8% on average in 2011 Q2. Monetary-policy relevant inflation, i.e. inflation adjusted for the first-round effects of changes to indirect taxes, was 1.7% on average. Monetary-policy relevant inflation will be close to the inflation target at the forecast horizon, but headline inflation will be just above 3% in 2012 owing to tax changes and will return to the target in 2013 (see Chart II.2.1).

Annual **administered price inflation** fell to 4.0% on average in 2011 Q2 compared to the previous quarter. This fall was partly due to the unusual timing of the increase in prices of natural gas for households (which took place in June instead of April as previously expected). A modest rise in administered price inflation to 5.1% is expected in 2011 Q3 owing to further growth in natural gas prices and rents. Thereafter, administered price inflation will rise gradually to above 7% at the start of 2012. This will be due – besides growth in regulated and deregulated rents, administered health care prices and prices of energy for households – to the one-off effect of a rise in the reduced VAT rate. This effect will unwind in early 2013 and administered price inflation will slow to levels slightly above 3%, owing also to an expected year-on-year fall in energy prices on global markets (see Table II.2.1).

As regards **indirect taxes**, the final lagged effects of the January 2010 increases in excise duties and VAT on cigarettes disappeared from annual headline inflation during 2011 Q2. The forecast assumes an increase in the reduced VAT rate from 10% to 14% as from January 2012. The first-round effect of this change can be estimated at about 1.1 percentage point. January 2012 will also see a "harmonisation increase" in excise duties on cigarettes with a contribution to inflation

of just above 0.1 percentage point. The forecast then expects the two VAT rates to be unified at 17.5% as from 2013, with an overall first-round effect on inflation of about -0.2 percentage point (see Box 1).

BOX 1
The impacts of changes to VAT rates on the budget and inflation and their components in 2012 and 2013

The macroeconomic forecast described in this Inflation Report contains an increase in the VAT rate from 10% to 14% as from 1 January 2012 and unification of the two VAT rates at 17.5% as from 1 January 2013. This measure is currently in the legislative process and at the time of the preparation of Inflation Report III/2011 had passed the first reading in the Chamber of Deputies (the lower house of the Czech parliament).

Owing to these changes, the forecast assumes that VAT revenue will be roughly CZK 25 billion higher in both years. Net of social compensation measures, the resulting fiscal restriction will reduce GDP growth by about 0.3 percentage point in 2012.

The first-round impact of the increase in the reduced VAT rate from 10% to 14% in 2012 on inflation can be estimated at about 1.1 percentage point, with food prices being affected most strongly (see Table 1). Administered prices will also be strongly affected via items subject to the reduced VAT rate, such as heat, water supply, sewerage collection, medicines and public transport. By contrast, most items of adjusted inflation excluding fuels are subject to the basic VAT rate, so the impact on this price category will be small in 2012. As regards non-tradables, the change will affect prices of air tickets, books and magazines and some services, for example. The tradable items affected will include flowers and animal fodder. Fuel prices will not be affected by this change, as they fall under the basic VAT rate.

Once the two VAT rates have been unified at 17.5% in 2013, the overall first-round effect on inflation will be about -0.2 percentage point. The increase in the reduced VAT rate from 14% to 17.5% should contribute about 0.9 percentage point and will again be most visible in food prices and administered prices, while some items of adjusted inflation excluding fuels will, as in 2012, contribute to a lesser extent. Overall, these changes will be more than offset by the decrease in the basic VAT rate from the current 20% to 17.5%, whose contribution to inflation is expected to be around -1.1 percentage point. This change will be particularly apparent in price categories within adjusted inflation excluding fuels, as it will affect the majority of tradables prices and most prices of services. The reduction of the basic VAT rate will also affect prices of alcohol and tobacco, some administered prices and fuel prices.

TABLE 1 (BOX)

FIRST-ROUND IMPACTS OF VAT RATE CHANGES ON INFLATION

The VAT changes will have the greatest impact on food prices
(percentage points)

	First-round impacts	
	2012[a)]	2013[b)]
Inflation, total	1.1	-0.2
Administered prices	0.3	0.1
Food prices	0.6	0.3
Adjusted inflation excluding fuels	0.2	-0.6
of which:		
Other tradables	0.1	-0.4
Other non-tradables	0.1	-0.2
Fuel prices	0.0	-0.1

a) 2012: Increase in reduced VAT rate from 10% to 14%
b) 2013: Increase in reduced VAT rate from 14% to 17.5% and decrease in basic VAT rate from 20% to 17.5%

CHART II.2.3

NET INFLATION AND ADJUSTED INFLATION EXCLUDING FUELS

Adjusted inflation excluding fuels will turn positive at the start of 2012
(annual percentage changes)

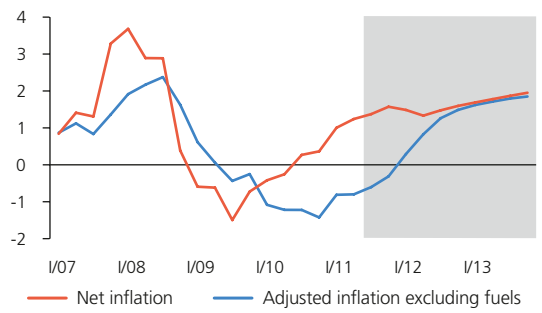


CHART II.2.4

FOOD PRICES AND AGRICULTURAL PRODUCER PRICES

Food price inflation will slow as agricultural producer price inflation subsides
(annual percentage changes)

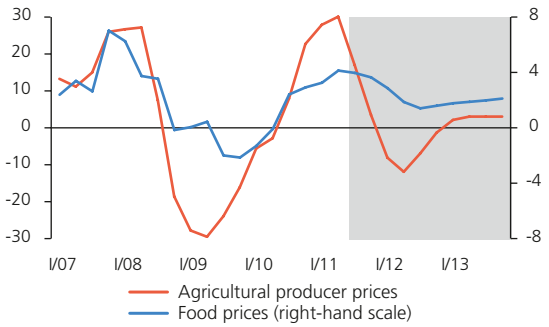


CHART II.2.5

FUEL PRICES AND OIL PRICES

The forecast expects fuel price inflation to slow
(annual percentage changes)

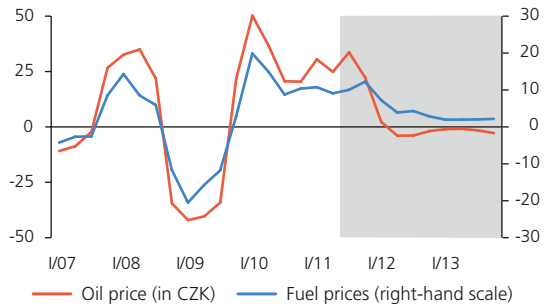
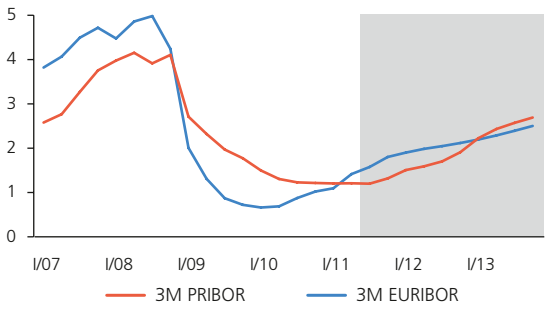


CHART II.2.6

INTEREST RATE FORECAST

Consistent with the forecast is broad stability of market interest rates at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012
(3M PRIBOR and 3M EURIBOR in %)



Annual **net inflation** rose slightly on average in 2011 Q2, reaching 1.2% (see Chart II.2.3). This rise was mainly a result of an increase in food price inflation, which outweighed the fall in fuel price growth. The forecast expects net inflation to rise further by the end of 2011 to levels of around 1.6% amid a moderation of the annual decline in adjusted inflation excluding fuels and persisting high growth in the other components of market prices. Net inflation will thus reflect a renewal of domestic cost pressures together with the balancing of sellers' margins. During 2012, these factors will be offset by slowing annual food and fuel price inflation and by appreciation of the koruna. Commodities will thus cease to be the main source of inflation. Starting from mid-2012, net inflation will pick up again and approach the 2% level at the end of 2013.

Annual **adjusted inflation excluding fuels** was flat at -0.8% in 2011 Q2 (see Chart II.2.3). Its negative values still reflect weak domestic demand, which is preventing growth of sellers' margins in an environment of still subdued domestic cost pressures. In line with the expected growth in these cost pressures, the forecast assumes that adjusted inflation excluding fuels will move to less negative levels this year and turn positive at the start of 2012. Subsequently, adjusted inflation excluding fuels should pick up further to 2% at the end of 2013 owing to the unwinding of the anti-inflationary effect of import prices and to the still present inflationary pressures from the domestic economy.

Annual **food price inflation** rose in 2011 Q2 as a result of the previous strong growth in agricultural producer prices and accelerating inflation in the food industry. The scope to absorb rising input costs by reducing margins has probably now disappeared. The forecast expects growth in food prices to gradually moderate in the near future. During 2012, food prices should, with a lag, reflect the fading annual growth in global food commodity prices together with the expected decline in domestic agricultural producer prices. Annual food price inflation (excluding the effect of tax changes) should therefore fluctuate around 2% (see Chart II.2.4). Nevertheless, the evolution of global agricultural commodity prices and their pass-through to domestic food prices are one of the risks to the forecast.

Fuel price growth moderated year on year in 2011 Q2, mainly as a result of the koruna's strong appreciation against the dollar. The forecast still expects fuel prices to edge up in the near future, in line with world oil prices. The expected calming on the world oil market together with a slight appreciation of the koruna against the dollar will then foster slower growth in fuel prices over the next two years (see Chart II.2.5).

Czech money market **interest rates** were flat in 2011 Q2. Rates with longer maturities decreased slightly. Consistent with the forecast is broad stability of market interest rates at the start of the forecast horizon and a gradual rise in rates starting in late 2011/early 2012 (see Chart II.2.6). The stability of 3M PRIBOR rates at the start of

the forecast horizon is chiefly a result of low expected foreign interest rates and insignificant domestic inflationary pressures. Interest rates do not react to the temporary rise in inflation above the target caused by the first-round effects of the changes to indirect taxes, to which the escape clause mechanism applies as usual. In the longer run, as domestic inflationary pressures gradually renew and interest rates abroad creep up, rates increase towards their long-term equilibrium level.

The **koruna-euro exchange rate** appreciated slightly on average in 2011 Q2. The forecast for 2011 Q3 assumes an average exchange rate of CZK 24.2 to the euro. The subsequent gradual appreciation of the exchange rate over the forecast horizon (see Chart II.2.7) is due mainly to a favourable outlook for net exports, but the rate of appreciation is temporarily attenuated by a negative interest rate differential. The exchange rate appreciation will also be fostered by a declining risk premium owing to fiscal consolidation and renewed real convergence in the longer run.

Based on the observed data, we estimate slightly accelerating quarterly growth in **nominal marginal costs in the consumer goods sector** in 2011 Q2 (see Chart II.2.8). Import prices are inflationary for the third consecutive quarter; the increase in global commodity prices is offset only partially by depreciation of the exchange rate of the koruna. The pressures from the domestic economy, approximated by intermediate goods price inflation, are currently negligible. This reflects slow, albeit higher than at the end of 2010, growth of nominal wages in the private sector and of prices of investment coupled with still weak domestic demand. The estimated evolution of export-specific technology is linked to the persisting difference in the evolution of prices of tradables and non-tradables (the Balassa-Samuelson effect) and traditionally fosters positive inflation.

The inflation pressures from the domestic economy will gradually increase over the forecast horizon, mainly because of rising wage growth accompanying the growth in external demand and in the Czech economy. Import prices will turn anti-inflationary in 2011 H2, when growth in commodity prices on world markets should come to a halt and the koruna will simultaneously appreciate. The anti-inflationary effect of import prices will disappear again in 2013, along with a slowdown in the rate of appreciation of the exchange rate and the unwinding of the effect of lower commodity prices.

Nominal marginal costs in the intermediate goods sector increased for the first time in two years in 2011 Q2, as wage cost pressures recorded a slight rise. This growth was partly offset by growth in labour-augmenting technology (see Chart II.2.9), which is consistent with the current rise in whole-economy labour productivity. A slight inflationary contribution of the price of capital corresponds to the return of the investment deflator to growth in 2011 H1. Domestic cost pressures will start to re-emerge owing to wage growth and, in the longer run, to a more robust recovery in economic activity.

CHART II.2.7

EXCHANGE RATE FORECAST

The nominal exchange rate of the koruna against the euro is gradually appreciating over the forecast horizon
(CZK/EUR and CZK/USD)

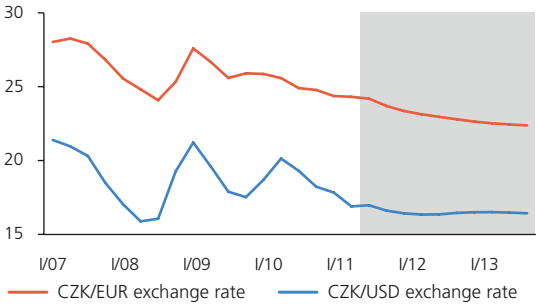


CHART II.2.8

COSTS IN THE CONSUMER SECTOR

Pressures from the domestic economy will grow over the forecast horizon along with faster wage growth
(quarterly percentage changes; contributions in p.p.; annualised)

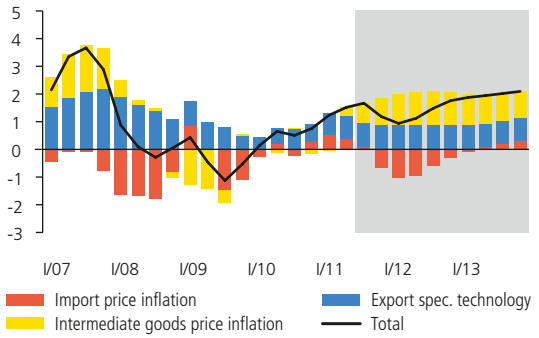


CHART II.2.9

COSTS IN THE INTERMEDIATE GOODS SECTOR

Growth in wage cost pressures will be suppressed by continuing growth in labour productivity
(quarterly percentage changes; contributions in p.p.; annualised)

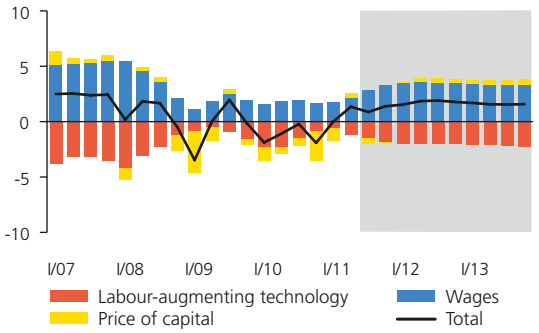


CHART II.2.10

GAP IN PROFIT MARK-UPS IN THE CONSUMER SECTOR

Corporate profit mark-ups will not converge to their equilibrium level until 2012
(percentages)

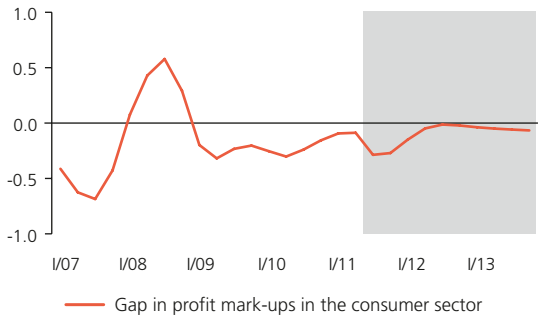


CHART II.2.11

AVERAGE NOMINAL WAGE

Wage growth in the business sector will accelerate, but wages in the non-business sector will probably not rise until 2012
(annual percentage changes; seasonally adjusted)

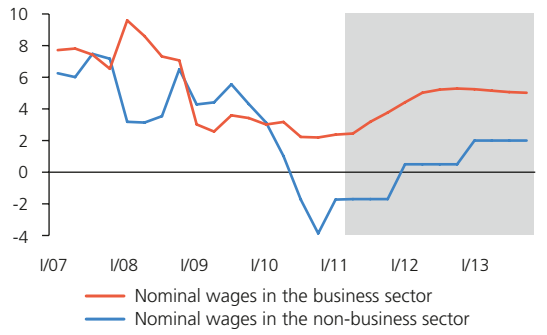
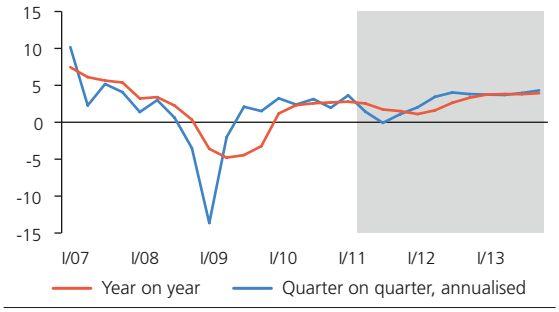


CHART II.2.12

GDP GROWTH FORECAST

GDP growth will be slightly above 2% this year and the next on average
(percentage changes; seasonally adjusted)



Profit mark-ups in the consumer goods sector are assessed as having been only slightly squeezed below their equilibrium level in 2011 Q2, as prices in the consumer sector (food in particular) have recently been rising faster than costs (see Chart II.2.10). The gap in profit mark-ups will open again to negative values in the near future, since a transient slowdown is expected in market price inflation amid continued slight growth in costs. The gap in profit mark-ups will start to close again during 2012.

Whole-economy **labour productivity** will reflect the slight slowdown in economic activity in 2011. Its annual rate of growth will thus edge down (from 2.4% in 2011 Q1) to 2.1% on average for the year as a whole. Annual productivity growth will pick up to 3% in 2012 H2 owing to gradually rising GDP growth.

Annual growth in nominal **wages in the business sector** picked up in 2011 Q1 (to 2.4% when seasonally adjusted). It should increase further in the remainder of the year, mainly because of continued growth in external demand amid slightly rising inflation. The average wage will thus increase by 3.2% in 2011 as a whole. Wage growth will gradually accelerate next year to 5%. The growth rate of wages in the business sector will also be around this level in 2013 (see Chart II.2.11).

As a result of the continuing consolidation of public budgets, the forecast expects an annual decline in the average **wage in the non-business sector** of 1.7% in 2011. This will be the result of a decline in the volume of wages and salaries in the non-business sector of around -3.4%, around one-half of which is expected to be due to a drop in employment. Annual growth in the average wage in the non-business sector will reach 0.5% in 2012 as a result of continued efforts of the government to contain growth in expenditure, albeit it not in the form of an absolute reduction in wages. In 2013, wage growth in the non-business sector will rise further to 2%.

Real GDP in 2011 Q1 increased in both year-on-year (2.8%) and quarter-on-quarter (0.9%) terms compared to the previous quarter (see Chart II.2.12). The previous forecast had expected both growth rates to be about 0.5 percentage point lower. The year-on-year GDP growth was driven most of all by net exports and to a lesser extent by fixed investment. By contrast, the contributions of household and government consumption were slightly negative, while the contribution of investment in inventories was zero.

The forecast expects annual **growth in economic activity** to slow slightly to 2.5% in 2011 Q2 (see Chart II.2.13). This slowdown should be fostered by a decline in the positive contribution of net exports, with imports accelerating faster than exports. The forecast expects GDP to grow by 2.1% in 2011 as a whole. This level is slightly lower than in 2010, mainly because of slowing investment in inventories and falling government consumption. The effect of replenishment of inventories following the previous economic recovery abroad should fade. Government austerity measures will continue to have an impact on

government consumption this year. On the other hand, the contribution of net exports will act against a slowdown in GDP growth. Fixed investment will also make a larger contribution than last year. Household consumption will be broadly flat owing to an only slight recovery in the labour market, public budget consolidation and faster price growth. The contributions of all components of domestic demand – most of all fixed investment and household consumption – should increase in 2012. Overall, however, GDP will grow by 2.2%, roughly the same figure as in the previous year. The contribution of net exports should temporarily turn negative as external demand growth slows. Real economic activity will surge by 3.8% in 2013, with all components of demand making positive contributions, since the effect of fiscal consolidation will fade, the labour market recovery will gain momentum and external demand will rise again steadily.

The annual increase in total **employment** at the start of 2011 was due to base effects and the recovery of economic growth (see Chart II.2.14). Total employment will gradually decline slightly again as the above statistical effect subsides and growth in economic activity declines and as a result of government consolidation. Overall, it will rise by only 0.1% this year. Employment will gradually recover with a lag as a result of the renewed growth in economic activity. Employment will increase on average by 0.2% in 2012 and 0.8% in 2013.

As a result of the aforementioned developments, the seasonally adjusted **general unemployment rate** will be flat at 7% on average during 2011. The forecast expects it to decline to 6.7% on average in 2012 owing to the gradual economic recovery (see Chart II.2.14). This decline will be due to a slight recovery in employment amid a continuing decline in the labour force caused by the shrinking working age population. The general unemployment rate will drop more significantly to 6% in 2013 as growth in economic activity accelerates. The seasonally adjusted **registered unemployment rate** will also be broadly flat overall in 2011 H2. Next year it will fall to 8.6% on average. Like the general unemployment rate, the registered unemployment rate will decline more significantly (to 7.7%) in 2013 owing to a recovery in economic activity and employment.

Growth in real **household consumption** will be zero on average in 2011 and will recover slightly only in the second half of the year. The still muted growth in consumption will be affected by relatively low growth in nominal disposable income linked with still subdued developments on the labour market and with government consolidation measures. A more pronounced recovery in real consumption will also be prevented by higher inflation. Consumption can be expected to increase by 2% in 2012 as a result of higher growth in the volume of wages and the unwinding of the effect of government measures. The rise in the reduced VAT rate will act in the opposite direction (see Chart II.2.15). Growth in real consumption will rise further to 2.7% in 2013 amid a continued improvement in conditions on the labour market and a decline in headline inflation.

CHART II.2.13

ANNUAL GDP GROWTH STRUCTURE

The main source of GDP growth in 2011 will be net exports, but in 2012 all components of domestic demand will contribute
(annual percentage changes; contributions in p.p.; seasonally adjusted)

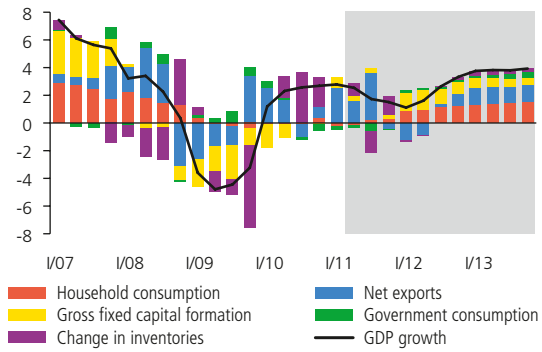


CHART II.2.14

LABOUR MARKET FORECAST

Total employment will start to rise continuously only in 2012; this rise will be reflected in the unemployment rate
(annual percentage changes in employment; unemployment rate in percentages; seasonally adjusted)

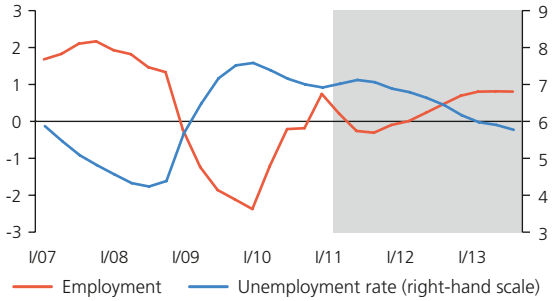


CHART II.2.15

REAL HOUSEHOLD AND GOVERNMENT CONSUMPTION

Household consumption will be flat this year and rise by 2% next year
(annual percentage changes; seasonally adjusted)

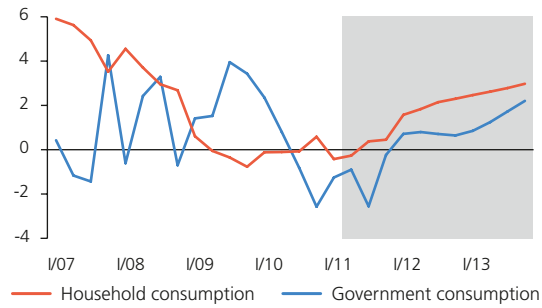


CHART II.2.16

NOMINAL DISPOSABLE INCOME

Gross disposable income will rise owing to a higher volume of wages and salaries
(annual percentage changes; contributions in percentage points)

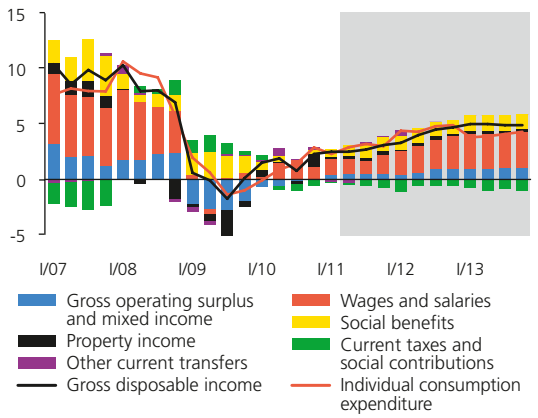


CHART II.2.17

GROSS CAPITAL FORMATION

Total investment growth will slow sharply this year owing mainly to falling investment in replenishment of inventories
(annual percentage changes; seasonally adjusted)

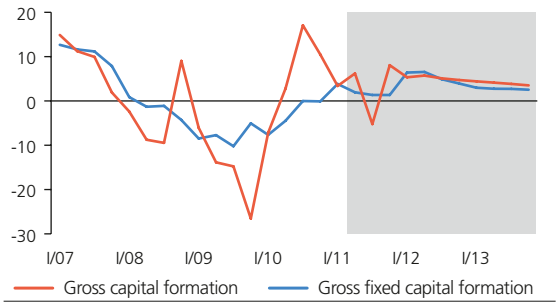
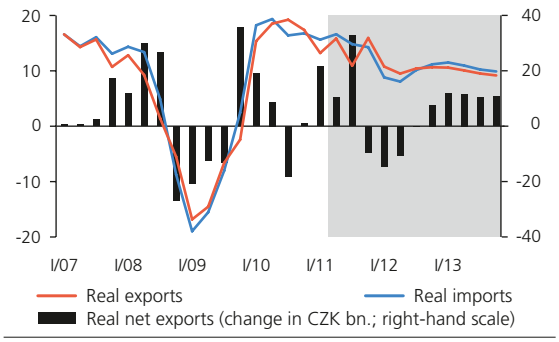


CHART II.2.18

REAL EXPORTS AND IMPORTS

Net exports will make a temporary negative contribution to economic growth in late 2011 and early 2012
(annual percentage changes; annual changes in CZK bn.; seasonally adjusted)



The growth in nominal household consumption over the forecast horizon can be linked mostly to **gross disposable income**, the growth rate of which should rise gradually over the entire forecast horizon. The rate of growth of the largest component of disposable income – the volume of wages and salaries – will gradually increase (see Chart II.2.16). The rise in the volume of wages will be due mainly to the average wage in the private sector. By contrast, the number of employees will record a temporary annual decline in late 2011 and early 2012 and later grow at a moderate rate until the end of the forecast period. The contribution of social benefits should also be positive, owing to a rise in pension expenditure, which will outweigh the effect of cuts in the state social support area. Operating surplus and mixed income relating to the profits of small businesses will also contribute to the disposable income growth. Current taxes and social contributions paid from the growing volume of wages and salaries will act in the opposite direction.

These developments in consumption and disposable income will lead to a gradual decline in the **saving rate** in the near future. The most pronounced fall will occur in 2012 Q1 as consumers respond to the rise in VAT. A turnaround in the saving rate will occur roughly in parallel with the improvement in the labour market conditions. Despite rising steadily until the end of 2013, however, the saving rate will not reach its pre-crisis levels.

Real **government consumption** has been declining since 2010 H2 because of government austerity measures. It should start to rise again at the beginning of 2012 as the focus of fiscal consolidation shifts from reducing current expenditure to increasing tax revenues. Government consumption will rise by 0.7% in 2012 as a whole and 1.5% in 2013.

Annual growth in **gross capital formation** slowed to 3.4% in 2011 Q1. Only fixed investment fostered positive growth in total capital formation, mainly because of base effects. The year-on-year contribution of changes in inventories was neutral. The forecast expects gross capital formation to pick up to 6.2% year on year in 2011 Q2 (see Chart II.2.17). The inventory replenishment cycle will be completed in the second half of this year. At the turn of next year, by contrast, fixed investment will start to recover gradually, especially in manufacturing. Gross capital formation will thus grow at a rate exceeding 5% next year. In 2013, the forecast expects investment to grow close to its 4% long-term equilibrium level, with the contribution of fixed investment continuing to dominate.

Real **exports of goods and services** continued to record fast year-on-year growth of 15.6% in 2011 Q1, reflecting the still high external demand. The forecast expects a quarter-on-quarter slowdown in exports in 2011 Q2 and Q3 (see Chart II.2.18) in response to the already slowing external demand and the effect of the real exchange rate. Year-on-year export growth will thus also start to slow in Q3. However, the growth rate of exports should start to rise again in quarterly terms

at the end of 2011 and continue to recover in 2012. As a result of expected growth in external effective demand, exports should show relatively high growth levels in 2013, too.

Given the slowdown in most components of domestic demand in 2011 Q1, real **imports of goods and services** also recorded a decline in growth (to 13.2%). The forecast expects fairly high levels of import growth in the remainder of the year. This will be due mainly to exports as well as to investment, which are the most import intensive components of domestic demand. In the following two years the import growth path will largely follow exports, with a simultaneous positive contribution of imports for investment and consumption purposes reflecting a recovery of domestic demand.

Amid only a slight decline in export growth and a larger fall in import growth, **net exports** made a significant positive contribution to annual GDP growth in 2011 Q1 (2.5 percentage points). The forecast still expects a significantly positive contribution of net exports to annual growth in 2011 Q2 and Q3 (with fluctuations due to base effects). Net exports should make a temporary negative contribution to annual GDP growth in late 2011 and early 2012, owing mainly to a slowdown in external demand and a parallel recovery in household consumption. They will turn positive again in the second half of 2012 along with a renewed recovery of external demand, and their contribution to GDP growth will gradually stabilise around 1.2 percentage points at the end of the forecast horizon.

The balance of payments forecast expects the **current account** deficit to be flat this year and edge up next year (see Table II.2.3). In relative terms, this implies levels slightly below or close to 4% of GDP in 2011–2013. The forecast expects annual growth in the goods and services balance to roughly cover the rise in the income deficit this year. The annual increase in the goods and services balance is related to slower import growth (the effects of fading imports for photovoltaic power stations and slow growth in domestic demand) and higher machinery exports. Relatively strong annual growth in global prices of commodities, fuels in particular, is acting in the opposite direction. The goods and services surplus should be flat in 2012, with a slight improvement in the balance of machinery exports and imports being offset by a deterioration in the mineral fuels balance and faster growth in total domestic demand. The increasing income deficit in both years will be due mainly to continuing growth in non-residents' profits from foreign direct investment in the Czech Republic and a rising interest income deficit (interest expenses related to external financing of government debt and financing of the current account deficit). Current transfers should be flat at a roughly balanced level. Higher net drawdown of EU funds and a widening of the private transfers deficit will counteract each other.

The current account deficit will be financed by a capital account surplus (drawdown of EU funds and sales of emission permits by private entities) and a financial account surplus (above all a net inflow of

Table II.2.2

FORECAST OF SELECTED VARIABLES

The labour market will not see a stronger recovery until 2013
(annual percentage changes unless otherwise indicated)

	2010 actual	2011 forec.	2012 forec.	2013 forec.
Real gross disposable income of households	0.3	-0.1	1.5	3.6
Total employment	-1.0	0.1	0.2	0.8
Unemployment rate (in per cent)[a]	7.4	7.1	6.7	6.0
Labour productivity	3.2	2.1	2.0	3.0
Average nominal wage	1.9	2.3	4.1	4.5
Average nominal wage in business sector	2.5	3.2	5.0	5.1
Current account deficit (ratio to GDP in per cent)	-3.8	-3.7	-4.1	-3.8
M2	4.0	3.3	5.5	4.1

a) ILO methodology, 15–64 years

Table II.2.3

BALANCE OF PAYMENTS FORECAST

An increasing income balance deficit will widen the current account deficit
(CZK billions)

	2010 actual	2011 forec.	2012 forec.	2013 forec.
A. CURRENT ACCOUNT	-139.1	-140.0	-160.0	-155.0
Trade balance	54.0	70.0	70.0	90.0
Balance of services	66.1	70.0	70.0	75.0
Income balance	-257.7	-280.0	-300.0	-320.0
Current transfers	-1.5	0.0	0.0	0.0
B. CAPITAL ACCOUNT	34.0	38.0	38.0	38.0
C. FINANCIAL ACCOUNT	177.0	145.0	125.0	115.0
Direct investment	97.0	90.0	70.0	80.0
Portfolio investment	157.4	70.0	50.0	30.0
Financial derivatives	-4.1			
Other investment[a]	-54.3	-15.0	5.0	5.0
D. ERRORS AND OMISSIONS	-35.5			
E. CHANGE IN RESERVES (- = increase)	-41.4			

a) excluding operations of banking sector

Table II.2.4

FISCAL FORECAST

The fiscal consolidation will lead to a noticeable reduction of the general government deficit in 2011 and 2012
(% of nominal GDP)

	2010 actual	2011 forec.	2012 forec.	2013 forec.
Government revenue	40.6	41.3	41.4	41.2
Government expenditure	45.2	45.1	44.4	44.0
of which: interest payments	1.4	1.5	1.5	1.6
GOVERNMENT BUDGET BALANCE	-4.7	-3.8	-3.0	-2.8
of which:				
primary balance[a)]	-3.3	-2.3	-1.5	-1.2
one-off measures	-0.1	-0.2	-0.1	-0.1
ADJUSTED BUDGET BALANCE[b)]	-4.6	-3.6	-2.9	-2.8
Cyclical component (ESCB method)[c)]	0.0	-0.7	-0.9	-0.6
Structural balance (ESCB method)[c)]	-4.6	-2.9	-2.0	-2.2
Fiscal stance in p.p. (ESCB method)[d)]	2.1	1.7	0.9	-0.2
Cyclical component (EC method)[c)]	-0.7	-0.5	-0.3	0.3
Structural balance (EC method)[c)]	-3.9	-3.1	-2.6	-3.0
Fiscal stance in p.p. (EC method)[d)]	1.4	0.8	0.5	-0.4
Government debt	38.5	40.9	41.8	42.4

a) government budget balance minus interest payments
b) adjusted for one-off measures; CNB estimate
c) CNB estimate
d) year-on-year change in structural balance (positive value indicates fiscal restriction, negative value fiscal expansion)

direct and portfolio investment). The net inflow of **direct investment** will decline slightly this year compared to 2010, as the capital inflow in the form of credit relations with foreign parent companies will probably not be repeated. By contrast, a disinvestment by a domestic corporation abroad (the sale of part of ČEZ's assets in Turkey) will probably contribute to the net inflow of direct investment. A further decline in the net inflow of direct investment in 2012 will be caused by the unwinding of the effect of this one-off disinvestment; otherwise the forecast expects stagnation at the 2011 level. The net inflow of direct investment in both years should be concentrated predominantly in reinvested earnings. The **portfolio investment** surplus will fall substantially because of greater interest of residents in investing abroad, a lower government foreign borrowing need and a fall in financing of the foreign expansion of ČEZ. In 2012 the overall portfolio investment surplus should decrease owing to a year-in-year fall in demand for debt financing by the government sector.

The future economic developments described above are reflected in the **government finance** outlook for 2011–2013 (see Table II.2.4).[2] The baseline scenario of the fiscal forecast works with the assumption of a rise in the reduced VAT rate from 10% to 14% in 2012 and unification of the two VAT rates at 17.5% in 2013.

The forecast expects the **general government deficit** to fall to 3.8% of GDP in 2011 owing to consolidation measures adopted in connection with the preparation of the 2011 state budget. The restrictive effect of these measures, dampening GDP growth this year by around 0.6 percentage point, enters the forecast mainly via government consumption and private consumption. The moderate decrease in the expected deficit compared to the previous forecast is due chiefly to a revision of the assumption regarding the evolution of social benefits.

The forecast for 2012 is affected mainly by the VAT rate change, which will boost tax revenues by around CZK 25 billion. However, the higher living costs of households connected with the VAT increase will be partly offset by a rise in the personal income tax discount for dependent children (estimated impact: CZK 3.4 billion). The restrictive effect of the VAT change enters the forecast mainly via household consumption, with an estimated impact on real GDP growth of around -0.3 percentage point. The forecast for 2012 continues to take into account the so-called "small" pension reform, which has a neutral

2 As the Constitutional Court ruled that the 50% tax on state support for building saving schemes for 2010 was unlawful only after the spring notifications of government deficit and debt for 2010 had been published, it can be assumed, *ceteris paribus*, that the government deficit for 2010 reported in the autumn notifications will be CZK 4.6 billion lower.

overall impact on the budget.[3] As regards other government revenue and expenditure items, the forecast is based on an assumption of unchanged fiscal policy compared to 2011. Overall, a decrease in the general government deficit to 3% of GDP is expected in 2012, due mainly to higher revenues stemming from the increase in the reduced VAT rate.

In 2013, the forecast assumes unification of the two VAT rates. This, however, will have a negligible effect on tax revenues. Pensions will be increased at the same time (a rise in expenditures of CZK 3.6 billion). The slight year-on-year decrease in the general government deficit to 2.8% of GDP will thus be due to cyclical developments only.

The general government **structural deficit** was around 4.5% of GDP in 2010 and will fall to significantly lower levels in 2011–2013. The expected general government deficit will lead to an increase in general government debt from 38.5% of GDP in 2010 to 42.4% of GDP in 2013.

Additional **consolidation measures** remain a downside risk to the general government deficit in 2013. They include tax reforms, taxation of lotteries, and savings resulting from streamlining the state administration. However, none of these measures has entered the legislative process yet. Another risk is the still uncertain form of the pension and health reforms.

3 Under this small pension reform, the parameters of the pension system are being changed and the maximum annual assessment base for health insurance and social security contributions is being reduced from 72 to 48 times the average monthly wage.

CHART II.3.1

CHANGE IN THE HEADLINE INFLATION FORECAST

The headline inflation forecast is higher owing to the inclusion of the VAT changes
(annual percentage changes; differences in p.p. – right-hand scale)

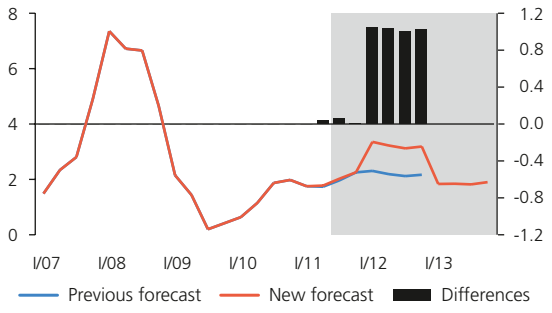


CHART II.3.2

CHANGE IN THE NET INFLATION FORECAST

The slight reduction in the net inflation forecast in 2012 is due to lower food price inflation
(annual percentage changes; differences in p.p. – right-hand scale)

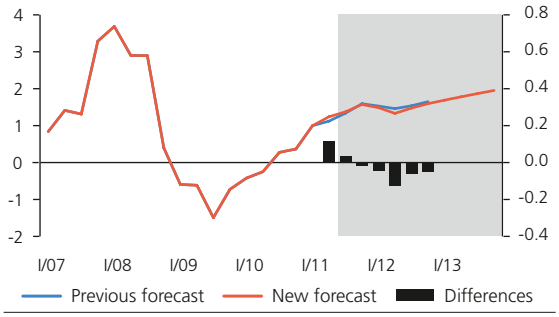
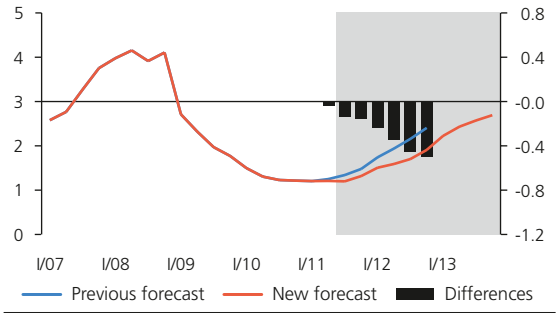


CHART II.3.3

CHANGE IN THE INTEREST RATE PATH

The forecast for market interest rates has moved to a lower level
(percentages; differences in p.p. – right-hand scale)



II.3 COMPARISON WITH THE PREVIOUS FORECAST

The headline inflation prediction is higher than the previous forecast owing to the inclusion of the VAT changes in the baseline scenario. Headline inflation is therefore roughly 1 percentage point higher in 2012. The prediction of monetary-policy relevant inflation is little changed from the previous forecast. A significantly lower outlook for foreign interest rates is reflected in lower forecasted domestic rates, while the effects of the currently weaker exchange rate and the initial state are acting in the opposite direction. Annual GDP growth will be higher this year and slightly lower next year, owing mainly to new GDP data and a higher outlook for effective euro area growth, as well as the inclusion of the restrictive effect of the VAT changes in 2012. Expected wage growth in the business sector has been revised upwards slightly. The exchange rate forecast has shifted towards slightly stronger values.

The forecast for annual **headline inflation** is roughly 1 percentage point higher than the previous prediction (see Chart II.3.1). This is due to the incorporation of the expected rise in the reduced VAT rate from 10% to 14%. **Monetary-policy relevant inflation**, i.e. inflation adjusted for the first-round effects of changes to indirect taxes, is little changed and close to the inflation target of 2%.

Expected **administered price inflation** in 2011 is slightly higher because of a higher outlook for natural gas prices and administered prices in health care. In 2012, administered price inflation will be affected by the rise in the reduced VAT rate and a greater increase in gas prices for households.

The **net inflation** forecast for 2012 is slightly lower than the previous prediction (see Chart II.3.2). This change is due to expectations of a sharper slowdown in food prices, reflecting an expected greater decline in agricultural producer prices.

Most variables of the **external environment outlook** have been revised. The slope of the 3M EURIBOR path is falling considerably over the entire forecast horizon in response to the continuing euro area debt crisis and expectations that the ECB will raise interest rates more slowly in this situation (see section II.1). Compared to the previous forecast, higher growth rates of external demand and foreign producer prices are expected this year. The outlook for these two variables for next year is little changed.

The forecast for domestic market **interest rates** is slightly lower in Q3; at longer horizons the difference from the previous forecast is greater, with rates standing 0.5 percentage point lower at the end of 2012 (see Chart II.3.3). A negative contribution of the revised outlook for foreign interest rates is the biggest contributor to this change. Lower rates at the start of the forecast horizon are also weakly supported by the new short-term prediction for net inflation. These negative contributions are partly offset by a revision of the initial state based on an assessment of the latest data showing stronger growth in economic activity and foreign trade turnover. The short-term prediction of the koruna-euro exchange rate is also fostering higher rates (see Chart II.3.4). The impacts of other factors on the change in the market interest rate forecast are not significant.

The prediction of the nominal **koruna-euro exchange rate** expects a slightly weaker rate at the start of the forecast horizon; the short-term depreciation is due to increased uncertainty regarding the euro area debt crisis, and the negative interest rate differential is also higher in the near future. However, the exchange rate should move to stronger levels in subsequent quarters (see Chart II.3.5). Compared to the previous forecast, a more favourable outlook for net exports and a shift of the forecasted interest rate differential vis-à-vis the euro to lower negative values due to the lower outlook for foreign rates are fostering a stronger exchange rate.

The forecast for annual **GDP** growth in 2011 is higher (see Chart II.3.6). This change is due mainly to a higher outlook for euro area demand and new data on GDP in 2011 Q1 (including a revision of the 2010 data). By contrast, the GDP growth rate in 2012 is lower, mainly as a result of the inclusion of the VAT changes in the baseline scenario and partly also because of a shift of the expected external demand slowdown to next year.

The new forecast expects lower growth in **household consumption.** This change is due among other things to a significant revision of the 2010 data. Consumption growth will be lower in 2012, mainly because of the inclusion of the VAT changes, which reduce households' real disposable income.

New data for 2011 Q1 and revised data for 2010 indicate faster growth in **gross capital formation**. The new forecast expects the inventory replenishment cycle to end later and more gradually. Higher investment will also be fostered by stronger growth in external demand and domestic economic activity this year. This is why gross capital formation growth is slightly higher at the forecast horizon.

CHART II.3.4

DECOMPOSITION OF CHANGES IN THE INTEREST RATE FORECAST

A lower outlook for foreign interest rates is contributing significantly to lower interest rates, while the initial state is acting in the opposite direction

(3M PRIBOR; percentage points)

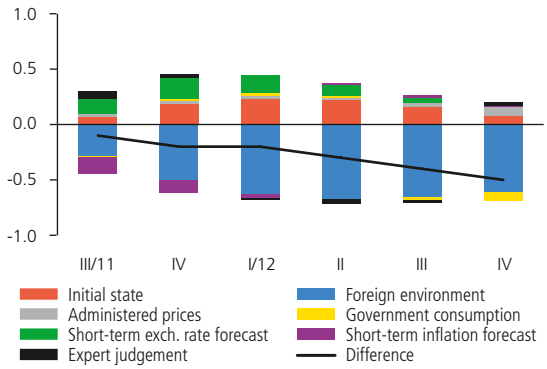


CHART II.3.5

CHANGE IN THE EXCHANGE RATE FORECAST

The exchange rate forecast has shifted towards stronger values as from the end of this year

(CZK/EUR; differences in CZK – right-hand scale)

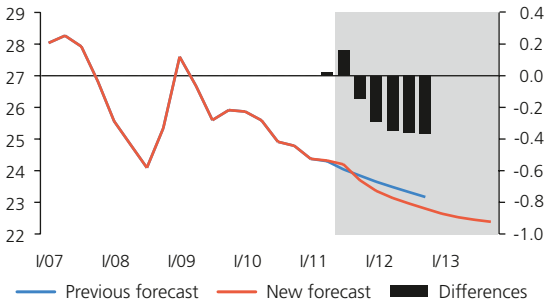


CHART II.3.6

CHANGE IN THE GDP FORECAST

The forecast for annual GDP growth is higher for 2011 and lower for 2012

(annual percentage changes; differences in p.p. – right-hand scale; seasonally adjusted)

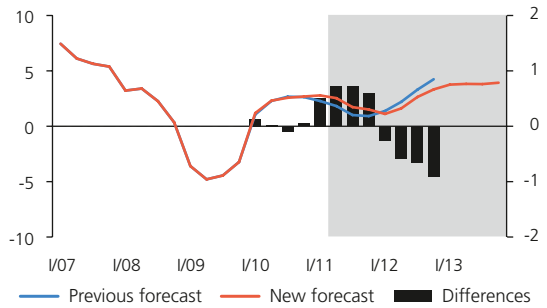
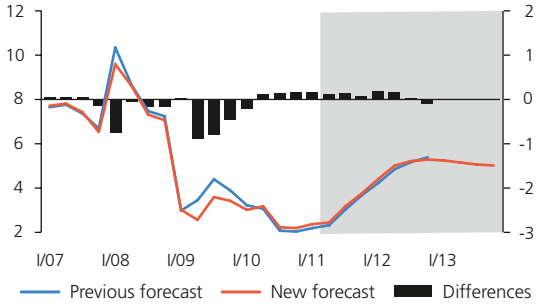


CHART II.3.7

CHANGE IN THE NOMINAL WAGE FORECAST

The business-sector nominal wage forecast has shifted slightly higher

(annual percentage changes; differences in p.p. – right-hand scale; seasonally adjusted)



The growth rates of **exports and imports** have been revised significantly upwards at the forecast horizon as a result of data revisions and new data. The revision is also due to an improvement in the external outlook and in total foreign trade turnover. The contribution of net exports to GDP growth is therefore slightly higher.

The forecast for average **nominal wage growth** in the business sector is slightly higher than the previous forecast as a result of higher wage growth in 2011 Q1 and stronger economic activity at the start of the forecast horizon. By contrast, a revision of the 2009 and 2010 data has reduced overall wage growth (see Chart II.3.7).

II.4 ALTERNATIVE SCENARIOS AND SENSITIVITY ANALYSES

The risks of the forecast continue to be associated with developments abroad.[4] The evolution of the euro area debt crisis and the reaction of foreign interest rates to its solution are the main persisting risks to the forecast. A sensitivity scenario for foreign interest rates was therefore drawn up. An exchange rate sensitivity scenario was prepared as usual.

II.4.1 Exchange rate sensitivity scenario

This sensitivity scenario quantifies the impacts of a **different exchange rate path** compared to the forecast. This standard sensitivity scenario assumes a deviation of the nominal exchange rate of ±3% from the baseline scenario in the first quarter of the forecast. Interest rates in the first quarter of the forecast are the same as in the baseline scenario. The exchange rate is thus CZK 23.5/24.9 to the euro in 2011 Q3, compared to CZK 24.2 in the baseline scenario.

The table shows the results of the depreciation scenario, expressed in deviations from the baseline scenario of the forecast (see Table II.4.1). The scenario of a stronger nominal exchange rate leads to the same results but with the opposite sign.

Exchange rate depreciation improves producers' price competitiveness and, via higher net exports, leads to higher GDP growth compared to the baseline at the start of the forecast horizon. It also results in higher import prices and stronger inflation pressures. The market interest rate path is therefore higher than in the baseline scenario. However, GDP growth then slows slightly in response to tighter monetary policy and an exchange rate correction and returns to the baseline scenario at the end of the forecast horizon.

II.4.2 Foreign interest rate sensitivity scenario

This sensitivity scenario quantifies the impacts of a different **outlook for foreign interest rates** compared to the path incorporated into the baseline scenario. It assumes a foreign interest rate path that is based on market outlooks as of the data collection date of the Consensus Forecasts survey (11 July), in contrast to the baseline scenario, which is based on the market outlook as of 8 July. Between these two business days, market outlooks reacted to the euro area debt crisis by falling sharply. Given the extraordinary – and possibly temporary – nature of this fluctuation, it was not incorporated into the baseline scenario and thus represents a risk to the forecast.

4 These risks were described in detail in the alternative scenarios in Inflation Report I/2011. However, some of them – in particular higher commodity prices and Germany's robust economic growth – have now been incorporated into the baseline scenario of the new forecast.

Table II.4.1

EXCHANGE RATE SENSITIVITY SCENARIO

Exchange rate depreciation leads to temporarily higher inflation and faster GDP growth than in the baseline scenario; interest rates increase
(deviations from baseline scenario)

	CPI inflation (in p.p.)	3M PRIBOR (in p.p.)	GDP (in p.p.)	Nominal exchange rate (CZK/EUR)
III/11	0.0	0.0	0.2	0.7
IV/11	0.0	0.3	0.3	0.2
I/12	0.1	0.3	0.2	0.0
II/12	0.2	0.2	0.1	0.0
III/12	0.2	0.1	-0.2	0.0
IV/12	0.1	0.0	-0.3	0.0
I/13	0.1	0.0	-0.2	0.0
II/13	0.0	-0.1	-0.1	0.0
III/13	0.0	0.0	0.0	0.0
IV/13	0.0	0.0	0.1	0.0

Table II.4.2

FOREIGN INTEREST RATE SENSITIVITY SCENARIO

A lower outlook for foreign rates leads to exchange rate appreciation pressures, whose anti-inflationary effect is offset by easier monetary policy
(deviations from baseline scenario)

	CPI inflation (in p.p.)	3M PRIBOR (in p.p.)	GDP (in p.p.)	Nominal exchange rate (CZK/EUR)	Foreign interest rate (in p.p.)
III/11	0.0	0.0	0.0	0.0	0.0
IV/11	0.0	-0.1	0.0	-0.1	-0.1
I/12	0.0	-0.1	0.0	-0.1	-0.1
II/12	0.0	-0.2	0.0	-0.1	-0.2
III/12	0.0	-0.2	-0.1	-0.2	-0.2
IV/12	0.0	-0.2	0.0	-0.2	-0.2
I/13	0.0	-0.2	0.0	-0.2	-0.3
II/13	0.0	-0.2	0.0	-0.2	-0.3
III/13	0.0	-0.1	0.0	-0.1	-0.3
IV/13	0.0	-0.1	0.0	-0.1	-0.3

Table II.4.2 shows the results of the simulation with a lower outlook for foreign rates, expressed in deviations from the baseline scenario of the forecast. By contrast, the scenario with a higher outlook for foreign rates would lead to similar results but with the opposite sign.

As in the baseline scenario, the lower outlook for foreign rates is incorporated into the sensitivity scenario as expected over the entire forecast horizon. The exchange rate responds to the expected less negative interest rate differential by appreciating over the entire forecast horizon. However, the exchange rate appreciation is dampened by easier domestic monetary policy compared to the baseline scenario. The deviations in inflation are therefore negligible. The effect on overall GDP growth is not significant either. This is because the easier monetary policy partly offsets the deterioration in exporters' price competitiveness, with the fall in net exports being replaced by higher domestic demand.

II.5 FORECASTS BY OTHER ENTITIES

Analysts' inflation expectations increased slightly in 2011 Q2 at the one-year horizon but declined at the three-year horizon. They are above the inflation target of 2% at both horizons. The analysts expect GDP growth to be just above 2% this year and to pick up pace next year. They also expect appreciation of the koruna and an increase in the CNB's key rates in the following 12 months. Most of the analysts were expecting stable key rates before the CNB Bank Board meeting in August. The market outlook for interest rates is in line with the CNB forecast.

Inflation expected by financial market analysts[5] at the one-year horizon edged up during Q2, probably because of the expected impacts of the increase in the reduced VAT rate. By contrast, business managers reduced their prediction slightly. The expectations of both groups of respondents thus remained above the CNB's target of 2% (see Table II.5.1). Analysts' inflation expectations for the three-year horizon have long been flat about 0.5 percentage point above the CNB's target. In July they declined slightly.

The indicator of **inflation perceived by households** has long been rising gradually but remains negative (see Chart II.5.1).[6] This means that households on average felt that prices tended not to rise over the last 12 months. The indicator of expected inflation increased quite considerably in early 2011 but declined somewhat during 2011 Q2. Positive values of this indicator suggest that the number of respondents who expect prices to rise more rapidly over the next 12 months is higher than the number of those who expect prices to stay the same or increase more slowly than in the past.

Both the FMIE and CF analysts expect GDP to grow by just over 2% this year (see Tables II.5.1 and II.5.2). Economic growth and wage growth are expected to pick up pace next year. Compared to the exchange rate of the koruna observed at the end of July, both the mostly domestic analysts participating in the FMIE and the mostly foreign analysts participating in the CF expect a stronger exchange rate at the one-year horizon (by around 3.0% and 2.6% respectively). Before the August meeting of the CNB Bank Board, eight analysts participating in the FMIE survey were expecting key rates to remain unchanged after this meeting and two analysts were expecting them to go up by 0.25 percentage point. All the analysts expect rates to rise at the one-year horizon compared to the current level. Their estimates for the repo rate lie in the range of 1.25% to 1.75%.

5 The CNB monitors the expectations of financial market analysts regarding key macroeconomic indicators and the inflation expectations of business managers by means of statistical surveys. Table II.5.1 shows average values from these surveys.

6 The CNB draws on the qualitative assessment of past and future inflation by households collected as part of the European Commission Business and Consumer Survey (see Box 2 in the July 2007 Inflation Report).

Table II.5.1

EXPECTED INDICATORS OF FMIE AND CORPORATIONS

Inflation expectations are above the CNB's target
(at 1Y; annual percentage changes unless otherwise indicated)

	3/11	4/11	5/11	6/11	7/11
FMIE:					
CPI	2.5	2.5	2.7	2.7	2.7
CPI, 3Y horizon	2.5	2.6	2.5	2.5	2.4
Real GDP in 2011	2.0	2.0	2.1	2.1	2.1
Real GDP in 2012	2.8	2.7	2.8	2.8	2.7
Nominal wages in 2011	2.4	2.1	2.5	2.3	2.3
Nominal wages in 2012	4.1	3.9	4.3	4.2	4.2
CZK/EUR exchange rate (level)	23.8	23.8	23.8	23.7	23.7
2W repo rate (in per cent)	1.5	1.6	1.6	1.6	1.6
1Y PRIBOR (in per cent)	2.4	2.5	2.4	2.5	2.4
Corporations:					
CPI	2.6			2.5	

Chart II.5.1

PERCEIVED AND EXPECTED INFLATION

The inflation expectations of households increased in 2011 H1
(source: European Commission Business and Consumer Survey)

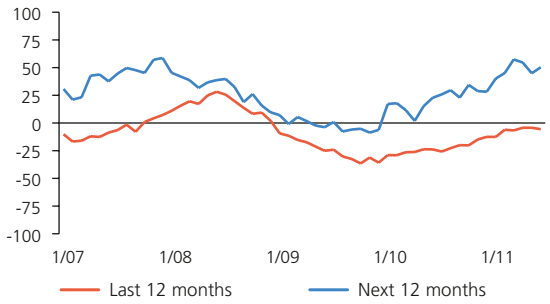


Table II.5.2

CF EXPECTED INDICATORS

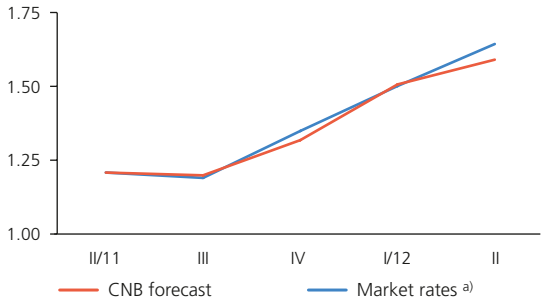
The CF analysts expect the economy to grow at a pace of just over 2%
(at 1Y; annual percentage changes unless otherwise indicated)

	3/11	4/11	5/11	6/11	7/11
Real GDP in 2011	2.2	2.1	2.2	2.3	2.3
Real GDP in 2012	2.9	2.8	2.9	2.9	2.7
Nominal wages in 2011	2.6	2.7	2.7	2.7	2.6
Nominal wages in 2012	4.0	4.1	4.3	4.5	4.6
CZK/EUR exchange rate (level)	23.8	23.9	23.8	23.8	23.8
3M PRIBOR (in per cent)	1.9	1.9	1.9	1.9	1.9

CHART II.5.2

FRA RATES VERSUS THE CNB FORECAST

The outlook for FRA rates is almost identical to the rates forecasted by the CNB
(percentages)



a) for 2011 Q2 and 2011 Q3 the 3M PRIBOR and for 2011 Q4–2012 Q2 the average values of the FRA 3*6, 6*9 and 9*12 rates for the last 10 trading days as of 22 July 2011

The forecasts for market interest rates have not changed much in recent months. The analysts have merely shifted their expectations of rate increases to the more distant future.

Compared to the CNB's new forecast, the analysts expect real GDP growth to be slightly higher this year. Their predictions for next year are more significantly higher. By contrast, inflation expected by the analysts at the one-year horizon is slightly lower. This difference is probably due to the fact that the analysts expect a smaller impact of the increase in the reduced VAT rate from 10% to 14% in 2012. The exchange rate prediction at the one-year horizon is 3.1% weaker than the CNB forecast in the case of the FMIE analysts and 3.6% weaker according to the CF analysts. The analysts' expectations regarding the 2W repo rate and market rates at the one-year horizon are slightly above the 3M PRIBOR path consistent with the CNB forecast.

Chart II.5.2 provides a **comparison of expected 3M market rates** derived from FRA quotations and the interest rate path consistent with the baseline scenario of the new CNB forecast. The two paths are almost identical.

III. CURRENT ECONOMIC DEVELOPMENTS

III.1 INFLATION

Annual headline and monetary-policy relevant inflation both stood at 1.8% in June 2011 and were thus slightly below the CNB's target. The only marginal rise in inflation in 2011 Q2 was due to contrary changes in some of its components. Market price inflation, as measured by net inflation, increased further. However, despite persisting inflation pressures from commodity prices, which showed up mainly in faster growth in food prices, net inflation remained low. This was due to weak domestic demand, low wage growth and mostly falling import prices of final products for the consumer market.

III.1.1 Fulfilment of the inflation target

Headline inflation was slightly below the CNB's inflation target in 2011 Q2 (see Chart III.1.1). This section of the Inflation Report briefly analyses the contribution of the CNB's monetary policy to this situation.

In order to assess the effect of monetary policy on the fulfilment of the inflation target one needs **to analyse retrospectively the forecasts** and the Bank Board's decisions based thereon in the past. To assess the fulfilment of the inflation target in 2011 Q2, we have to examine above all the period roughly from October 2009 to June 2010 (referred to as the "key period"), as monetary policy is focused on hitting the inflation target at the 12–18 month horizon. For the sake of clarity, the analysis of the accuracy of the forecasts is limited here to a comparison of the Inflation Report I/2010 forecast with subsequent inflation.

The **Inflation Report I/2010 forecast** expected headline inflation to rise gradually from figures just above zero. The low inflation at the start of the forecast horizon had been due mostly to a fall in real economic activity; as a result, there had been no apparent inflation pressures from the domestic economy or from import prices. Owing to tax changes, inflation was expected to increase temporarily slightly above the 2% inflation target in 2010 H2. Headline inflation was expected to return to the target in 2011 H1 as the tax changes unwound (see Chart III.1.1), owing to a gradual increase in economic activity supported by easy monetary policy over the entire forecast horizon.

Headline **inflation in reality** was only slightly below the forecast over the entire forecast horizon. The individual consumer price categories showed deviations in both directions. Adjusted inflation excluding fuels, which unexpectedly remained negative, was strongly anti-inflationary. It reflected low domestic inflation pressures and later also a stronger koruna. This negative deviation from the forecast was partly offset by higher administered prices and food and fuel prices. The prediction of the impacts of changes to indirect taxes was approximately fulfilled (see Table III.1.1).

CHART III.1.1

FORECAST VERSUS ACTUAL INFLATION

Inflation was slightly below the IR I/2010 forecast in 2011 Q2
(annual percentage changes)

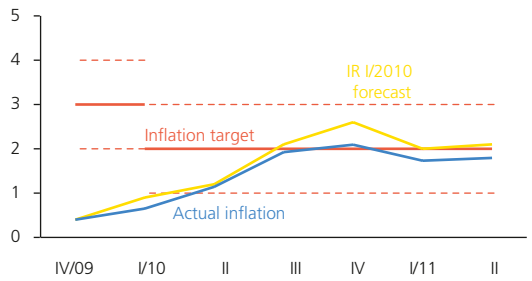


TABLE III.1.1

FULFILMENT OF THE INFLATION FORECAST

Adjusted inflation excluding fuels fostered lower inflation, while the contributions of other components were higher than forecasted
(annual percentage changes; contributions in percentage points)

	IR I/2010 forecast	2011 Q2 outturn	Contribution to total difference
CONSUMER PRICES	2.1	1.8	-0.3
Breakdown into contributions:			
administered prices	2.9	4.0	0.2
first-round impacts of changes to indirect taxes	0.1	0.1	0.0
food prices[a)]	2.4	4.1	0.4
fuel prices[a)]	6.0	9.1	0.1
adjusted inflation excl. fuels[a)]	1.2	-0.8	-1.0

a) excluding the first-round impacts of changes to indirect taxes

Table III.1.2

FULFILMENT OF THE EXTERNAL ASSUMPTIONS

External factors fostered higher inflation
(annual percentage changes unless otherwise indicated)

		I/10	II/10	III/10	IV/10	I/11	II/11
GDP in euro area[a), b), c)]	p	2.5	2.0	1.0	0.5	0.9	1.6
	o	2.3	3.2	3.1	3.0	3.6	-
PPI in euro area [b), c)]	p	-1.9	0.4	1.7	2.2	2.1	1.9
	o	-1.2	2.1	3.8	4.7	6.3	5.9
3M EURIBOR	p	0.7	0.8	1.2	1.6	1.8	2.1
(percentages)	o	0.7	0.7	0.9	1.0	1.1	1.4
USD/EUR exchange rate (levels)	p	1.44	1.47	1.46	1.45	1.43	1.42
	o	1.38	1.27	1.29	1.36	1.37	1.44
Brent crude oil price	p	80.7	82.9	84.7	86.2	87.6	88.7
(USD/barrel)	o	76.8	78.6	76.4	86.9	105.2	116.8

p – prediction, o – outturn
a) at constant prices
b) seasonally adjusted
c) effective indicator as defined in the IR I/2010 forecast

Table III.1.3

FULFILMENT OF THE FORECAST FOR KEY VARIABLES

Domestic economic activity has been rising faster than forecasted since 2010 H2

		I/10	II/10	III/10	IV/10	I/11	II/11
3M PRIBOR	p	1.3	1.2	1.4	1.8	2.2	2.5
(percentages)	o	1.5	1.3	1.2	1.2	1.2	1.2
CZK/EUR exchange rate (levels)	p	25.8	25.5	25.4	25.3	25.2	25.2
	o	25.9	25.6	24.9	24.8	24.4	24.3
Real GDP[a)]	p	2.1	2.0	0.9	0.4	0.6	1.4
(annual perc. changes)	o	1.1	2.3	2.6	2.7	2.8	-
Nominal wages[b)]	p	5.2	4.8	3.4	2.3	2.4	2.8
(annual perc. changes)	o	2.4	3.1	2.8	1.7	3.0	-

p – prediction, o – outturn
a) seasonally adjusted
b) in the business sector

External economic factors contributed significantly to domestic inflation. Initially, most macroeconomic variables moved broadly in line with the forecast. During 2010, however, the recovery in external – and therefore also domestic – economic activity was stronger than forecasted. At the same time, production prices abroad rose more quickly than forecasted. These factors therefore fostered higher domestic inflation. By contrast, foreign interest rates were lower than forecasted over the entire forecast horizon, with substantial deviations being recorded especially at the end of the period under review (see Table III.1.2).

Domestic **interest rates and the exchange rate** also differed from the forecast. The initially slightly tighter real interest rates turned easier following the lowering of monetary policy rates in May 2010. The exchange rate was roughly in line with the forecast until mid-2010. Subsequently, however, fast-growing exports and an upgrading of the Czech Republic's rating outlook amid still low foreign interest rates were reflected in an unexpectedly rapid strengthening of the koruna (see Table III.1.3).

Based on the CNB's current knowledge of the workings of the Czech economy and its current knowledge of the actual economic situation, the **developments since the forecast under review was drawn up** can be summed up in the following way. The stronger domestic economic growth was driven – via exports – by a faster recovery of external demand. At the same time, the appreciating koruna offset the impacts of faster growth and higher external inflation on domestic inflation. The faster GDP growth was also due to stronger growth in gross capital formation caused by replenishment of inventories. Wage growth was more subdued than forecasted. Owing to the above factors, headline inflation was slightly below the target in mid-2011. The low domestic interest rates reflected, in addition to subdued domestic inflationary pressures, continuing easy global monetary policy.

In addition to the forecast, an assessment of the risks associated with this forecast is important for the Bank Board's decisions on **monetary policy rates.** At its meetings between October 2009 and June 2010, the Bank Board assessed the risks of the forecasts first as being slightly on the upside and then as being balanced or slightly on the downside at the start of 2010 and as being balanced in 2010 Q2. The Bank Board's decisions led to market interest rates being initially higher than implied by the forecasts. This applies especially to the forecast contained in Inflation Report IV/2009, which revised the market interest rate path downwards quite significantly. Overall, monetary-policy relevant inflation is still slightly below the CNB's 2% inflation target. From this perspective, based on current knowledge, it seems that monetary policy should have been slightly easier at the end of 2009 and in the first half of 2010.

III.1.2 Current inflation

Annual inflation[7] increased slightly in 2011 Q2. At 1.8%, inflation in June was 0.1 percentage point higher than in March (see Chart III.1.2). Its broadly stable path in Q2, however, masked contrary changes in some of its components, as a pick-up in annual food price inflation and administered price inflation was almost offset by weaker growth in fuel prices and by the unwinding of the effects of changes to indirect taxes made in January 2010 (see Chart III.1.3).

Turning to the **structure of annual inflation,** the effect of market prices prevailed in Q2, owing mainly to a sizeable increase in food prices. In June, the contribution of market prices to annual consumer price inflation was one percentage point (see Chart III.1.4). For the first time in quite some time, therefore, administrative effects, i.e. the impacts of changes to indirect taxes and administered prices, contributed to annual inflation to a lesser extent. This was also due to the unwinding of the effect of changes to indirect taxes, whose contribution to annual inflation in the previous year had been relatively high.

Owing to the unwinding of the effect of the increase in excise duty on cigarettes implemented on 1 January 2010 during 2011 Q2, the contribution of changes to **indirect taxes** to annual consumer price inflation decreased to zero in June. Monetary-policy relevant inflation thus merged with headline inflation at the end of Q2, reaching 1.8% (see Chart III.1.2).

By contrast, annual growth in **administered prices** rose further in June (to 4.7%), mostly because of a June increase in natural gas prices. Other changes in administered items included an increase in regulated and deregulated rents, whose impact on prices was visible mainly in May. The year-on-year growth in administered prices was also due to changes in electricity prices and water supply and sewerage collection charges made in the previous quarter. The following text assesses the evolution of the main components of inflation excluding the effect of tax changes.

Annual **market price inflation**, as measured by net inflation, rose further in 2011 Q2. At 1.2% in June, it was 0.3 percentage point higher than in March. This change was due to a stronger rise in annual food prices, whose effect on market prices was only very slightly offset by weaker annual fuel price growth. Annual adjusted inflation excluding fuels remained at the same level (-0.8%) for the second consecutive quarter, confirming the significant effect of subdued demand and the absence of inflationary pressures from the domestic economy. Also, the mostly falling import prices of final products with a higher degree of processing for the consumer market, reflecting, among other things, the earlier appreciation of the exchange rate,

7 Measured by year-on-year growth in consumer prices.

CHART III.1.2

INFLATION

Annual inflation increased slightly in 2011 Q2
(annual percentage changes)

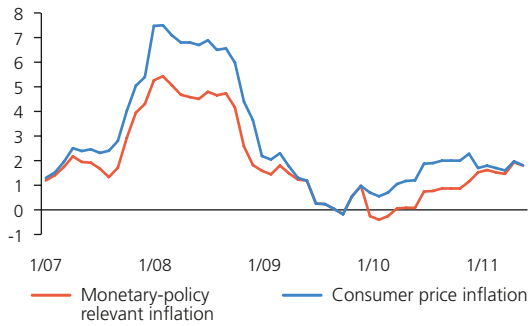


CHART III.1.3

INFLATION COMPONENTS

Annual food price inflation rose, while fuel price inflation fell
(annual percentage changes; excluding indirect tax changes except for administered prices)

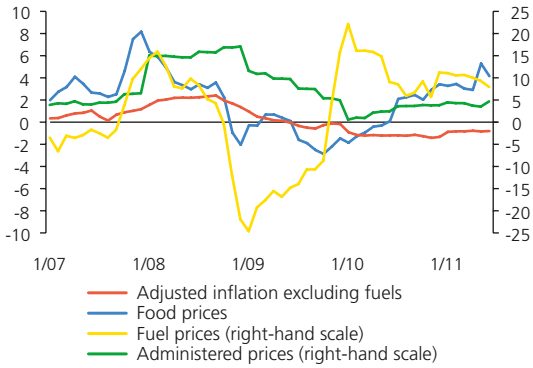


CHART III.1.4

STRUCTURE OF INFLATION

For the first time in quite some time, market prices contributed the most to annual inflation
(annual percentage changes; contributions in percentage points)

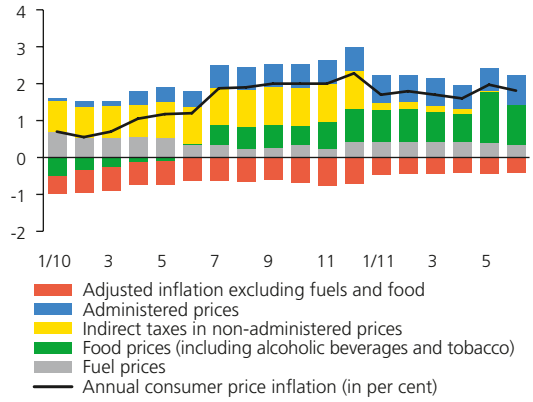


CHART III.1.5

FOOD PRICES

Food price inflation was affected by a sizeable increase in prices in the food industry
(annual percentage changes)

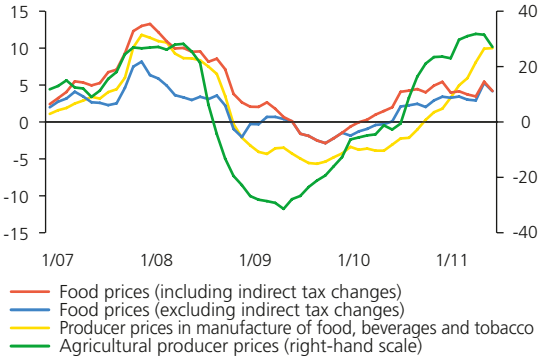


CHART III.1.6

COMPONENTS OF FOOD PRICES

Bread product prices surged, while prices of food of animal origin rose more moderately
(annual percentage changes; source: CZSO)

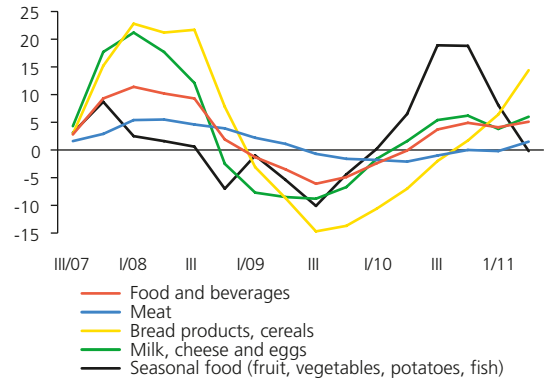
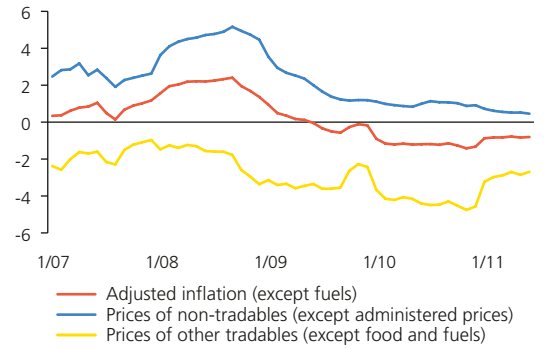


CHART III.1.7

ADJUSTED INFLATION EXCLUDING FUELS

The annual decline in prices within adjusted inflation remained stable
(annual percentage changes)



helped to keep adjusted inflation low (for more details see **Import prices and producer prices)**. The fast annual growth in global prices of energy commodities passed through noticeably only to consumer prices of fuels and to housing prices (in expenditure on energy commodities such as natural gas).

Food prices continued to show annual growth in 2011 Q2, picking up to a significant 5.3% in May, but easing to 4.2% in June (see Chart III.1.5). The marked rise in food prices on the consumer market in May was associated with a surge in bread product prices in reaction to previous strong growth in agricultural producer prices and, to a lesser extent, energy prices. The subsequent fall in annual food price inflation in June was due mostly to a significant decline in vegetable prices. This was probably linked with falling demand resulting from the panic caused by the outbreak of dangerous bacteria abroad. Atypical behaviour of prices of other seasonal food (potatoes in particular) also contributed to the slowdown in food price inflation at the end of the quarter (see Chart III.1.6); in this case, the effect of appreciation of the koruna cannot be ruled out given the broad supply of imported food on the Czech consumer market.

While annual **adjusted inflation excluding fuels** was unchanged at -0.8% in 2011 Q2, its individual components showed some contrary changes. The annual decline in prices of other tradable commodities recorded a further modest weakening (from 2.9% in March to 2.7% in June). This change was due mainly to base effects caused by substantial decreases in prices of these commodities in 2010. By contrast, year-on-year growth in prices of non-tradable commodities (excluding administered prices) continued to slow to a historical low of 0.5% (see Chart III.1.7) amid still weak domestic demand and wage growth.

Annual growth in **fuel prices** slowed in 2011 Q2 to 7.9% in June. Higher annual growth in global oil prices was outweighed by a sharper year-on-year appreciation of the koruna-dollar exchange rate, which reached about 20% in June.

By international comparison, consumer prices as measured by the **HICP** continued to rise more slowly in the Czech Republic than on average in the EU countries in 2011 Q2. According to Eurostat's latest estimate, annual HICP growth in the Czech Republic was 1.9% in June, while the average figure for the EU countries was much higher, standing at 3.1% in the same month.

III.2 IMPORT PRICES AND PRODUCER PRICES

Import prices continued to show year-on-year growth amid persisting fast annual growth in prices of key commodities on world markets. However, this growth was strongly dampened by exchange rate changes. The high growth in import prices of commodities and semi-finished products was reflected most of all in prices of producers at the early stages of the production chain. By contrast, import prices of commodities with a high degree of processing continued to fall and there was also a slowdown in year-on-year growth in prices of high-value-added products in manufacturing. Annual food producer price inflation rose sharply, but agricultural producer prices started to show some signs of a turnaround. Prices of market services showed a further rise in growth, while prices in construction continued to fall in year-on-year terms.

III.2.1 Import prices

In the first two months of 2011 Q2, the annual rise in **import prices** continued to be driven mainly by prices of key commodities on world markets (see Chart III.2.2). According to the latest data for May, however, annual import price inflation slowed markedly (to 2.1%), mainly because of changes in the koruna exchange rate.

Fast growing prices of imported **mineral fuels** remained the biggest contributor to annual import price inflation (see Chart III.2.2). Moreover, their contribution increased significantly in March and April owing to a pick-up in the annual growth rates of world prices of oil and natural gas (to 44.8% and 21.9% respectively). Although these prices kept rising in May, their contributions to annual import price inflation decreased somewhat owing to a further marked year-on-year appreciation of the koruna-dollar exchange rate,[8] which outweighed the impact of the continuing rise in world prices of oil and natural gas on import prices (see Chart III.2.3). Thanks to this, import prices of energy commodities rose at a much lower rate than in March 2011 (by 15.3% year on year; see Table III.2.1).

The koruna exchange rate[9] also partly fostered a rapid slowdown in the annual rate of growth of import prices of **non-energy commodities** (to 33.8% in May) from its record April level. Despite their relatively small weight, their contribution to import price inflation was 1 percentage point in May. Annual growth in prices of imported chemicals and **semi-finished products** moderated as well (to 4.1% and 4.8% respectively in May). Import prices of **food** started to decrease slightly in April and May. However, annual growth in prices of vegetable and animal oils kept rising (to 42.1% in May).

8 The koruna-dollar exchange rate appreciated year on year by 7.4% in March, by 10.9% in April and by 16.8% in May.

9 The koruna-euro exchange rate also appreciated year on year – by 4.0% in April and by 5% in May.

CHART III.2.1

IMPORT PRICES AND PRODUCER PRICES

Import price inflation slowed, and the growth in industrial and agricultural producer prices also peaked
(annual percentage changes)

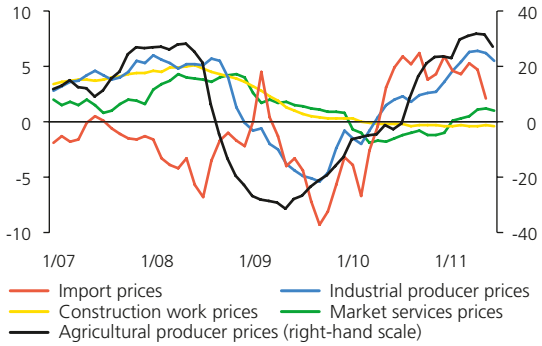


CHART III.2.2

IMPORT PRICES

Import price growth continued to be driven mainly by prices of imported commodities and semi-finished products
(annual percentage changes; contributions in percentage points)

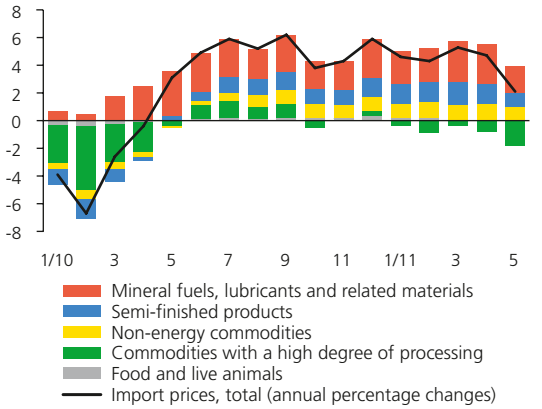


CHART III.2.3

MINERAL FUELS

The high growth in prices of energy commodities was dampened by year-on-year appreciation of the koruna-dollar exchange rate
(annual percentage changes)

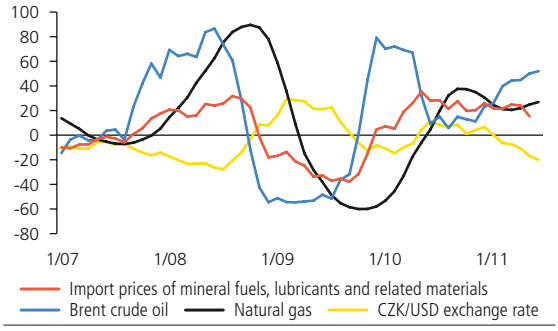


TABLE III.2.1

STRUCTURE OF IMPORT PRICE INFLATION

Import prices rose in most import categories, although they fell again for high-value-added commodities
(annual percentage changes)

	2/11	3/11	4/11	5/11
IMPORTS, TOTAL	4.3	5.3	4.7	2.1
of which:				
food and live animals	3.0	0.3	-0.3	-0.1
beverages and tobacco	5.3	3.6	4.2	6.9
crude materials inedible, except fuels	40.7	44.1	44.1	33.8
mineral fuels and related products	21.5	24.9	24.1	15.3
animal and vegetable oils	30.9	37.1	39.1	42.1
chemicals and related products	4.1	5.4	5.2	4.1
manufactured goods classified chiefly by material	6.9	8.1	6.7	4.8
machinery and transport equipment	-2.5	-2.4	-3.4	-5.5
miscellaneous manufactured articles	-4.3	-2.2	-1.6	-3.5

CHART III.2.4

INDUSTRIAL PRODUCER PRICES

Growth in industrial producer prices slowed
(annual percentage changes; contributions in percentage points)

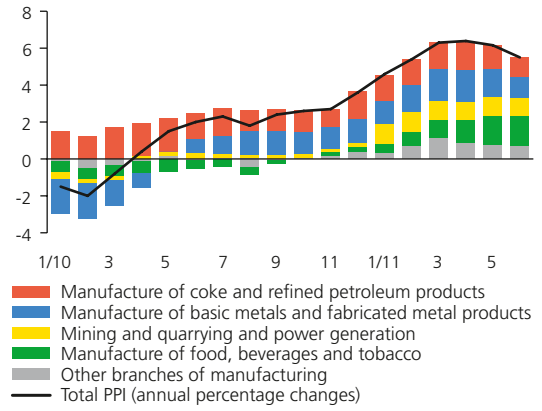
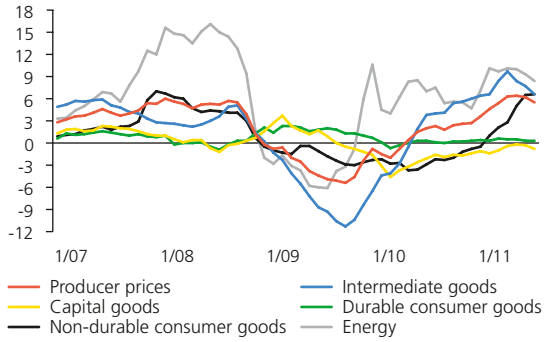


CHART III.2.5

PRODUCER PRICES BY MAIN INDUSTRIAL GROUPINGS

The rising prices of commodities fed through to prices of intermediate goods and non-durable goods
(annual percentage changes)



Whereas import prices of raw materials and semi-finished products were still recording mostly high annual growth amid persisting elevated demand on global markets, import prices of **high-value-added commodities**[10] saw a deepening year-on-year decline (see Chart III.2.2). In this period they were affected not only by the marked year-on-year appreciation of the koruna, but also by much lower growth of foreign prices of these commodities compared to prices of raw materials.

III.2.2 Producer prices

Industrial producer prices

Industrial producer prices in 2011 Q2 signalled a change in their upward year-on-year growth trend, which peaked at 6.4% in April. According to the latest data, their growth weakened in the following two months, reaching 5.5% in June (see Chart III.2.4).

The view of the causes and **structure of the growth in industrial producer prices** has changed somewhat since the previous report. The growth continued to be driven mainly – although to a lesser extent than in the previous quarter – by fast growing import prices of major commodity inputs, which strongly affected prices of producers at the early stages of the production chain (see Chart III.2.4). The same applied to the lagged pass-through of high agricultural producer prices to food industry prices. However, producer price inflation fell in other branches of manufacturing and, unlike in Q1, no longer signalled increasing pass-through of cost pressures to prices of high-value-added commodities (see also Chart III.2.5).

The overall annual growth in industrial producer prices in 2011 Q2 was due most of all to producer prices in the **food industry** (1.6 percentage points), which surged by 10% in June. By contrast, the contribution of prices of **basic metals** fell significantly (to 1.1 percentage points), mainly in connection with slower growth of import prices of metal-based semi-finished products. The same contribution was recorded by prices in the manufacture of **coke and refined petroleum products**, whose annual growth – despite slowing somewhat – was still in double figures (17.7% in June).

Annual inflation in industry in 2011 Q2 was also affected by continued price growth in the **electricity, gas and steam industry** (of 4% in June) and by a further rise in price growth in the water supply and sewage-related services industry (to 6.3% in June). By contrast, annual price growth in **mining and quarrying** slowed to 8.7% in June. Overall, the contribution of these industries to annual industrial producer price inflation decreased slightly to one percentage point.

10 Machinery, transport equipment and miscellaneous manufactured articles.

After rising in 2011 Q1, inflation in **other branches of manufacturing** moderated again. Its contribution to annual industrial producer price inflation thus decreased to about 0.7 percentage point in 2011 Q2. However, producer prices decreased year on year in only two significant branches.[11]

Agricultural producer prices

The persisting strong annual growth in **agricultural producer prices** continued to indicate potential inflationary pressures arising from prices of agricultural commodities. According to the latest data for June, their annual growth rate decreased but was still high (27.1%; see Chart III.2.7). The change in the agricultural producer price trend was due to prices of crop products, whose growth rate had been close to 60% in April but was about 10 percentage points lower in June. By contrast, livestock product prices recorded a rise in annual growth, to 8% in June.

The buoyant growth in domestic agricultural producer prices, observed since 2010 H2, was a result of various factors. The primary factor was the upswing in growth of **agricultural commodity prices on world markets,** caused by the gradual global economic recovery and easier global monetary conditions boosting investment in commodities as an alternative asset. Unfavourable weather conditions in the major producers of crop products in 2010 also fostered a large increase in world prices, particularly of cereals and oil crops. The growth in agricultural producer prices in this period was also due to a surge in prices of some traditionally volatile commodities (fruit, potatoes and vegetables). As regards domestic prices, the renewed growth in world prices of these commodities was only partly offset by the year-on-year appreciation of the koruna-euro exchange rate during 2010 and in 2011 H1.

Other producer prices

Amid persisting low construction investment demand, **prices of construction work** continued to show a slight annual decline in 2011 Q2, reaching 0.4% in June (see Chart III.2.8). Annual growth in prices of materials and products consumed in the construction industry meanwhile decreased (from 3.9% in March to 2.9% in June), probably because of slower growth in import prices of inputs.

By contrast, **prices of market services** continued to record annual growth, rising in 2011 Q2 to around 1%. In conditions of continuing economic recovery, the largest rises in annual growth were seen for prices of advertising and market research services (7.6%) and programming and consultancy services. As regards market services, services with rising prices prevailed. Annual declines in prices were recorded only in telecommunication services, insurance, and renting and leasing.

11 Computer, electronic and optical equipment and transport equipment.

CHART III.2.6

PRICES OF METALS AND REFINED PETROLEUM PRODUCTS

The slowdown in growth in prices of imported semi-finished products and mineral fuels passed through quickly to producer prices

(annual percentage changes)

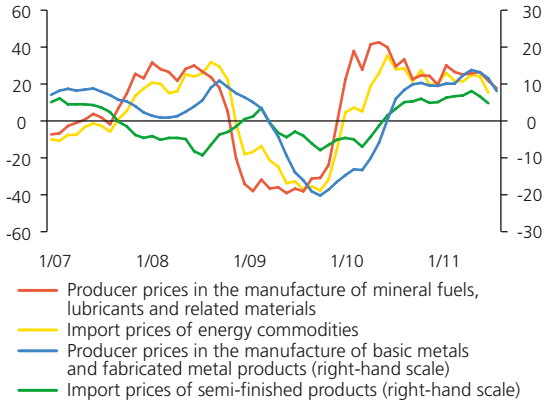


CHART III.2.7

AGRICULTURAL PRODUCER PRICES

Agricultural producer price inflation fell

(annual percentage changes)

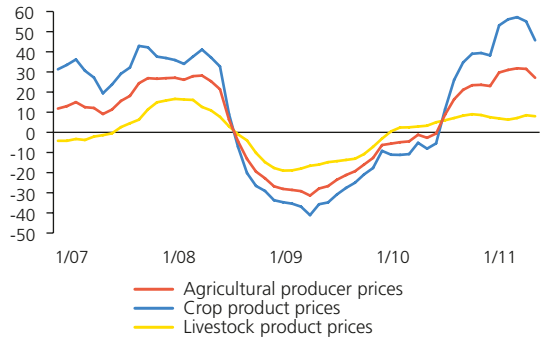


CHART III.2.8

OTHER PRICE CATEGORIES

Prices of construction work continued to decline, while growth in prices of market services increased further

(annual percentage changes)

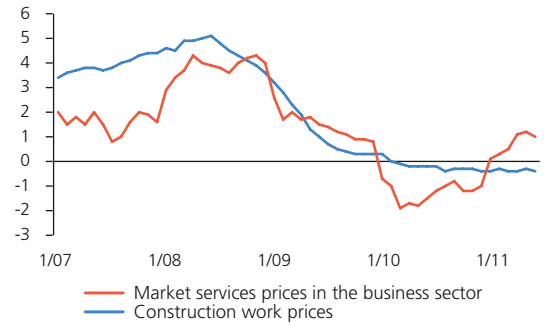


CHART III.3.1

GROSS DOMESTIC PRODUCT

GDP growth rose slightly in 2011 Q1
(annual and quarterly percentage changes at constant prices; seasonally adjusted data)

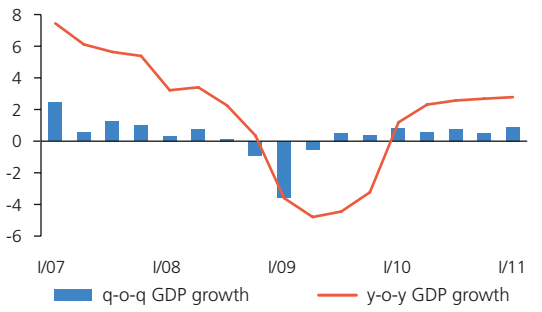


CHART III.3.2

STRUCTURE OF ANNUAL GDP GROWTH

Net exports made the largest contribution to the GDP growth
(contributions in percentage points; seasonally adjusted data)

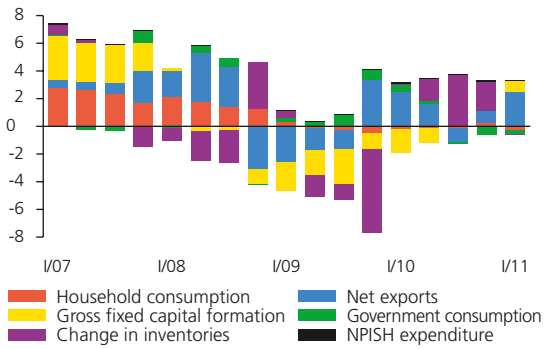
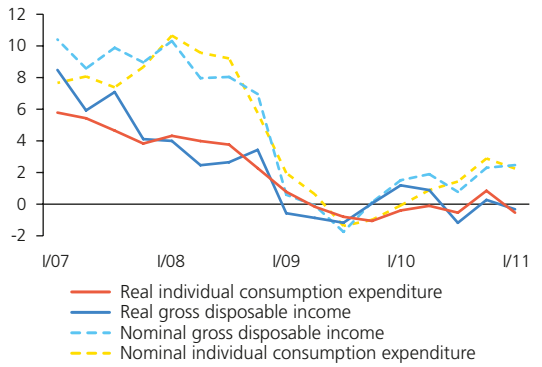


CHART III.3.3

HOUSEHOLD CONSUMPTION EXPENDITURE

Household consumption fell, in line with real disposable income
(annual percentage changes)



III.3 DEMAND AND OUTPUT

Annual real GDP growth increased by 0.1 percentage point to 2.8% in 2011 Q1.[12] *Quarter-on-quarter output growth (0.9%) was also faster than in the previous quarter. The dominant contributor to annual GDP growth was net exports thanks to a renewed lead of export growth over import growth. Gross fixed capital formation also contributed to the GDP growth to a certain extent, whereas the contribution of investment in inventories was neutral in Q1 and final consumption expenditure decreased slightly. On the supply side, the continuing economic growth was due mainly to manufacturing, and the contribution of the services sector was also positive.*

III.3.1 Domestic demand

Annual **domestic demand** growth recorded a further noticeable decline in 2011 Q1. Unlike in the previous quarter, falling household consumption contributed to this change. A year-on-year stagnation in changes in inventories in Q1 following previous marked increases also contributed to weaker domestic demand growth (see Chart III.3.2). Positive annual domestic demand growth was thus fostered only by fixed investment.

Final consumption

Household consumption remained subdued in 2011 Q1. Following a weak increase at the end of the previous year it returned to a modest year-on-year decline (of 0.5%) observed since 2009 Q2 owing to the impacts of the global recession on the Czech economy (see Chart III.3.3). As in the previous two quarters, households reduced their expenditure only on non-durable goods (by 3.6% year on year in Q1), whereas their expenditure in the other categories increased.

The persisting low household consumption was due mainly to subdued, although rising, growth in their **nominal gross disposable income**, the real purchasing power of which was moreover reduced by annual inflation[13] (see Chart III.3.3). In 2011 Q1, therefore, gross disposable income growth increased year on year to 2.5% in nominal terms, but in real terms it decreased by 0.3% owing to an almost 3% rise in the consumption deflator. The **saving rate**, which in recent quarters has been at quite a high level of around 10% (see Chart III.3.5), indicated prudent behaviour of households amid a still uncertain labour market outlook and concerns about the impacts of fiscal consolidation. The saving rate was also shifted upwards by a revision of the data on household consumption and nominal gross disposable income. The restrained consumption behaviour of households was also evidenced by subdued consumer credit growth, which is assessed in section III.5.2.

12 The assessment of the evolution of GDP expenditure and GDP sources is based on seasonally adjusted data from the CZSO's national accounts. A significant revision of these data is planned for autumn 2011.
13 As measured by the household consumption deflator.

The still none too high annual nominal gross disposable income growth achieved during the continuing economic recovery in 2011 Q1 was due mostly to income from **wage and salaries** (see Chart III.3.4).[14] The positive contributions of the other income components, particularly gross operating surplus and property income, were insignificant.

The latest available **leading indicators** of household consumption were still not providing clear information at the start of 2011 Q2. Whereas the seasonally adjusted retail sales data for April and May showed positive growth in all the main subcategories of this sector except sales of food and fuels, the results of the consumer confidence survey were less optimistic. The continuing decline in this indicator in 2011 Q2 suggests very subdued household consumption growth at the twelve-month horizon (see Chart III.3.14). It is based mainly on a deterioration in households' expectations regarding the overall economic situation and unemployment and consequently a reduced ability to save.

Real **government final consumption expenditure** continued to decline in 2011 Q1. This fall probably reflected mainly the implementation of government austerity measures. However, the year-on-year decline (of 1.3%) was smaller than in 2010 Q4.

Investment

After almost three years of annual decline,[15] **fixed investment** recorded positive year-on-year growth (3.8%; see Chart III.3.6). In quarter-on-quarter terms, however, fixed investment declined. This suggests that investment activity is not yet recording a marked recovery, probably because of persisting uncertainty about future economic developments.

In addition, year-on-year growth in fixed investment was not observed in all sectors. Investment in the **government sector** decreased year on year (by 2.1%; see Table III.3.1) as a result of austerity measures.[16] Moreover, the latest fixed investment estimates probably do not yet fully incorporate the expected significant positive contribution of investment in photovoltaic power stations at the end of 2010 and its opposite (negative) contribution in 2011 Q1. This assumption is based on the high installed capacity of these power stations, which exceeds the upper limit of the original estimates, as well as on the growth in loans to this industry and on customs foreign trade statistics showing high imports of solar panels in 2010 H2. These facts suggest the possibility of a future revision of the fixed investment data.

14 For details see section III.4 *The labour market*.
15 Fixed investment declined year on year throughout 2010, despite a substantial upward revision of the data for this period.
16 Their impact was visible particularly in infrastructure. Investment in the financial sector decreased as well, but their contribution to the total volume of investment in the economy was insignificant.

CHART III.3.4

DISPOSABLE INCOME

The growth rate of nominal gross household disposable income increased further, but remained subdued
(annual percentage changes; contributions in percentage points; current prices)

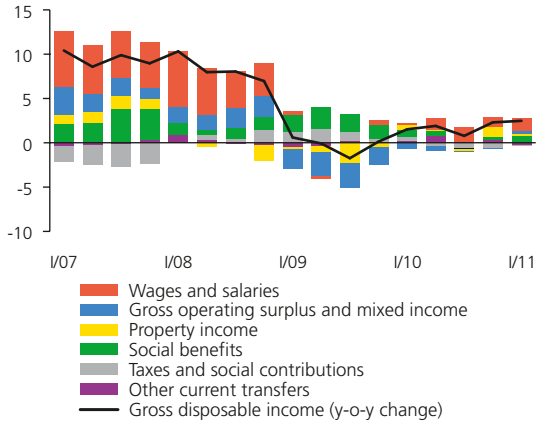


CHART III.3.5

GROSS SAVING RATE

The saving rate of households stayed at around 10% in 2011 Q1
(percentages; source: CZSO; seasonally adjusted CNB data)

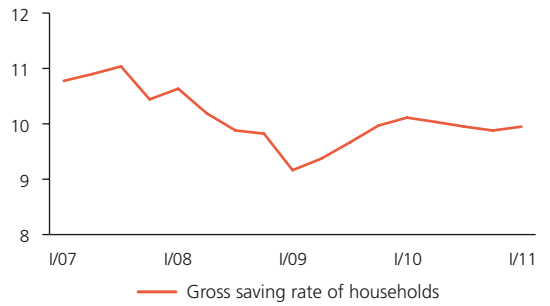


CHART III.3.6

FIXED CAPITAL FORMATION

Fixed investment recorded growth for the first time since 2008
(annual percentage changes; contributions in percentage points; constant 2000 prices)

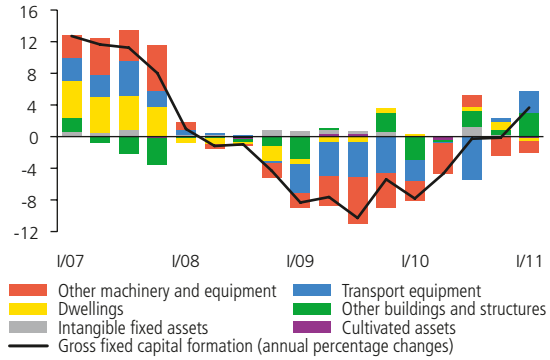


TABLE III.3.1

INVESTMENT BY SECTOR

Investment by non-financial corporations showed the fastest growth
(constant prices)

	II/10	III/10	IV/10	I/11
Annual percentage changes				
Non-financial corporations	-5.3	2.3	2.3	7.7
Households	0.4	-2.2	4.6	1.7
General government	-10.4	-8.7	-12.8	-2.1
Financial corporations	24.1	89.2	75.2	-15.6
Nonprofit institutions serving households	8.5	6.0	5.0	3.6
Share in total fixed investment in per cent				
Non-financial corporations	52.4	51.2	48.6	53.0
Households	24.2	24.2	24.5	25.4
General government	20.9	21.5	23.6	19.6
Financial corporations	1.8	2.5	2.6	1.4
Nonprofit institutions serving households	0.7	0.7	0.6	0.7

CHART III.3.7

INVESTMENT IN DWELLINGS

Investment in dwellings decreased slightly in 2011 Q1, but the number of housing starts increased
(annual percentage changes)

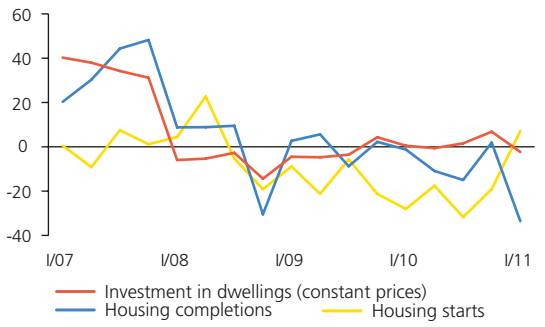
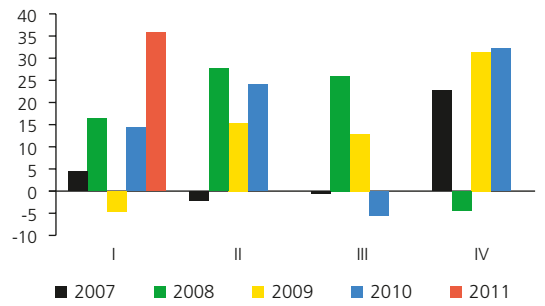


CHART III.3.8

NET EXTERNAL DEMAND

Net exports increased significantly year on year in 2011 Q1
(CZK billions; constant 2000 prices; seasonally adjusted data)



In the **non-financial corporations** sector, which accounts for roughly one-half of fixed investment in the economy, investment at constant prices continued increasing year on year for the third consecutive quarter (by 7.7% in 2011 Q1). When assessing investment developments in this sector, the previous years' very low base should be taken into account; the level of investment is still far below the figures recorded in 2007–2008. According to the pilot results of a business survey conducted jointly by the CNB and the Confederation of Industry of the Czech Republic in March and June this year, investment activity in manufacturing can be expected to continue rising in the near future.

Investment in the **household sector** also increased year on year in Q1 (by 1.7%), although more slowly than in the previous quarter. This slowdown in growth was probably mostly due to investment in dwellings, which decreased by 2.3% in Q1 (see Chart III.3.7). In addition, the outlook for demand for investment in dwellings is not generally very optimistic. Growth in new loans for house purchase[17] and renewed growth in the number of housing starts, probably reflecting the short-term impact of the planned VAT increase, may foster an increase in investment in dwellings this year. However, the still high stock of completed unsold apartments, which indicates excess supply for new apartments on the property market, and an only slow and modest improvement in labour market conditions indicate possible problems with selling new apartments.

In contrast to fixed investment, additions to **inventories** decreased slightly year on year in 2011 Q1 after having contributed significantly and positively to GDP growth during 2010 (see Chart III.3.2). This change was probably associated with the incipient unwinding of the phase of pronounced recovery in additions to inventories following their crisis-related fall in 2009. This finding is supported by the results of the aforementioned business survey, according to which the more subdued inventories trend should continue into 2011 Q2.

III.3.2 Net external demand

The year-on-year growth in **net exports of goods and services,**[18] renewed in the previous quarter, surged in 2011 Q1. The net export surplus increased by CZK 21.5 billion year on year, although the quarter-on-quarter increase was only modest (CZK 3.6 billion; see Chart III.3.8). The sharp year-on-year increase in net exports was due to a renewed lead of export growth over import growth, which reached 2.4 percentage points (see Chart III.3.9). The contribution of net exports to GDP growth was thus positive in 2011 Q1 and was much larger than in the previous quarter (see Chart III.3.2).

17 For details see section III.5.2 *Credit*.
18 At 2000 prices, seasonally adjusted.

However, year-on-year growth in total foreign trade turnover declined in Q1, as both exports and imports recorded slower growth than in the previous quarter. The year-on-year rate of growth of **total exports** fell by 1.2 percentage points to 15.6%. As in previous quarters, the rapid growth in exports was fostered by continuing growth in external demand in the Czech Republic's major trading partner countries, particularly for machinery exports.

The moderation in year-on-year growth of **total imports** in Q1 (by 4.2 percentage points) was more pronounced than that for exports, but their growth was still high (13.2%) owing to the high import intensity of output. Given the further weakening of total domestic demand growth, the continued double-digit growth in imports was associated mainly with rising imports of intermediate goods, in particular for production of products for exports.

III.3.3 Output

Quarter-on-quarter growth in **gross value added** at basic prices moderated further in 2011 Q1 (to 0.5%). Value added also recorded slower year-on-year growth than in the previous quarter; however, the sizeable decline in the growth rate (to 3.5%) was partly due to base effects. Gross value added growth continued to be driven by industry and to a lesser extent by services, albeit with less intensity than in the previous quarter (see Chart III.3.10).

Although the contribution of **industry** to annual gross value added growth decreased slightly in 2011 Q1, it remained the highest (2.5 percentage points). This was due to a decrease in value added growth in manufacturing (to 11.6%), as the negative contribution of the mining and energy supply sectors remained almost unchanged from the previous quarter. The growth in value added in industry was achieved amid fast overall growth in industrial production, supported most of all by the manufacture of motor vehicles, trailers and semi-trailers, which are mostly exported.[19] The continued crucial effect of external demand on production in industry was also indicated by continued robust growth in direct export sales (of 21.2% in Q1) and high (16.2%[20]) year-on-year growth in real goods exports, which was only slightly lower than in the previous quarter.

According to the latest April and May data, year-on-year growth in industrial production slowed overall to 10.3%.[21] The evolution of **new industrial orders** was meanwhile suggesting slower growth in industrial production in the near future as well (see Chart III.3.12). Domestic orders even recorded a year-on-year decline in May.

19 In March 2011, manufacture of motor vehicles accounted for almost 40% of annual real growth (9.2%) in industrial production, the contributions of manufacture of machinery and equipment and of manufacture of basic metals and fabricated metal products were also significant. The contributions of these three industries to industrial production growth totalled almost 70%.
20 Seasonally adjusted exports of goods at constant prices according to the national accounts.
21 Seasonally adjusted data.

CHART III.3.9

EXPORTS AND IMPORTS

Foreign trade turnover continued to grow rapidly in 2011 Q1, with exports rising faster than imports
(annual percentage changes; percentage points; constant prices; seasonally adjusted data)

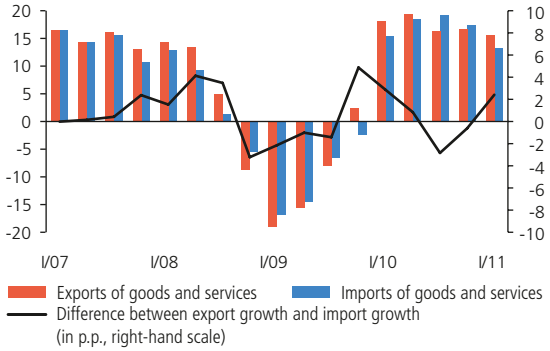


CHART III.3.10

CONTRIBUTIONS OF BRANCHES TO GVA GROWTH

Value added growth was driven mainly by manufacturing
(contributions in percentage points; annual percentage changes)

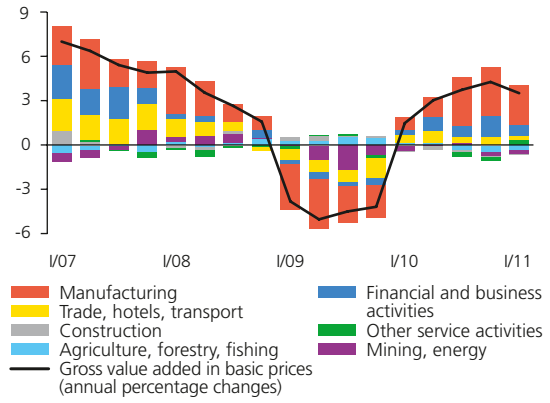


CHART III.3.11

INDUSTRIAL PRODUCTION

Industrial production is still on an upward trend
(basic index; year 2005 = 100)

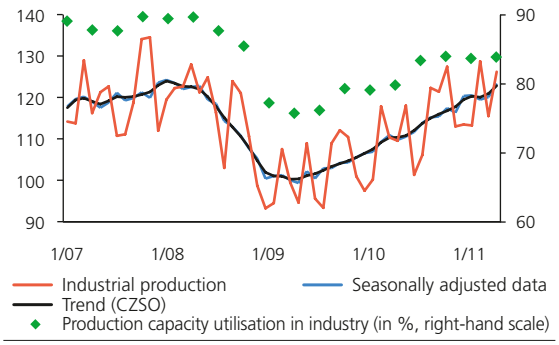


CHART III.3.12

NEW ORDERS IN INDUSTRY

Growth in new orders weakened further
(annual percentage changes; current prices)

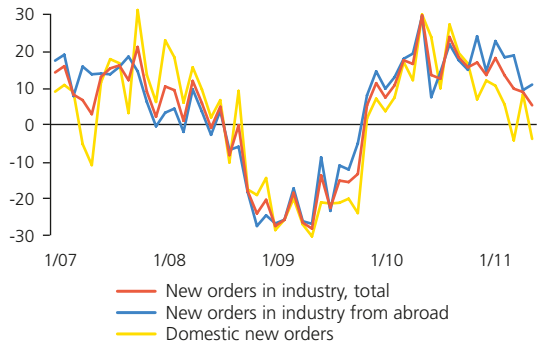


CHART III.3.13

BARRIERS TO GROWTH IN INDUSTRY

Insufficient demand is still the main barrier to growth in output in industry
(percentages)

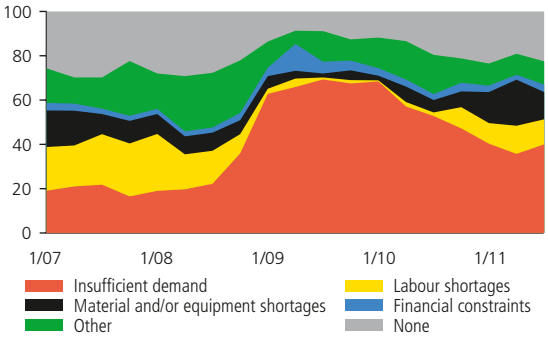
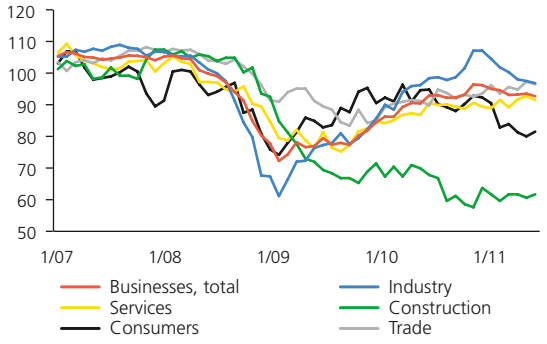


CHART III.3.14

CONFIDENCE INDICATORS

Confidence fell further among consumers and industrial businesses in 2011 Q2
(2005 average = 100; source: CZSO)



This fact probably contributed to the halt recorded in 2011 Q3 in the previous weakening of the effect of insufficient demand as a **barrier to growth**, which recorded a slight rebound according to the latest CZSO data (see Chart III.3.13). At the same time, the shares of other barriers (shortages of material and staff), which had shown growth in some sectors in previous quarters, decreased. The effect of insufficient demand therefore still dominated.

The contribution of **services and trade** to year-on-year growth in total gross value added also decreased slightly in 2011 Q1 (to 1.3 percentage points). This change was due to weaker value added growth in branches associated with industrial production[22] and in hotels and restaurants, which outweighed the effect of faster value added growth in banking and insurance, trade and public administration. The retail sales data suggest that the continued gross value added growth in trade was probably still being driven by car sales. However, there was also renewed growth in sales in other categories of retail goods in early 2011. Similar developments were observed in April and May.

Amid continued subdued demand for construction work, value added in **construction** declined in both quarterly and annual terms in Q1. According to the latest available sector statistics, construction production remained very low at the start of Q2, especially in the civil engineering sector. The increasing value of new domestic construction work orders primarily reflects base effects; moreover, the approximate value of buildings permitted is on a downward trend.

According to the results of the CZSO business survey, the overall **confidence indicator** declined in 2011 Q2, largely because of worsening consumer expectations. The business confidence indicator decreased to a lesser extent (see Chart III.3.14). Declining confidence was recorded mainly among industrial businesses, while confidence in trade and services improved. The strong predominance of pessimistic expectations persists in construction (see Chart III.3.14). According to the latest CZSO business survey, there was no major change in the confidence indicators in 2011 Q3.

22 Transport and storage, real estate and business services.

III.3.4 Potential output and estimate of the cyclical position of the economy

According to the calculation of the **Cobb-Douglas production function**,[23] the continued annual GDP growth was reflected in a pick-up in annual potential output growth to around 1.8%[24] (see Chart III.3.15) and simultaneously in a narrowing of the corresponding output gap to -1.1% of potential output.[24] However, according to the production function calculation, the expected slowdown in GDP growth later in the year will result in a temporary slowdown in potential output growth and a renewed slight widening of the negative output gap. However, the output gap is likely to narrow during 2012 and turn positive in late 2012 or early 2013 (see Chart III.3.16).

The baseline production function calculation indicates a slightly lower rate of growth of potential output in 2011 Q1 and a stagnation in the remaining quarters of this year. The breakdown of the **contributions of the individual factors** entering the baseline production function reveals that the faster potential output growth in 2011 Q1 was due to a smaller negative contribution of equilibrium employment. The contribution of capital remained close to zero and potential output growth thus continued to be driven by growth in aggregate productivity, whose contribution was also almost unchanged (see Chart III.3.17).

An alternative estimate using the **HP filter**[25] again suggests higher potential output growth (2.1%), while the estimate of the output gap in 2011 Q1 is the same as in the calculation based on the production function (-1.1% of potential output). By contrast, **the Kalman filter** continues to indicate a much greater negative output gap (-4.4% of potential output) and a higher growth rate of potential output (2.5%) in 2011 Q1. The sizeable dispersion of the results of the individual methods thus points to a persisting high degree of uncertainty surrounding the estimates of the current cyclical position of the economy.

23 The production function is computed in three ways using different input data. Coefficient λ = 10,000 is used to filter productivity in the HP filter. The estimates of future potential output and the output gap are based on the CNB's macroeconomic forecast. The inclusion of the forecast helps to reduce the deviation of the HP filter at the end of the data sample.
24 Average of the three calculations.
25 The estimate using the HP filter also used coefficient λ = 10,000.

CHART III.3.15

POTENTIAL OUTPUT

The rate of growth of potential output increased in 2011 Q1 according to the calculation of the production function
(annual percentage changes)

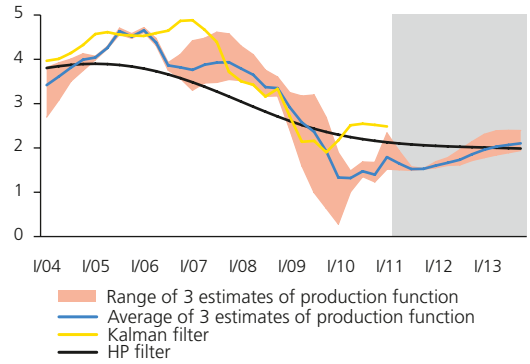


CHART III.3.16

OUTPUT GAP

The output gap narrowed slightly in 2011 Q1
(in % of potential output)

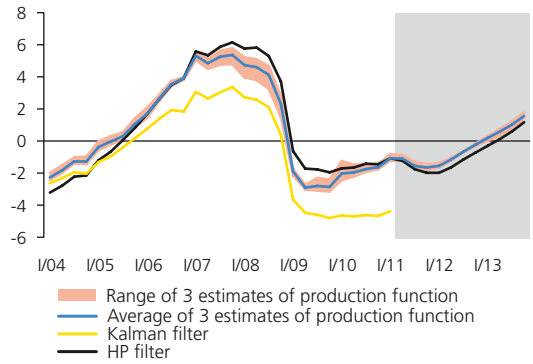
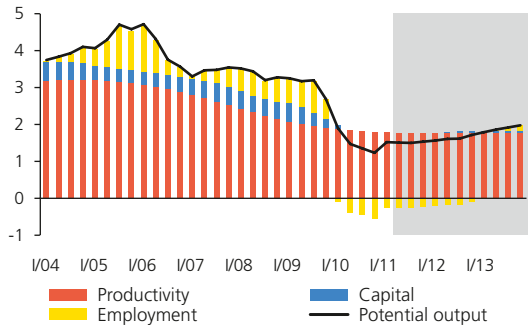


CHART III.3.17

CONTRIBUTIONS TO POTENTIAL OUTPUT GROWTH

The negative contribution of equilibrium employment decreased in 2011 Q1
(baseline production function; annual percentage changes)



III.4 THE LABOUR MARKET

The labour market was characterised in 2011 Q1 by renewed very slight growth in employment, which, together with a decrease in the labour force, caused a decline in the general unemployment rate. The registered unemployment rate also gradually declined in 2011 H1. Year-on-year growth in the average nominal wage increased from historical lows, but the average wage in the non-business sector kept falling. Growth in whole-economy productivity slowed somewhat. The decline in unit wage costs moderated somewhat in Q1.

III.4.1 Employment and unemployment

The gradual moderation of the decline in employment observed in the economic recovery phase switched to annual growth in 2011 Q1 (see Chart III.4.1). After eight quarters of decline, **total employment** thus recorded year-on-year growth of 0.7%. In absolute terms this meant an annual increase in the number of employed persons of 32,500. However, this increase was largely due to base effects. In quarter-on-quarter terms,[26] employment declined, albeit only slightly (by 0.2%). The renewal of year-on-year growth in employment occurred amid a considerably slower decline in the number of **employees**[27] (to -0.1%) and still fast growth in the number of entrepreneurs (of 4.6%).[28]

The overall growth in employment was mostly due to **industry** (see Chart III.4.2), where the number of employed people surged by 5.6% year on year in Q1. In absolute terms this meant an increase in the number of employees of 76,000. The continuing fast growth in employment in industry, observed since 2010 H2, was driven most of all by employment in export-oriented manufacturing (up by 5.8% year on year). The increase in the number of people employed in the electricity supply industry was less significant.

Employment also increased in the **services sector** in 2011 Q1, although the growth here was only modest (0.2% year on year, i.e. 6,100 persons), since services, unlike industry, depend mainly on domestic demand. In addition, employment in this sector was affected by government austerity measures, which led to a decline in employment in health and social care, public administration and defence. Employment in non-market services also continued to decline year on year at the start of 2011, while market services recorded an increase in Q1, with growth being observed mainly in information and communication services and banking and insurance. Employment in **construction** continued to be adversely affected by a persisting contraction in production in both building construction

CHART III.4.1

LABOUR MARKET INDICATORS

Employment saw renewed growth and average wage growth increased in 2011 Q1

(annual percentage changes)

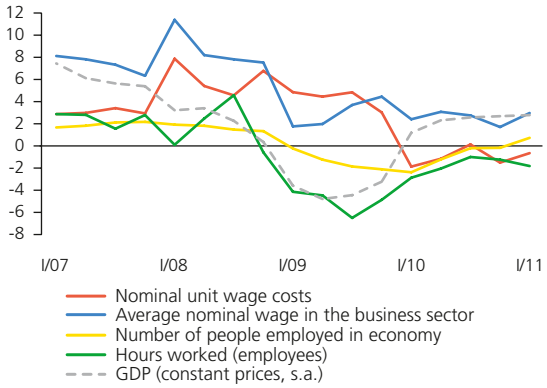
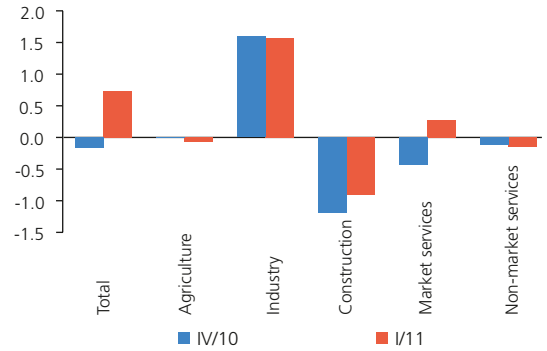


CHART III.4.2

EMPLOYMENT BREAKDOWN BY BRANCHES

Employment growth was highest in industry and very modest in services

(contributions in percentage points to annual growth; selected branches; source: LFS)



26 Seasonally adjusted.
27 Including members of production cooperatives.
28 See Box 2.

and civil engineering, which resulted in a substantial year-on-year decline in the number of employed persons of 9.3% in Q1 (i.e. 43,600 persons).

Given the rising employment and shrinking labour force,[29] the **general unemployment rate**[30] recorded a sizeable year-on-year decline in 2011 Q1 (of 0.9 percentage point). Adjusted for seasonal effects, the decline was only very modest in quarter-on-quarter terms (0.1 percentage point to 6.9%). The **registered unemployment rate** (MLSA) showed similar developments,[31] declining by 0.2 percentage point to 9.2% quarter on quarter in Q1 (see Chart III.4.3). According to the latest available data for 2011 Q2, the quarter-on-quarter decline in the registered unemployment rate continued, reaching 8.9%. However, its month-on-month seasonally adjusted changes are signalling a gradually slowing decline.

The **Beveridge curve** is still indicating only very weak growth in vacancies (see Chart III.4.4). The cause can be seen in corporations making employment decisions in a situation where they are still able to meet demand with the existing number of employees (including by means of overtime) and where the outlook for future demand is uncertain. The latest June data have shifted the Beveridge curve slightly upwards and to the left. This signals only a very weak improvement in the labour market.

III.4.2 Wages and productivity

After having slowed considerably in 2010, annual **average nominal wage growth** accelerated to 2.1% in 2011 Q1. In real terms the average wage recorded another year-on-year increase, but this rise was only weak on account of inflation (0.4%; see Table III.4.1). This change in trend was due to the business sector, where average nominal wage growth rose by 1.3 percentage points to 3% in Q1; only a few branches in this sector recorded declining wages. By contrast, the average wage in the non-business sector decreased year on year (by 1.7%) for the third consecutive quarter as a result of government austerity measures. This decline was most apparent in public administration and defence.

The renewed increase in wage growth in the business sector in the current phase of the business cycle was due mainly to continued relatively fast production growth in numerous branches of industry, associated with external demand. Since the rising demand was partly met by means of longer working hours, there was an increase in remuneration for overtime work. Performance-related bonuses for 2010 in some economic sectors also fostered faster growth in the average wage in 2011 Q1.

29 Due to the shrinking working age population.
30 In the 15–64 age category. Measured by the ILO methodology according to the LFS.
31 Seasonally adjusted data.

CHART III.4.3

UNEMPLOYMENT RATE

The unemployment rate is falling gradually
(percentages; seasonally adjusted data; source: MLSA, CZSO, CNB calculation)

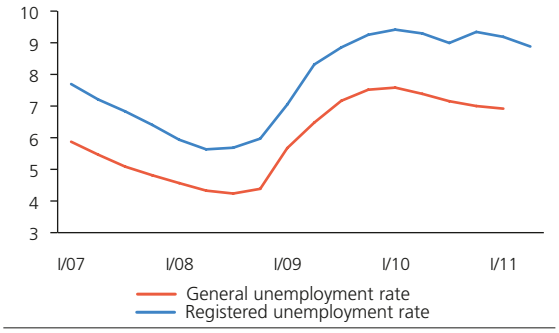


CHART III.4.4

BEVERIDGE CURVE

The number of vacancies remains low
(seasonally adjusted numbers in thousands)

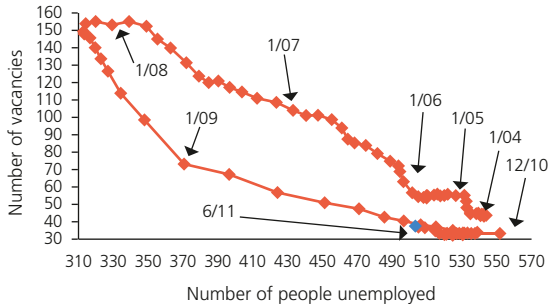


TABLE III.4.1

WAGES, PRODUCTIVITY, UNIT WAGE COSTS

Average wage growth accelerated
(annual percentage changes)

	II/10	III/10	IV/10	I/11
Average wage in monitored organisations				
nominal	2.7	1.9	0.6	2.1
real	1.5	0.0	-1.5	0.4
Average wage in business sector				
nominal	3.1	2.8	1.7	3.0
real	1.9	0.9	-0.4	1.3
Average wage in non-business sector				
nominal	1.0	-1.7	-3.9	-1.7
real	-0.2	-3.5	-5.9	-3.3
Whole-economy labour productivity	3.9	2.4	2.9	2.4
Nominal unit wage costs	-1.2	0.1	-1.5	-0.7

CHART III.4.5

WHOLE-ECONOMY PRODUCTIVITY

Whole-economy productivity growth edged down in 2011 Q1
(contributions in percentage points; annual percentage changes)

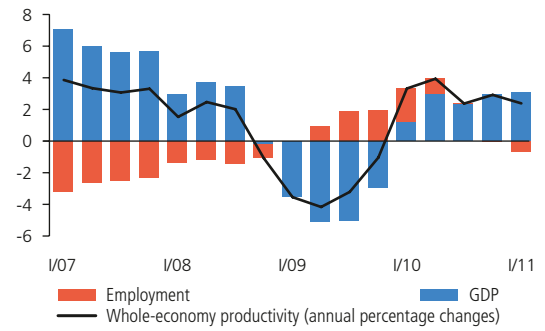


CHART III.4.6

NOMINAL UNIT WAGE COSTS

Nominal unit wage costs continued to decline year on year
(contributions in percentage points; annual percentage changes)

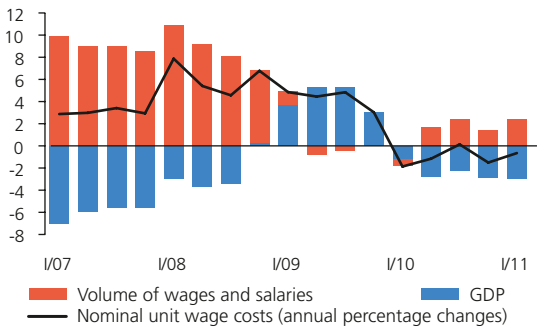
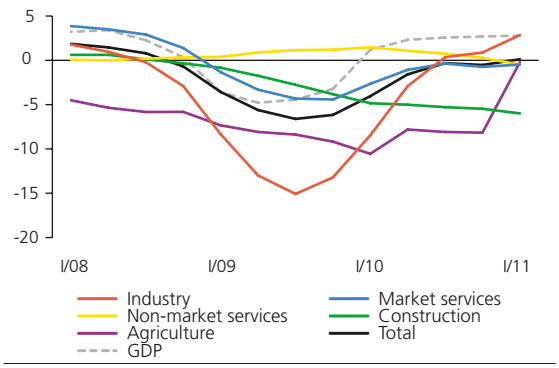


CHART 1 (BOX)

EMPLOYMENT AND GDP

Industry reacted the most cyclically to the decline in output by reducing the number of employees
(annual percentage changes; seasonally adjusted data; full-time equivalent; source: CZSO, CNB calculation)



Annual **whole-economy labour productivity** growth edged down to 2.4% in 2011 Q1 (see Chart III.4.5). This was due to renewed year-on-year growth in employment (to 0.7%), which was only partly offset by a slight increase in year-on-year growth in non-seasonally adjusted GDP[32] compared to the previous quarter (to 3.1%; see Chart III.4.5). Productivity continued to be very mixed across sectors. For the fourth consecutive quarter, the largest increase was recorded in industry, where year-on-year productivity growth reached double digits (10.3% in Q1) despite falling slightly. Productivity also rose noticeably in non-market services (by 2.4%). However, productivity growth was low (1.7% at the most) in the other sectors, and especially in construction, which was affected by a continued contraction in production.

In these circumstances, **unit wage costs**[33] continued to decline year on year (see Chart III.4.6). However, the year-on-year decline in nominal unit wage costs, which are an indicator of potential inflationary pressures in the wage area, slowed considerably in 2011 Q1 (to -0.7%). Unit wage costs fell most of all in industry (by 5.5%), where rapid growth in value added significantly outpaced growth in wages and salaries. Nominal unit wage costs also decreased in most other sectors (trade, restaurants, transport, market and non-market services and construction).

BOX 2
Labour market developments during the economic recession and the subsequent recovery

The economic slowdown during 2008 and the subsequent recession in 2009 affected the labour market. Its reaction can be characterised by two main features: (i) an uneven reaction to the economic contraction (in terms of speed and magnitude) across the individual branches of the national economy, and (ii) a substantial rise in work relationships other than employer/employee.

The changes in economic activity in 2008–2011 were accompanied by a mixed response across individual sectors of the national economy (see Chart 1). The slowdown in economic growth in industry in 2008 H2 was reflected in a concurrent year-on-year decline in full-time equivalent employees. In 2009, the number of employees decreased in tandem with economic activity, although to a much greater extent. Subsequently, in the economic recovery phase, the number of employees also started to rebound, but with a greater lag than in the downward phase. A cyclical pattern in the number

32 Seasonally adjusted GDP growth also increased slightly. The difference between seasonally adjusted and non-seasonally adjusted GDP can be partly explained by an unequal number of working days.
33 Unit wage costs are also calculated on the basis of non-seasonally adjusted data.

of full-time equivalent employees was also visible in market services, although it displayed less intensity and a longer lag than industry in both the downward and recovery phases. While the numbers of full-time equivalent employees in the above branches copied the trends in economic activity, they showed no apparent cyclicality in agriculture, construction and non-market services. This was due among other things to the nature of these branches and the length of contracts. Despite having risen, the share of part-time employment in total employment remains low (5.7%).

Another phenomenon observed in the period under review was a change in the employment structure. The number of work relationships other than employer/employee increased during both the economic downturn and the recovery. Their share in total employment thus rose from 16.1% in 2008 Q1 to 18.0% three years later. As regards individual sectors, the share of entrepreneurs (i.e. the self-employed) in employment is traditionally highest in construction, where they accounted for 40.8% in 2011. By contrast, the proportion of entrepreneurs is lowest in industry (7.7%), despite having increased in the last four quarters.

The number of entrepreneurs rose by 78,400 between 2008 Q1 and 2011 Q1. The largest increase in the number of entrepreneurs was recorded in non-market services, followed by market services and industry (see Chart 2). In year-on-year terms, major increases in the number of entrepreneurs in individual economic sectors occurred in two phases – first during the decline in economic activity in 2009, and later, to a greater extent, during the economic recovery in 2010. In the first phase the increase in the number of entrepreneurs was a normal cyclical phenomenon, since employees often turn to full-time independent business activity if they lose their job. The rise in the number of entrepreneurs in the current phase of the economic recovery is probably due to persisting cost-cutting motives on the part of employers and to the higher degree of flexibility of work relationships other than employer/employee.

The higher degree of flexibility of manufacturing compared to other branches is also evidenced by a microanalysis of corporate data from a CNB survey.[34] Table 1 illustrates the use of nominal wage freezes and reductions in response to the recent crisis compared to 2002–2006. Two-thirds of corporations responded to the recent crisis with wage freezes in 2009, significantly more in manufacturing than in other branches and also more

Chart 2 (Box)

ENTREPRENEURS

The largest increase in the number of entrepreneurs was recorded in non-market services, followed by market services and industry

(annual changes in thousands; source: CZSO, Eurostat, CNB calculation)

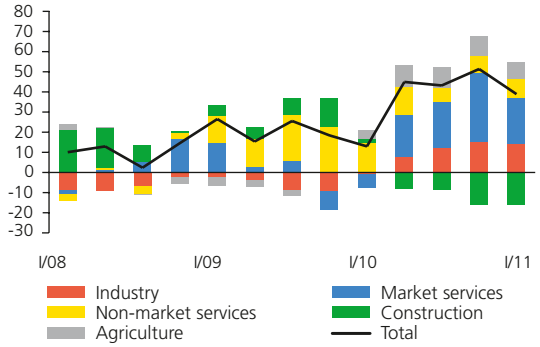


Table 1 (Box)

FIRMS' WAGE REACTION TO THE FALL IN PRODUCTION

Wages in manufacturing showed the biggest reaction to the sharp fall in production

(share in %; source: CNB survey)

	Reaction to 2009 crisis	2002–2006
Wage freeze	66	28
– manufacturing	71	26
– other branches[a)]	57.3**	30
– small firms	45	29
– medium-sized firms	66	37
– large firms	70.1**	23
Wage reduction	13	9

Note: a) construction, trade, hotels and restaurants, transport and communication, real estate, renting, business activities.
Small firms (20–49 employees), medium-sized firms (50–199 employees), large firms (200 employees or more).
Differences compared to 2002–2006 statistically significant: ** at 5% level.

34 The firm-level survey, conducted in June 2009, provides evidence on the main channels of the impact of the crisis on Czech firms and on wage flexibility in a situation of economic crisis. The set of firms contacted in this survey was the same as in the 2007 survey described in Babecký et al., CNB WP 12/2008.

frequently in large corporations. In 2002–2006, only around a quarter of the firms analysed had used wage freezes, and there had been no statistically significant differences across branches and corporation sizes. The response of reducing nominal wages was less widespread, but as in the case of wage freezes was more common than in 2002–2006.

A halt in wage growth and an increase in the frequency of wage reductions at a time of recession can be regarded as signs of flexibility, although adjustment in the labour market occurs largely via a decline in employment.

III.5 FINANCIAL AND MONETARY DEVELOPMENTS

Annual growth in both M2 and M3 had been declining since the start of the year, but in May their rate of growth increased for the first time this year. Money holdings remain concentrated in highly liquid components, but their growth slowed. Loans to non-financial corporations and loans to households for house purchase continued to recover slightly. Client interest rates on new loans and deposits were mostly flat or falling negligibly. Risk premia decreased primarily in the segment of loans for house purchase with short fixations, whose share in the structure of loans for house purchase is increasing. The financial indicators of corporations improved. The ratio of household debt to gross disposable income kept rising. Property prices continued to decline.

III.5.1 Money

Following a slowdown in previous months, annual **M2** growth increased by 1.4 percentage points to 2.6% in May (see Chart III.5.1).[35] Overall, M2 growth slowed to 1.9% in the first two months of Q2, from 3% in Q1. The slower M2 growth rate recorded since the start of this year mainly reflected a decline in net external assets caused by an outflow of funds abroad. However, this outflow is currently slowing. The annual growth rate of the harmonised monetary aggregate M3 was 0.5% in May. The growth rate of the broad monetary aggregate M2 was close to that of nominal GDP, while the growth rate of the more transaction-oriented aggregate M3 (which consists solely of short-term financial assets of economic agents) was below that of nominal GDP.

The slower growth of the broad monetary aggregates and a slight recovery in nominal GDP growth brought about a further moderation of the year-on-year decline in the **velocity of circulation** to almost zero (see Chart III.5.2) The velocity of circulation fell considerably during the financial crisis, but its year-on-year decline has been gradually moderating since mid-2009.

Turning to the **structure of M2**, growth in transaction money decreased owing to slower growth in overnight deposits coupled with a slight rise in currency in circulation. In addition to the outflow of funds abroad, overnight deposits were affected by base effects. However, demand for transaction money remains elevated, particularly among households. The opportunity cost of holding overnight deposits, as expressed by the spread between the interest rate on other short-term deposits (i.e. time deposits of up to two years and deposits redeemable at notice of up to three months) and overnight deposits, remains at a five-year low. Growth in long-term deposits, which increased in 2009 owing to a rise in the positive slope of the yield curve, has been broadly flat since the start of 2010 (see Chart III.5.3).

35 M2 growth reached 3.1% when adjusted for non-transaction effects.

CHART III.5.1

MONETARY AGGREGATES

M2 growth increased in May 2011 for the first time since the start of the year
(annual percentage changes)

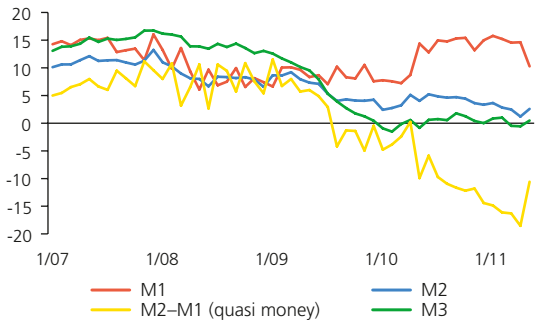
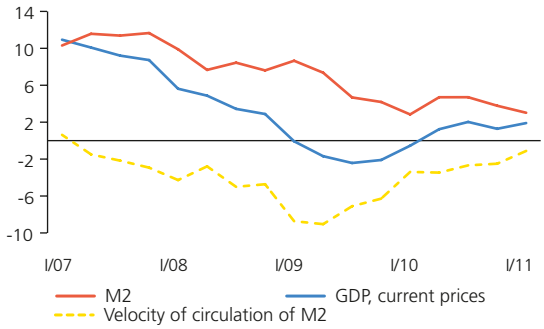


CHART III.5.2

MONEY, NOMINAL GDP AND VELOCITY OF CIRCULATION

The decline in the velocity of circulation almost halted
(annual percentage changes; seasonally adjusted data)



Note: The velocity of circulation is calculated as nominal GDP divided by the outstanding stock of broad money.

CHART III.5.3

MAIN COMPONENTS OF M2 AND SLOPE OF THE YIELD CURVE

Liquidity remains concentrated in overnight deposits
(annual flows in CZK billions; spreads in percentage points)

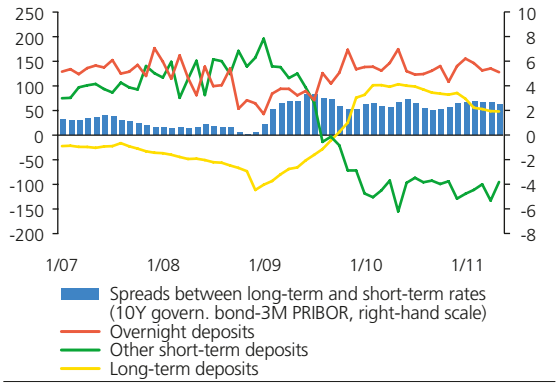
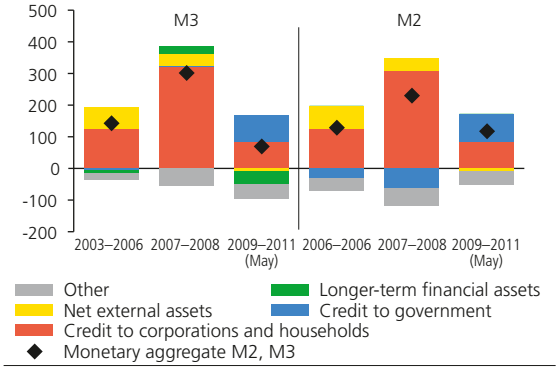


CHART III.5.4

MONEY SUPPLY FACTORS

The lower growth rates of monetary aggregates in the last two years mainly reflect subdued credit growth and a halt in net external assets growth
(annual flows in CZK billions)



Note: Long-term financial assets comprise time deposits with an agreed maturity of more than two years and redeemable at notice of more than three months as well as issued securities of more than two years.

CHART III.5.5

DEPOSITS OF CORPORATIONS, ECONOMIC ACTIVITY AND NET EXTERNAL ASSETS OF BANKS

The decline in deposits of corporations moderated
(annual percentage changes; basic indices; contributions in p.p.)

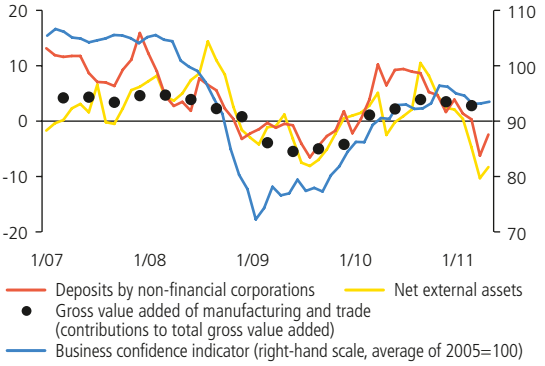
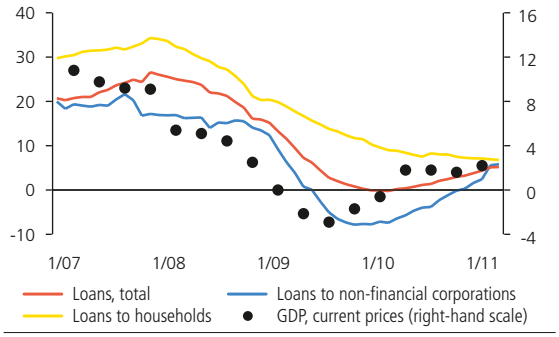


CHART III.5.6

LOANS TO CORPORATIONS AND HOUSEHOLDS

Loans to corporations are gradually recovering
(annual percentage changes)



Turning to **money supply factors**, the lower growth rates of M2 and M3 in the last two years compared to the pre-crisis period are due mainly to lower credit growth caused by lower growth in loans to corporations and households amid higher government borrowing. Unlike in the pre-crisis period, net external assets have fostered lower growth in both monetary aggregates in recent months, but their overall effect has been broadly neutral since 2009. Other factors, including among other things capital and banks' reserves, are fostering lower money growth, the same as in the pre-crisis period. In the last two years, the lower M3 growth than M2 growth has also reflected higher demand for long-term financial assets included only in M2, i.e. long-term time deposits and bank debt securities of over two years (see Chart III.5.4).

Growth in total bank **deposits** has been fluctuating around 3% in recent months, while their ratio to loans has declined slightly to less than 134%. The annual growth rate of household deposits remained around 5%. It can be expected to rise as the labour market recovery gains momentum. The year-on-year decline in deposits of corporations moderated, amid a slower outflow of some of their funds abroad (see Chart III.5.5). Deposits of non-monetary financial institutions also recorded a slower decline.

III.5.2 Credit

Loans to corporations and households are gradually recovering. Annual growth in loans edged up to 5.2% in May 2011 (see Chart III.5.6).[36] The contribution of loans to the property market, which comprise loans to households for house purchase and loans to developers and construction companies, increased slightly. Loans are also gradually recovering in the euro area, where they rose by 2.7% year on year in May.

Annual growth in **loans to non-financial corporations** increased further to 5.8%. Both long-term and short-term loans contributed to the rise. As regards individual sectors, the main drivers of the growth in corporate loans were loans to the energy sector. Loans to manufacturing, developers, trade and newly also construction recorded annual growth. However, the contribution of loans to construction remains close to zero. The growth in corporate loans reflects the economic recovery amid mixed developments across individual branches. New corporate loans also grew further. The proportion of account overdrafts in their structure has been increasing since mid-2010, while the share of large loans has been falling and that of small loans has been flat (see Chart III.5.7). Corporations' demand for new loans has therefore been significantly affected by their operational financing needs and in the last two years also by financing of the construction of photovoltaic power stations.

36 Credit growth reached 6.2% when adjusted for non-transaction factors.

The CZSO's June business survey reveals that the percentage of industrial corporations that expect loans to increase in the coming three months has increased slightly (to about 10% of respondents).

Annual growth in loans to households slowed slightly further in 2011 Q2, to 6.8%. This change was due to lower growth in consumer credit and other loans, while growth in **loans for house purchase** was flat following a previous decline. The month-on-month flows of loans for house purchase have been gradually increasing since the end of 2010. New loans for house purchase increased owing to higher growth in mortgage loans, while the decline in building society loans slowed (see Chart III.5.8). This indicates a gradual recovery of the mortgage loan market (there may also have been some substitution between the two types of loans, as the interest rate on building society loans has been higher than that on mortgage loans since mid-2010; in the case of new mortgages the refinancing process might have had a partial effect as well). According to Hypoindex, the volume of mortgage loans and the number of new mortgages both increased in June, albeit at a slower pace than in the previous month. The average mortgage amount fell year on year also as a result of property prices. Mortgage loans were affected mainly by lower interest rates, persisting declines in property prices, falling unemployment and the overall gradual improvement in the economic conditions. A temporary rise in household demand for investment in housing can be expected in 2011 H2 as a result of the planned increases in the VAT rate for construction work to 14% from 2012 and 17.5% from 2013.

Turning to the **structure of new loans for house purchase**, the share of loans with rate fixations of up to one year increased (to 28.3%), although loans with rate fixations of over one year and up to five years still account for the largest share (48.6%; see Chart III.5.9). The rise in the share of mortgages with short fixations reflected an increase in the spread between rates with longer fixations and the rate with a fixation of up to one year. According to Hypoindex data, the share of new mortgages with a variable rate is around 10%. Should this trend continue, future growth in interest rates on loans with short fixations might represent an increased risk of default, especially among lower-income households.

New **consumer credit** rose for the second consecutive month amid increasing account overdrafts. However, the current annual and monthly flow data continue to indicate a persisting contraction of this credit market segment due to greater prudence of households. Loans from hire-purchase and leasing companies continued to decline in 2011 Q1.

The ratio of **non-performing loans** to total loans decreased for corporations while remaining broadly unchanged for households. The NPL ratio remains higher in both sectors than in the pre-crisis period. For corporate loans it was 8.4% and for households it was 5.3% (12.2% for consumer credit and 3.3% for loans for house purchase).

CHART III.5.7

LOANS TO NON-FINANCIAL CORPORATIONS

New loans to corporations rose gradually amid low interest rates
(new business; contributions in p.p.; annual percentage changes; interest rate in %)

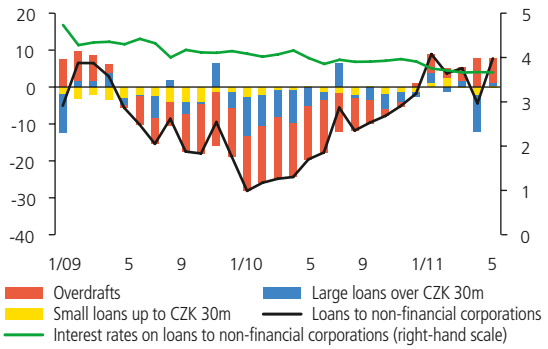


CHART III.5.8

LOANS TO HOUSEHOLDS FOR HOUSE PURCHASE

New mortgage loans increased
(new business; contributions in p.p., annual percentage changes; interest rate in %)

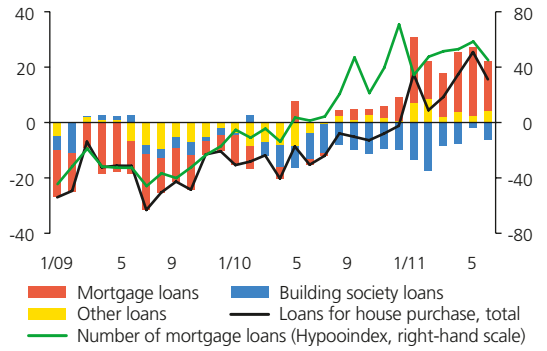


CHART III.5.9

STRUCTURE OF LOANS FOR HOUSE PURCHASE BY INTEREST RATE FIXATION

The share of loans with short rate fixations of up to one year increased
(percentages)

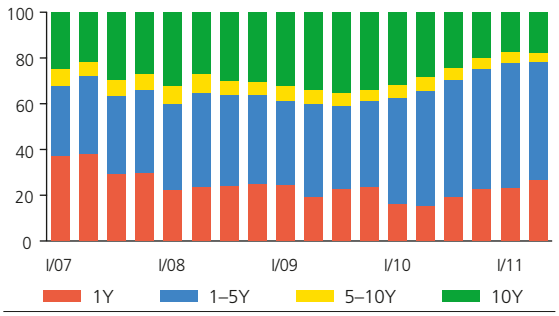


CHART III.5.10

CNB KEY RATES

The CNB left key rates unchanged in 2011 Q2
(percentages)

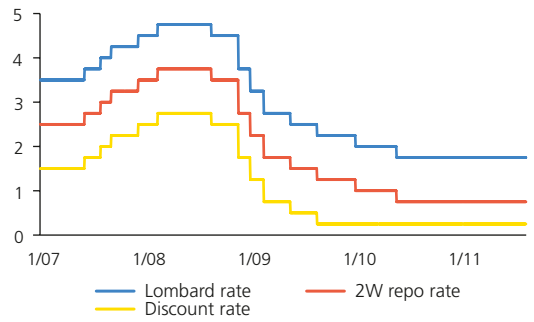


CHART III.5.11

MARKET INTEREST RATES

Money market interest rates were virtually unchanged, but IRS rates fell
(percentages)

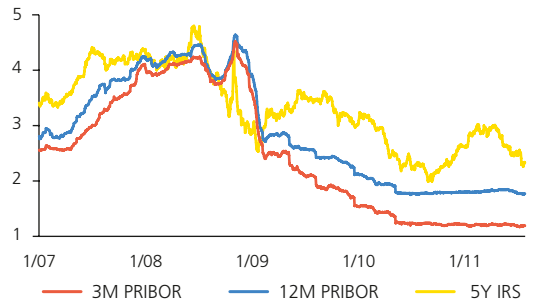
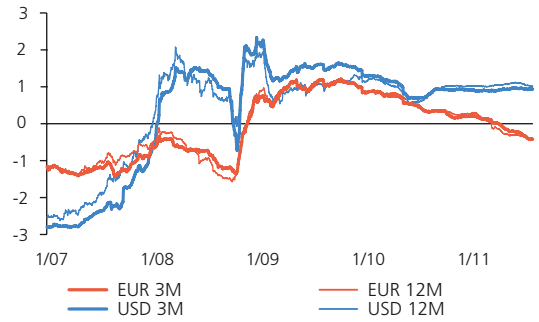


CHART III.5.12

INTEREST RATE DIFFERENTIALS

Interest rate differentials vis-à-vis the euro declined to negative values
(percentage points)



III.5.3 Interest rates

Monetary policy interest rates

The monetary policy decision-making of the CNB Bank Board in 2011 Q2 was based on the macroeconomic forecast published in the previous Inflation Report. Consistent with the forecast and its assumptions was broad stability of market interest rates in the near future and a gradual rise in rates starting in 2011 Q4. The risks of the previous forecast for monetary-policy relevant inflation were assessed as being balanced at the Bank Board's meetings in May and June. Accordingly, the Bank Board decided by a majority vote to leave the **key interest rates** unchanged at both meetings. The two-week repo rate was set at 0.75%, the discount rate at 0.25% and the Lombard rate at 1.75% with effect from 7 May 2010 (see Chart III.5.10).

At its monetary policy meeting on 4 August 2011, the Bank Board decided by a majority vote to **leave the interest rates unchanged**. The risks of the new forecast were assessed as being balanced. Lower foreign interest rates are a downside risk to inflation, while the weaker koruna implies an upside risk.

Financial market interest rates

Money market interest rates remained flat at all maturities in 2011 Q2. **FRA derivative rates** showed higher volatility. They have been mostly falling since early April in response to published macroeconomic data, which suggested an absence of demand-pull inflation pressures, and to declining outlooks for foreign interest rates. The prevailing view in the market was therefore that the CNB would not raise its key rates in the near future. The current market outlook for 3M rates according to FRA quotations is slightly rising and is close to the path consistent with the baseline scenario of the new forecast (see sections I and II). **Interest rates with longer maturities** also recorded declines, but they were influenced mainly by the situation on foreign markets. Concerns regarding an escalation of the debt problems of some euro area countries prevailed there, especially after these countries' ratings were lowered by rating agencies. Investors therefore moved into safe assets. There were also concerns regarding a slowdown of the global economy, among other things due to high commodity prices. The decline in foreign interest rates with longer maturities was not stopped even by two increases in the ECB's refinancing rate.

The average **3M PRIBOR** was 1.2% in 2011 Q2 and was thus consistent with the value assumed in the previous forecast. Money market interest rates continued to be influenced by the credit premium. The average spread between the 3M PRIBOR and 2W repo rate was 0.46 percentage point in 2011 Q2. This spread has been close to this level since May 2010.

Overall, PRIBOR interest rates have been unchanged since the start of 2011, while IRS interest rates have declined by as much as 0.4 percentage point at individual maturities.

The **PRIBOR yield curve** did not change during 2011 Q2 and its slope remained positive. The spread between the 1Y PRIBOR and 2W PRIBOR was around 1 percentage point in June 2011. The money market yield curve remained unchanged during July. By contrast, the **IRS yield curve** shifted to a lower level over its entire length and gradually became less steep. In June, the average 5Y–1Y spread was 1.0 percentage point and the 10Y–1Y spread 1.5 percentage points.

Short-term **interest rate differentials** vis-à-vis the two main world currencies (PRIBOR/CZK – EURIBOR/EUR, or LIBOR/USD) reflected developments on foreign markets amid flat rates on the domestic money market. The differentials vis-à-vis dollar rates were broadly unchanged over the whole period, while those vis-à-vis euro rates became increasingly negative (see Chart III.5.12). The 3M interest rate differential vis-à-vis the euro was -0.2 percentage point on average in 2011 Q2. On 22 July, it was -0.4 percentage point.

Five auctions of fixed coupon bonds and three auctions of variable coupon bonds were held on the primary **government bond market** in the period under review. The total volume of bonds issued was CZK 53.7 billion. Demand strongly exceeded supply in all the auctions. The bonds were subscribed with lower yields than in the previous period, in line with the decline in rates for longer maturities. The government bond yield curve shifted downwards slightly except at its short end, so its positive slope moderated somewhat (see Chart III.5.13).

Client interest rates

Interest rates on new loans and deposits have mostly been flat or falling moderately so far in 2011 Q2, amid flat money market rates and a declining ten-year government bond yield. Client risk premia have fallen for house purchase loan rates with short fixations, thus further correcting the sharp rise observed during the crisis.

The **interest rate on loans to non-financial corporations** remained at 3.7% in May 2011 (see Chart III.5.14). This is the lowest level since 2005. In recent months the largest declines have been recorded for rates with short fixations on large loans. Interest rates on corporate loans reflected flat money market rates and a further decrease in client risk premia for some types of loans. Interest rates on corporate loans increased slightly in the euro area, ranging between 3% and 5%.

Turning to households, the **interest rate on loans for house purchase** edged down to 4.4% (see Chart III.5.15). This reflected a decrease in client risk premia, or banks' margins, amid historically low money market interest rates. Except for rates with a fixation of over five years and up to ten years, rates with all fixations recorded declines, the largest drops being recorded for rates with a short fixation of up to one year and with a fixation of over ten years (see Chart III.5.16). According to Hypoindex, interest rates on mortgages fell in June (to 4.1%). The spread between the rate on house purchase loans with a short fixation and the 1Y PRIBOR market rate decreased further in Q2. On the other hand, the spread between the overall rate

CHART III.5.13

GOVERNMENT BOND YIELD CURVE

The yield curve became slightly less steep
(percentages)

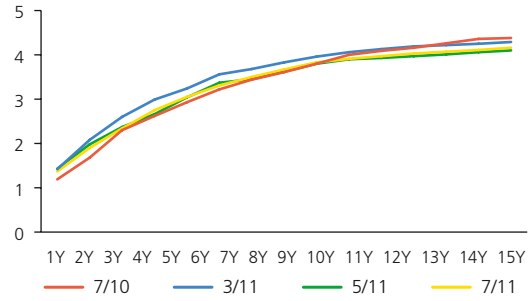


CHART III.5.14

INTEREST RATES ON LOANS TO CORPORATIONS

The interest rate on corporate loans remained below 4%
(new business; percentages)

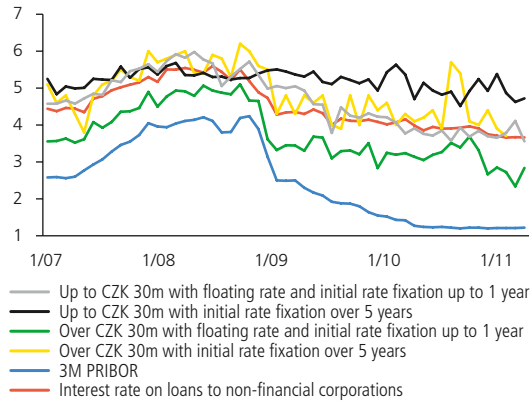


CHART III.5.15

CHANGES IN INTEREST RATE ON LOANS FOR HOUSE PURCHASE

The interest rate on loans for house purchase declined
(new business; monthly changes in p.p.; interest rate in %)

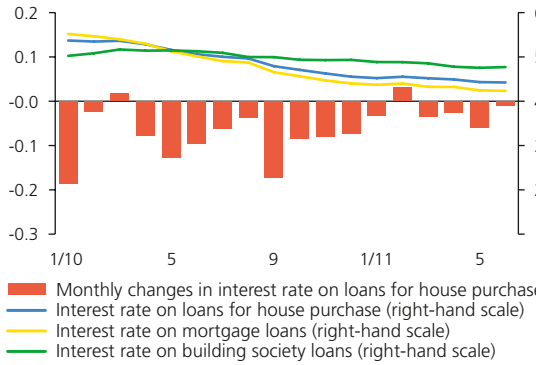


CHART III.5.16

INTEREST RATES ON LOANS FOR HOUSE PURCHASE

Interest rates with a fixation of up to one year declined the most
(new business; percentages)

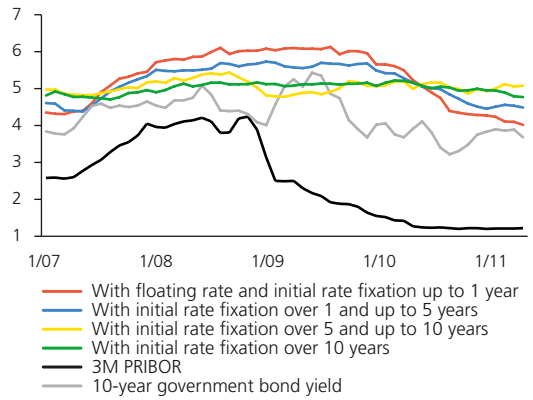


CHART III.5.17

CLIENT AND MARKET INTEREST RATE SPREADS

Banks are reducing the spreads between client and market rates for loans for house purchase with short fixations
(percentage points)

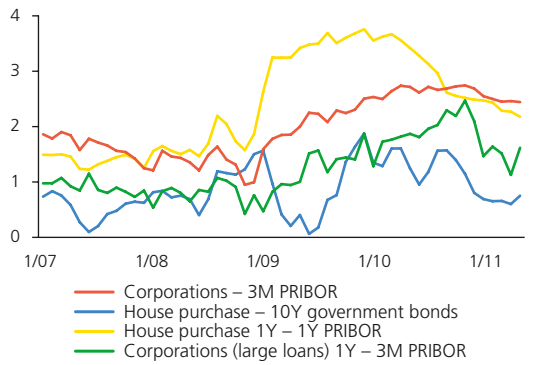
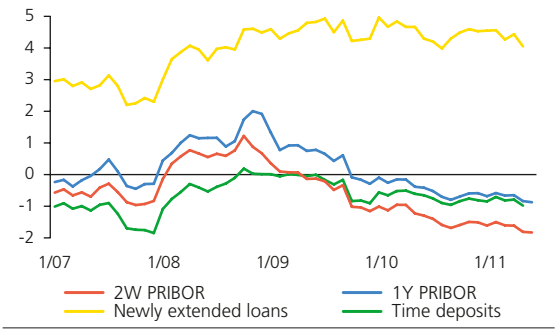


CHART III.5.18

EX ANTE REAL RATES

Ex ante real interest rates on new loans declined in 2011 Q2
(percentages)



on loans for house purchase and the ten-year government bond yield increased as a result of a decrease in the government bond yield (see Chart III.5.17). Rates on loans for house purchase increased slightly in the euro area, ranging between 3% and 4%.

The **interest rate on consumer credit** remains high, despite declining to 13.8% in 2011 Q2. The rate on current account overdrafts remained at 18.4%. The spread between the rate on consumer credit and the 3M PRIBOR has decreased in recent months. This notwithstanding, the above rates continue to reflect the high risk perceived by banks when providing this type of credit. Rates on current account overdrafts and consumer credit range between 5% and 9% in the euro area.

The **interest rate on deposits** remained flat at 0.9% on average. It was 1.1% for households and 0.4% for non-financial corporations.

The **average margin** between interest rates on new loans and deposits has fallen to 6 percentage points this year due to declining loan interest rates. The margin stands at 3.3 percentage points for corporate loans and deposits, 3.4 percentage points for loans for house purchase and deposits of households, and 12.8 percentage points for consumer credit.

Real client interest rates[37] mostly declined in Q2. Real rates on new loans were 4.1% in May, while real rates on time deposits were -1.0% (see Chart III.5.18).

III.5.4 The exchange rate

The average **exchange rate of the koruna against the euro** was CZK 24.3 in 2011 Q2, which represents a year-on-year appreciation of 5.0% and a quarter-on-quarter appreciation of 0.2%. Since appreciating in January, the exchange rate has been fluctuating between CZK 24.0 and 24.6 to the euro without signs of a trend (see Chart III.5.19). Despite that, the Czech koruna was the fourth-fastest appreciating convertible currency between the start of 2011 and mid-July (after the Swiss franc, the Russian rouble and the Hungarian forint). The koruna's exchange rate was fluctuating between CZK 24.4 and 24.5 against the euro in mid-July.

The koruna is still being affected mainly by international developments, in particular the fiscal situation on the southern periphery of the euro area. Information from the domestic economy continues to play a smaller role (partly because key indicators are not differing much from expectations). In the last month, however, the escalation of the southern periphery's debt-servicing problems has led to a rise

37 Ex ante real interest rates: nominal interest rates are deflated by the consumer price inflation expected by financial market analysts.

in prices of CDS, especially those of European countries (regardless of euro area membership) and to depreciation of most European currencies. The Swiss franc and, to a lesser extent, the New Zealand dollar and the Japanese yen have benefited from the greater financial market uncertainty regarding the future of the overindebted European economies. Scandinavian, Eastern European and Central European currencies, including the Czech koruna, have depreciated the most. The koruna's exchange rate has not responded directly to the increase in the negative short-term interest rate differential caused by ECB rate increases. The other aforementioned European currencies have also depreciated irrespective of whether they have increased rates like the ECB (Sweden, Denmark and Poland) or not.

The average **exchange rate of the koruna against the dollar** was CZK 16.9 in 2011 Q2, which represents a year-on-year appreciation of 16.2% and a quarter-on-quarter appreciation of 5.2%. The dollar initially kept depreciating on world markets during Q2, but changed direction in May and has appreciated further over the last month. The koruna thus initially appreciated from around CZK 17.2 against the dollar at the start of the quarter to CZK 16.3 in late April and early May, but later depreciated in two steps in May and July to CZK 17.3 in mid-July. The dollar's appreciation on world markets was linked mainly with a rising lack of financial market confidence in the euro area's ability to find a solution (acceptable to the markets) for the continued financing of the overindebted economies of the southern periphery.

III.5.5 Economic results of non-financial corporations

According to the available data and CNB calculations, the favourable evolution of the main financial performance indicators observed in the previous three quarters in the monitored segment of **non-financial corporations with 50 employees or more**[38] continued into 2011 Q1. Particularly high annual growth was recorded for sales and output. Although the growth in output was again accompanied by slightly faster growth in intermediate consumption, annual growth in gross value added also rose in 2011 Q1. According to CNB calculations, gross operating surplus also recorded fairly fast growth (see Chart III.5.20).

In 2011 Q1, the **material cost-output ratio** of non-financial corporations was again influenced by continued buoyant growth in import prices of energy and non-energy commodities and metal-based semi-finished products. Corporate costs were also affected by renewed growth in prices of energy of domestic origin. The material cost-output ratio of non-financial corporations thus rose further (by 1.2 percentage points; see Table III.5.1).

38 The segment of corporations with 50 employees or more consisted of almost 9,400 non-financial corporations at the end of 2011 Q1.

Chart III.5.19

CZK/EUR AND CZK/USD EXCHANGE RATES

The koruna appreciated strongly year on year against the euro and the dollar in 2011 Q2 and July

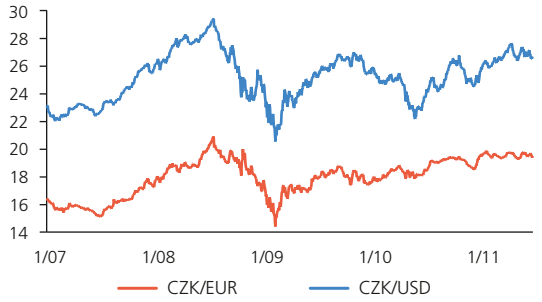


Chart III.5.20

KEY FINANCIAL INDICATORS

The key financial indicators continued to rise year on year in 2011 Q1
(annual percentage changes)

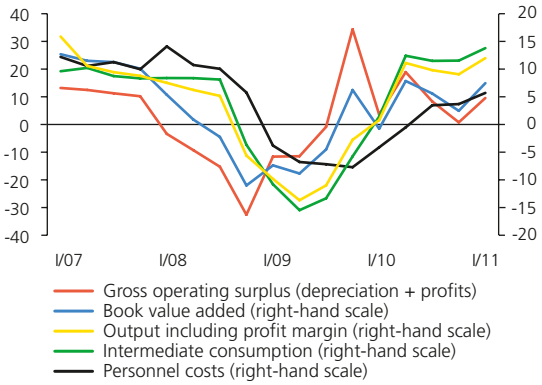


Table III.5.1

PERFORMANCE INDICATORS OF CORPORATIONS

The material cost-output ratio rose in 2011 Q1, but the wage cost-output ratio kept falling
(annual changes in percentages and percentage points)

	2010 Q1	2011 Q1	Annual percentage changes
Output incl. profit margin (CZK billions)[a]	1,161.2	1,300.3	12.0
Personnel costs (CZK billions)	180.2	190.5	5.7
Intermediate consumption (CZK billions)	829.9	944.3	13.8
Book value added (CZK billions)	331.3	356.0	7.5
Sales (CZK billions)	1,485.5	1,661.0	11.8
	Percentages	Percentages	Annual changes in p.p.
Ratio of personnel costs to value added[a]	54.4	53.5	-0.9
Material cost-output ratio[a]	71.5	72.6	1.2
Personnel cost-output ratio[a]	15.5	14.6	-0.9
Ratio of book value added to output[a]	28.5	27.4	-1.2

a) CNB calculation

CHART III.5.21

FINANCING OF NON-FINANCIAL CORPORATIONS

Total financing of corporations rose gradually, but external financing kept falling
(contributions to external financing in percentage points; annual percentage changes)

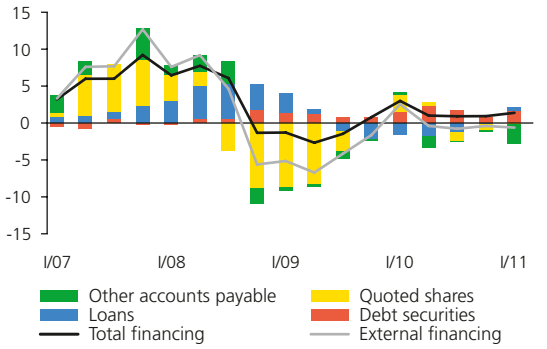
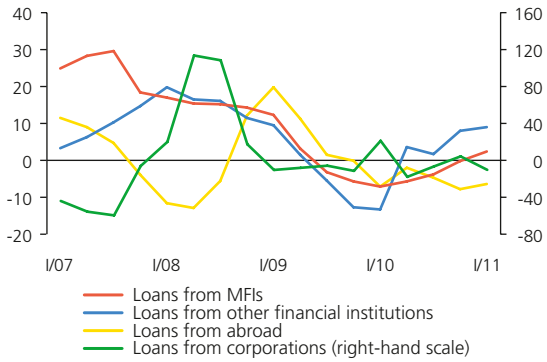


CHART III.5.22

DOMESTIC AND FOREIGN CORPORATE LOANS

Domestic loans rose slightly, but loans from abroad declined
(annual percentage changes)

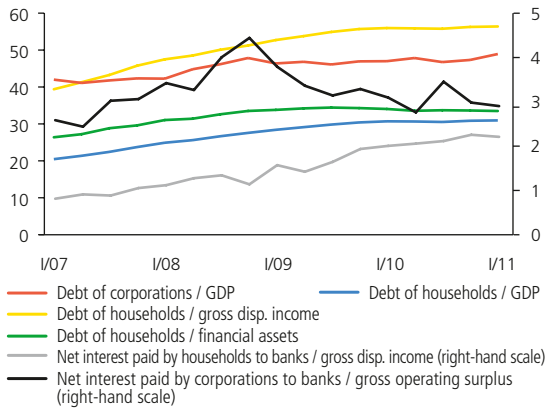


Note: The time series of loans from other financial institutions were revised in 2011 owing to a change in methodology.

CHART III.5.23

DEBT AND NET INTEREST PAYMENTS

The ratios of the debt of non-financial corporations and households to income and GDP continued to edge up
(percentages)



In these circumstances, corporations continued to reduce the **wage cost-output ratio.** Although personnel costs recorded an annual increase[39] in Q1 (of 5.7%; see Table III.5.1), this growth was still modest compared to the fast growth in output, so the wage cost-output ratio declined again year on year (by 0.9 percentage point; see Table III.5.1).

Data for the narrower segment of **large corporations** (with 250 employees or more[40]) offer a similar picture of economic performance as the wider segment of corporations. However, personnel costs recorded slightly faster growth in large corporations, amid similar growth in value added. This fostered more moderate growth in gross operating surplus compared to the wider segment of corporations.

III.5.6 Financial position of corporations and households

In 2011 Q1, most financial indicators are pointing to an improvement in corporate profitability and a further moderate recovery in some types of **external financing.** However, the overall external financing of corporations continued to edge down year on year (by 0.6%).[41] Within external financing, loans recovered gradually. Some large state-owned corporations also used debt securities, issued mostly on foreign markets, to finance their expenditures. This trend continued into 2010 Q2. By contrast, other accounts payable were connected, among other things, with trade liabilities, and issuance of quoted shares decreased year on year. The share of securities financing of corporations in external financing remains relatively low (21.3%) despite the aforementioned trend. Total corporate financing, which includes shareholders' equity in the form of unquoted shares and other equity in addition to external financing, rose by 1.4% in 2011 Q1 (see Chart III.5.21).

A gradual recovery in **total loans** to non-financial corporations was aided by loans from domestic banks and non-bank institutions. By contrast, loans from other corporations and loans from abroad continued to decline year on year (see Chart III.5.22). Lower borrowing from abroad is currently also being fostered by a slight increase in euro area interest rates. The ratio of debt financing of corporations in the form of loans, securities issued and other accounts payable to equity edged down to 101.4% as a result of a rise in equity.

39 The 5.7% year-on-year increase in personnel costs reflected growth in both the number of employees and the average wage.
40 The segment of corporations with 250 employees or more consisted of almost 1,700 non-financial corporations at the end of 2011 Q1.
41 The data for 2010 Q4 were revised upon the publication of the financial accounts data for 2011 Q1. External financing comprises loans, debt securities, quoted shares and other accounts payable. Total financing comprises all financial liabilities of corporations.

Annual growth in **financial investment by corporations** increased to 2.1%. Corporations invested more in debt securities, while the contribution of currency and deposits decreased. The contribution of equity also increased, but this was strongly affected by a rise in the market value of share holdings. The share of financial investment by corporations in total financial investment in the economy was flat at 23%.[42]

The ratio of the **debt of non-financial corporations** (loans and debt securities issued) to GDP reached 48.9%[43] in 2011 Q1. This ratio remains relatively low by international comparison. The net interest burden on corporations resulting from bank loans fluctuated around 3%. Its decrease over the last two years reflects a decline in interest rates on loans (see Chart III.5.23).

The **financial indicators of non-financial corporations** show that corporations' solvency increased year on year as a result of their improved profitability. On the aggregate level, this resulted in a slight fall in the non-performing loan ratio. Conversely, the acid-test ratio of corporations decreased owing to a decline in bank deposits associated with an outflow of funds abroad. However, both indicators are higher than in the pre-crisis period, thanks mainly to lower corporate indebtedness. Leverage fell as a result of stronger growth in equity than in financial assets (see Table III.5.2).

As in the previous quarter, the difference between corporations' **internal funds** (i.e. gross savings) and their investment expenditure (i.e. gross capital formation) was positive, mainly because of a rise in gross savings. Corporations thus used internal funds to a greater extent to increase their economic activity, while the use of external financing was lower despite a gradual recovery. The ratio of gross savings to gross value added was 27% on the basis of annual flows, while the ratio of external financing was still negative at -1.2%. Together with relatively low corporate debt by international comparison and a lower interest burden, this is having a positive effect on corporate balance sheets on the aggregate level at a time of modest recovery in economic activity.

The annual growth rate of overall financing of households by banks and non-bank institutions decreased to 2.8% (see Chart III.5.24). However, the ratio of **household debt** to gross disposable income continued to rise gradually (to 56.4%), owing chiefly to persisting low growth in gross disposable income. The interest burden on households also remained high, with net interest payments (i.e. the difference between interest paid and received on bank loans and deposits) accounting for 2.2% of gross disposable income (see Chart III.5.23).

42 Non-financial corporations account for 23%, households 17%, financial institutions 32%, general government 8% and rest of the world 20% of financial investment in the economy as a whole.

43 When other accounts payable (relating mainly to trade liabilities) are included, the ratio of corporate debt to GDP is 109.2%.

TABLE III.5.2

FINANCIAL INDICATORS OF CORPORATIONS

Corporate solvency rose year on year

	III/2010	IV/2010	I/2011	I/2011
Corporations, total [a)]	Annual percentage changes			CZK billions
Equity (shares and other equity issued)	1.3	1.4	3.5	3,912.3
Loans	-3.5	-0.3	1.8	1,495.4
Debt securities issued	44.2	16.0	32.9	308.3
Quoted shares	-8.3	-5.8	-0.7	697.4
Other accounts payable	-0.3	-0.5	-5.4	2,219.6
Total financing[1)]	0.9	0.9	1.4	7,935.6
Financial assets	3.2	0.7	2.1	4,702.6
Corporations, total [a)]	Annual changes in percentage points			Indicators in %
Acid-test ratio[2)]	24.2	17.0	7.7	156.7
Solvency indicator[3)]	2.8	0.2	3.1	116.9
Financial leverage[4)]	2.2	-0.8	-1.7	120.2

a) CNB calculation
1) Total financial liabilities
2) Short-term fin. assets / short-term fin. liabilities – debt securities issued and loans
3) Total financial assets / liabilities excluding shares and other equity
4) Total financial assets / shares and other equity issued

CHART III.5.24

FINANCING OF HOUSEHOLDS

The rate of growth of household debt declined in 2011 Q1
(contributions in percentage points; annual percentage changes)

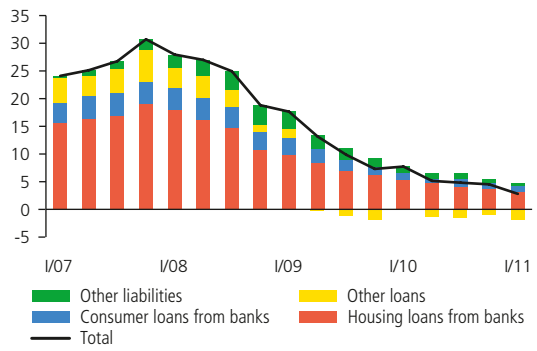


CHART III.5.25

HOUSEHOLDS' NET FINANCIAL ASSETS AND GROSS SAVING RATE

The ratio of net financial assets to gross disposable income increased moderately
(annual percentage changes calculated from annual flows; ratios in percentages)

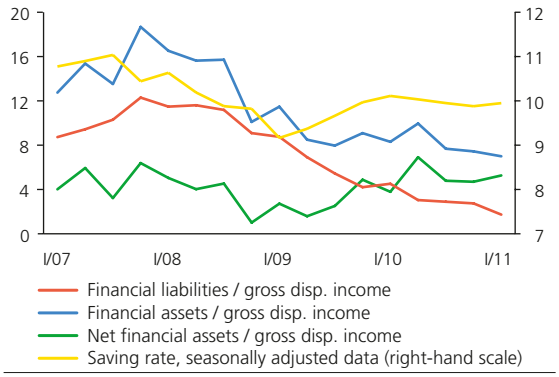


CHART III.5.26

TRANSACTION AND ASKING PRICES OF APARTMENTS

The year-on-year decline in asking prices of apartments continued into 2011 Q2
(annual percentage changes; source: CZSO, Institute for Regional Information)

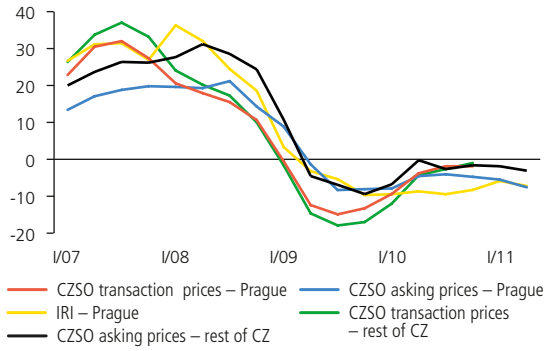
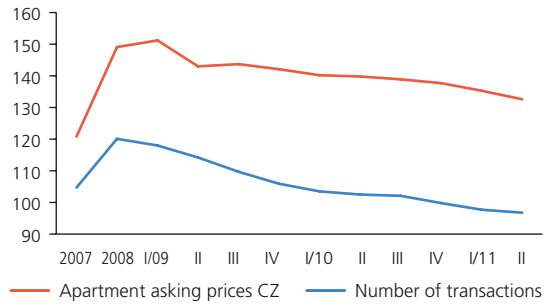


CHART III.5.27

NUMBERS OF TRANSACTIONS IN THE PROPERTY MARKET

The fall in prices was accompanied by a continuing decline in the number of transactions in the property market
(2006 average = 100; numbers of transactions as moving sums for 1 year; source: CZSO, COSMC)



Although financial assets still significantly exceed financial liabilities, the household solvency ratio remains lower than before the crisis.

Growth in **financial investment by households** slowed slightly, to 4.3%. This was due to a decrease in the growth rate of investment in currency and deposits amid an increase in investment in securities (fund units), which took place mainly on foreign markets. As regards annual flows, net financial assets continued to increase moderately, in line with a negligible increase in the gross saving rate of households (see Chart III.5.25).

III.5.7 The property market

Asking prices of apartments continued to decline in 2011 Q2. According to CZSO data, the quarterly decline reached -3.2% in Prague and -0.9% in the rest of the Czech Republic. The year-on-year rates of decline also increased (by 2.1 and 1.2 percentage points respectively; see Chart III.5.26). The CZSO updated its estimates of **transaction prices of apartments** for 2010 H1, which meant a decrease in prices of 1% in the Czech Republic as a whole as at the end of 2010 H1. It also published new estimates for 2010 H2, according to which the annual decline in transaction prices was lower than the decline in asking prices (-1.3% for the Czech Republic as a whole, as compared to -3%). This indicates a decrease in the difference between the two prices, which in the past has shown strongly counter-cyclical behaviour.[44] For 2011 H1 it is therefore possible that at least a part of the annual decline in asking prices is also due to this convergence in the two types of prices and that the fall in transaction prices could therefore be less pronounced. This is also indicated by a new alternative source of transaction prices from the CZSO based on surveys in estate agencies,[45] according to which new apartment prices in Prague fell by only 0.9% year on year in 2011 Q1 and old apartment prices by 0.2%.

In addition to the decline in apartment prices, the **number of property market transactions** continued to fall in 2011 Q2. The number of proceedings on entry of ownership rights in the cadastre decreased by 3.8% year on year in 2011 Q2. The number of transactions expressed as a one-year moving sum also fell by 1% quarter on quarter (see Chart III.5.27). By contrast, annual growth in new mortgages for property purchase rose from 45.8% to 53.4% (Fincentrum Hypoindex data). This recovery in mortgage growth is due partly to

44 For example, at the time of the sharpest price decline in 2009, transaction prices were falling twice as fast as asking prices for the Czech Republic as a whole.

45 This differs from the transaction price index published by the CZSO since 2000. The older index is based on prices from property transfer tax returns. The advantages of the new alternative index are that it has a shorter publication lag and also that it covers prices of new apartments, which are not subject to property transfer tax. On the other hand, this index does not cover property transactions outside estate agencies and its structure is less detailed.

the substitution of mortgages for building society loans, which are declining (see section III.5.2 for details), but may nonetheless indicate a gradual recovery in demand on the property market. This is because the allocation of a mortgage usually precedes the property transaction itself, which is then entered in the cadastre some time later.

The relatively strong reaction of the **supply of new apartments** to the price declines of previous years has continued this year. The number of apartment completions fell by a sizeable 29.9% year on year in January–May 2011, chiefly because of a 79.1% fall in the number of completed apartments in apartment blocks in Prague. The number of apartment starts edged up by 1.0% in the same period, but has declined by 23.6% year on year in 2011 Q2 so far (April and May).

The property price sustainability indicators showed mixed developments in 2011 Q2 (see Chart III.5.28). The **price-to-income ratio**, which is already close to its lows recorded in 2006, fell further (by 1.8%), while the **price-to-rent ratio** rose for the second consecutive quarter (by 1.7% quarter on quarter and by 2.6% overall compared to the end of 2010). Although the increase in this indicator is within the bounds of the usual volatility, it may already be a manifestation of the ongoing rent deregulation, which could lead to downward pressure on market rent and subsequently on apartment prices through substitution between owner-occupied and rented dwellings.

Despite the somewhat surprising decrease in asking prices of apartments in Q2, we continue to expect **apartment prices** to remain flat in the rest of 2011 and start to rise gradually again at the beginning of 2012, in line with labour market developments (see section III.4) and demographic trends.[46] However, this forecast is associated with a number of risk factors: while the risk of higher apartment price growth due to the VAT increase has so far proved relatively weak, lower prices may be fostered by the aforementioned effects linked with rent deregulation and also by the risk of a one-off rise in the supply of apartments due to foreclosures of apartments or apartment blocks used as collateral for loans to households for house purchase or loans to developers.

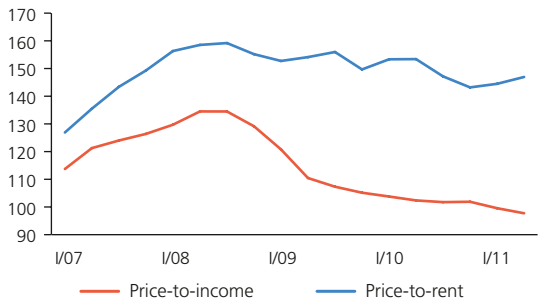
Take-up is recovering in almost all the segments of the **commercial property sector**. In 2011 Q1, gross take-up in the office property segment increased by 19% quarter on quarter and 77% year on year. In addition, the share of renegotiations in gross take-up fell from 44% in 2010 to 38%, so net take-up turned positive again following negative results in 2010 (data from King Sturge and Jones Lang La Salle). Take-up also increased in the retail property segment, while in the industrial segment it partly reversed the growth recorded in 2010 but remained relatively stable.

Chart III.5.28

APARTMENT PRICE SUSTAINABILITY INDICATORS

The apartment price-to-income ratio continued to fall, but the price-to-rent ratio increased

(2000–2007 average = 100)

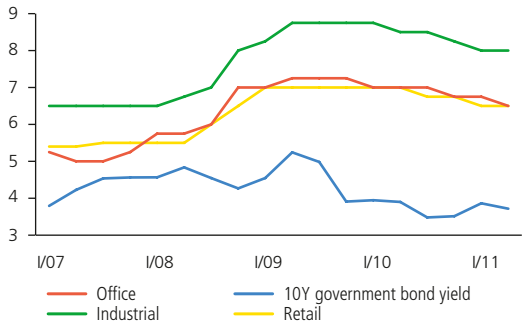


46 In particular a gradual decline in natural population growth, especially population growth due to migration.

CHART III.5.29

OFFICE PROPERTY YIELDS

Commercial property yields are falling moderately
(percentages; source: Jones Lang LaSalle, Prague Research Forum)



Since activity as regards new supply is still very low,[47] the vacancy rate is mostly decreasing (down by 0.5 percentage point quarter on quarter to 8.9% in 2011 Q1 for industrial property, and down by 0.2 percentage point to just under 13% for offices) and is expected to continue to do so for the rest of the year. A recovery in take-up is also indicated by a decline in commercial property yields in all market segments (given relatively stable rents, yields are negatively correlated with prices; yields have fallen by 0.5–0.75 percentage point from the highs observed at the end of 2009; see Chart III.5.29).

47 Although an increase is expected mainly in 2011 H2, especially for office property.

III.6 BALANCE OF PAYMENTS

In 2011 Q1, the balance of payments was characterised by a high goods and services surplus, linked mainly with the pick-up in external demand growth. However, its effect on the current account was largely offset by an income deficit. A relatively high net outflow of portfolio investment on the financial account was due mainly to purchases of foreign securities, especially shares, by residents. It was, however, partly offset by a surplus on direct and other investment.

III.6.1 The current account

The **current account** ended 2011 Q1 in a surplus of CZK 19.8 billion, a year-on-year increase of more than CZK 13 billion. The rise in the overall surplus was related above all to income balance developments. The ratio of the annual moving current account deficit to GDP moderated to 3.4% (see Chart III.6.1).

In 2011 Q1, the **trade balance** recorded a surplus of CZK 31.3 billion, up by CZK 2.5 billion year on year. The increase in the trade surplus was due exclusively to developments in real terms, which were, however, almost entirely offset by the price effect associated with a further deepening of the negative annual change in the terms of trade. Faster growth in external demand was reflected in continuing rapid goods export growth, whose nominal year-on-year rate exceeded 18% despite the koruna's appreciation against both the euro and the dollar. Goods imports increased at a similar pace as a result of the high import intensity of exports and high commodity prices. However, a further slowdown in total domestic demand, due partly to shrinking imports for photovoltaic power stations, acted against a faster increase in imports. Turning to the commodity structure, growth in the machinery and transport equipment surplus was the biggest contributor to the increase in the overall surplus (see Chart III.6.2). However, the year-on-year rise in the trade surplus halted during 2011 Q2 and the surplus fell slightly in April and May (by CZK 2.6 billion).

The **balance of services** ended 2011 Q1 in a surplus of CZK 16.2 billion, virtually unchanged from a year earlier (see Chart III.6.3). All three sub-balances contributed to the surplus. An annual decline in the transport services surplus was offset by changes in other services (mainly computer services), which shifted from deficit to surplus in this quarter. As usual, the highest surplus was recorded for travel.

The **income balance** showed a deficit of CZK 28.8 billion, representing a year-on-year decrease of more than CZK 10 billion. The balance of direct investment income (CZK -31.4 billion) again had the largest impact on the overall balance. It was affected chiefly by estimated earnings reinvested in the Czech Republic and dividends paid to non-residents (see Chart III.6.4). The moderation of the overall deficit was linked mainly with a lower deficit on direct investment income due to lower dividends paid to non-residents. Surpluses on portfolio

CHART III.6.1

CURRENT ACCOUNT

The current account deficit moderated in 2011 Q1, owing mainly to a falling income deficit
(annual moving totals in CZK billions)

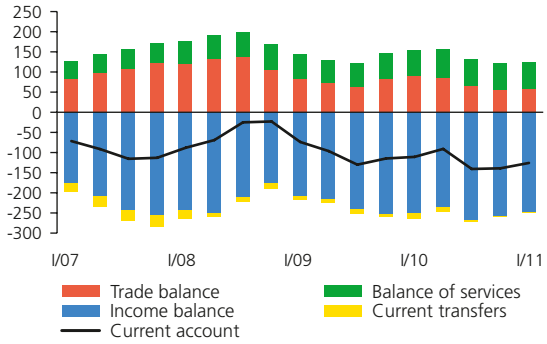


CHART III.6.2

TRADE BALANCE

The year-on-year change in the trade balance was affected most strongly in 2011 Q1 by growth in the machinery surplus
(accumulation since start of year in CZK billions)

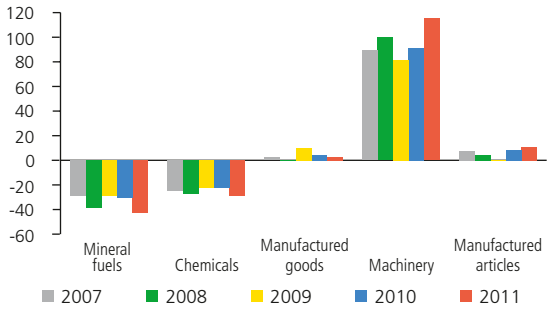


CHART III.6.3

BALANCE OF SERVICES

The services surplus in 2011 Q1 was due to all three component balances
(CZK billions)

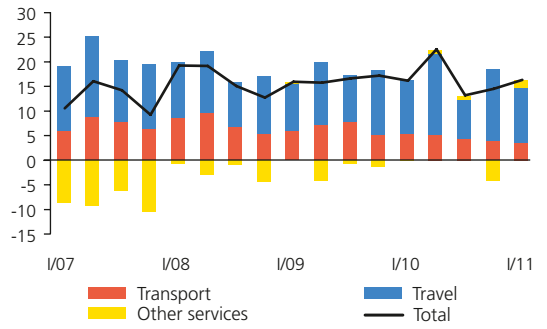


CHART III.6.4

INCOME BALANCE

The year-on-year change in the income balance was affected most strongly in 2011 Q1 by a decline in the direct investment income deficit
(accumulation since start of year in CZK billions)

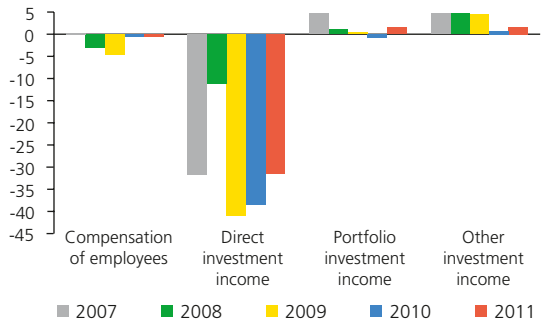


CHART III.6.5

FINANCIAL ACCOUNT

The financial account surplus decreased slightly in 2011 Q1 owing to a decrease in the portfolio and direct investment surpluses
(annual moving totals in CZK billions)

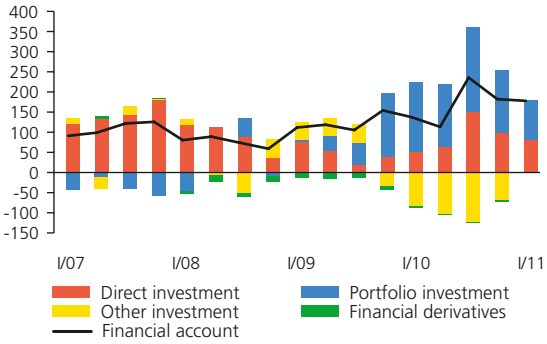
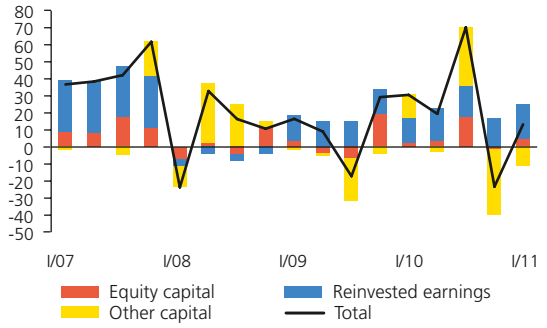


CHART III.6.6

DIRECT INVESTMENT

The direct investment surplus in 2011 Q1 was mainly a result of an inflow of reinvested earnings into the Czech Republic
(CZK billions)



investment income and other investment income (interest and income on CNB reserves) to a smaller extent also contributed to the annual decline in the overall deficit, due to an increase in credits.

Current transfers recorded a surplus of CZK 1.0 billion, which edged up in year-on-year terms. The government transfers surplus reached almost CZK 8 billion, due to a surplus on transfers between the Czech Republic and the EU budget. However, it was largely offset by a private transfers deficit.

III.6.2 The capital account

The **capital account** recorded a surplus of CZK 0.3 billion, a slight year-on-year decrease due to lower credits. Given the absence of government sector drawdown on EU funds recorded on the capital account, it was due exclusively to a surplus on trading in emission allowances.

III.6.3 The financial account

The **financial account** ended 2011 Q1 in a deficit of CZK 23.3 billion, due exclusively to a net outflow of portfolio investment (see Chart III.6.5). However, roughly one-half of this outflow was offset by a net inflow on the remaining three balances, especially direct investment.

Following a deficit in the previous quarter, **direct investment** recorded a net inflow of CZK 13.3 billion (see Chart III.6.6). However, its surplus recorded a year-on-year decline due to a change in other capital flows. The overall inflow of direct investment into the Czech Republic exceeded CZK 17 billion. Reinvested earnings of more than CZK 25 billion were its largest component in this quarter. The overall inflow was significantly reduced by a gross outflow of capital in credit relations as a result of a predominance of loans from domestic subsidiaries to their foreign parent companies. Reinvested earnings were also the largest component of direct investment of domestic corporations abroad. With regard to industries, the foreign capital inflow was channelled primarily into transport and storage.

Portfolio investment recorded a net outflow of CZK 44.7 billion following seven consecutive quarters of surpluses (see Chart III.6.7). The biggest transactions were purchases of foreign securities by residents, which amounted to CZK 38 billion. The strong recovery in domestic investors' interest in foreign shares and bonds following nine quarters of net sales was also the biggest contributor to the change in portfolio investment flows. The overall net outflow was also connected with developments on the liabilities side, influenced by a decrease in holdings of domestic bonds by foreign investors. The growth in interest in foreign shares was probably motivated by their higher returns compared to the bonds of relatively safe economies. Very small purchases were also made in the case of domestic equity securities.

Settlement of **financial derivatives** recorded a net inflow of CZK 2.2 billion. The balance shifted from deficit to surplus, improving by almost CZK 3 billion year on year.

Other investment recorded a net inflow of CZK 5.9 billion in Q1. In year-on-year terms, this was connected with a significant change in capital flows within monetary financial institutions. A net capital inflow of almost CZK 16 billion in the financial institutions sector also contributed significantly to the overall surplus. It was linked mainly with a decrease in short-term deposits and loans provided abroad. However, roughly one-half of the inflow was offset by a net capital outflow from the corporate sector due to growth in loans provided and deposits abroad. A moderate net outflow in the government sector, related to the repayment of loans from the EIB, also fostered a decline in the overall surplus.

The CNB's **international reserves** totalled CZK 728.2 billion at the end of 2011 Q2, representing a slight quarter-on-quarter decrease of CZK 4.2 billion due mainly to valuation changes. In dollar terms, by contrast, the reserves edged up by USD 0.8 billion to USD 43.2 billion in the same period (see Chart III.6.8). The CNB's international reserves covered 42.2% of all external debt liabilities of domestic entities at the end of Q1.

CHART III.6.7

PORTFOLIO INVESTMENT

Portfolio investment recorded a net outflow in 2011 Q1, owing mainly to purchases of foreign securities by residents
(CZK billions)

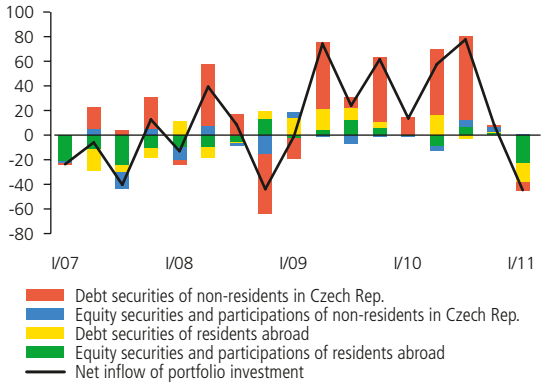
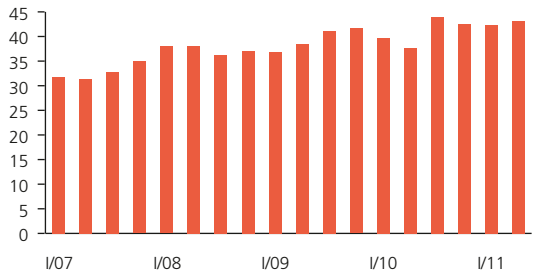


CHART III.6.8

CNB INTERNATIONAL RESERVES

The CNB's international reserves increased slightly in dollar terms in 2011 Q2 compared to the previous quarter
(USD billions)



III.7 THE EXTERNAL ENVIRONMENT

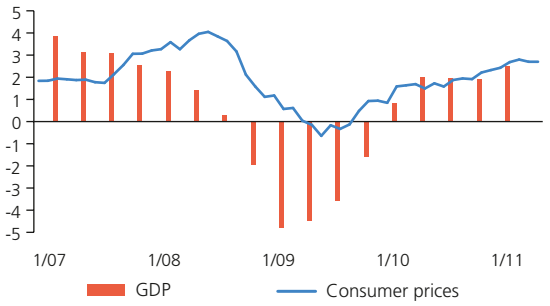
Economic growth in the euro area accelerated further in 2011 Q1, thanks mainly to investment. However, signs of a future economic slowdown are already appearing. The evolution of the debt crisis on the euro area periphery is the main risk. Economic growth in the USA slowed for the second consecutive quarter, with only domestic consumption remaining strong. Both consumer and producer price inflation probably peaked in most countries in Q2 and should decrease gradually amid an expected stagnation of commodity prices. The short-term interest rate differential between the euro and the dollar widened further in July after the ECB raised its key interest rate, while the Fed continued to pursue an easy monetary policy. This provided further support for the euro exchange rate, which is, however, also responding sensitively to developments in the euro area debt crisis.

III.7.1 The euro area

CHART III.7.1

GDP AND INFLATION IN THE EURO AREA

The rate of GDP growth in the euro area rose to 2.5% in 2011 Q1, while inflation was flat at 2.7% in Q2
(annual percentage changes; source: Datastream)



The quarterly **rate of GDP growth** in the euro area rose to 0.8% in 2011 Q1 from 0.3% in the previous quarter. Growth in fixed investment and government consumption increased significantly. The annual rate of economic growth also rose by 0.6 percentage points to 2.5% (see Chart III.7.1). However, signs of an economic slowdown appeared in Q2. The growth rates of industrial production, construction output and retail turnover declined considerably in the first two months of Q2. The question is whether the slowdown is temporary and will be overcome in H2 or whether a more lasting shift to a slower economic growth path is under way. The economic downturn in Japan resulting from the earthquake and tsunami was a temporary factor. High prices of oil and other commodities, monetary policy tightening in many emerging economies aimed at curbing high inflation, and restrictive fiscal policy in advanced countries are the medium-term risks.

By comparison with April, the July CF increased the euro area **GDP growth estimate** for 2011 as a whole by 0.3 percentage point to 2%. In particular, it expects higher growth in fixed investment. The prediction for next year was left almost unchanged at 1.6%. A continuation of the debt crisis on the euro area periphery – in Portugal, Ireland and above all Greece – remains a major risk to economic growth in the euro area. The crisis has recently manifested itself in rising interest rates on Italian government bonds (see Box 3). However, the conclusions of the euro area summit held on 21 July helped to calm the situation somewhat.

In June, annual **inflation in the euro area** was flat at 2.7%, down by 0.1 percentage point from April. It can be expected to decrease in the future, as prices of energy and other commodities, which had been the main factor underlying its strong growth, started to decline. This was also reflected in a fall in industrial producer price inflation. According to the July CF, inflation should start falling in 2011 Q4 and return below the 2% level in 2012 Q2.

On 7 July, the **ECB Governing Council** raised the key interest rate by 0.25 percentage point to 1.5%. The aim was to contain growth in inflation pressures and inflation expectations, as headline inflation had been above 2% since December 2010. The market had been expecting this increase since the June meeting, when President Trichet had used the term "strong vigilance" at the press conference.

The **German economy** recorded strong annual growth of 4.9%[48] in 2011 Q1 (see Chart III.7.2). The quarterly increase of 1.5% was due chiefly to gross fixed investment formation (in industry and above all in construction), and the contribution of net exports was also high. Following a wobble in April, the export performance of German industry increased again in May, and the industrial production index showed a similar pattern. These figures suggest that the strong GDP growth could continue into 2011 Q2. The unemployment rate fell by 0.6 percentage point year on year to 6.9% in June. The number of unemployed people is the lowest since May 1992. Inflation as measured by the CPI index (2.3% in both May and June) was 0.1 percentage point lower than in April.

For this year, the July CF expects German economic growth to reach 3.4%, slowing to 1.9% in 2012. The forecast for this year was thus increased by 0.7 percentage point compared to the April CF. The Bundesbank is slightly more pessimistic in its June forecast, expecting growth of 3.1% in 2011 and 1.8% in 2012. The OECD's May forecast expects growth to reach 3.1% this year and 2.7% the next. Following an unexpected slight increase in June, the Ifo business climate index fell again in July. The ZEW indicator of economic sentiment declined from 3.1 in May to -9 in June and -15.1 in July as a result of financial market uncertainty caused by the euro area debt crisis.

In 2011 Q1, the quarterly **GDP growth rate in Slovakia** edged up to 1% (see Chart III.7.3). Government consumption and net exports increased, while investment and household consumption declined. Annual economic growth also increased, by 0.2 percentage point to 3.6%. The contribution of domestic demand declined considerably, but this effect was offset by an improvement in net exports. The economic growth was reflected in a year-on-year rise in employment of 2.2% in Q1 and declines in the unemployment rate in May of 0.1 percentage point compared to April and 1.2 percentage points from a year earlier. Economic growth can be expected to slow in Q2, as growth in industrial production, construction output and retail turnover slowed in the first two months of this quarter. The June CF estimate for GDP growth is 3.4% for 2011 as a whole, followed by a rise of 0.6 percentage point next year.

CHART III.7.2

GDP AND INFLATION IN GERMANY

Record annual GDP growth of 4.9% in 2011 Q1 was accompanied by increased inflation, which stayed at the May level of 2.3% in June

(annual percentage changes; source: Datastream)

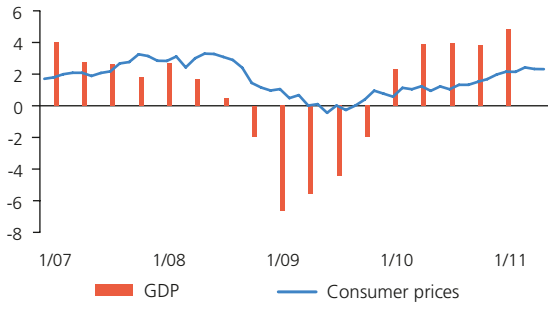
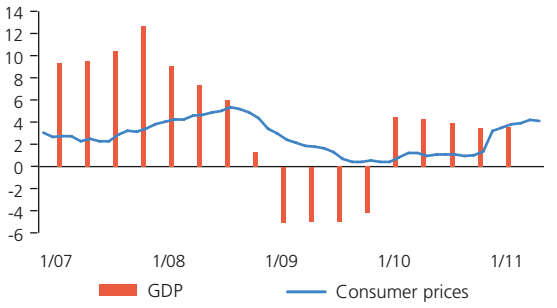


CHART III.7.3

GDP AND INFLATION IN SLOVAKIA

GDP growth accelerated to 3.6% in 2011 Q1, inflation continued rising in Q2

(annual percentage changes; source: Datastream)



48 Adjusted for calendar effects. Without this adjustment, annual growth reached a record 5.2%.

In June, **annual inflation in Slovakia** edged down by 0.1 percentage point to 4.1%. However, it remains 1.4% percentage point above the euro area average. The high inflation is due mainly to rapid growth in prices of energy (9.5%) and food (6.7%). According to the June CF, inflation can be expected to be slightly lower in the rest of the year and to fall by around 1 percentage point further to 2.9% in 2012.

BOX 3
The debt situation in Italy

Developments in the markets for Italian bonds and their derivatives, triggered among other things by a dispute between Silvio Berlusconi and finance minister Guilio Tremonti about an emergency budget, are raising concerns about the sustainability of Italy's debt. On Friday 8 July, the prices of Italian government bonds started to decrease, and the spread vis-à-vis the German bond yield gradually climbed to 3.3% (18 July) from 1.85% at the start of the month. The situation improved little even after the swift approval (in three days) of an austerity package intended to save EUR 48 billion by 2014. Bond yields started to fall only in the week starting 18 July, thanks to the prospect of a potential solution to the Greek debt crisis. The insolvency of the third-largest euro area economy and the third-largest bond issuer in the world would have a negative impact on the functioning of the global economy. This box discusses to what extent the reaction of investors was justified and to what extent the economic situation in Italy resembles that in Greece.

Italy is the second most indebted country in Europe behind Greece in relative terms, with debt of almost 120% of GDP (see Chart 1). Its debt of EUR 1.8 billion even makes it the most indebted country in Europe and represents roughly one-quarter of government debt in the euro area. Currently, Italy has no problems repaying its debt. Its long-term debt rating is A+ from S&P and AA2 from Moody's, with a negative outlook in both cases. Historically, Italy has been able to reduce its debt both by increasing taxes and by reducing expenditures, and primarily thanks to EMU entry. Its budget had a primary surplus in the pre-crisis years (see Chart 1) and returned there in 2011 Q1. Households have a high saving rate and almost 60% of bonds are held by residents. All five Italian banks tested passed the EBA[49] stress tests.

Despite all these facts, future developments in Italy are raising concerns among investors. The economy is export-oriented with low domestic demand, a feature it shares with Germany. Unlike Germany, however, its exports are still oriented towards the "old",

CHART 1 (BOX)

ITALY'S PUBLIC FINANCE

Government debt stands at 120% of GDP, but Italy is capable of running primary budget surpluses
(% of GDP; source: ECB)

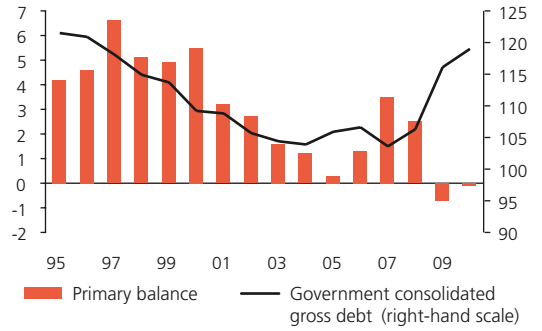
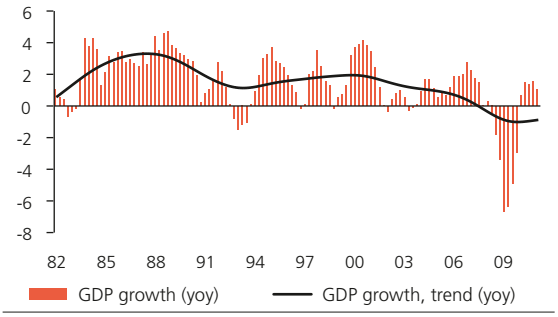


CHART 2 (BOX)

GDP GROWTH IN ITALY

Economic growth has long been sluggish
(annual percentage changes; source: ECB)



49 European Banking Authority

indebted and weakly growing EU countries. Consequently, the structure of its economy combined with its ageing population does not offer good growth prospects. Chart 2 shows that economic growth has long been very sluggish. Real GDP is currently even lower than in 2000.

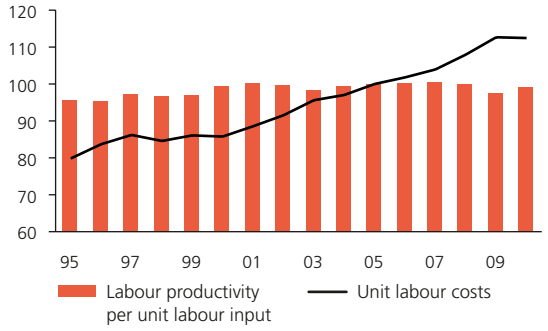
The solution to the current crisis is to convince the markets that Italy is willing to take debt-reducing measures. However, drastic cuts may slow economic growth, which has long been low. The key task is to enhance competitiveness, which was adversely affected in the past by faster growth in labour costs than in productivity (see Chart 3). Another task is to increase the efficiency of the state (the government redistributes 51% of annual GDP), the business environment and the judicial system. Tax collection efficiency is also important – it is estimated that the government loses hundreds of billions of euros every year due to tax evasion.

Italy still has the time needed for the reforms to start working; the mean maturity of its debt was around seven years at the end of June (although 11% of the debt is supposed to be repaid this year). However, the weak government and the possible deferral of reforms due to the 2013 election are risks. The probability of further ECB rate hikes is also an unfavourable factor.

CHART 3 (BOX)

COSTS AND PRODUCTIVITY OF LABOUR

Labour costs have outpaced labour productivity in recent years
(index of unit labour productivity and unit labour costs; year 2005 = 100; source: OECD)



III.7.2 The United States

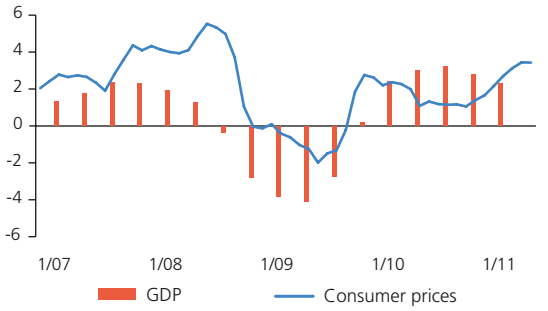
For the second consecutive quarter, annual **GDP growth in the United States** slowed slightly from 2.8% in 2010 Q4 to 2.3% in 2011 Q1 (see Chart III.7.4). The pace of growth also slowed in quarter-on-quarter terms, by 0.3 percentage point to 0.5%. Household consumption maintained the previous quarter's growth rate of 2.7%, while growth in private investment, exports and imports slowed. Government consumption and investment were flat at the previous year's level. The leading indicators for Q2 are not very optimistic either. Annual industrial production growth has gradually slowed over the last twelve months, from 7.7% to 3.4% in June 2011. Industrial production rose by 3.8% for Q2 as a whole, down by 1.6 percentage points from the previous quarter. Overall capacity utilisation in industry has been flat around 76.8% so far in 2011, and the goods and services trade deficit reached USD 234.6 billion in the first five months of 2011, a deterioration of USD 31.4 billion compared to a year earlier.

Following a previous decline, the unemployment rate has been rising slightly again since April, reaching 9.2% in June. However, retail sales have maintained solid annual growth of around 7.8% since September 2010. Sales of new houses also recorded a year-on-year increase in May following previous declines. However, the situation on the labour market and the property market is improving only very slowly overall. The monitored institutions expect GDP growth of between 2.5%

CHART III.7.4

GDP AND INFLATION IN THE USA

Annual GDP growth in the USA slowed to 2.3% in 2011 Q1, while inflation picked up to 3.3% in Q2
(annual percentage changes; source: Datastream)



and 2.8% in 2011. This represents a slight decrease compared to 2010, when economic growth reached 2.9%. The overall outlook for 2011 H2 improved not only according to the PMI, but also according to the Leading Economic Index (Conference Board). However, consumer confidence declined.

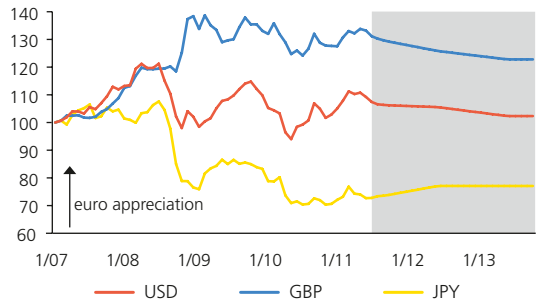
Annual consumer price inflation has been rising steadily since the end of 2010 and reached 3.4% in June. Headline inflation was significantly affected by high prices of oil and other commodities, as the inflation rate adjusted for food and energy prices was only 1.6% in June. Industrial producer price inflation has also accelerated in 2011, reaching 7.0% year on year in May and June. The second round of quantitative easing, during which the Fed had pumped additional liquidity of USD 600 billion into the economy while maintaining key interest rates at a record low level (0–0.25%), ended at the end of June. The July CF expects key rates to remain at this level at least until the end of June 2012. However, if the inflation rate remains elevated for an extended period of time, the Fed is ready to increase interest rates rapidly. Three-month and one-year money market interest rates were flat at 0.25% and 0.73% respectively in June and the first half of July. Ten-year government bond yields rose at the end of June but fell back during July to around 2.9%. According to the July CF, consumer price inflation should accelerate from 1.7% to 3.1% in 2011, but the other monitored institutions expect lower price growth. The ten-year government bond yield should increase to 4.1% at the one-year horizon according to CF.

The **federal government deficit** was USD 601.6 billion for the first six months of 2011, a year-on-year decrease of USD 14.4 billion. The administration and Congress are supposed to agree on an increase in the borrowing limit for the current administration by early August, otherwise there is a risk that the USA will be unable to meet its obligations. The Republicans and the Democrats currently disagree on how to reduce the federal budget deficit going forward (in 2010 the federal deficit reached 8.7% of GDP).

CHART III.7.5

EURO EXCHANGE RATE AGAINST MAJOR CURRENCIES

The euro appreciated against major currencies in 2011 Q2
(January 2007 = 100; source: Datastream, outlook from CF)



III.7.3 The exchange rate of the euro against the dollar and other major currencies

In 2011 Q2, the exchange rate of the euro appreciated on average against the main world currencies, especially the US dollar (see Chart III.7.5). However, the appreciation was visible mainly during April in connection with efforts to deal with the crisis in overindebted euro area countries. The euro was also supported by a rising interest rate differential, as the ECB tightened its monetary policy in April and July. On the other hand, mixed signals regarding the US economic recovery and the still weak of US public finances acted against the dollar. In addition, the easy monetary policy (and the Fed's unwillingness to change it) does not support the dollar.

In the first half of July 2011, however, the euro weakened from USD 1.45 to 1.42 as upward pressure on long-term Italian bond rates emerged in tandem with concerns about the debt crisis possibly spreading to Italy and other countries. However, after the Fed's announcement to further support the fragile recovery (thereby fuelling speculation about a further round of quantitative easing), and following the euro area summit, the euro strengthened again and foreign exchange market volatility (as measured by option prices) increased significantly, especially for the dollar-euro currency pair.

The **July CF** continues to expect the dollar to appreciate gradually against the euro, but the curve has shifted towards a considerably weaker dollar over the entire horizon compared to the April forecast. At the two-year horizon the exchange rate should stand around USD 1.36 to the euro. The euro should weaken similarly against the pound sterling, but is expected to strengthen against the Japanese yen.

III.7.4 Prices of oil and other commodities

Following a sharp fall from this year's highs in early May (largely in response to the rapid appreciation of the US dollar), the **price of Brent oil** stabilised around a weak upward trend. However, a further steep decline from USD 120 to USD 105 a barrel occurred in the second half of June (see Chart III.7.6). This drop was initially due mainly to concerns about a slowdown of the global economy and to the statement by Saudi Arabia that it would unilaterally increase oil supplies. The fall in oil prices subsequently accelerated when the IEA announced it would release part of its strategic reserves onto the market. However, market sentiment improved at the end of June and the Brent oil price responded to a depreciating dollar by rising quickly. This trend continued into the first half of July, despite a rapidly appreciating dollar. As a result, the price of Brent oil was back above USD 115 a barrel by mid-July.

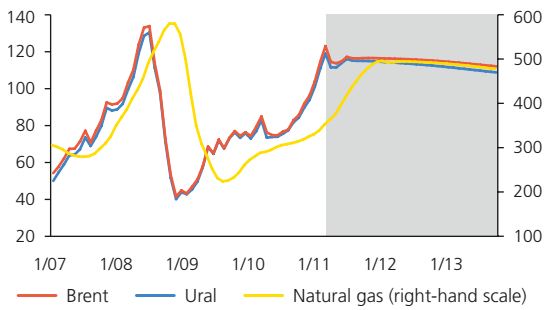
Demand for oil remains high in countries outside the OECD, while weak demand persists in advanced countries. Due to extraction shortfalls in Libya and elsewhere, supply is still lagging behind demand, although this deficit decreased somewhat compared to 2010 H2. The frequently criticised collective release of the strategic reserves of OECD countries did not bring about a lasting price decrease,[50] but it did succeed in reducing the slope of the falling curve of future prices. This is reducing investors' motivation to make speculative purchases. The falling price curve is consistent with a decrease in extracted oil stocks. Stocks of oil and oil products in the USA have been declining since October 2010 and have been fluctuating only slightly above

CHART III.7.6

OIL AND NATURAL GAS PRICES IN USD

According to market outlooks, the expected future price of Brent crude oil is falling only very slowly

(oil in USD/barrel; gas in USD/1000 m³ – right-hand scale; source: IMF, Bloomberg)



50 On 23 June 2011 the IEA announced it would release 60 million barrels (two million a day for 30 days) of oil and oil products from its strategic reserves. Goldman Sachs analysts expected that this step (a temporary increase in world supply of around 2.5%) would reduce the price by USD 10–12 a barrel. This effect occurred immediately, but the drop was very short-lived. The IEA says that demand for the released stocks is very high.

CHART III.7.7

OIL AND NATURAL GAS PRICES IN CZK

The expected evolution of oil and gas prices in koruna terms is broadly the same as that for dollar prices
(oil in CZK/litre; gas in CZK/m³; source: IMF, Bloomberg, CNB calculation)

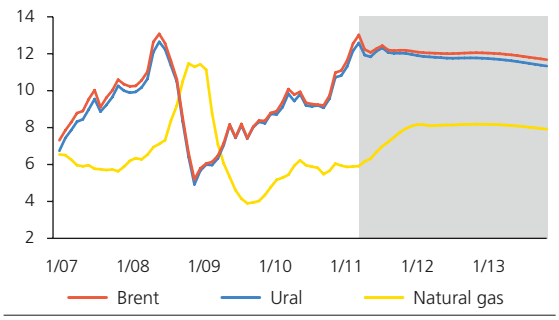
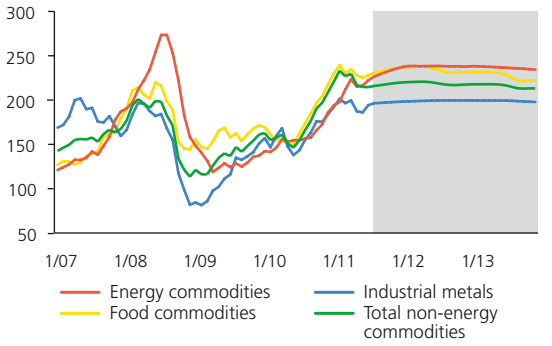


CHART III.7.8

COMMODITY PRICES

The non-energy commodity price indices declined in Q2, whereas prices of energy commodities rose compared to Q1
(year 2005 = 100; source: Bloomberg)



Note: The structure of the non-energy commodity indices corresponds to the composition of the Economist's commodity indices; the energy commodity index consists of Brent crude oil (0.4), coal (0.4) and natural gas (0.2).

their five-year average since April 2011. In Europe stocks have been below average since September 2010 and decreased sharply further in February–April 2011.

In its July report, the International Energy Agency increased the **expected oil demand for this year** by 0.2 million barrels to 89.5 million barrels a day, up by 1.2 million barrels compared to 2010. In 2012, consumption should rise by another 1.5 million barrels a day. The OPEC forecast for both this and next year is lower, expecting growth of about 1.3 million barrels to 89.5 million barrels a day in 2012.

Market **outlooks based on Brent oil futures** were little changed from the previous forecast. The current price is roughly 3% lower, but the slope of the price curve decreased and the expected price at the end of 2013 is, by contrast, 3% higher (USD 112 a barrel). This is in line with the expectations of most commercial analysts. By contrast, the July CF expects an increase in the price of WTI oil from around USD 95 a barrel to USD 102.5 a barrel at the one-year horizon, i.e. a narrowing of the difference between Brent and WTI oil prices. This time the expected evolution of oil prices in koruna terms is broadly the same as that for dollar prices (see Chart III.7.7).

Following a temporary increase in April, the **non-energy commodity price index** continued to decline in May and June, owing chiefly to falling prices of food and non-metallic industrial commodities (see Chart III.7.8). Prices of food and especially industrial metals returned to an upward path in the first half of July. The new forecasts have moved slightly downwards in line with the current prices, but their evolution over time is virtually unchanged. Prices of food and industrial metals are expected to be broadly flat.

The developments within the **individual commodity categories** were mixed. For example, the price of wheat declined by 25% in June but its outlook is increasing, while the decline in the maize price was "only" 17% but should continue. By contrast, sugar prices grew strongly but the outlook is declining. Meat prices (both pork and beef) remain close to historical highs. The price of cotton fell sharply. The aluminium price decreased but the forecast remains rising; the copper price is showing the opposite pattern.

The **energy commodity price index** also decreased in May and June, but prices returned almost to their April level during the first half of July. The outlook for the index until mid-2012 remains rising owing to the expected evolution of prices of natural gas and coal.

PUBLICATION OF THE GRAPH OF RISKS TO THE INFLATION PROJECTION (GRIP)

At its May 2011 meeting the CNB Bank Board decided to begin publishing on the CNB website the Graph of Risks to the Inflation Projection (GRIP for short) along with a commentary. The GRIP will be published together with the minutes of monetary policy meetings at which no new forecast is made available. The GRIP was published for the first time after the Bank Board meeting held in June 2011.

The GRIP is a visual aid capturing the risks to the latest macroeconomic forecast by means of an assessment of the effect of new information on the outlook for headline inflation and interest rates. It has been used in the form based on the CNB's core prediction model (formerly the QPM, now "g3") since June 2004. The assessment of the risks to the latest forecast is conducted by means of simulations in the core prediction model, into which new pieces of information are entered. The model responses reveal deviations in the outlook for headline inflation and interest rates from the baseline scenario of the current forecast. The GRIP is one of the inputs to the Bank Board's decision-making between two forecasts and is a standard part of the "small" situation reports. Publication of the GRIP further enhances the predictability and credibility of CNB monetary policy.

The points shown on the GRIP depict the partial effects of individual sets of observations. These effects are assessed ceteris paribus, i.e. other things being equal. In the g3 model, the order of the simulations of new pieces of information (or sets thereof) is not important.

The GRIP is based on a two-dimensional coordinate system. On the horizontal axis, the distance from the intersection point shows the deviation of the simulation from the current headline inflation forecast at the beginning of the monetary policy horizon (t+4 quarters). The vertical axis indicates the effect of new information on the average deviation of interest rates (3M PRIBOR) at the horizon of t+1 to t+4 quarters, where t is the current quarter (the quarter of preparation of the "small" situation report). The effect on average interest rates is shown because smoothing is present in the monetary policy reaction function in the prediction model.

Preparation of the GRIP does not represent preparation of a full-fledged forecast, but rather involves the relatively mechanical incorporation of new information without significant expert adjustments. The risks assessed (new information available) can be divided into the following areas: initial state, external environment, inflation, exchange rate and interest rates.

The effect of new data on GDP, the structure of GDP and on wages in the business sector is reflected in the GRIP by a mechanical update of the initial state of the forecast. Revisions to time series rank among the potential reasons for changing the initial state. New data are incorporated into the GRIP simulation in such a way that the expert adjustments from the latest forecast and long-term trends are not usually reassessed. The "Initial state" point on the GRIP thus expresses the shift of the current forecast given more precise knowledge of the actual level and structure of GDP and wage growth.

The outlooks for foreign variables entering the forecast are taken mainly from Consensus Forecasts (CF) and market outlooks. The CF describes the outlook for effective GDP in the euro area (a proxy for external demand) and producer price growth in the effective euro area. The 3M EURIBOR outlook is updated on the basis of market observations. The "External environment" point on the GRIP indicates the direction of the shift in the latest forecast with knowledge of new data on the evolution of these foreign variables and the outlook for them.

When simulating the effect of new domestic inflation data, two new monthly inflation observations are usually available in the current quarter. As the prediction model works with quarterly data, inflation developments in the current quarter are calculated on the basis of the new data and the as yet unavailable data are replaced with the month-on-month rate according to the current forecast. In addition, updated outlooks for administered prices and indirect tax changes are entered into this simulation. The "Inflation" point thus indicates the shift of the current forecast using a revised version of the short-term inflation prediction.

New information on the evolution of the domestic nominal monetary conditions can be described using the updated near-term exchange rate prediction for the first quarter of the current forecast and by taking into account the current evolution of domestic market interest rates. This information is incorporated into the GRIP using the change in the fixation of the near-term exchange rate prediction and the fixation of domestic interest rates. The updated near-term prediction for the exchange rate and interest rates is calculated as the average of the daily observations for the entire quarter, with the known values observed during the quarter being complemented with the most recent daily observation for the rest of the quarter. The "Exchange rate" point on the GRIP thus illustrates the shift of the forecast in response to the new near-term prediction for the CZK/EUR exchange rate in the current quarter. The simulation for the "Interest rates" point describes the effect of potential non-fulfilment of the current forecast stemming from the existing deviation of average 3M PRIBOR market rates from the forecast assumptions.

By comparison with the full-fledged forecasting exercise, the effects of the risks shown (the individual points of the GRIP) are merely rough quantifications of the effect of new information and are surrounded by varying degrees of uncertainty. In addition, the GRIP does not take into account the full set of new information, but only the part that can be assessed in a relatively mechanical way using the core prediction model. Obtaining the final balance of risks to the forecast by summing up the individual points on the GRIP is therefore possible, but only with the aforementioned knowledge. The creator of the graph – the CNB Monetary and Statistics Department – therefore does not perform vector summation of the points in the GRIP. The resulting assessment of the overall balance of risks to the current forecast from the perspective of the Monetary and Statistics Department, which also takes into account information outside the GRIP, is given verbally in an accompanying text that is also published.

ABBREVIATIONS

EBA	European Banking Autority
CF	Consensus Forecasts
CNB	Czech National Bank
COSMC	Czech Office for Surveying, Mapping and Cadastre
CPI	consumer price index
CZK	Czech koruna
CZSO	Czech Statistical Office
EBA	European Banking Authority
ECB	European Central Bank
EIB	European Investment Bank
EMU	Economic and Monetary Union
ERM II	Exchange Rate Mechanism
ESCB	European System of Central Banks
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
Fed	US central bank
FMIE	Financial Market Inflation Expectations
FRA	forward rate agreement
GBP	pound sterling
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
HP filter	Hodrick-Prescott filter
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
IRI	Institute for Regional Information
IRS	interest rate swap
JPY	Japanese yen
LFS	Labour Force Survey
LIBOR	London Interbank Offered Rate
M1, M2	monetary aggregates
MLSA	Ministry of Labour and Social Affairs
OECD	Organisation for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
PMI	Purchasing Managers Index
PPI	producer price index
PRIBOR	Prague Interbank Offered Rate
(1W, 1M, 1Y)	(one-week, one-month, one-year)
repo rate	repurchase agreement rate
USD	US dollar
VAT	value added tax
WTI	West Texas Intermediate
ZEW	Centre for European Economic Research

Price indices used for the evaluation of inflation	(Box)	April 1998
Analysis of the money supply trend	(Box)	July 1999
Revisions to the statistical data on GDP	(Box)	July 1999
Measuring the inflation expectations of the financial market	(Annex)	October 1999
Oil prices and their impact on inflation	(Box)	July 2000
The effect of oil price changes on the balance of trade	(Box)	October 2000
The methodological framework for evaluating wage developments relative to inflation	(Box)	January 2001
The CNB's monetary policy rates	(Box)	April 2001
The setting of the inflation target for 2002–2005	(Annex)	April 2001
Harmonisation of the reserve requirements with European Central Bank standards	(Annex)	April 2001
Escape clauses pertaining to the new inflation target	(Annex)	July 2001
Changes in economic growth forecasts in the eurozone, Germany, the USA and Japan for 2001 and 2002	(Annex)	October 2001
Strategy for dealing with the exchange rate effects of capital inflows from privatisation of state property and from other foreign exchange revenues of the state	(Annex)	January 2002
Assessment of fulfilment of the CNB's net inflation target in December 2001	(Annex)	January 2002
Prediction of external variables	(Box)	April 2002
Estimated capital flows in 2002 and 2003 and their effect on the exchange rate	(Box)	April 2002
The Balassa–Samuelson effect	(Annex)	April 2002
The CNB changes its type of inflation forecast	(Box)	July 2002
An assessment of the effect of the August floods on Czech economic growth	(Box)	October 2002
The financial conditions of the Czech Republic's accession to the EU	(Box)	January 2003
Implications of the unexpectedly slow growth in regulated prices	(Box)	January 2003
The Czech Republic and the euro – Draft accession strategy	(Annex)	January 2003
Fiscal consolidation and its effect on economic growth	(Annex)	January 2003
Price deregulation in the period of transformation of the Czech economy of the Czech economy	(Box)	April 2003
Revisions to the March 2003 GDP figures	(Box)	April 2003
Credit to households	(Box)	July 2003
The withdrawal of 10- and 20-heller coins and its possible impact on prices	(Box)	July 2003
Indirect taxes and the inflation forecast	(Box)	July 2003
Changes to the methodology for surveying inflation expectations	(Box)	July 2003
ERM II and the exchange-rate convergence criterion	(Annex)	July 2003
Use of the output gap indicator at the CNB	(Box)	October 2003
Monetary policy in the CNB's macroeconomic forecast	(Box)	October 2003
The Czech Republic's euro-area accession strategy	(Annex)	October 2003
Short-run food price prediction methods	(Box)	January 2004
Monetary conditions	(Box)	April 2004
The CNB's inflation target from January 2006	(Annex)	April 2004
The CNB has fully integrated into the European System of Central Banks	(Annex)	July 2004
The exchange rate in the CNB's forecasting system	(Box)	July 2004
Indicators of households' financial situation	(Box)	October 2004
GDP data revision	(Box)	October 2004
Petrol prices and their impact on inflation in the Czech Republic	(Box)	October 2004
Assessment of the fulfilment of the Maastricht convergence criteria and the degree of alignment of the Czech economy with the euro area	(Annex)	January 2005
The structure of lending	(Box)	January 2005
Uncertainty regarding the evolution of public finances in 2005 and 2006	(Box)	January 2005
Inflation expectations in the CNB's modelling system	(Box)	January 2005
The transmission of external cost shocks into domestic prices in 2003–2005	(Box)	April 2005
The effect of the exchange rate on inflation	(Box)	April 2005
The Czech National Bank's position on the revision of the Stability and Growth Pact	(Annex)	April 2005
The effect of EU accession on prices and inflation expectations	(Box)	July 2005
Foreign trade in the first year after the Czech Republic's accession to the EU	(Box)	July 2005
Financial flows between the Czech Republic and the European Union	(Box)	July 2005
The effect of world energy prices on consumer prices	(Box)	October 2005
The performance of large non-financial corporations 1998–2004	(Box)	October 2005

Potential output in the CNB's forecasting system	(Box)	October 2005
Fiscal policy in the CNB's modelling system	(Box)	January 2006
Assessment of the fulfilment of the Maastricht Convergence criteria and the degree of economic alignment of the Czech Republic with the euro area	(Annex)	January 2006
Implications of household debt for consumption	(Box)	April 2006
Effective indicators of external developments	(Box)	July 2006
Oil and petrol prices in the CNB forecast	(Box)	July 2006
The role of monetary aggregates in the CNB's forecasts	(Box)	October 2006
Assessment of the fulfilment of the Maastricht convergence criteria and the degree of economic alignment of the Czech Republic with the euro area	(Annex)	October 2006
Employment of foreign nationals	(Box)	January 2007
The extension of the core prediction model to include the effect of real wages	(Box)	January 2007
The new consumer basket as from January 2007	(Box)	April 2007
Financing of non-financial corporations	(Box)	April 2007
The application of escape clauses to indirect tax changes	(Box)	April 2007
The CNB's new inflation target and changes in monetary policy communication	(Annex)	April 2007
The relationship between interest rates and the structure of new loans for house purchase	(Box)	July 2007
The CNB's new approach to the monitoring of inflation expectations of households in the Czech Republic	(Box)	July 2007
The causes, course and impacts of the current turmoil in global financial markets	(Box)	October 2007
Household debt by income group in 2006 and its impact on consumption	(Box)	October 2007
The causes of the sharp growth in world prices of cereals	(Box)	October 2007
Fiscal measures and their impact on the economy in 2008	(Box)	October 2007
The Czech Republic's updated euro-area accession strategy	(Annex)	October 2007
Changes in the conduct and communication of monetary policy	(Box)	I/2008
Publication of the forecast-consistent interest rate path and the use of fan charts	(Box)	I/2008
The quarterly financial accounts statistics – New statistics at the CNB	(Box)	I/2008
Changes to the CNB's core prediction model	(Box)	I/2008
Assessment of the fulfilment of the Maastricht convergence criteria and the degree of economic alignment of the Czech Republic with the euro area	(Annex)	I/2008
The new g3 structural model	(Box)	II/2008
Joint agreement between the Czech Government and the Czech National Bank and Updated strategy for dealing with the exchange rate effects of foreign exchange revenues of the state	(Annex)	II/2008
The sectoral and production structure of the g3 model	(Box)	III/2008
The withdrawal of 50-heller coins and its possible impact on prices	(Box)	III/2008
The impact of the still fast growing world prices of energy-producing materials on inflation in the Czech Republic	(Box)	IV/2008
Pricing in the g3 model	(Box)	IV/2008
Publication of a numerical exchange rate forecast	(Box)	I/2009
The exchange rate path in the g3 model	(Box)	I/2009
Assessment of the fulfilment of the Maastricht convergence criteria and the degree of economic alignment of the Czech Republic with the euro area	(Annex)	I/2009
Transmission of financial market interest rates to client interest rates	(Box)	II/2009
Proxying external developments after Slovakia's entry to the euro area	(Box)	II/2009
Monetary policy in the g3 model	(Box)	II/2009
Analysts' forecasts in financial market inflation expectations questionnaires: A look back at the past ten years	(Box)	II/2009
Unconventional monetary policy of selected central banks	(Box)	III/2009
Financing and financial investment of corporations and households	(Box)	III/2009
The impact of the recession on public finances in the Czech Republic	(Box)	III/2009
Investment in housing during the business cycle	(Box)	IV/2009
The effect of regulated prices and other administrative measures on inflation in 2008–2009 and their expected future development	(Box)	IV/2009
Exit strategies from unconventional monetary policy instruments planned by selected central banks	(Box)	I/2010
Uncertainties surrounding the calculation of potential output	(Box)	I/2010
Revision of the quarterly financial accounts	(Box)	I/2010
Differences in client interest rates in the Czech Republic and the euro area	(Box)	I/2010
Assessment of the fulfilment of the Maastricht convergence criteria and the degree of economic alignment of the Czech Republic with the euro area	(Annex)	I/2010

Assessment of the accuracy of the outlooks for effective GDP and CPI in the euro area – comparison of forecasts	(Box)	II/2010
Revisions to the expenditure components of GDP	(Box)	II/2010
Business and consumer sentiment in the current phase of the economic cycle according to CZSO and CNB indicators	(Box)	II/2010
The January 2010 consumer basket update	(Box)	II/2010
The effect of new photovoltaic power station installations on economic activity	(Box)	IV/2010
An analysis of household consumption	(Box)	IV/2010
Property-market-related loans in the current phase of the business cycle	(Box)	IV/2010
Forecasts for general government debt and debt service, and sensitivity analyses	(Box)	I/2011
Price-setting behaviour in the Czech Republic (micro data evidence) in relation to the pricing mechanism in the g3 forecasting model	(Box)	II/2011
The relationship between the Brent crude oil price and the dollar exchange rate	(Box)	II/2011
The impacts of changes to VAT rates on the budget and inflation and their components in 2012 and 2013	(Box)	III/2011
Labour market developments during the economic recession and the subsequent recovery	(Box)	III/2011
The debt situation in Italy	(Box)	III/2011
Publication of the Graph of Risks to the Inflation Projection (GRIP)	(Annex)	III/2011

This glossary explains some terms frequently used in the Inflation Report. A more detailed glossary can be found on the CNB website (www.cnb.cz/en/general/glossary/index.html).

Adjusted inflation excluding fuels: The increase in prices of non-food items of the consumer basket excluding items with administered prices, indirect tax changes and fuels.

Administered prices: A sub-category of the consumer basket consisting of items with price ceilings (set at either central or local level), prices regulated on a cost-plus basis (items whose prices may only reflect economically justified costs and a reasonable profit) and administratively fixed fees. The selection of these items is based on the Price Bulletin of the Czech Ministry of Finance.

Balance of payments: Records economic transactions with other countries (i.e. between residents and non-residents) over a particular period. The basic structure of the balance of payments includes the current account, the capital and financial accounts and the change in CNB international reserves.

Consensus Forecasts: A regular monthly publication issued by Consensus Economics bringing together the forecasts of hundreds of prominent economists and analytical teams regarding future world developments. The CNB uses these predictions in its macroeconomic forecast when forming assumptions regarding the future development of the external environment.

Covered bond: A bond collateralised (backed) by long-term assets, usually mortgage loans or public sector loans. The issuers are mostly banks and the issuance of covered bonds is subject to strict legislative rules. Compared to standard bonds, this type of bond has lower credit risk thanks to higher coverage (known as dual recourse), which gives the covered bond holder a preferential claim on the issuer's receivables underlying the mortgage loans or public sector loans and likewise a claim on the issuer. If the issuer defaults, the holder therefore has a preferential right to the assets backing the covered bond.

Current account: Records exports and imports of goods and services, income from capital, investment and labour and unrequited transfers.

Cyclical component of the general government balance: Expresses the effect of the business cycle on the general government fiscal balance.

Discount rate: A monetary policy rate which as a rule represents the floor for short-term money market interest rates. The CNB applies it to the excess liquidity which banks deposit with the CNB overnight under the deposit facility.

Disinflation: A decline in inflation.

Effective euro area indicators: Proxy for the effect of economic activity (effective GDP) and inflation (effective producer prices and consumer prices) in the euro area on the Czech economy. The weights used in the calculation are the shares of the individual euro area economies in the foreign trade turnover of the Czech Republic.

Effective exchange rate: Shows the appreciation (index > 100) or depreciation (index < 100) of the national currency against a basket of selected currencies for a certain time period relative to a base period. The weights applied in the basket are the shares of major trading partners in foreign trade turnover.

Escape clause: Excuses the central bank from its obligation to hit the inflation target. In the flexible inflation targeting regime, it is applied in the event of large shock changes in exogenous factors (particularly supply-side shocks, e.g. indirect tax changes) that are completely or largely outside the purview of central bank monetary policy.

Euro area: The territory of all Member States of the European Union that have adopted the euro as a single currency pursuant to the Treaty Establishing the European Community.

Financial account: Records transactions connected with the creation, liquidation and change in ownership of the financial assets and liabilities of the government, the banking and corporate sectors and other entities vis-à-vis the rest of the world. It consist of direct investment, portfolio investment, other investment and financial derivatives transactions.

Fiscal position: The annual change in the general government structural balance (in percentage points). A positive figure indicates fiscal restriction and a negative figure indicates fiscal expansion.

Food prices: In CNB documents, the term food prices refers to the consolidated category of prices of food and non-alcoholic beverages and prices of alcoholic beverages and tobacco.

General government balance: Revenues minus expenditures of the general government sector. A negative government balance is called a general government deficit and a positive government balance is called a general government surplus.

General government primary balance: The general government balance net of interest payments (i.e. debt service).

General government structural balance: The cyclically adjusted general government balance adjusted for extraordinary one-off operations. It captures the structural configuration of fiscal policy.

Goods and services balance: The sum of the trade balance and the services balance.

Gross Domestic Product (GDP): The key indicator of economic development. It represents the sum of the value added by all economic sectors. In terms of use it consists of expenditure on final consumption (consumption of households, the government and non-profit institutions), gross capital formation (fixed investment and changes in inventories) and foreign trade (net exports of goods and services).

Inflation: Commonly, inflation is considered to be recurring growth of most prices in the economy. It means a decrease in the real value (i.e. purchasing power) of a given currency relative to the goods and services which consumers buy – if there is inflation in the economy, consumers need ever more currency units of the given country to buy the same basket of goods and services. In practice, inflation is measured by the increment of the consumer price index.

Inflation pressures: Proxied in the CNB's modelling system by the real marginal cost gap in the consumer goods sector. Total inflation pressures are divided into domestic inflation pressures (in the intermediate goods sector) and imported inflation pressures (in the import price sector).

Inflation rate: The increase in the average (basic) consumer price index for the last 12 months relative to the average for the previous 12 months.

Inflation target: The level of consumer price inflation that the CNB endeavours to achieve, set publicly and well in advance.

Lombard rate: A monetary policy interest rate which provides a ceiling for short-term interest rates on the money market. The CNB applies it to the liquidity which it provides to banks overnight under the lending facility.

Monetary aggregates: Represent the amount of money in the economy covered in the monetary survey. According to the national definition, they are calculated from the monetary liabilities of resident monetary financial institutions to other resident sectors in the Czech Republic (households, non-financial corporations and financial institutions excluding the general government). Monetary aggregates differ according to the degree of liquidity of the individual components. The narrow monetary aggregate M1 comprises currency in circulation and overnight deposits. The broad monetary aggregate M2 comprises M1 plus deposits with agreed maturity, deposits redeemable at notice and repurchase agreements.

Monetary conditions: Represent the combined effect of interest rates (the interest rate component of the monetary conditions) and the exchange rate (the exchange rate component) on the economy. These are the key variables through which monetary policy can affect economic activity and, through it, inflation. Interest rates and the exchange rate do not necessarily affect the economy in the same direction.

Monetary policy horizon: The time horizon which monetary policy-makers focus on when making decisions and which takes into account the monetary policy transmission lag. This horizon is about 12–18 months ahead.

Monetary policy interest rates: Short-term interest rates associated with monetary policy-making. They comprise the two-week repo rate, the discount rate and the Lombard rate.

Monetary-policy relevant inflation: Inflation to which monetary policy reacts. It is defined as headline inflation adjusted for the first-round effects of changes to indirect taxes.

Money market: The part of the financial markets which is used to obtain short-term loans and where debt instruments maturing in less than one year are traded. T-bills are typical securities traded on this market. Within this market the CNB carries out its repo operations.

Net inflation: Consumer price inflation net of administered prices and adjusted for the first-round effects of changes to indirect taxes. Net inflation consists of food price inflation, fuel price inflation and adjusted inflation excluding fuels. Until the end of 2001, the CNB's inflation targets were set in terms of net inflation. Since 2002, the CNB has targeted headline inflation, using net inflation for analytical purposes only.

Nominal costs in the consumption sector: These comprise output prices in the intermediate goods sector and import sector, as final consumption goods are produced using inputs from these sectors. They also include "export-specific technology", which approximates the productivity differential between the tradables sector and the non-tradables sector and its price effect, known as an analogy to the Balassa-Samuelson effect.

Nominal costs in the intermediate goods sector: Co-determined by prices of production factors, i.e. labour costs and the price of capital. In addition to these components, they are determined by "labour-augmenting technology". This technology can be understood as a concept similar to total factor productivity, e.g. in the Cobb-Douglas production function.

Nominal unit labour costs: The labour costs needed to produce a unit of output. Nominal unit labour costs are calculated as the ratio of the nominal volume of wages and salaries to GDP at constant prices.

Price-to-income ratio: The ratio of the price of an apartment (68 m^2) to the sum of the annual wage in a given region over the last four quarters. Higher values of this indicator usually mean that apartments are overpriced.

Price-to-rent ratio: Indicator of sustainability of apartment prices, calculated as the ratio of the price of the apartment to the annual rent. The price-to-rent ratio is the inverse of the rent return. Higher values of this indicator usually mean that apartments are overpriced.

Producers' margins: The inverse of producers' real marginal costs in the relevant sector. Growth in producers' nominal costs without corresponding growth in the price of production causes a decline in the profit margin, i.e. an increase in real marginal costs. If prices in the sector were perfectly flexible, the price at any given moment would comprise a constant margin over marginal nominal costs. In the consumer sector, a gap in profit mark-ups represents a deviation from the long-term margin level.

Property transaction prices: Prices based on Ministry of Finance statistics from property transfer tax returns and published by the CZSO. These prices are the closest to actual market prices in terms of methodology, but are published with a time delay. Formerly also referred to as property transfer prices in CNB publications. See also Property asking prices.

Property asking prices: Property sale asking prices in estate agencies. Asking prices should be higher than transaction prices. Property asking prices in the Czech Republic are published, for example, by the CZSO and the Institute for Regional Information (IRI). Formerly also referred to as property supply prices in CNB publications. See also Property transaction prices.

Repo rate: The CNB's key monetary policy rate, paid on commercial banks' excess liquidity as withdrawn by the CNB in two-week repo tenders.

Technological growth: a situation where the volume of production is rising without any increase in the production factors of labour and capital. Technological growth thus generates either growth in the real volume of production in case of a constant price of production or a decline in the price of output relative to input prices if the real volume of production is constant.

Unemployment rate: The ratio of the number of unemployed persons to the total labour force. We distinguish between the general unemployment rate, as determined by the CZSO according to International Labour Organisation methodology, and the registered unemployment rate, as determined by the Ministry of Labour and Social Affairs.

KEY MACROECONOMIC INDICATORS

		years										
		2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
DEMAND AND SUPPLY												
Gross domestic product												
GDP	CZK bn, constant p., seas. adjusted	2,368.4	2,470.8	2,628.5	2,812.2	2,984.7	3,053.3	2,930.6	2,994.8	**3,058.7**	**3,125.3**	**3,245.0**
GDP	%, y-o-y, real terms, seas. adjusted	3.6	4.3	6.4	7.0	6.1	2.3	-4.0	2.2	**2.1**	**2.2**	**3.8**
Household consumption	%, y-o-y, real terms, seas. adjusted	5.9	2.8	2.6	5.2	4.9	3.4	-0.2	-0.1	**0.0**	**2.0**	**2.7**
Government consumption	%, y-o-y, real terms, seas. adjusted	7.1	-3.5	2.9	1.2	0.5	1.1	2.6	-0.1	**-1.2**	**0.7**	**1.5**
Gross capital formation	%, y-o-y, real terms, seas. adjusted	-1.4	8.4	-0.6	10.2	9.4	-3.2	-15.5	5.3	**2.8**	**5.2**	**4.0**
Exports of goods and services	%, y-o-y, real terms, seas. adjusted	7.2	20.3	11.8	16.2	15.0	5.7	-10.5	17.7	**15.3**	**9.6**	**10.6**
Imports of goods and services	%, y-o-y, real terms, seas. adjusted	8.0	17.5	5.2	14.7	14.2	4.3	-10.4	17.6	**14.0**	**10.3**	**9.8**
Net exports	CZK bn, constant p., seas. adjusted	-170.7	-152.5	-26.1	3.6	24.5	65.8	55.1	65.2	**120.3**	**102.8**	**147.3**
Coincidence indicators												
Industrial production	%, y-o-y, real terms	1.6	10.4	3.9	8.3	10.6	-1.8	-13.6	10.3	-	-	-
Construction output	%, y-o-y, real terms	9.3	8.8	5.2	6.0	7.1	0.0	-0.9	-7.1	-	-	-
Receipts in retail sales	%, y-o-y, real terms	7.2	3.8	8.1	10.8	10.0	2.7	-4.7	1.3	-	-	-
PRICES												
Main price indicators												
Inflation rate	%, end-of-period	0.1	2.8	1.9	2.5	2.8	6.3	1.0	1.5	-	-	
Consumer Price Index	%, y-o-y, average	0.1	2.8	1.9	2.5	2.8	6.4	1.1	1.5	**1.9**	**3.2**	**1.8**
Administered prices (17.15%)*	%, y-o-y, average	0.6	3.5	5.7	9.3	4.8	15.6	8.4	2.7	**4.7**	**6.4**	**3.3**
Net inflation (82.85%)*	%, y-o-y, average	0.0	1.8	0.7	0.4	1.7	2.4	-0.9	0.0	**1.3**	**1.5**	**1.8**
Food prices (including alcoholic beverages and tobacco) (25.63%)*	%, y-o-y, average	-1.2	2.8	0.0	-0.2	3.8	3.0	-0.9	0.9	**3.7**	**1.9**	**1.9**
Adjusted inflation excluding fuels (53.52%)*	%, y-o-y, average	0.6	1.2	0.7	0.6	0.7	2.0	0.0	-1.2	**-0.6**	**1.0**	**1.7**
Fuel prices (3.70%)*	%, y-o-y, average	1.5	4.5	7.8	3.7	-0.3	4.3	-11.1	11.8	**10.6**	**4.6**	**2.0**
Monetary-policy inflation (excluding tax changes)	%, y-o-y, average	0.1	2.0	1.8	2.3	2.2	4.4	0.9	0.4	**1.9**	**2.1**	**2.1**
GDP deflator	%, y-o-y, seas. adjusted	0.9	4.5	-0.3	1.1	3.4	1.8	2.5	-1.2	**0.2**	**2.4**	**1.0**
Partial price indicators												
Producer prices	%, y-o-y, average	-0.3	5.6	3.1	1.4	4.1	4.5	-3.1	1.2	**5.6**	**2.7**	**2.1**
Agricultural prices	%, y-o-y, average	-4.5	9.6	-9.8	1.3	16.4	10.8	-24.3	5.6	**19.7**	**-7.0**	-
Construction work prices	%, y-o-y, average	2.2	3.7	3.0	2.9	3.9	4.5	1.2	-0.2	-	-	-
Brent crude oil	%, y-o-y, average	15.5	32.7	42.3	20.0	11.1	34.5	-36.7	28.7	**42.7**	**2.0**	**-2.1**
LABOUR MARKET												
Average monthly wages in monitored organisations	%, y-o-y, nominal terms	5.8	6.3	5.0	6.6	7.2	7.8	3.3	1.9	**2.3**	**4.1**	**4.5**
Average monthly wages in monitored organisations	%, y-o-y, real terms	5.7	3.4	3.0	4.0	4.3	1.4	2.3	0.4	**0.3**	**0.9**	**2.6**
Number of employees	%, y-o-y	-2.0	-0.2	2.2	1.2	1.9	1.7	-2.1	-2.1	**-0.2**	**-0.1**	**0.6**
Nominal unit wage costs	%, y-o-y	2.3	1.8	0.6	1.0	3.0	6.1	4.3	-1.1	**0.0**	**1.9**	**1.3**
Nominal unit wage costs in industry	%, y-o-y	3.4	-4.5	-4.0	-5.6	0.9	0.3	4.4	-6.5	-	-	-
Aggregate labour productivity	%, y-o-y	3.6	4.1	5.2	4.8	3.4	1.2	-3.0	3.2	**2.1**	**2.0**	**3.0**
ILO general unemployment rate	%, average, age 15–64	7.8	8.4	8.0	7.2	5.4	4.4	6.7	7.4	**7.1**	**6.7**	**6.0**
Registered unemployment rate	%, average	-	10.0	9.5	8.6	7.0	5.8	8.3	9.3	**8.8**	**8.2**	**7.9**
PUBLIC FINANCE												
Public finance deficit (ESA95)	CZK bn, current p.	-170.0	-82.7	-106.6	-84.5	-23.2	-98.6	-211.7	-170.8	**-141.1**	**-117.8**	**-115.3**
Public finance deficit / GDP**	%, nominal terms	-6.6	-2.9	-3.6	-2.6	-0.7	-2.7	-5.8	-4.7	**-3.8**	**-3.0**	**-2.8**
Public debt (ESA95)	CZK bn, current p.	768.3	847.8	885.4	948.3	1,023.8	1,104.9	1,279.6	1,413.5	**1,536.6**	**1,640.9**	**1,746.2**
Public debt / GDP**	%, nominal terms	29.8	30.1	29.7	29.4	29.0	30.0	35.3	38.5	**40.9**	**41.8**	**42.4**
EXTERNAL RELATIONS												
Current account												
Trade balance	CZK bn, current p.	-69.8	-13.4	59.4	65.1	120.6	102.7	81.2	54.0	**70.3**	**70.0**	**90.0**
Trade balance / GDP	%, nominal terms	-2.7	-0.5	2.0	2.0	3.4	2.8	2.2	1.5	**1.9**	**1.8**	**2.2**
Balance of services	CZK bn, current p.	13.2	16.6	36.9	45.1	49.7	65.9	65.2	66.1	**70.2**	**70.0**	**75.0**
Current account	CZK bn, current p.	-160.6	-147.5	-39.8	-77.2	-113.1	-22.9	-114.8	-139.2	**-139.2**	**-160.0**	**-155.0**
Current account / GDP	%, nominal terms	-6.2	-5.2	-1.3	-2.4	-3.2	-0.6	-3.2	-3.8	**-3.7**	**-4.1**	**-3.8**
Foreign direct investment												
Direct investment	CZK bn, current p.	53.5	101.8	279.6	90.3	179.1	36.3	37.7	97.0	**90.0**	**70.0**	**80.0**
Exchange rates												
CZK/USD	average	28.2	25.7	24.0	22.6	20.3	17.1	19.1	19.1	**17.1**	**16.4**	**16.5**
CZK/EUR	average	31.8	31.9	29.8	28.3	27.8	25.0	26.5	25.3	**24.1**	**23.1**	**22.5**
CZK/EUR	%, y-o-y, real (CPI euro area), avg.	-	0.0	-6.3	-5.1	-2.2	-12.5	5.6	-4.4	**-3.9**	**-5.5**	**-2.2**
CZK/EUR	%, y-o-y, real (PPI euro area), avg.	-	-3.1	-5.5	-1.3	-3.9	-8.8	4.3	-3.3	**-4.9**	**-4.7**	**-2.1**
Foreign trade prices												
Prices of exports of goods	%, y-o-y, average	0.8	3.6	-1.5	-1.2	1.4	-4.6	0.2	-1.0	**0.5**	**-0.9**	**0.2**
Prices of imports of goods	%, y-o-y, average	-0.3	1.6	-0.5	0.3	-1.0	-3.3	-3.5	2.0	**3.1**	**-0.9**	**-0.3**
MONEY AND INTEREST RATES												
M2	%, y-o-y, average	4.1	7.7	5.3	8.9	11.2	8.4	6.3	4.0	**3.3**	**5.5**	**4.1**
2W repo rate	%, end-of-period	2.00	2.50	2.00	2.50	3.50	2.25	1.00	0.75	-	-	-
3M PRIBOR	%, average	2.3	2.4	2.0	2.3	3.1	4.0	2.2	1.3	**1.2**	**1.7**	**2.5**

* in brackets are constant weights in actual consumer basket
** CNB calculation
– data are not available / forecasted / released
data in bold = CNB forecast

2009				2010				2011				2012				2013			
QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV
732.9	729.1	732.9	735.7	741.6	746.0	751.8	755.4	762.2	764.9	764.8	766.8	770.7	777.2	785.0	792.4	799.7	807.0	814.8	823.5
-3.6	-4.8	-4.4	-3.2	1.2	2.3	2.6	2.7	2.8	2.5	1.7	1.5	1.1	1.6	2.6	3.3	3.8	3.8	3.8	3.9
0.6	-0.1	-0.5	-0.9	-0.3	-0.3	-0.2	0.4	-0.5	-0.3	0.4	0.5	1.6	1.8	2.1	2.3	2.5	2.6	2.8	3.0
1.4	1.5	4.0	3.4	2.4	0.8	-0.8	-2.6	-1.3	-0.9	-2.6	-0.2	0.7	0.8	0.7	0.6	0.9	1.2	1.7	2.2
-6.1	-13.9	-14.8	-26.5	-7.2	2.8	17.1	10.5	3.4	6.2	-5.2	8.1	5.3	5.7	5.1	4.7	4.4	4.1	3.8	3.5
-19.0	-15.6	-8.0	2.4	18.2	19.4	16.4	16.8	15.6	16.6	14.8	14.3	8.8	8.1	10.1	11.2	11.5	10.9	10.2	9.9
-16.8	-14.5	-6.6	-2.4	15.4	18.5	19.2	17.4	13.2	15.8	10.9	15.9	10.8	9.5	10.4	10.7	10.6	10.1	9.5	9.2
-4.5	15.4	12.9	31.4	14.4	24.1	-5.5	32.2	35.9	34.4	27.2	22.8	21.4	23.6	27.3	30.4	33.2	35.2	37.7	41.2
-19.0	-19.0	-13.2	-2.1	6.9	11.5	10.7	11.8	12.7	-	-	-	-	-	-	-	-	-	-	-
-10.8	1.2	0.3	2.0	-22.7	-8.3	-2.8	-2.1	7.0	-	-	-	-	-	-	-	-	-	-	-
-4.3	-5.1	-5.4	-4.0	-0.2	2.1	1.6	1.5	4.8	-	-	-	-	-	-	-	-	-	-	-
5.0	3.7	2.1	1.0	0.7	0.6	1.1	1.5	1.7	1.9	-	-	-	-	-	-	-	-	-	-
2.2	1.4	0.2	0.4	0.7	1.1	1.9	2.1	1.7	1.8	2.0	2.3	3.4	3.2	3.1	3.2	1.8	1.8	1.8	1.9
11.2	9.8	7.5	5.2	0.8	2.3	3.6	3.8	4.3	4.0	5.1	5.5	7.6	7.1	5.5	5.3	3.3	3.4	3.2	3.3
-0.6	-0.6	-1.5	-0.7	-0.5	-0.3	0.3	0.4	1.0	1.2	1.4	1.6	1.5	1.3	1.5	1.6	1.7	1.8	1.9	2.0
0.0	0.4	-2.0	-2.2	-1.4	-0.2	2.3	2.8	3.2	4.1	4.0	3.6	2.9	1.9	1.4	1.6	1.8	1.9	2.0	2.1
0.6	0.1	-0.5	-0.2	-1.1	-1.2	-1.2	-1.3	-0.8	-0.8	-0.6	-0.3	0.3	0.8	1.3	1.5	1.6	1.7	1.8	1.8
-20.5	-15.7	-11.8	3.7	18.1	13.3	7.0	8.7	10.8	9.1	10.1	12.2	7.3	3.9	4.3	2.9	2.0	2.0	2.0	2.2
1.6	1.3	0.2	0.4	-0.3	0.1	0.8	1.0	1.6	1.7	2.0	2.3	2.3	2.1	1.9	2.0	2.1	2.1	2.0	2.1
3.7	3.3	2.1	1.2	-1.7	-1.1	-0.5	-1.4	-0.9	-0.3	0.8	1.1	2.7	2.5	2.0	2.4	1.4	0.9	0.7	0.9
-1.1	-3.6	-5.2	-2.6	-1.4	1.3	2.2	3.0	5.4	6.0	5.9	5.3	3.3	2.1	2.4	2.8	2.5	2.2	1.9	1.9
-27.8	-29.5	-23.8	-16.0	-5.6	-2.8	8.2	22.7	27.9	30.1	17.2	3.5	-8.0	-11.9	-6.9	-1.3	-	-	-	-
2.8	1.4	0.5	0.3	0.1	-0.2	-0.3	-0.3	-0.4	-0.4	-	-	-	-	-	-	-	-	-	-
-53.3	-51.5	-41.1	33.3	70.5	33.1	11.8	15.8	36.8	48.8	52.0	34.2	11.0	-0.8	-0.2	-1.0	-1.5	-1.9	-2.3	-2.6
2.2	2.5	4.1	4.6	2.6	2.7	1.9	0.6	2.1	2.0	2.2	2.8	3.6	4.1	4.3	4.4	4.6	4.6	4.5	4.5
0.1	1.1	4.0	4.2	1.9	1.5	0.0	-1.5	0.4	0.2	0.2	0.5	0.3	0.9	1.2	1.2	2.8	2.7	2.6	2.5
-0.9	-1.8	-2.8	-2.9	-3.2	-2.6	-1.3	-1.5	-0.1	0.0	-0.4	-0.2	-0.3	-0.2	0.0	0.3	0.5	0.6	0.6	0.7
4.9	4.5	4.8	3.0	-1.9	-1.2	0.1	-1.5	-0.7	-0.5	0.1	1.1	2.2	2.2	1.7	1.3	1.3	1.3	1.3	1.2
5.5	5.1	5.9	1.2	-5.6	-5.9	-8.2	-6.5	-5.5	-	-	-	-	-	-	-	-	-	-	-
-3.5	-4.2	-3.2	-1.0	3.3	3.9	2.4	2.9	2.4	2.3	2.0	1.8	1.2	1.6	2.4	2.8	3.0	3.0	3.0	3.1
5.8	6.4	7.4	7.3	8.2	7.2	7.2	7.0	7.3	6.7	7.2	7.0	7.1	6.5	6.7	6.4	6.4	5.7	6.0	5.8
7.5	8.1	8.7	9.0	10.1	9.1	8.8	9.1	9.8	8.7	8.4	8.3	9.0	8.0	7.9	7.9	8.6	7.7	7.6	7.7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.4	27.8	17.7	14.3	28.8	21.8	-2.8	6.1	31.3	19.0	5.0	15.0	27.0	18.0	7.0	18.0	31.0	22.0	13.0	24.0
2.4	3.0	1.9	1.6	3.3	2.3	-0.3	0.7	3.5	2.0	0.5	1.6	2.9	1.8	0.7	1.8	3.2	2.1	1.3	2.2
15.9	15.7	16.5	17.1	16.1	22.5	13.1	14.4	16.2	19.0	17.0	18.0	16.0	18.0	18.0	18.0	17.0	19.0	20.0	19.0
2.4	-53.8	-41.0	-22.5	6.4	-34.0	-90.7	-20.9	19.8	-54.0	-87.0	-18.0	3.0	-65.0	-85.0	-13.0	8.0	-70.0	-87.0	-6.0
0.3	-5.9	-4.5	-2.4	0.7	-3.6	-9.8	-2.2	2.2	-5.6	-9.2	-1.9	0.3	-6.5	-8.6	-1.3	0.8	-6.7	-8.4	-0.6
16.5	9.0	-17.1	29.3	30.6	19.5	70.2	-23.3	13.3	-	-	-	-	-	-	-	-	-	-	-
21.2	19.6	17.9	17.5	18.7	20.1	19.3	18.2	17.8	16.9	17.0	16.6	16.4	16.3	16.4	16.5	16.5	16.5	16.5	16.4
27.6	26.7	25.6	25.9	25.9	25.6	24.9	24.8	24.4	24.3	24.2	23.7	23.4	23.1	23.0	22.8	22.6	22.5	22.4	22.4
7.4	6.7	6.1	2.1	-6.1	-4.0	-3.1	-4.7	-5.2	-4.1	-2.1	-4.0	-5.3	-6.0	-6.0	-4.5	-2.6	-2.3	-2.0	-1.8
8.5	6.1	3.4	-0.6	-6.1	-3.3	-1.1	-2.8	-5.1	-5.0	-3.9	-5.7	-5.5	-5.3	-4.8	-3.2	-2.4	-2.2	-2.1	-1.7
5.2	1.3	-2.2	-3.5	-6.6	-0.3	2.2	1.0	0.8	-0.2	1.2	0.3	-0.8	-1.4	-1.2	-0.2	0.2	0.1	0.1	0.2
1.6	-2.9	-7.0	-5.7	-4.5	2.5	5.8	4.7	4.7	2.3	3.1	2.1	-0.5	-1.2	-1.4	-0.6	-0.3	-0.2	-0.4	-0.5
8.8	7.5	4.6	4.1	2.8	4.8	4.7	3.8	3.0	2.3	3.7	4.0	5.3	5.9	5.2	5.7	4.7	4.1	3.8	3.9
1.75	1.50	1.25	1.00	1.00	0.75	0.75	0.75	0.75	0.75	-	-	-	-	-	-	-	-	-	-
2.7	2.3	2.0	1.8	1.5	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.5	1.6	1.7	1.9	2.2	2.4	2.6	2.7

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