INFLATION REPORT / IV

2012

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 8 November 2012 and contains the information available as of 19 October 2012. 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 slightly above the upper boundary of the tolerance band around the CNB target in 2012 Q3
(annual percentage changes)

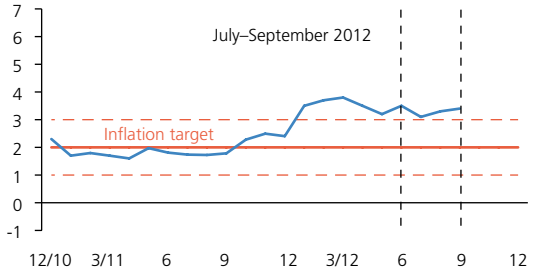


CHART I.2

HEADLINE INFLATION FORECAST

Headline inflation will be slightly above the CNB's target in 2013 owing to tax changes, and will fall below the target after this tax effect drops out
(annual percentage changes)

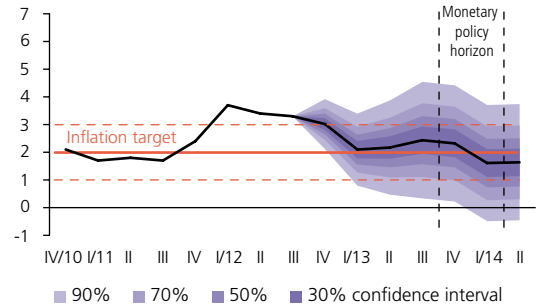
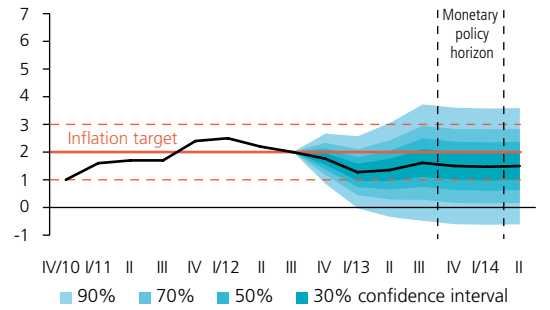


CHART I.3

MONETARY-POLICY RELEVANT INFLATION FORECAST

Monetary-policy relevant inflation will be in the lower half of the tolerance band around the target over the entire horizon, i.e. including at the monetary policy horizon
(annual percentage changes)



I. SUMMARY

Czech GDP declined year on year in 2012 Q2, with contributions from all components except net exports. Headline inflation is slightly above the upper boundary of the tolerance band and monetary-policy relevant inflation is at the CNB's target level. Tax changes, gradually subsiding growth in import prices and food prices are the sources of inflation. By contrast, the domestic economy is dampening inflation. GDP will decline this year owing to a marked slowdown in external demand and generally subdued domestic demand amid continuing fiscal consolidation. Real economic activity will recover slightly next year, and GDP growth will be more pronounced in 2014. Headline inflation will be slightly above the CNB's target in 2013 owing to tax changes, and will fall below the target after this tax effect drops out. Monetary-policy relevant inflation will be in the lower half of the tolerance band around the CNB's target until the end of 2014. The exchange rate of the koruna against the euro will be broadly stable as from the start of 2013. Consistent with the forecast is a decline in market interest rates, followed by a rise in rates in 2014.

The **Czech economy** contracted by 1% year on year in **2012 Q2**, with net exports being the only source of growth. The contributions of the other components were negative (household consumption and investment in inventories most of all). The forecast assumes a moderation of the year-on-year decline in GDP to -0.8% in 2012 Q3.

In 2012 Q3, headline inflation was slightly above the upper boundary of the tolerance band around the CNB's target (see Chart I.1) and monetary-policy relevant inflation was at the target level. Tax changes, gradually subsiding growth in import prices and food prices are the sources of inflation. Negative adjusted inflation excluding fuels still reflects the anti-inflationary effect of the domestic economy.

Economic growth in the effective euro area[1] slowed to 0.7% in 2012 Q2 and will decline until the beginning of next year. According to the assumptions of the forecast, growth is not expected to exceed 1% this year or the next. This positive figure reflects higher growth in the Czech Republic's major trading partners compared to the average for the euro area, which, as a whole, is recording a modest recession or stagnation. The low outlook for 3M EURIBOR rates takes into account expectations of sustained easy monetary policy by the ECB and a worsening macroeconomic environment in the euro area. This – together with the continuing debt crisis in the euro area – is reflected in the outlook for the euro-dollar exchange rate, which is expected to weaken from its current stronger value. Oil prices are expected to follow a slightly downward path from their elevated initial level.

1 The euro area effective indicators proxy for the effect of the euro area on the Czech economy. For more details, see the Glossary.

According to the forecast, headline inflation will stay slightly above the inflation target owing to an increase in both VAT rates by one percentage point. After this tax effect drops out in early 2014, headline inflation will fall slightly below the target (see Chart I.2). **Monetary-policy relevant inflation**, i.e. inflation adjusted for the first-round effects of changes to indirect taxes, will be in the lower half of the tolerance band around the CNB's target until the end of 2014, i.e. including at the monetary policy horizon (see Chart I.3). The overall upward pressures on prices in the consumer sector will be moderate in the quarters ahead. The inflationary effect of import prices will subside temporarily and the inflationary pressures from the domestic economy will remain approximately neutral or slightly anti-inflationary. No significant inflationary impulses are expected in the longer term, owing to subdued domestic demand and moderate wage growth. By contrast, import price growth will re-emerge due to a modest pick-up in foreign inflation combined with a stable exchange rate. The forecast assumes full pass-through of the tax increases to prices, whereas the second-round effects on inflation expectations and wages are not expected to be significant. Adjusted inflation excluding fuels will turn slightly positive in early 2013 and then increase steadily. By contrast, growth in administered prices and food and fuel prices will slow.

Consistent with the forecast is a decline in market **interest rates**, followed by a rise in rates in 2014 (see Chart I.4). Subdued growth in domestic economic activity and wages, reflecting a considerable slowdown in external demand and restrictive domestic fiscal policy, and a low interest rate level abroad are pushing interest rates downwards over the forecast horizon. At the start of the forecast horizon, these anti-inflationary factors are only partly offset by fading pressures from import prices and low productivity growth. Interest rates do not react to the temporary rise in headline inflation above the target caused by the first-round effects of the changes to indirect taxes. The forecast expects the **koruna-euro exchange rate** to be roughly stable as from the start of 2013 (see Chart I.5). Subdued external demand has a weakening effect on the exchange rate. A low outlook for foreign interest rates and a falling current account deficit will act in the opposite direction.

A marked slowdown in external demand and generally subdued domestic demand amid continuing fiscal consolidation will lead to a 0.9% decline in the **Czech economy** this year (see Chart I.6). Net exports will be the only component to make a positive contribution to economic growth; the other components will slow it. Next year, when a gradual external demand recovery and restrictive impacts of government measures will act in the opposite direction, Czech GDP will rise by 0.2%. The previous years' dampening effects will largely subside in 2014 and the economy will show almost 2% growth. On the **labour market**, the aforementioned economic developments will cause total employment to decrease somewhat and the unemployment rate to increase. The broadly flat wage growth in the business sector will reflect the contraction of the Czech economy this year and the

CHART I.4

INTEREST RATE FORECAST

Consistent with the forecast is a decline in market interest rates, followed by a rise in rates in 2014
(3M PRIBOR in %)

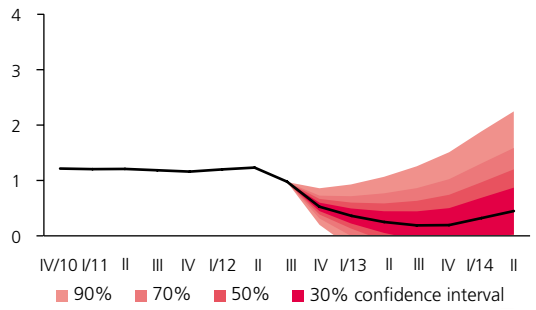


CHART I.5

EXCHANGE RATE FORECAST

The nominal exchange rate will be broadly stable
(CZK/EUR)

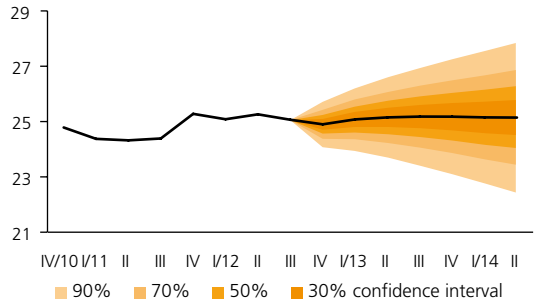
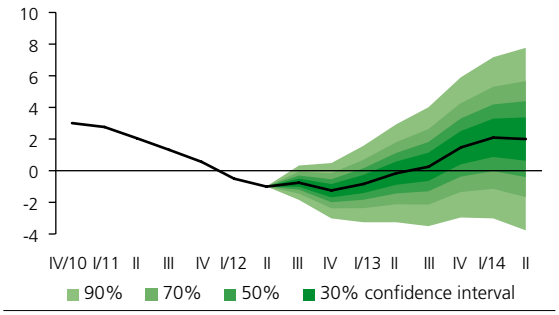


CHART I.6

GDP GROWTH FORECAST

GDP will decline this year and start to recover next year
(annual percentage changes; seasonally adjusted)



next. Wage growth will pick up slightly in 2014 as economic activity recovers more significantly. Wages in the non-business sector will rise at a low rate.

At its monetary policy meeting on 1 November 2012, the Bank Board decided **to lower the two-week repo rate** by 0.20 percentage point to 0.05%. At the same time it decided to lower the Lombard rate by 0.50 percentage point to 0.25% and the discount rate by 0.05 percentage point to 0.05%. Rates will be kept at this level over a longer horizon until inflation pressures increase significantly. The risks of the new forecast were assessed as being balanced overall; a high degree of uncertainty surrounds the shape of the fiscal consolidation measures for next year and their impacts on the economy. The CNB Bank Board also decided to suspend the programme of sales of part of the investment income on international reserves, as a conflict cannot be ruled out between such operations and monetary policy implementation at a time when monetary policy interest rates are at technical zero.

II. THE FORECAST, ITS CHANGES AND RISKS

II.1 EXTERNAL ASSUMPTIONS OF THE FORECAST

Economic growth in the effective euro area is expected to slow sharply this year. Economic activity abroad is expected to start recovering in the course of 2013 and continue strengthening in 2014. The economic downturn together with the fading effect of commodity price growth is reflected in an outlook for slowing producer price inflation. Consumer price inflation will also decrease. Expectations of continued easy monetary policy by the ECB in an environment of declining economic activity and continuing debt crisis in the euro area are reflected in a low outlook for 3M EURIBOR rates over the entire forecast horizon. The dollar-euro rate is expected to return to USD 1.25 following a temporary euro appreciation at the end of this year. The outlook for the Brent crude oil price foresees broad stagnation in the near future and then a gradual downward trend.

Growth in the **effective indicator of euro area GDP** is expected to slow to 0.7% this year (see Chart II.1.1).[2] It should gradually recover in the course of 2013, but from the full-year perspective the rate of growth will be similar to this year's (0.8%). The growth rate of external demand this year and the next is depressed mainly by fiscal consolidation in euro area countries, manifesting itself in a marked decline in consumption. The positive growth of the effective euro area reflects above-average performance of the Czech Republic's major trading partners (Germany, Slovakia and Austria), i.e. export-oriented economies. By contrast, the euro area as a whole is expected to contract this year (see section III.7). In 2014, growth in external economic activity is expected to rise to 1.7% in effective terms.

The outlook for growth in the **effective indicator of producer prices in the euro area** is 2.2% this year. This is a much lower rate of growth than in 2011 (see Chart II.1.2), due mainly to dissipation of the high annual growth rates of energy commodity prices and to subdued economic activity. Producer price inflation is expected to slow further at the start of next year amid slightly falling oil prices and continued weak economic growth. As the economy gradually recovers, producer price growth is expected to rise slightly. It is expected to be 1.7% for 2013 as a whole and to increase to 2.1% in 2014.

The significant slowdown in economic activity did not have much effect on the outlook for **growth in the effective indicator of consumer prices in the euro area**, which is roughly at the 2011 level this year, i.e. 2.5% (see Chart II.1.3). This is due mainly to faster growth in fuel prices in the first half of this year, currently rising food

2 The outlooks for euro area GDP, PPI and CPI and the dollar-euro exchange rate are based on the October Consensus Forecasts (CF). The outlooks for the 3M EURIBOR and Brent crude oil are derived from prices of market contracts as of 8 October 2012. The outlook is indicated by the grey areas in the charts. This convention is used throughout this Report.

CHART II.1.1

EFFECTIVE GDP IN THE EURO AREA

Economic growth in the effective euro area will slow sharply this year, but is expected to recover in the course of 2013 and 2014

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

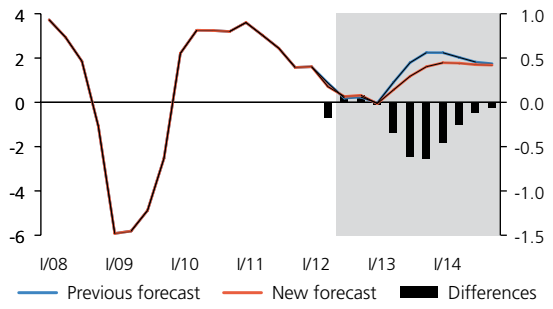


CHART II.1.2

EFFECTIVE PPI IN THE EURO AREA

Subdued economic activity and falling outlooks for commodity prices will cause producer price inflation to come down

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

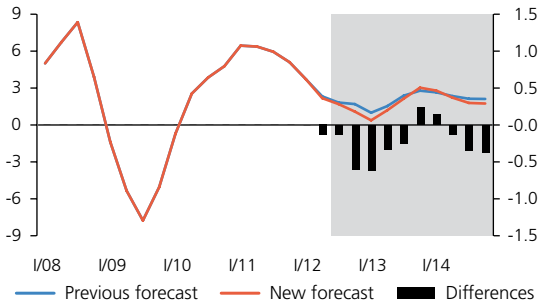


CHART II.1.3

EFFECTIVE CPI IN THE EURO AREA

Effective inflation should decrease to approximately 2% at the forecast horizon

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

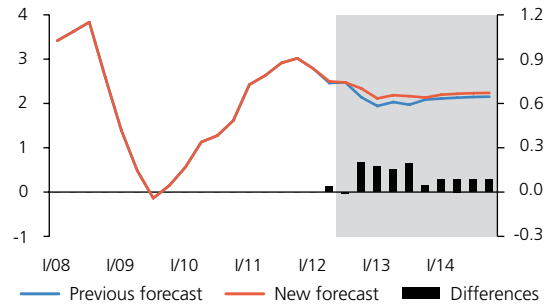


CHART II.1.4

3M EURIBOR

Expectations of continued easy monetary policy by the ECB are reflected in a low outlook for foreign interest rates
(in %; differences in percentage points – right-hand scale)

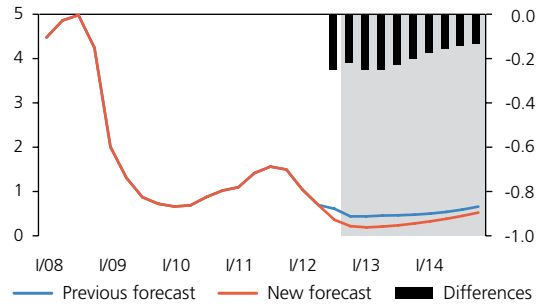


CHART II.1.5

EURO-DOLLAR EXCHANGE RATE

The exchange rate is expected to return to around USD 1.25 to the euro
(USD/EUR; differences in % – right-hand scale)

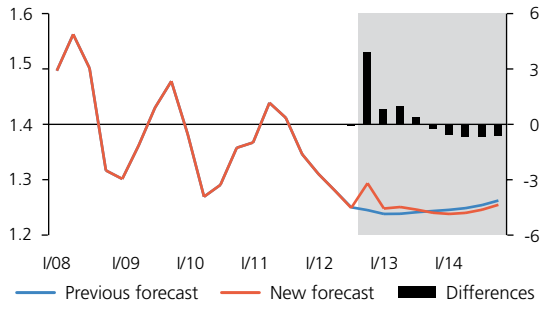
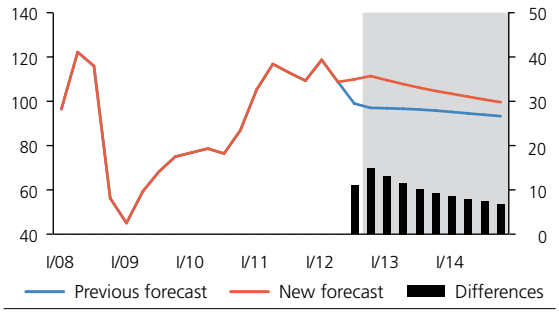


CHART II.1.6

PRICE OF BRENT CRUDE OIL

The market outlook for the price of oil foresees a slightly falling trend
(USD/barrel; differences in % – right-hand scale)



prices and increasing indirect taxes. Subdued consumer demand has the opposite effect. Consumer price inflation is expected to slow over the next two years to 2.1% in 2013 and 2.2% in 2014.

The market outlook for **3M EURIBOR rates** reflects expectations of continued easy monetary policy of the ECB and a deteriorating macroeconomic environment in the euro area. The 3M EURIBOR is expected to average 0.6% this year (see Chart II.1.4). Its current level is lower still. Foreign interest rates should stay at similarly low levels over the entire outlook horizon. The 3M EURIBOR should average 0.2% in 2013. In 2014, it is forecasted to increase slightly to 0.4% on average. The market outlook for foreign rates is in line with the expectations of CF analysts, who expect the 3M EURIBOR to be 0.3% at the one-year horizon, only 0.1 percentage point higher than the market outlook for this period.

The outlook for the **euro-dollar exchange rate** foresees a renewed weakening of the euro from its currently stronger level (see Chart II.1.5). The average dollar-euro rate is expected to be USD 1.28 this year. The euro should depreciate over the next two years to about USD 1.25 on average. A further escalation of the euro area debt crisis could foster a weaker euro, whereas the dollar could depreciate in connection with the third round of quantitative easing by the Fed and the risk of sharp fiscal consolidation required by the current legislation.

The outlook for the **Brent crude oil price** based on market futures expects the price to be flat on average at the 2011 level this year, i.e. at around USD 112 a barrel (see Chart II.1.6). The path of expected prices in the next two years stems from the elevated level in early October 2012, reflecting continued nervousness associated with geopolitical risks in the Middle East, the continuing embargo on oil supplies from Iran to the EU and easy monetary policy around the world. Nonetheless, the outlook for oil prices is still slightly falling, due, among other things, to a decline in expected global economic growth. The price of Brent crude oil is expected to be USD 107 a barrel in 2013 and USD 102 a barrel in 2014. CF analysts expect the price of WTI crude oil to be USD 99 a barrel at the one-year horizon, which means a rise in the outlook of about 4%.

II.2 THE FORECAST

Tax changes, gradually subsiding growth in import prices and food prices are currently the sources of inflation. Adjusted inflation excluding fuels remains negative, reflecting the anti-inflationary effect of the domestic economy. Headline inflation will be slightly above the CNB's target in 2013 owing to tax changes. Monetary-policy relevant inflation will be in the lower half of the tolerance band over the entire outlook, including at the monetary policy horizon. Import prices will temporarily turn slightly anti-inflationary in the near future owing to lower inflation abroad and the recent slight appreciation of the exchange rate. The cost pressures from the domestic economy are currently roughly neutral and are not expected to re-emerge over the forecast horizon, as the only slightly accelerating wage growth will be based on renewed growth in productivity. A marked slowdown in external demand and generally subdued domestic demand amid continuing fiscal consolidation will lead to a 0.9% decline in GDP this year. Next year, when a gradual external demand recovery and restrictive impacts of government consolidation measures will act in the opposite direction, GDP will rise by 0.2%. In 2014, GDP growth will pick up to almost 2%. The exchange rate of the koruna is broadly stable over the forecast horizon. Consistent with the forecast is a decline in market interest rates, followed by a rise in rates in 2014.

Annual **headline inflation** was 3.3% on average in 2012 Q3. Monetary-policy relevant inflation, i.e. inflation adjusted for the first-round effects of changes to indirect taxes, stood at 2% in the same period, i.e. at the CNB target. Headline inflation will be close to 3% in 2012 Q4. Next year it will be slightly above the target assuming that both VAT rates are raised by one percentage point.[3] After this tax effect drops out in early 2014, headline inflation will fall slightly below the target (see Chart II.2.1). Monetary-policy relevant inflation will be in the lower half of the tolerance band over the entire outlook, i.e. including at the monetary policy horizon, owing to the disappearance of import cost pressures and to generally subdued economic activity.

Annual **administered price inflation** fell to 8.2% on average in 2012 Q3. It will slow further at the end of this year, although mostly due to base effects (see Chart II.2.2).[4] The biggest contributor to administered price inflation will be an expected increase in heat prices connected with the introduction of the sale of emission allowances for heating plants. The contribution of electricity will also be high, reflecting a reduction of state support for renewable sources and a related increase in the contribution from consumers. Overall, however, administered price inflation will slow noticeably, due, among other things, to lower growth in regulated rents, water

3 The VAT increases have not yet been passed by the Parliament and are uncertain at present.
4 The forecast expects an increase in regulated rents and a very modest rise in natural gas prices in 2012 Q4. However, annual growth in prices of natural gas for households will slow due to base effects.

Chart II.2.1

HEADLINE INFLATION AND MONETARY-POLICY RELEVANT INFLATION

Headline inflation will be slightly above the CNB's target next year, while monetary-policy relevant inflation will be in the lower half of the tolerance band around the target over the entire forecast horizon
(annual percentage changes)

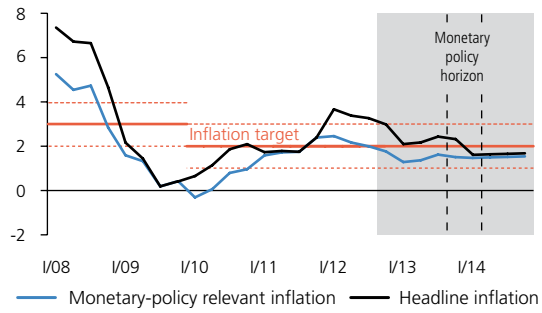


Chart II.2.2

ADMINISTERED PRICES AND FUEL PRICES

Administered price inflation will slow, while fuel prices will switch to an annual decline at the end of 2013
(annual percentage changes; fuel prices excluding first-round effects of indirect tax changes)

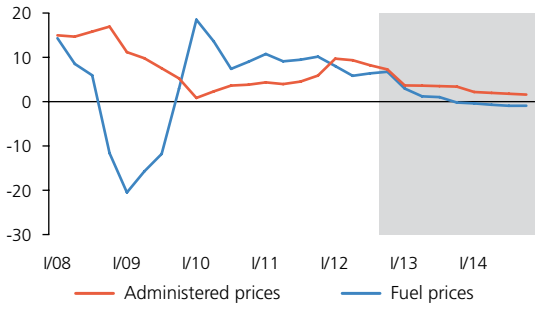


Table II.2.1

FORECAST OF ADMINISTRATIVE EFFECTS

The growth of administered prices will be due mainly to rising energy prices, owing among other things to a VAT increase
(annual percentage changes; impacts in percentage points)

	2011 actual		2012 forecast		2013 forecast		2014 forecast	
Administered prices – total[a)]	7.0	1.22	6.3	1.18	3.3	0.62	1.6	0.29
of which (main changes):								
regulated rents	7.7	0.12	11.0	0.13	5.0	0.06	2.0	0.02
electricity	4.8	0.17	4.2	0.18	3.3	0.15	2.0	0.09
natural gas	22.2	0.55	4.3	0.12	-0.5	-0.02	-1.1	-0.03
heat	1.9	0.05	8.5	0.18	10.0	0.21	2.0	0.04
healthcare	7.0	0.15	8.5	0.15	2.6	0.05	2.0	0.04
First-round impacts of tax changes in non-administered prices		0.00		0.99		0.70		0.14

a) Including effects of indirect tax changes

Chart II.2.3

NET INFLATION AND ADJUSTED INFLATION EXCLUDING FUELS

Adjusted inflation excluding fuels will increase steadily
(annual percentage changes)

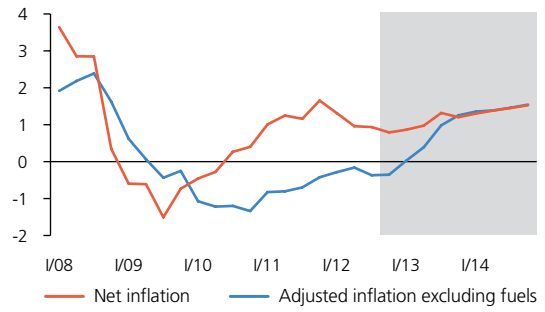
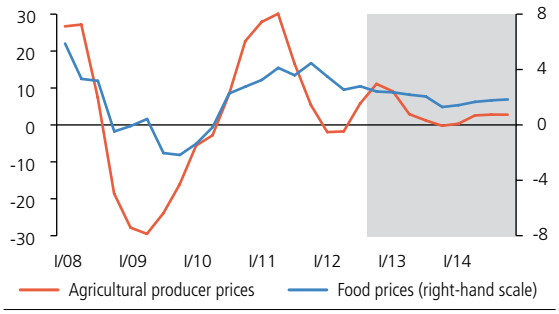


Chart II.2.4

FOOD PRICES AND AGRICULTURAL PRODUCER PRICES

Food price inflation will slow slightly, and agricultural producer price inflation will markedly decrease in mid-2013
(annual percentage changes)



supply and sewerage collection charges, and administered prices in health care and transport. A slightly smaller first-round effect of changes to indirect taxes and an expected fall in natural gas prices will also play a role (see Table II.2.1). Natural gas prices for households will switch to a modest decline in early 2013 owing to gas price developments on world markets. The effect of the VAT increase on gas prices for households will be outweighed by an expected reduction in distribution fees announced by the Energy Regulatory Office. Overall, annual administered price inflation will be below 4% in 2013 and fall below 2% in 2014 as a result of the fading of the effect of the VAT increase and a continuing annual decline in natural gas prices for households.

Changes to **indirect taxes** contributed about 1.2 percentage points to annual inflation on average in 2012 Q3. The impact of the increase in the reduced VAT rate from 10% to 14% in January this year was about 1.1 percentage point. A "harmonisation increase" in excise duties on cigarettes, with an impact on inflation of 0.1 percentage point, took place at the same time. The forecast assumes an increase in both VAT rates by one percentage point as of January 2013. The overall first-round effect of this change will be about 0.7 percentage point. At the same time, excise duties on cigarettes will see another "harmonisation increase" with a contribution to consumer price inflation of around 0.1 percentage point. A similar change in excise duties is also expected in January 2014. The forecast assumes full pass-through of the above changes to the relevant prices, whereas the second-round effects on inflation expectations and wages are not expected to be significant.

Annual **net inflation** fell slightly to 0.9% on average in 2012 Q3 (see Chart II.2.3). This decrease was chiefly due to deepening negative values of adjusted inflation excluding fuels. Net inflation will remain broadly stable in the near future, as a shift of adjusted inflation excluding fuels towards zero and its subsequent increase will be offset by weakening growth in fuel prices together with a gradual slowdown in food price inflation. The effect of higher adjusted inflation excluding fuels will prevail only in 2013 H2, in connection with renewed growth in import prices. Net inflation will thus be fluctuating around 1.2% at the end of next year. Food price inflation will increase again in 2014 amid a modest recovery of agricultural producer prices. This, together with rising adjusted inflation excluding fuels, will lead to a gradual increase in net inflation to about 1.5% at the year-end.

Annual **adjusted inflation excluding fuels** turned more negative in 2012 Q3 (see Chart II.2.3). Weak domestic demand in this price segment was only partly offset by import price growth, which, moreover, reflected the effect of a slightly stronger exchange rate of the koruna. The forecast expects adjusted inflation excluding fuels to approach zero and turn positive in 2013 Q1. This will be fostered – albeit only temporarily – by fading domestic anti-inflationary pressures. A pick-up in import price growth thanks to a recovery in external economic activity, together with a gradual rise in sellers' margins,

will cause adjusted inflation excluding fuels to increase gradually to around 1.3% at the end of next year. In 2014 it will continue to edge up to 1.5%.

Annual **food price inflation** (excluding the first-round effects of tax changes) rose to 2.8% on average in 2012 Q3. Food price inflation will slow slightly in the near future, mainly because of base effects and subdued domestic demand. On the other hand, agricultural producer price inflation will rise further initially and slow markedly only in mid-2013 (see Chart II.2.4).

Annual **fuel price inflation** picked up in 2012 Q3 owing to a strong rise in global oil prices. These prices thus returned to annual growth, amplified in koruna terms by continued year-on-year depreciation of the koruna against the dollar. In Q4, the forecast assumes a further slight increase in fuel price inflation stemming from persisting annual oil price growth on global markets. However, fuel price growth will start moderating at the beginning of 2013 (see Chart II.2.5). A gradual fall in oil prices on global markets coupled with a broadly stable koruna-dollar exchange rate will result in a decrease in fuel prices in 2014.

Interest rates on the Czech money market and rates with maturities longer than one year gradually declined during 2012 Q3. Consistent with the forecast is a decline in market interest rates, followed by a rise in rates in 2014 (see Chart II.2.6). Subdued growth in domestic economic activity and wages, reflecting a considerable slowdown in external demand and restrictive domestic fiscal policy, and a low interest rate level abroad are pushing interest rates downwards over the forecast horizon. These anti-inflationary factors are only partly offset by fading pressures from import prices and low productivity growth. Interest rates do not react to the temporary rise in headline inflation above the target caused by the first-round effects on prices of the changes to indirect taxes, to which the escape clause mechanism applies as usual.

The koruna appreciated slightly **against the euro** in 2012 Q3, to CZK 25.1 on average. The short-term forecast for 2012 Q4 is set at CZK 24.9 against the euro. This takes into account the current exchange rate level, which has been affected by the current calming of the debt crisis in the euro area (see Chart II.2.7). In particular, subdued external demand has a weakening effect on the exchange rate at the forecast horizon. A low outlook for foreign interest rates and improved nominal net exports will act in the opposite direction. The exchange rate thus returns to just above CZK 25 against the euro and is then roughly stable. In light of the CF outlook for a roughly stable exchange rate of the euro against the dollar (see section II.1), this also implies a broadly stable koruna-dollar exchange rate as from the start of 2013.

CHART II.2.5

FUEL PRICES AND OIL PRICES

The falling outlook for oil prices will result in a decline in fuel prices at the end of next year
(annual percentage changes)

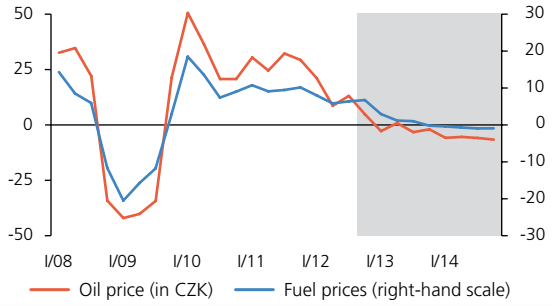


CHART II.2.6

INTEREST RATE FORECAST

Consistent with the forecast is a decline in market interest rates, followed by a rise in rates in 2014
(3M PRIBOR and 3M EURIBOR in %)

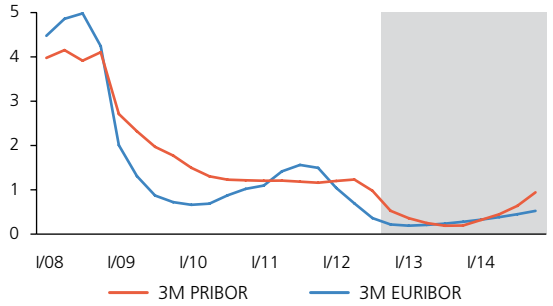


CHART II.2.7

EXCHANGE RATE FORECAST

The outlook for the nominal exchange rate of the koruna against the euro is broadly stable as from the start of 2013
(CZK/EUR and CZK/USD)

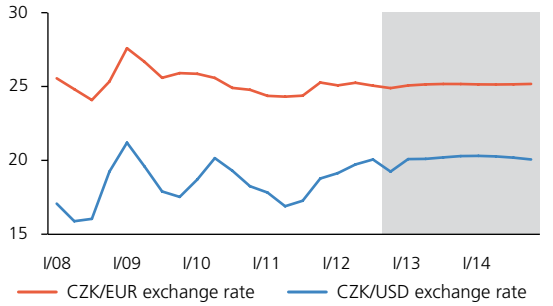


CHART II.2.8

COSTS IN THE CONSUMER SECTOR

Inflation pressures will continue to ease in the near future, as the inflationary effect of import prices will subside temporarily and the pressures from the domestic economy will not be significant

(quarterly percentage changes; contributions in percentage points; annualised)

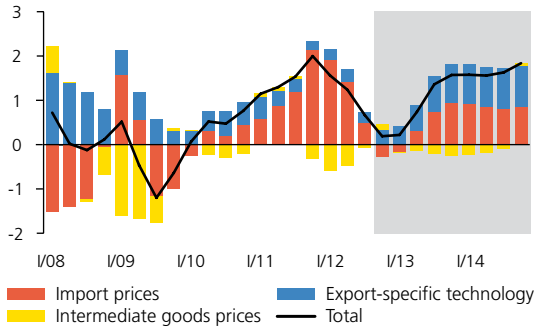


CHART II.2.9

COSTS IN THE INTERMEDIATE GOODS SECTOR

Gradually accelerating wages will be offset by growth in labour productivity and a low price of capital

(quarterly percentage changes; contributions in percentage points; annualised)

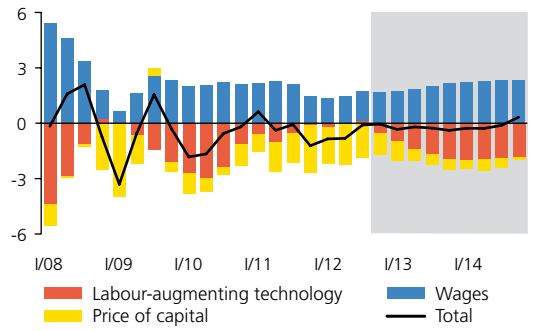
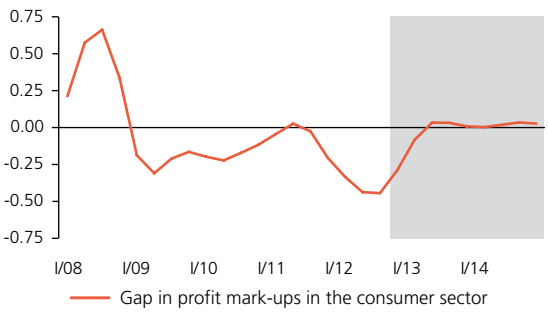


CHART II.2.10

GAP IN PROFIT MARK-UPS IN THE CONSUMER SECTOR

The gap in profit mark-ups will close at the start of 2013

(percentages)



Quarterly growth in **nominal marginal costs in the consumer goods sector** decreased in 2012 Q3. Import prices remain inflationary as a result of the past exchange rate depreciation and rising world prices of commodities, although their effect is weakening significantly (see Chart II.2.8). Pressures from the domestic economy, approximated by intermediate goods price inflation, are slightly anti-inflationary, as the effect of subdued domestic demand is largely offset by wage growth amid weak productivity growth, even though the wage growth is moderate. The estimated evolution of export-specific technology is linked to the difference in the evolution of prices of tradables and non-tradables (the Balassa-Samuelson effect), which for some time now has been contributing less markedly to inflation than in the pre-crisis period.

The overall upward pressures on prices in the consumer sector will moderate in the quarters ahead. The inflationary effect of import prices will subside temporarily in late 2012 and early 2013 in connection with lower inflation abroad and the recent slight appreciation of the exchange rate. Import prices will again foster cost growth from 2013 Q2 as a result of gradually accelerating growth in foreign producer prices and the above exchange rate movements. The effect of the domestic economy will be approximately neutral or slightly anti-inflationary in the same period, i.e. no inflationary pressures will emerge in the domestic economy until the end of the forecast horizon. The contribution of export-specific technology will gradually increase as economic activity gradually recovers.

Nominal marginal costs in the intermediate goods sector were flat in 2012 Q3. Nominal wage growth in the business sector seems to have remained low and was offset by the estimated price of capital, which reflects the subdued economic activity and weak investment activity. The contributions of labour-augmenting technology are broadly neutral due to a temporary halt in productivity growth (see Chart II.2.9). Domestic cost pressures will remain subdued at the forecast horizon thanks to low wage growth, which will be largely founded on gradually recovering growth in labour-augmenting technology. The negative contribution of the price of capital to the rise in costs, reflecting weak external demand and low capital goods prices, will abate gradually over the forecast horizon.

The estimated gap in **profit mark-ups in the consumer goods sector** stayed negative in 2012 Q3 (see Chart II.2.10), reflecting subdued pass-through of previous cost pressures to final prices amid weak economic activity. The negative gap will close before mid-2013, when modest price growth will be accompanied by an even more gradual increase in costs. From the second half of 2013 the gap in profit mark-ups will be close to zero, and the still relatively low inflation will be offset by roughly equal growth in costs amid only slowly recovering economic activity.

Whole-economy **labour productivity** probably fell further in 2012 Q3. This trend will continue in the quarters ahead. Productivity will return to modest growth in 2013 Q2. Owing to a subsequent

recovery in economic activity and a continuing decline in employment, labour productivity growth will gradually pick up to 2% in late 2013 and early 2014. Labour productivity will rise at roughly the same pace during 2014, too.

Annual growth in the average nominal **wage in the business sector** was 2.5% in 2012 Q2 (after seasonal adjustment).[5] The short-term prediction for 2012 Q3 assumes a slight slowdown to 2.3%. Wage growth will remain low next year, reflecting subdued economic activity. Wages in the business sector will increase by 2.6% in 2013 as a whole and accelerate to just above 3% in 2014 (see Chart II.2.11).

Continuing consolidation of public budgets will affect the nominal average **wage in the non-business sector**. The forecast expects the average wage in this sector to continue to edge up in the rest of this year, despite the implementation of fiscal austerity measures at the government level. Average wage growth in the non-business sector will slow to 1% in 2013, although wages will increase only in some professions[6] and outside the central level. The average wage in the non-business sector will grow at a similar rate in 2014, too.

Real GDP recorded a year-on-year decline of 1% and a quarter-on-quarter decline of 0.2% in 2012 Q2 (see Chart II.2.12). The decline was due to most components of demand, household consumption and changes in inventories in particular. Investment recorded an annual decline of 5.2% but rose at a high rate in quarterly terms. Net exports were the only component to make a significantly positive contribution to annual GDP growth.

The forecast assumes that **economic activity in 2012 Q3** will record an annual decline of 0.8% and a slight quarterly increase of 0.2% (see Chart II.2.13). The short-term forecast for household consumption expects an annual decrease of 2.7%, although this means a slight increase in quarter-on-quarter terms. Government investment and consumption probably also contributed negatively to GDP growth. Therefore, only net exports will record a continuing positive contribution to economic activity in year-on-year terms.

Real GDP will decrease by 0.9% overall in **2012**, with all expenditure components except net exports declining. The fall in real household consumption will be due to the increase in the reduced VAT rate introduced in January 2012 coupled with weak growth in nominal disposable income, reflecting subdued growth in wages and salaries. Government real consumption will edge down because of continuing austerity measures. The decline in investment reflects weak external demand and generally low domestic economic activity.

5 Without seasonal adjustment, the average wage increased by 2.3%.
6 Government officials and judges.

CHART II.2.11

AVERAGE NOMINAL WAGE

Wage growth in the business sector will gradually pick up, while wages in the non-business sector will rise only moderately
(annual percentage changes; business sector – seasonally adjusted; non-business sector – seasonally unadjusted)

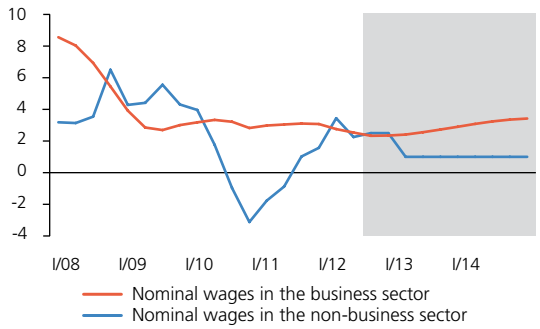


CHART II.2.12

GDP GROWTH FORECAST

GDP will decline this year, then economic activity will start to recover gradually
(percentage changes; seasonally adjusted)

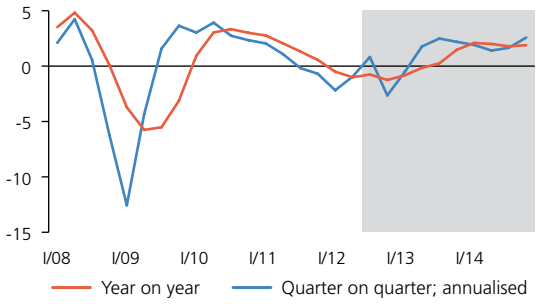
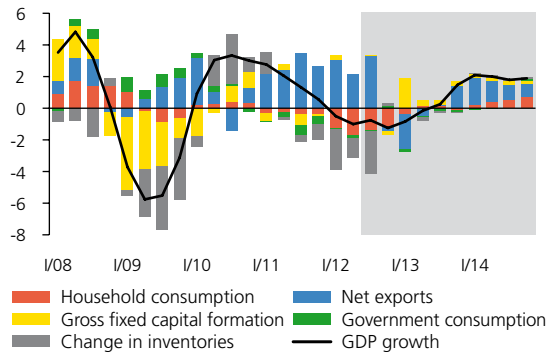


CHART II.2.13

ANNUAL GDP GROWTH STRUCTURE

Only net exports will contribute positively to GDP growth, while domestic demand will decrease
(annual percentage changes; contributions in percentage points; seasonally adjusted)



Despite low growth in external demand, net exports will make a positive contribution to growth, partly because of subdued domestic demand in its import-intensive components.

GDP will increase by 0.2% in **2013**, with a gradual recovery in external demand and more restrictive fiscal policy exerting opposite effects. Household consumption will continue to be dampened by low growth in disposable income, affected by moderate wage growth and fiscal consolidation. A slow recovery in external demand and subdued domestic demand will prevent more pronounced growth in total investment, although investment in the government sector will contribute to some extent. The contribution of net exports in real terms will be slightly negative overall owing to low external demand and a fading decline in domestic demand. Conversely, in nominal terms, favourable terms of trade will foster a higher volume of net exports. Government consumption will also make a negative contribution to GDP growth.

GDP will grow by 1.9% in **2014** after the previous years' dampening effects largely subside. The forecast assumes a continuing recovery in external demand and less restrictive fiscal policy (within which the contribution of government consumption to GDP growth will be neutral). Household consumption will start to rise again and investment activity will also increase slightly.

The annual growth rate of **total employment** picked up slightly in 2012 Q2. Owing to a continuing contraction of economic activity, the forecast expects total employment to record a quarter-on-quarter decline in Q3, and this decline will deepen in the following quarters. Total employment will return to weak quarter-on-quarter growth in 2014 H2. Total employment will continue to edge up in annual terms until 2013 Q1 and then switch to a slight decline. Its growth rate will weaken gradually in 2014, resulting in an annual stagnation in employment at the end of the year (see Chart II.2.14).

The forecast assumes that the seasonally adjusted **general unemployment rate** edged up to 7% in 2012 Q3. Owing to the evolution of economic activity, the general unemployment rate will gradually rise to 7.5% in 2013 Q3 (see Chart II.2.14). Later, it will be flat amid only a slight recovery in GDP. It will not decline until the end of 2014. Similar developments can be expected for the seasonally adjusted **total registered unemployment rate**, which will gradually increase to just above 9% at the end of this year. It will remain around this level until mid-2014, when it will also edge down.

Having dropped in 2011 and 2012 H1, real **household consumption** will remain subdued in the remainder of this year (see Chart II.2.15). The overall decline in real household consumption this year (of 2.7%) will reflect weak nominal disposable income growth linked with labour market developments and an increasing propensity of households to save. Real consumption will also be hindered by higher inflation, mainly as a result of changes to indirect taxes. Subdued

CHART II.2.14

LABOUR MARKET FORECAST

Total employment will mostly fall and the unemployment rate will rise; a gradual turnaround will occur in mid-2014
(annual percentage changes in employment; general unemployment rate in percentages; seasonally adjusted)

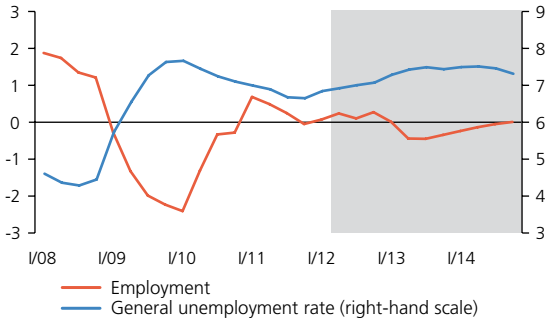
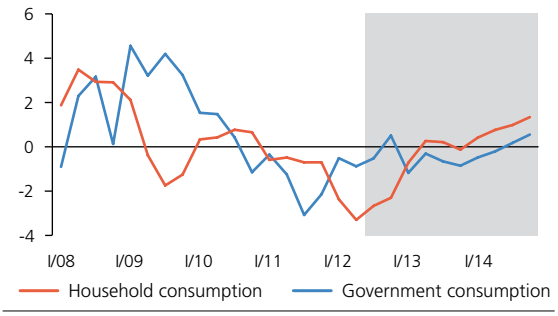


CHART II.2.15

REAL HOUSEHOLD AND GOVERNMENT CONSUMPTION

Household consumption will recover more strongly in 2014, while government consumption will mostly fall
(annual percentage changes; seasonally adjusted)



consumer demand in the near future is also indicated by the available leading indicators, such as a low consumer confidence indicator and a decline in retail sales (see section III.3). Household consumption will be broadly flat in 2013 as a whole (-0.1%) in a situation of a sharp slowdown in inflation (despite a further assumed increase in indirect taxes) and partly also in connection with an assumed decline in the saving rate. The growth rate of household consumption will continue to rise in 2014 as a result of a recovery in economic activity and a resulting gradual pick-up in growth in the volume of wages amid a further pronounced decline in inflation.

The growth rate of **gross disposable income** should be increased mainly by social benefits and current taxes (see Chart II.2.16) until the end of this year. The most important component of disposable income, i.e. the volume of wages and salaries, will increase at a broadly stable rate in the near future. However, its growth rate will start to rise gradually at the end of next year in connection with the gradual economic recovery and the labour market developments described above. Another significant component of disposable income, social benefits, should also record positive contributions over the entire forecast horizon, but its growth will be hampered as from 2013 by a slower increase in pensions. The contribution of operating surplus and mixed income will start to grow in 2014 in connection with a more pronounced recovery in economic activity. Overall, gross disposable income will increase by 0.9% and 2.7% in 2013 and 2014 respectively.

The forecast expects the **saving rate** to start falling gradually at the start of 2013 from its current level of above 11% towards the 10% level. Its profile will mainly reflect subdued growth in disposable income and consumption smoothing over the business cycle. The forecast for the saving rate still contains the pension reform, including the "second pillar" of pension insurance (see Box 1 *Pension system reform* in Inflation Report IV/2011). Savings will be boosted by funds transferred from the pay-as-you-go system to the fund pillar.[7]

Real **government consumption** has been decreasing since the end of 2010 owing to government austerity measures. The forecast expects this trend to continue into 2013 because of expenditure cuts aimed at meeting the government's budgetary objectives. Real government consumption will be flat in 2014.

Gross capital formation recorded a year-on-year decline of 5.2% in 2012 Q2, due mainly to changes in inventories amid flat gross fixed capital formation. Negative annual growth should continue until the end of this year. Fixed investment is expected to start rising

7 The additional 2% of the assessment base paid into the second pillar will probably be transferred within the framework of household savings. This is a consequence of the assumption of greater take-up among higher-income households.

CHART II.2.16

NOMINAL DISPOSABLE INCOME

Disposable income will rise steadily owing to rising wages and salaries and social benefits

(annual percentage changes; contributions in percentage points)

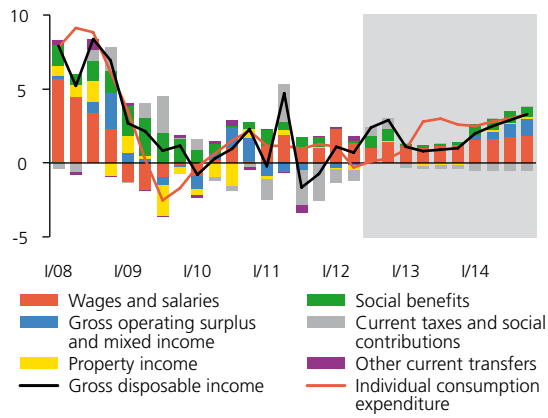


CHART II.2.17

GROSS CAPITAL FORMATION

Gross capital formation will gradually rise

(annual percentage changes; seasonally adjusted)

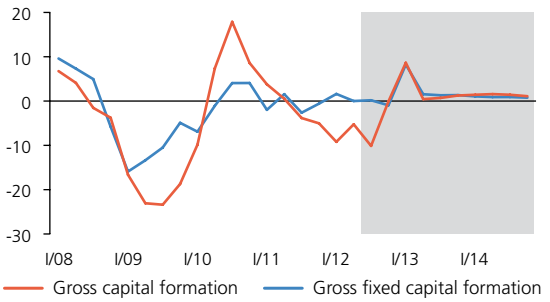
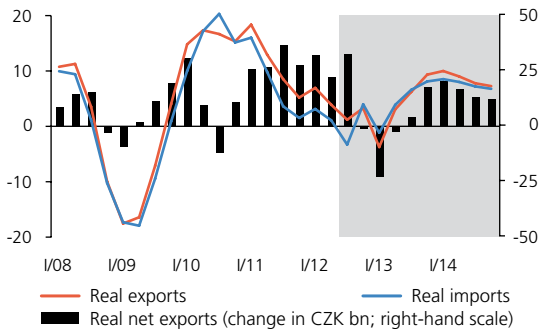


CHART II.2.18

REAL EXPORTS AND IMPORTS

Export and import growth will pick up pace again in 2013 H2, and the contributions of net exports to GDP growth will subsequently increase again

(annual percentage changes; annual changes in CZK billions; seasonally adjusted)



in early 2013.[8] The results of a joint survey conducted by the CNB and the Confederation of Industry of the Czech Republic indicate growth in the positive balance of responses concerning investment activity (this balance is higher at the one-year horizon than at the six-month horizon). At the same time, the balance of positive responses regarding replenishment of stocks of materials and work in progress declined from the previous survey and the negative balance for finished products deepened. This suggests that corporations are prepared to respond to the expected rise in demand, but are simultaneously trying not to tie up capital in finished products. Overall, gross capital formation will fall by 6.3% year on year in 2012. It will increase by 2.6% in 2013 and by 1.4% in 2014 as economic activity gradually recovers (see Chart II.2.17).

Year-on-year growth in real **exports of goods and services** slowed in 2012 Q2. The expected slowdown in external demand will be reflected in lower quarter-on-quarter export growth until the end of this year. According to the forecast, exports will increase by 3.8% on average in 2012. Export growth will start to accelerate again in 2013 Q2 in line with external demand (see Chart II.2.18).

Real **imports of goods and services** also recorded a decrease in growth (to 1.1%), amid lower growth in exports of goods and services in 2012 Q2. Imports of goods and services will rise by just 1.2% on average this year amid a decline in domestic private and government consumption. Next year, they will increase by 4.3% as the decline in domestic demand subsides. Growth in imports of goods and services will rise further to 7.6% in 2014, mainly because of a recovery in import-intensive exports.

Net exports at constant prices made a positive contribution to annual GDP growth in 2012 Q2 (2.1 percentage points). The forecast expects the positive contributions of net exports to fade out temporarily in late 2012 and early 2013 but to increase again subsequently. The contribution of net exports will thus amount to 2 percentage point on average in 2012, be slightly negative at -0.3 percentage point in 2013 and increase again to 1.2 percentage point in 2014.

The balance of payments forecast expects the **current account** deficit to fall quite considerably in 2012 relative to the 2011 outcome, to remain flat in 2013 and to decline slightly further in 2014 (see Table II.2.3). In relative terms, this means a decline in the deficit from 2.9% of GDP in 2011 to 1.4% this year and the next and a further decrease to 1.0% in 2014. The expected decrease in the current account deficit this year is due to an assumed sizeable increase in the **trade surplus**. This is associated on the one hand with a year-on-year decline in aggregate domestic demand, hindering growth in imports, and on the other hand with a slight increase in external demand, supporting growth in exports.

8 However, the temporary surge in its annual growth rate in 2013 Q1 was due to base effects.

Table II.2.2

FORECASTS OF SELECTED VARIABLES

Real disposable income will not rise until 2014, labour productivity will start to grow again
(annual percentage changes unless otherwise indicated)

	2011 actual	2012 forec.	2013 forec.	2014 forec.
Real gross disposable income of households	-1.3	-1.3	-1.5	0.7
Total employment	0.3	0.2	-0.3	-0.1
Unemployment rate (in per cent) [a]	6.8	7.0	7.4	7.4
Labour productivity	1.4	-1.2	0.5	2.0
Average nominal wage	2.4	2.6	2.4	2.9
Average nominal wage in business sector	2.9	2.5	2.7	3.3
Current account deficit (ratio to GDP in per cent)	-2.9	-1.4	-1.4	-1.0
M2	3.6	5.8	6.6	3.8

a) ILO methodology, 15–64 years

Table II.2.3

BALANCE OF PAYMENTS FORECAST

A rising trade surplus will reduce the current account deficit
(CZK billions)

	2011 actual	2012 forec.	2013 forec.	2014 forec.
A. CURRENT ACCOUNT	-109.1	-55.0	-55.0	-40.0
Trade balance	94.0	170.0	180.0	210.0
Balance of services	66.3	55.0	55.0	60.0
Income balance	-271.9	-270.0	-290.0	-310.0
Current transfers	2.5	-10.0	0.0	0.0
B. CAPITAL ACCOUNT	14.7	12.0	26.0	22.0
C. FINANCIAL ACCOUNT	87.8	127.0	75.0	52.0
Direct investment	75.2	115.0	95.0	95.0
Portfolio investment	5.8	70.0	40.0	20.0
Financial derivatives	-3.0			
Other investment [a]	9.8	-58.0	-60.0	-63.0
D. ERRORS AND OMISSIONS	-10.7			
E. CHANGE IN RESERVES (- = increase)	-17.2			

a) forecast excluding operations of banking sector

By contrast, unfavourable terms of trade will continue to foster a lower trade surplus in 2012. Owing to an expected decline in commodity prices on world markets, the trade surplus will increase again next year. Conversely, higher domestic demand will foster a worsening of the balance. The expected rising trade surplus in 2014 is based on the assumption of a renewed recovery in external demand.

The **service surplus** should decline this year because of fast growth in expenditure on other services (merchanting in particular). This factor will partly be offset by an increase in receipts from transport and an improvement in travel. The overall surplus should be flat in 2013, as a continuing deterioration in other services will be offset by increases in the two other balances. A slight increase in the services surplus in 2014 will be associated mainly with an expected rise in receipts from travel. The **income** deficit should remain broadly flat this year at the previous year's level as a result of the contrary effects of a lower volume of dividends paid to non-residents on direct investment and an increase in net interest expenditure. A renewed increase in dividends and continued growth in net interest expenditure will increase the income deficit in 2013 and 2014. The balance of **current transfers** will reflect lower net drawdown of EU funds in 2012. Improved drawdown of these funds in the years ahead should bring the balance back to equilibrium.

The current account deficit will continue to be financed by a slight capital account surplus and above all by a financial account surplus (due mainly to net inflows of direct and portfolio investment). The **capital account** will also partly reflect lower net drawdown of EU funds this year. In 2013, an increase in the surplus will be fostered by sales of frequencies in addition to expected improved drawdown of EU funds. The net inflow of direct investment on the **financial account** will record a fairly significant increase this year, due mainly to pronounced (and probably one-off) growth in reinvested earnings. However, the forecast expects it to decline to only slightly above the 2011 level in the following years. In the area of portfolio investment, foreign issues of government bonds and bonds of state-controlled companies are the main factor underlying an expected sharp year-on-year increase in the net capital inflow this year. The forecast expects a slightly higher net annual outflow of capital for the other items. The forecast expects a decline in the portfolio investment surplus in the years ahead, due mainly to lower drawdown of foreign funds by the government, a lower volume of corporate bond issues and increased interest among residents in investing abroad in 2014.

The future macroeconomic developments described above are reflected in the **government finance outlook** (see Table II.2.4). The forecast for next year takes into account the planned increase in both VAT rates of 1 percentage point to 15% and 21% and other budget consolidation measures. However, the tax changes have not yet been passed by the Czech Parliament and are the subject of political negotiations. The forecast also includes the effect of the pension reform planned to be launched in 2013.

Table II.2.4

FISCAL FORECAST

The government deficit-to-GDP ratio will start to fall sharply in 2013 as fiscal consolidation continues
(% of nominal GDP)

	2011 actual	2012 forec.	2013 forec.	2014 forec.
Government revenue	39.8	39.9	40.6	41.2
Government expenditure	43.0	43.3	43.1	43.6
of which: interest payments	1.4	1.5	1.5	1.6
GOVERNMENT BUDGET BALANCE	-3.2	-3.4 f)	-2.6	-2.4
of which:				
primary balance a)	-1.9	-1.9	-1.0	-0.8
one-off measures b)	-0.2	0.0 f)	-0.3	-0.4
ADJUSTED BUDGET BALANCE c)	-3.1	-3.4	-2.3	-2.0
Cyclical component (ESCB method) d)	0.1	-0.6	-0.9	-0.8
Structural balance (ESCB method) d)	-3.1	-2.8	-1.4	-1.2
Fiscal stance in pp (ESCB method) e)	1.7	0.4	1.4	0.2
Cyclical component (EC method) d)	0.1	-0.4	-0.6	-0.2
Structural balance (EC method) d)	-3.2	-3.0	-1.7	-1.8
Fiscal stance in pp (EC method) e)	1.3	0.2	1.3	-0.1
Government debt	40.8	43.9	45.3	46.9

a) Government budget balance minus interest payments.
b) Impact of the pension reform included for economic reasons in 2013 and 2014.
c) Adjusted for one-off measures; CNB estimate.
d) CNB estimate.
e) Year-on-year change in structural balance (positive value indicates fiscal restriction, negative value fiscal expansion).
f) If property settlement with churches comes into force in 2012, it will have a one-off negative impact on the government budget balance of 1.5% of GDP.

The forecast for **2012**[9] expects a slight increase in the general government deficit to 3.4% of GDP, due mainly to weak collection of indirect taxes in conditions of subdued domestic demand and household consumption in particular. The effect of fiscal policy will be restrictive this year, with an estimated impact on real GDP growth of around -0.4 percentage point.

The government deficit should fall to 2.6% of GDP in **2013** owing to planned consolidation measures of almost 1.3% of GDP. The forecast expects the package of consolidation measures to slow economic growth by about 0.8 percentage point next year. It will affect the economy both through the price effect stemming from the increase in VAT and through lower nominal disposable income, with both factors reducing real household consumption. According to the forecast, real government consumption will also decline next year, while government investment will grow, among other things because of faster drawdown of EU funds. The forecast also foresees a gradually emerging shortfall of CZK 12 billion in social security revenue in 2013 connected with the launch of the pension reform.

A further, albeit only modest, decrease in the government deficit (to 2.4% of GDP) is expected in **2014**. This will be caused by the continuing effect of the consolidation measures adopted during 2012 (in particular a smaller increase in pensions), expected stagnation of state employees' salaries and a recovery in economic activity. The forecast expects the impact of the partial transfer of pension savings contributions into the second pillar of the pension system to amount to CZK 15 billion in 2014. The effect of fiscal policy on GDP growth in 2014 will be slightly restrictive, at around 0.1 percentage point.

The general government **structural deficit** was around 3% of GDP in 2011. A decline below 2% of GDP is expected in 2014 in connection with the planned consolidation measures (adjusted for the effect of the pension reform). The expected evolution of the general government deficit will cause **general government debt** to increase to 47% of GDP in 2014. This prediction is adversely affected by subdued economic activity.

9 At the end of September, the CZSO sent Eurostat data on government finance in 2008–2011 under the ESA 95 methodology as part of the autumn government deficit and debt notifications. The general government balance for 2011 was revised from 3.1% to 3.2% of GDP in this update, owing chiefly to a change in tax revenue. The figures for the absolute levels of the general government deficit and debt in 2008–2010 were unchanged, but minor revisions were made to the ratios to GDP for 2009 and 2010 due to revisions of the national accounts.

There are numerous **risks to the fiscal forecast**. The definitive approval of the law on church property restitutions represents a risk towards a higher deficit in 2012 (but without demand effects).[10] Uncertainty concerning the definitive parliamentary approval of the revenue measures planned by the government and included in the forecast,[11] as well as the real impact of some legislative complications in the launch of the pension reform, represent risks to the forecast for 2013.[12] The additional consolidation measures announced by the government in this year's convergence programme, which have yet to be specified in sufficient detail to be incorporated into the forecast, are a risk in the direction of a lower deficit and more restrictive fiscal policy in 2014. There is additional uncertainty regarding the fiscal multiplier, which may be higher than usual at this time of sustained fiscal restriction, weak external demand and significant uncertainty surrounding developments in the euro area (see the higher fiscal multiplier sensitivity scenario in section II.4.2).

10 A law relating to property settlement between the state and churches will provide financial compensation to churches of CZK 59 billion in addition to restitutions in kind. In the national account statistics, the admission of churches' claims by the law will be reflected in a one-off increase in the general government deficit of around 1.5% of GDP under ESA 95 methodology in the year of approval of the law. The compensation will be exempted from the calculation of the structural deficit and will not affect the calculation of the fiscal position. In early September, this law was rejected by the Senate and returned to the Chamber of Deputies.

11 This concerns a set of measures included in the *Draft Act on Amendments to Tax, Insurance and Other Acts in Connection with the Reduction of Public Budget Deficits*. The core of these measures is an increase of 1 percentage point in both VAT rates, the introduction of a 7% "solidarity" tax, the abolition of income tax relief for pensioners and the abolition of "green diesel". By contrast, the law on a smaller increase in retirement pensions has already been approved and will take effect next year.

12 Part of the necessary legislation has not yet gone through the entire approval process. Moreover, unintentional inconsistency of the laws approved so far governing the collection of social security contributions from sole proprietors connected with the pension reform could mean a budgetary shortfall of up to CZK 20 billion a year in 2013 and 2014 if it is not corrected by other legislation in due time.

CHART II.3.1

CHANGE IN THE HEADLINE INFLATION FORECAST

The forecast for headline inflation is little changed
(annual percentage changes; differences in pp – right-hand scale)

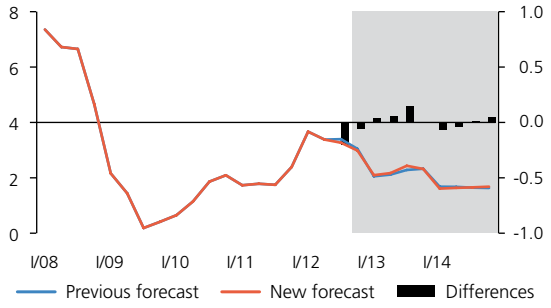


CHART II.3.2

CHANGE IN THE NET INFLATION FORECAST

The forecast for net inflation is slightly lower this year and the next
(annual percentage changes; differences in pp – right-hand scale)

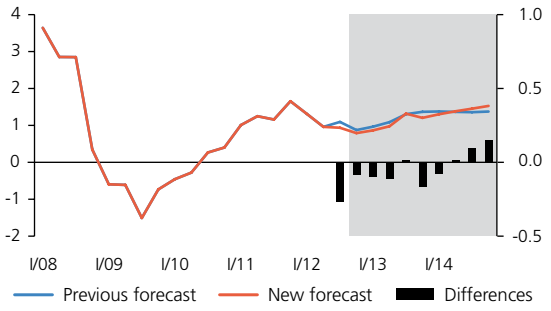
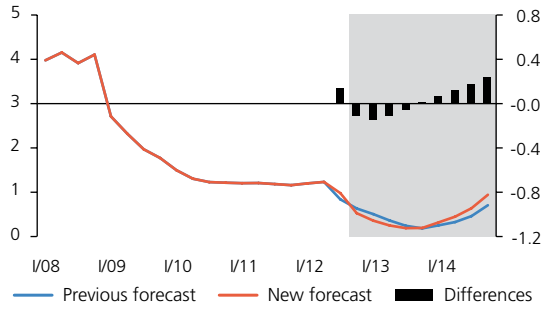


CHART II.3.3

CHANGE IN THE INTEREST RATE PATH

The market interest rate path is slightly lower in the near future and slightly higher in the longer term
(3M PRIBOR in %; differences in pp – right-hand scale)



II.3 COMPARISON WITH THE PREVIOUS FORECAST

The forecasts for headline and monetary-policy relevant inflation are little changed from the previous prediction, with a higher outlook for administered price inflation next year being offset by slightly lower net inflation. In the near future, the interest rate path has shifted to a slightly lower level, owing mainly to the initial state and the short-term exchange rate forecast. In 2014, by contrast, it is slightly higher. In the longer term, the outlook for the koruna exchange rate has shifted to weaker levels. The GDP forecast for this year remains broadly unchanged, while the forecast for next year has been lowered in connection with lower net exports due to a more gradual recovery in external demand. A change in the household consumption forecast is acting in the same direction. The expected pace of nominal wage growth in the business sector is lower over the entire forecast horizon.

The forecast for annual **headline inflation** is little changed from the previous prediction (see Chart II.3.1), with a higher outlook for administered price inflation next year being offset by slightly lower net inflation. The new forecast works with the same assumptions regarding indirect taxes. The outlook for **monetary policy-relevant inflation** is also almost the same as in the previous prediction.

Expected **administered price inflation** next year will be higher than in the previous forecast owing mainly to a rise in the outlook for heat prices. In 2014, by contrast, growth in administered prices will be slightly lower as a result of a continuing decline in natural gas prices for households, reflecting a stronger decrease in world prices of natural gas.

Compared to the previous forecast, annual **net inflation** has shifted slightly lower in both 2012 and 2013 (see Chart II.3.2). This is due to lower predictions for adjusted inflation excluding fuels and food price inflation, reflecting developments in 2012 Q3, and in 2013 also to weaker economic activity. These effects are partially offset by stronger growth in fuel prices. There are no changes in the net inflation forecast for 2014.

Turning to the **external environment** outlook, by comparison with the assumptions of the previous forecast, the 3M EURIBOR path has dropped over the entire horizon in response to the continuing euro area debt crisis and the ECB's actions. The expected growth rate of external demand in 2013 and 2014 has also decreased. The annual growth rates of foreign producer prices have been revised down over most of the forecast horizon.

The forecast for domestic market **interest rates** is little changed from the previous forecast (see Chart II.3.3). The initial state and the short-term exchange rate forecast are fostering slightly lower interest rates at the start of the forecast horizon (see Chart II.3.4). The anti-inflationary effect of the initial state is due chiefly to lower wage growth in the business sector, lower inflation and the evolution of

the components of GDP. The external environment outlook is acting towards higher rates until the end of 2013, as slower growth in external demand, which is having an inflationary effect via a weaker exchange rate, is outweighing lower foreign interest rates. In 2014, lower euro area interest rates will become dominant in the overall external environment outlook. In addition to the initial state, expert judgement is contributing to slightly higher rates than in the previous forecast in the longer term. This is largely associated with a dampening of productivity growth at the longer end of the forecast horizon, reflecting the outlook for only slowly recovering economic activity in the euro area (see section II.1) and the effects of subdued foreign direct investment during the crisis (see Box 3 in section III.6).

The forecast for the nominal **exchange rate of the koruna against the euro** has been revised to stronger levels at the start of the forecast horizon, with the short-term forecast for 2012 Q4 being affected by current exchange rate developments (see Chart II.3.5). By contrast, from 2013 Q2 the exchange rate has been revised to weaker levels compared to the previous prediction. This shift is due to lower external demand and slower expected equilibrium real appreciation. A lower foreign interest rate outlook is acting in the opposite direction.

The forecast for annual **GDP** growth for this year is virtually unchanged (see Chart II.3.6), with lower household consumption and lower net exports in H1 being offset by stronger investment growth. The GDP forecast for next year is revised downwards owing chiefly to a smaller contribution of net exports, reflecting more subdued external demand, and to slightly weaker household consumption. The expected impact of fiscal consolidation measures has not changed significantly from the previous forecast.

The new forecast expects a sharper decline in **household consumption** this year. It will reflect cautious behaviour of households, reflected in a higher saving rate. Household consumption will be broadly flat next year, whereas the previous forecast had expected growth. The growth rate of **gross fixed capital formation** is higher than in the previous prediction over the entire forecast horizon, reflecting the strong quarterly growth in investment observed in 2012 Q2 and gradual replenishment of inventories. The forecast continues to assume that this year's shortfall in government investment from EU funds will be compensated.

The forecast for **exports and imports** this year is affected by the low growth rates of foreign trade turnover recorded in 2012 Q2. The contribution of net exports to GDP growth this year will be roughly the same as in the previous forecast, with lower import growth being fostered by a stronger decline in household consumption and exports, offset by a higher contribution of investment. The export growth forecast for next year has been revised significantly downwards as a result of lower external demand. Imports will also rise at a somewhat slower pace, but stronger investment activity will largely offset lower imports for consumptions and exports, so the contribution of net exports to GDP growth will be smaller than in the previous forecast.

CHART II.3.4

DECOMPOSITION OF CHANGES IN THE INTEREST RATE FORECAST

Lower rates are being fostered in the near future mainly by the current exchange rate level and by the initial state, which, together with expert judgement, is shifting the rate outlook upwards in the longer term

(3M PRIBOR; percentage points)

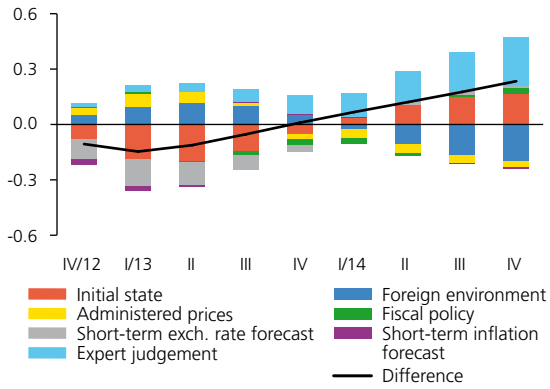


CHART II.3.5

CHANGE IN THE EXCHANGE RATE FORECAST

The exchange rate forecast has moved to weaker levels in the longer term

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

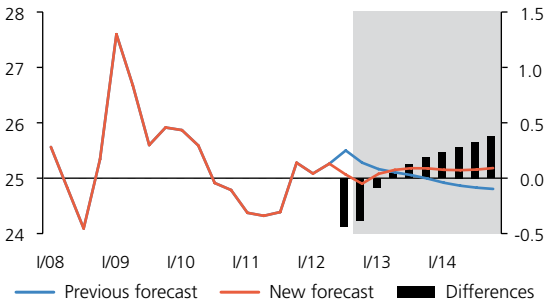


CHART II.3.6

CHANGE IN THE GDP FORECAST

The GDP forecast for next year has been revised downwards compared to the previous prediction

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

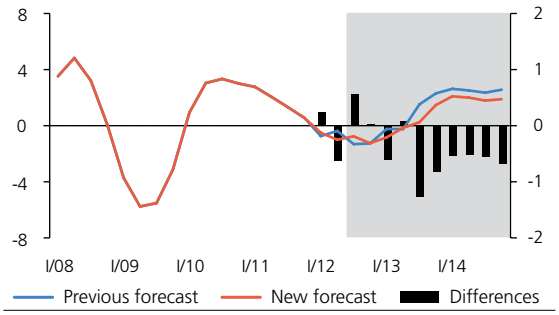
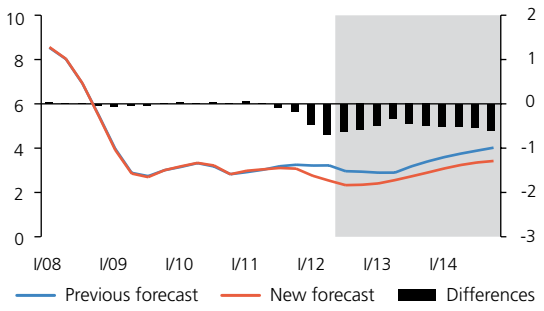


CHART II.3.7

CHANGE IN THE NOMINAL WAGE FORECAST

The business-sector nominal wage forecast is lower over the entire horizon

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



The forecast for average **nominal wage** growth in the business sector is lower than in the previous prediction over the entire horizon (see Chart II.3.7). The revision for this year is due mainly to the weak current wage growth and a revision of previous data. In the following two years, the lower wages reflect a lower outlook for domestic economic activity due to a more sluggish recovery in external demand, and at the longer end also an assumption of slower productivity growth.

II.4 ALTERNATIVE SCENARIOS AND SENSITIVITY ANALYSES

Several risks were identified during the preparation of the forecast. The first is associated with the effects of the euro area debt crisis on foreign variables. The extent of fiscal consolidation measures, including their impacts on the real economy, represents another risk. Household consumption is also a persisting source of uncertainty. However, these risks and uncertainties are not sufficiently clear-cut (or clarified, in the case of fiscal measures) to lead to the preparation of an alternative scenario. A sensitivity scenario using a higher fiscal multiplier, implying a stronger restrictive effect of consolidation measures on real GDP, was prepared. In this scenario, lower household consumption leads to lower inflation, to which monetary policy responds with lower interest rates than in the baseline scenario. An exchange rate sensitivity scenario was also prepared as usual.

II.4.1 Higher fiscal multiplier sensitivity scenario

In its estimates of the impact of discretionary fiscal measures on economic activity, the CNB uses the concept of the **fiscal multiplier**, the value of which it estimates at 0.6 based on analyses performed in the past. This value implies that a decrease (increase) in the ratio of the general government structural deficit to GDP of 1 percentage point leads to a temporary decline (rise) in GDP growth of 0.6 percentage point. In principle, this estimate is subject to uncertainty in either direction.

The **motivation** for preparing this sensitivity scenario is the risk that the value of the fiscal multiplier may currently be higher owing to sustained, procyclical and mostly revenue-driven fiscal consolidation in conditions of recession in the euro area and generally strong uncertainty regarding its future development.[13] These circumstances may have resulted in a change in the behaviour of economic agents. Consumers and firms may currently be reacting to the government's restrictive policy more cautiously, i.e. by saving more (see section III.3 and Box 2 in section III.5.6) at the expense of consumption and investment. This may be dampening domestic demand and economic growth more than the existing estimates indicate.

In the sensitivity scenario, the fiscal multiplier is increased from 0.6 to 1. The restrictive effect of fiscal policy is therefore stronger in the sensitivity scenario than in the baseline scenario of the forecast. More specifically, the **effect on real GDP growth** is estimated at roughly -0.3 percentage point in the remainder of this year (compared to -0.2 percentage point in the baseline scenario), at -1.3 percentage point next year (compared to -0.8 percentage point in the baseline scenario) and at -0.2 percentage point in 2014 (compared to

13 There is also an intensive debate going on at various levels abroad as to whether the current fiscal multiplier levels for individual countries are higher than before the crisis.

Table II.4.1

HIGHER FISCAL MULTIPLIER SENSITIVITY SCENARIO

A higher fiscal multiplier leads to a larger decline in GDP and inflation and hence to a greater need to ease monetary policy
(deviations from baseline scenario)

	CPI inflation (in pp)	3M PRIBOR (in pp)	GDP growth (in pp)	Household consumption (in pp)	Nominal exchange rate (CZK/EUR)
III/12	0.0	0.0	-0.7	-1.6	0.0
IV/12	-0.1	-0.1	-0.7	-1.5	0.0
I/13	-0.1	-0.2	-0.8	-1.9	0.0
II/13	-0.1	-0.1	-0.8	-2.2	-0.1
III/13	-0.1	-0.2	-0.2	-0.6	0.0
IV/13	-0.1	-0.3	-0.4	-1.0	0.0
I/14	-0.1	-0.3	-0.3	-0.9	-0.1
II/14	-0.1	-0.3	-0.3	-0.8	0.0
III/14	-0.2	-0.3	-0.2	-0.6	-0.1
IV/14	-0.2	-0.3	0.0	0.0	-0.1

-0.1 percentage point in the baseline). The stronger restrictive impact is visible mainly in lower household consumption. As a result of these developments in the real economy, inflation is lower in the sensitivity scenario. Monetary policy responds to this by lowering interest rates. The simulation results are shown in the table in the form of deviations from the baseline scenario of the forecast (see Table II.4.1).

II.4.2 Exchange rate sensitivity scenario

The sensitivity scenario quantifies the impacts of a **different exchange rate path**. 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 that quarter are the same as in the baseline scenario. The exchange rate is thus CZK 24.2/25.6 to the euro in 2012 Q4, compared to CZK 24.9 in the baseline scenario.

The table shows the results of the appreciation scenario, expressed as deviations from the baseline scenario (see Table II.4.2). The scenario of a weaker nominal exchange rate leads to the same results but with the opposite sign.

The exchange rate appreciation leads to a decline in import prices at the start of the forecast horizon and hence to lower inflation. The market interest rate path is therefore lower than in the baseline scenario. The stronger exchange rate also reduces exporters' price competitiveness, leading to lower GDP growth in the year ahead than in the baseline scenario. However, GDP growth rises gradually in response to easier monetary policy and an exchange rate correction and inflation returns to the baseline scenario.

Table II.4.2

EXCHANGE RATE SENSITIVITY SCENARIO

Exchange rate appreciation leads to temporarily lower inflation and slower GDP growth than in the baseline scenario; interest rates decrease

(deviations from baseline scenario)

	CPI inflation (in pp)	3M PRIBOR (in pp)	GDP growth (in pp)	Nominal exchange rate (CZK/EUR)
IV/12	0.0	0.0	-0.2	-0.7
I/13	-0.1	-0.3	-0.3	-0.3
II/13	-0.1	-0.3	-0.1	-0.1
III/13	-0.1	-0.3	-0.1	-0.1
IV/13	-0.2	-0.1	0.2	-0.1
I/14	-0.1	0.0	0.3	-0.1
II/14	0.0	0.1	0.2	0.0
III/14	0.0	0.1	0.1	-0.1
IV/14	0.0	0.1	0.0	-0.1

II.5 FORECASTS BY OTHER ENTITIES

Analysts' inflation expectations were flat at both the one-year and three-year horizons. They are currently slightly above the inflation target of 2% at both horizons. The analysts expect GDP growth to decline this year and to edge up next year. Most analysts were expecting stable key rates before the CNB Bank Board meeting in November. The majority of them also expect the koruna to appreciate and the CNB's 2W repo rate as well as market interest rates to be flat in the following 12 months. The market rate outlook one year ahead is slightly falling, but is above the path consistent with the new CNB forecast over the entire forecast horizon.

Inflation expected by financial market analysts and by business managers was flat at the one-year horizon in 2012 Q3. The inflation expectations of both groups of respondents are about 0.5 percentage point above the CNB's target of 2%, probably because of the increase in both VAT rates proposed by the government for January 2013 (see Table II.5.1). The analysts' inflation expectations at the three-year horizon were broadly flat, slightly above the target of 2%.

The indicator of **inflation perceived by households** has been rising gradually from negative values over the last two years and turned slightly positive in late 2011/early 2012 (see Chart II.5.1). This means that households on average felt that prices rose moderately over the last 12 months. In recent months, this indicator has decreased slightly. The indicator of **expected inflation** has long been positive. This suggests 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 recent past (although the largest group has long comprised respondents who expect moderate price growth). The indicator of expected inflation also went down slightly on average in 2012 Q3 as a whole.

Both the FMIE and CF analysts expect GDP to decline this year (see Table II.5.1 and Table II.5.2). Next year the economy should expand by almost 1%, and wage growth should also accelerate slightly compared to this year. Compared to the average koruna exchange rate so far in October 2012, the analysts participating in both the FMIE and the CF expect the exchange rate to be stronger at the one-year horizon (by 1.7% and 0.8% respectively). Before the November CNB Bank Board meeting, 13 analysts participating in the FMIE survey were expecting key interest rates to remain unchanged at this meeting and one analyst was expecting the 2W repo rate to go down by 0.15 percentage point.[14] Most of the analysts also expect rates to remain flat at the current level at the one-year horizon. Their estimates for the

14 In surveys conducted by Thomson Reuters and Bloomberg, roughly 25% of the analysts expected a decrease in CNB key interest rates.

Table II.5.1

EXPECTED INDICATORS OF FMIE AND CORPORATIONS

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

	6/12	7/12	8/12	9/12	10/12
FMIE:					
CPI	2.5	2.5	2.5	2.5	2.4
CPI, 3Y horizon	2.1	2.2	2.2	2.3	2.2
Real GDP in 2012	-0.5	-0.6	-0.7	-0.9	-0.8
Real GDP in 2013	1.3	1.2	1.2	1.1	0.6
Nominal wages in 2012	2.8	2.8	2.8	2.6	2.5
Nominal wages in 2013	3.2	2.9	3.3	3.0	2.8
CZK/EUR exchange rate (level)	24.4	24.4	24.5	24.4	24.5
2W repo rate (in per cent)	0.5	0.6	0.3	0.3	0.2
1Y PRIBOR (in per cent)	1.6	1.6	1.5	1.3	1.2
Corporations:					
CPI	2.5			2.5	

Chart II.5.1

PERCEIVED AND EXPECTED INFLATION

The inflation expectations of households fell slightly on average in 2012 Q3
(source: European Commission Business and Consumer Survey)

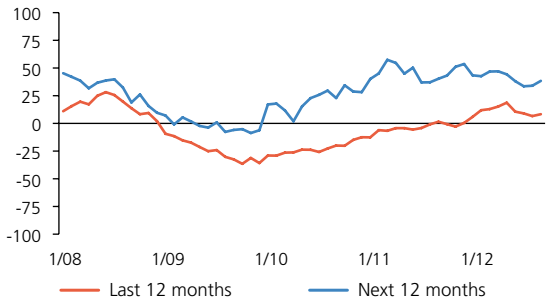


Table II.5.2

CF EXPECTED INDICATORS

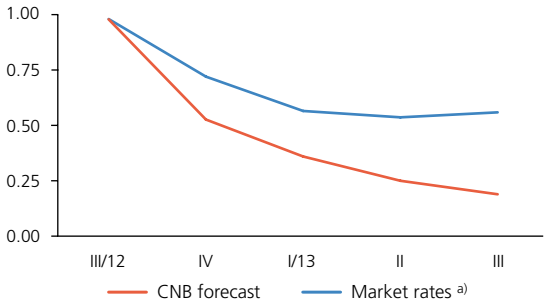
The analysts expect the economy to contract this year and expand modestly next year
(at 1Y; annual percentage changes unless otherwise indicated)

	6/12	7/12	8/12	9/12	10/12
Real GDP in 2012	-0.5	-0.7	-0.7	-0.8	-0.9
Real GDP in 2013	1.3	1.1	1.1	1.0	0.9
Nominal wages in 2012	3.0	2.9	2.9	2.6	2.6
Nominal wages in 2013	3.1	3.0	2.9	2.8	2.8
CZK/EUR exchange rate (level)	25.0	25.1	25.2	24.9	24.7
3M PRIBOR (in per cent)	1.1	1.1	0.8	0.8	0.7

CHART II.5.2

FRA RATES VERSUS THE CNB FORECAST

The FRA rate outlook is above the rates consistent with the CNB forecast
(percentages)



a) for 2012 Q3 and 2012 Q4 the 3M PRIBOR and for 2013 Q1–2013 Q3 the average values of the FRA 3*6, 6*9 and 9*12 rates for the last 10 trading days as of 19 October 2012

2W repo rate lie in the range of 0.05–0.50%. The forecasts for interest rates including market rates have shifted significantly downwards since the start of this year.

Compared to the CNB's new forecast, the analysts expect roughly the same decline in real GDP this year, but next year they expect the economy to grow at a slightly higher pace than predicted by the CNB. Inflation expected at the one-year horizon is slightly above the CNB forecast. The exchange rate at the one-year horizon is considerably stronger than forecasted by the CNB for both groups of analysts. Compared to the new CNB forecast, the analysts participating in the FMIE expect the koruna to be 2.7% stronger, while the CF analysts predict that it will be 1.9% stronger. The analysts' expectations regarding the 2W repo rate and market rates at the one-year horizon are above the 3M PRIBOR path consistent with the new 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 new CNB forecast. The current market outlook is slightly falling, but is above the path consistent with the forecast over the entire horizon (the longer the horizon, the wider the deviation).

III. CURRENT ECONOMIC DEVELOPMENTS

III.1 INFLATION

Annual headline inflation was 3.4% in September 2012 and was thus above the upper boundary of the tolerance band around the CNB's inflation target. At 2.1%, monetary-policy relevant inflation was just above the target. The modest fall in annual inflation in 2012 Q3 was due to administered and market prices, with the exception of fuel prices, whose annual growth rose significantly. Market prices were strongly affected by anti-inflationary pressures from the domestic economy amid weak domestic demand associated with fiscal consolidation and low household confidence. By contrast, import price growth remained high, pertaining both to energy as well as to final products for the consumer market, in both cases owing to previous depreciation of the exchange rate.

III.1.1 Fulfilment of the inflation target

Headline inflation was noticeably above the CNB's target in 2012 Q3 (see Chart III.1.1), while monetary-policy relevant inflation was roughly on target. 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 2012 Q3, we have to examine above all the period roughly from January 2011 to September 2011 (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 II/2011 forecast with subsequent developments.

The **Inflation Report II/2011 forecast** expected both headline and monetary-policy relevant inflation to fluctuate close to the 2% inflation target over the whole forecast horizon (see Chart III.1.1). This was to be fostered by gradually strengthening inflationary pressures from the domestic economy combined with a pick-up in wage growth. These pressures were expected to be partly offset by gradual appreciation of the exchange rate, which, from the perspective of the impacts of import prices on net inflation, was expected to outweigh the effect of rising prices abroad from mid-2011 onwards. Domestic cost pressures were expected to continue rising in 2012 as a result of renewed growth in both external demand and the Czech economy and of rising wage growth. The forecast predicted that food prices would increase in the short term, but their annual growth would slow once the effect of high agricultural producer prices faded away. A similar pattern was expected for fuel prices in the context of a slightly downward market outlook for oil prices.

Chart III.1.1

FORECAST VERSUS ACTUAL INFLATION

Inflation was well above the IR II/2011 forecast in 2012 Q3
(annual percentage changes)

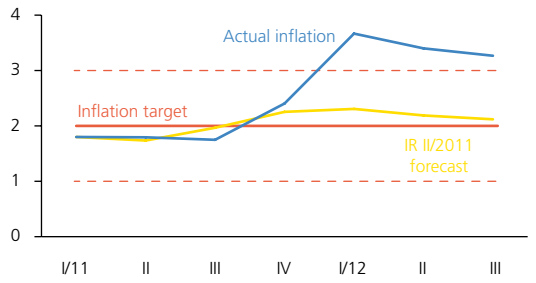


Table III.1.1

FULFILMENT OF THE INFLATION FORECAST

Administered prices and the VAT change fostered significantly higher inflation, while adjusted inflation excluding fuels was lower than forecasted
(annual percentage changes; contributions in percentage points)

	IR II/2011 forecast	2012 Q3 outturn	Contribution to total difference[b)]
CONSUMER PRICES	2.1	3.3	1.2
Breakdown into contributions:			
administered prices	4.0	8.2	0.8
first-round impacts of changes to indirect taxes	0.1	1.0	0.9
food prices[a)]	1.7	2.8	0.2
fuel prices[a)]	2.6	6.4	0.1
adjusted inflation excl. fuels[a)]	1.4	-0.4	-0.9

a) excluding the first-round effects of changes to indirect taxes
b) Owing to rounding, the sum of the contributions is not necessarily equal to the total difference; the contributions are also affected by a change in the consumer basket weights made in January 2012.

Table III.1.2

FULFILMENT OF THE EXTERNAL ASSUMPTIONS

External cost factors had a neutral effect on domestic inflation in 2011 and were subsequently anti-inflationary
(annual percentage changes unless otherwise indicated)

		II/11	III/11	IV/11	I/12	II/12	III/12
GDP in euro area[a), b), c)]	p	2.4	2.0	1.9	2.0	2.2	2.3
	o	3.0	2.4	1.6	1.7	0.6	-
PPI in euro area[b), c)]	p	4.8	4.3	3.7	2.3	2.3	2.7
	o	6.4	5.9	5.1	3.7	2.2	1.7
3M EURIBOR	p	1.5	1.7	2.0	2.3	2.5	2.7
(percentages)	o	1.4	1.6	1.5	1.0	0.7	0.4
USD/EUR exchange rate	p	1.41	1.38	1.38	1.38	1.37	1.35
(levels)	o	1.44	1.41	1.35	1.31	1.28	1.25
Brent crude oil price	p	120.7	119.5	118.4	117.3	116.0	114.5
(USD/barrel)	o	116.8	112.9	109.3	118.7	108.7	109.9

p – prediction, o – outturn
a) at constant prices
b) seasonally adjusted
c) effective indicator as defined in the IR II/2011 forecast

Table III.1.3

FULFILMENT OF THE FORECAST FOR KEY VARIABLES

Observed GDP growth in 2012 was well below the forecast

		II/11	III/11	IV/11	I/12	II/12	III/12
3M PRIBOR	p	1.2	1.3	1.5	1.7	1.9	2.2
(percentages)	o	1.2	1.2	1.2	1.2	1.2	1.0
CZK/EUR exchange rate	p	24.3	24.0	23.8	23.7	23.5	23.3
(levels)	o	24.3	24.4	25.3	25.1	25.3	25.1
Real GDP[a)]	p	1.8	1.0	0.9	1.4	2.2	3.3
(annual perc. changes)	o	2.1	1.3	0.6	-0.5	-1.0	-
Nominal wages[b)]	p	2.2	2.8	3.5	4.4	4.9	5.2
(annual perc. changes)	o	3.2	2.7	2.6	3.3	2.3	-

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

Headline **inflation in reality** was roughly in line with the forecast in 2011, but was much higher than expected as from the start of 2012 (monetary-policy relevant inflation was roughly in line with the forecast over the entire forecast horizon). This deviation was due to much higher administered price inflation (including the effect of the VAT change), with energy prices and regulated rents recording stronger growth. A no less important factor behind this deviation was the increase in the reduced VAT rate from 10% to 14% in January 2012, which had not been predicted in the IR II/2011 forecast. Food and fuel price inflation was also higher than expected. By contrast, adjusted inflation excluding fuels, which remained negative owing mainly to subdued domestic inflation pressures, had a strongly anti-inflationary effect (see Table III.1.1).

External economic factors contributed significantly to domestic inflation. External economic activity grew faster than forecasted for most of 2011. Then, in late 2011/early 2012, external demand was only slightly lower than forecasted, but in 2012 Q2 it recorded an unexpected strong downturn. At the same time, international production prices rose more quickly than forecasted for most of the period. Foreign interest rates were initially rather lower than predicted, but fell significantly below the expected level at the end of 2011 (see Table III.1.2). The effect of external developments on domestic inflation was thus roughly neutral in 2011 and anti-inflationary in 2012.

Domestic **interest rates and the exchange rate** also differed from the forecast. Interest rates remained stable over almost the entire horizon under review and thus deviated from the forecast, which had expected them to rise gradually as from the end of 2011. The exchange rate was initially close to the forecast. In late 2011, however, the koruna depreciated significantly owing to rising risk aversion associated with the escalation of the euro area debt crisis. The koruna remained at weaker levels in the first three quarters of 2012 (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. Domestic GDP growth did not differ much from the forecast in 2011. Its annual growth rate decreased gradually, mainly due to subdued domestic demand (associated with fiscal restriction) and gradually slowing growth abroad. In early 2012, however, GDP growth was noticeably below the forecast owing to a greater-than-expected decline in external demand growth, more radical fiscal consolidation and uncertainty relating to the euro area debt crisis. These effects were reflected above all in falling consumption and investment growth. Wage growth was also more subdued than forecasted. Despite the economic downturn, however, headline inflation was well above the target in 2012 Q3, mainly due to fast growth in administered prices and to the VAT change effective as from January 2012.

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 January 2011 and September 2011, the Bank Board assessed the risks to the forecasts in the first two quarters as being balanced or on the upside (although only for headline inflation due to the expected VAT change, to whose first-round effects monetary policy does not react). In 2011 Q3, the risks to the inflation forecast were assessed as being balanced or slightly on the downside and those relating to interest rates as being skewed towards significantly lower levels. Market interest rates remained stable over almost the entire period under review and thus deviated from the forecasts, which had expected them to rise gradually as from the end of 2011. Headline inflation was above the target in 2012 Q3, primarily because of the increase in the reduced VAT rate. Monetary-policy relevant inflation was roughly on target. From this perspective, based on current knowledge, it seems that the monetary policy pursued between January and September 2011 was roughly appropriate.

III.1.2 Current inflation

Annual inflation[15] decreased slightly in 2012 Q3, falling by 0.1 percentage point compared to June to 3.4% in September (see Chart III.1.2). This modest slowdown in consumer price inflation was due to all components of inflation except fuel prices, which rose significantly in Q3 (see Chart III.1.3).

Turning to the **structure of annual inflation**, inflation continued to be affected in 2012 Q3 mainly by administrative factors, i.e. changes to indirect taxes and administered prices. Their share in overall annual consumer price inflation remained stable at about 75% (see Chart III.1.4). Within market prices, increases were recorded for food and fuels, whereas other prices declined on average. The trends across the individual components of inflation thus remained very mixed.

Owing to an increase in the reduced VAT rate and a harmonisation increase in excise duties on cigarettes at the start of this year, changes to **indirect taxes** contributed about 1 percentage point to annual market price inflation in September. The overall first-round effect on inflation including administered prices was roughly 1.3 percentage points. **Monetary-policy relevant inflation**, i.e. inflation adjusted for the first-round effects of indirect taxes, was therefore well below annual headline inflation again and stood at 2.1% in September (see Chart III.1.2).

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

CHART III.1.2

INFLATION

Inflation decreased in 2012 Q3 compared to June
(annual percentage changes)

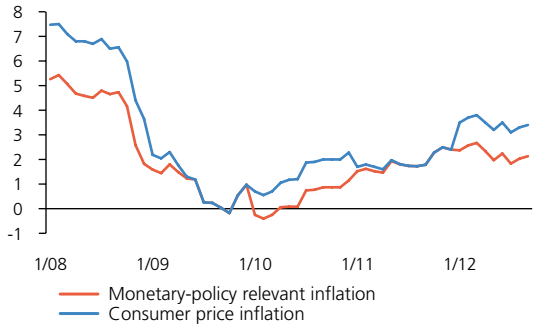


CHART III.1.3

INFLATION COMPONENTS

Most components of inflation except for fuel prices contributed to the decrease in inflation
(annual percentage changes; excluding indirect tax changes)

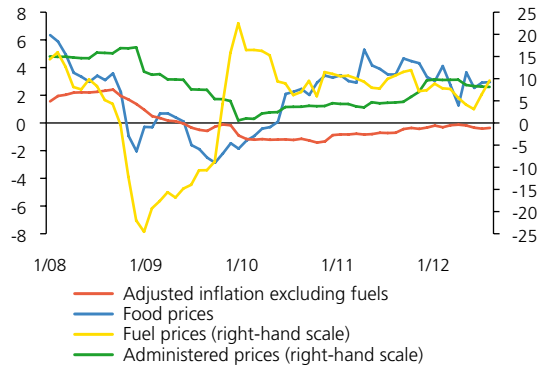


CHART III.1.4

STRUCTURE OF INFLATION

Administered prices, indirect taxes and food prices contributed the most to inflation
(annual percentage changes; contributions in percentage points)

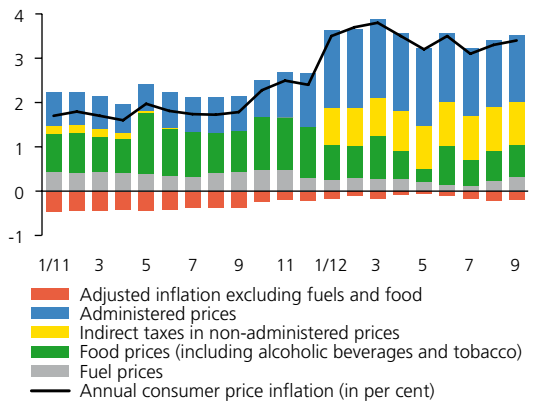


CHART III.1.5

FOOD PRICES

Food price inflation was volatile, but went down overall
(annual percentage changes)

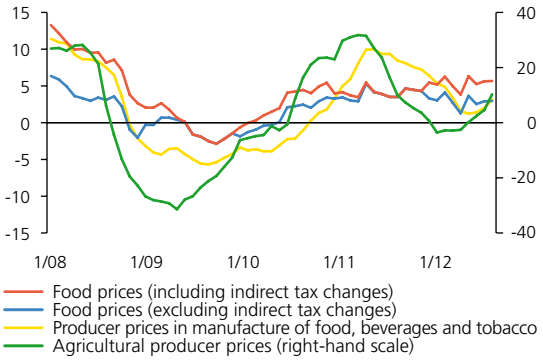
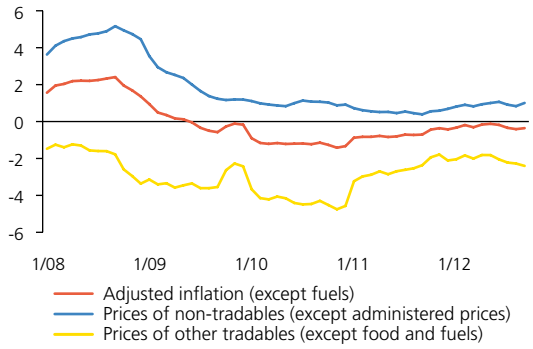


CHART III.1.6

ADJUSTED INFLATION EXCLUDING FUELS

The annual decline in prices within adjusted inflation deepened in 2012 Q3
(annual percentage changes)



Administered prices made the biggest contribution to annual inflation again in 2012 Q3 (see Chart III.1.4). Their annual growth remained high (8.1% in September), despite slowing further (by 0.5 percentage point from June). However, this slowdown was partly due to base effects. Regulated rents and administered prices in health care went up in 2012 Q3. In September, administered prices also rose in the areas of education and food. However, the annual rise in administered prices was due primarily to changes made to most regulated items at the start of 2012, when these prices were also affected by VAT changes. The following text assesses the evolution of the main components of inflation adjusted for the tax changes.

Annual **market price inflation**, as measured by net inflation, fell slightly in 2012 Q3 (from 1.2% in June to 1.1% in September). This was due to a fall in food price inflation and a stronger year-on-year decline in prices within adjusted inflation excluding fuels, whose downward effect was, however, almost offset by a marked upswing in fuel prices (see Chart III.1.3). The generally modest annual growth in market prices and in particular the falling prices within adjusted inflation in 2012 Q3 continued to indicate subdued consumer demand and a generally moderately anti-inflationary effect of the domestic economy. Growth in import prices of final products for the consumer market meanwhile decreased, but growth in import prices of mineral fuels increased. Import prices continued to be affected by year-on-year depreciation of the koruna, particularly against the dollar.

Food prices (adjusted for changes to indirect taxes) remained very volatile, but their annual growth slowed overall in 2012 Q3 (from 3.6% in June to 3% in September; see Chart III.1.5). This change was chiefly due to a correction of the previous high growth in potato prices and to low consumer demand. At the end of Q3, however, food prices started to be affected by rising growth of agricultural producer prices, food import prices and subsequently food industry prices. This effect was apparent in the food and non-alcoholic beverages category, while prices of alcoholic beverages and tobacco were broadly flat in 2012 Q3.

The effect of low consumer demand and generally subdued economic activity was also observed in annual **adjusted inflation excluding fuels**, which has been negative since mid-2009. In 2012 Q3 it again shifted towards more negative values (from -0.2% in June to -0.4% in September; see Chart III.1.6). A look at its structure reveals that the main cause of this change was a modest deepening of the annual decline in prices of other tradable commodities excluding fuels. These market price developments were probably due mainly to weak domestic demand, which more than offset the effect of the year-on-year depreciation of the koruna against the euro, observed in relatively fast growth of import prices of industrial goods. Annual growth in prices of other nontradable commodities continued to fluctuate around 1% (see Chart III.1.6).

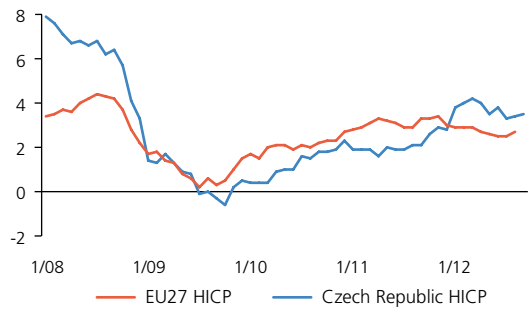
Annual **fuel price inflation** rose significantly again in 2012 Q3 (from 4.1% in June to 9.6% in September). This rise was driven mainly by renewed annual growth in global oil prices amid continued marked year-on-year depreciation of the koruna against the dollar.

By international comparison, consumer prices as measured by the **HICP** rose faster in the Czech Republic than on average in the EU countries for the third consecutive quarter (see Chart III.1.7), owing mainly to the VAT change in January this year. According to Eurostat's latest estimate, annual HICP growth in the Czech Republic slowed to 3.5% in September. The latest available (August 2012) average figure for the 27 EU countries indicated a pick-up in annual growth to 2.7%.[16]

CHART III.1.7

HICP

Annual HICP inflation in the Czech Republic was higher than the EU average
(annual percentage changes; source: Eurostat)



16 Annual HICP growth excluding tax effects was 2.3% in the EU countries and slightly lower (2.2%) in the Czech Republic in August.

CHART III.2.1

IMPORT PRICES AND PRODUCER PRICES

Import price inflation moderated overall, whereas industrial and agricultural producer price inflation went up
(annual percentage changes)

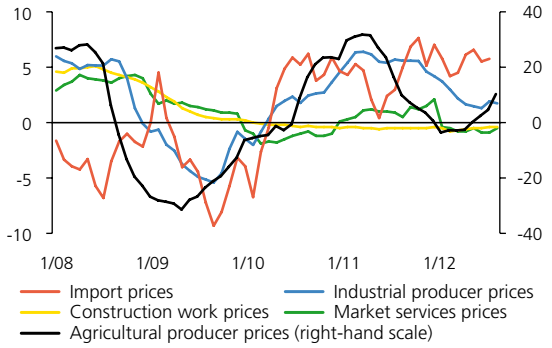


CHART III.2.2

IMPORT PRICES

Import price inflation was driven by prices of energy commodities and commodities with high value added
(annual percentage changes; contributions in percentage points)

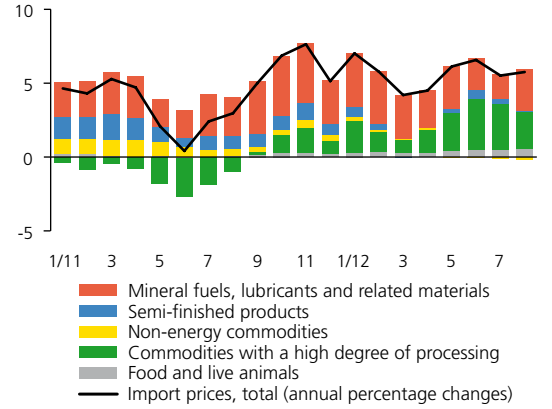
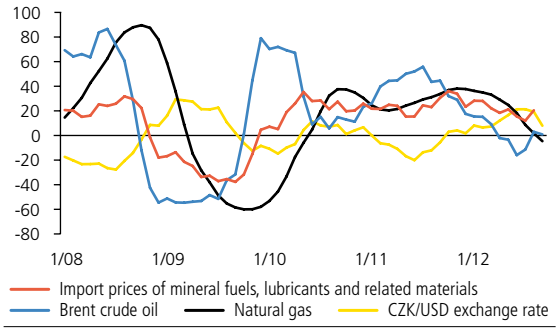


CHART III.2.3

MINERAL FUELS

Import prices of mineral fuels were strongly affected by annual depreciation of the koruna-dollar exchange rate
(annual percentage changes)



III.2 IMPORT PRICES AND PRODUCER PRICES

Import price inflation remains high, despite having fallen slightly in the summer months. Annual growth in import prices of products with a higher degree of processing slowed somewhat from the previous high values. Import prices of energy commodities continued to rise quickly, owing primarily to year-on-year depreciation of the koruna against the dollar. Industrial producer price inflation picked up slightly in 2012 Q3, mainly because of rising global oil prices. Agricultural producer price inflation also rose due to an increase in global agricultural prices. Prices of construction work and market services continued to fall modestly amid persisting weak demand.

III.2.1 Import prices

In the first two months of 2012 Q3, growth in **import prices** continued to be driven mostly by import prices of energy commodities and products with a high degree of processing (see Chart III.2.2). Annual import price inflation slowed compared to June (to 5.8% in August), reflecting mainly weakening growth in world prices of non-energy commodities.

The contribution of prices of imported **mineral fuels** to annual import price inflation increased again in August (see Chart III.2.2). This was mainly due to an abrupt change in the oil price trend on world markets. Oil prices had been falling year on year since April, the biggest decrease (16%) having been recorded in June. In August, however, the decline was replaced by a modest annual increase (of 3%). As for natural gas prices, their high growth subsided rapidly from over 20% in 2012 Q2 to less than 2% in August. Overall, the evolution of these energy commodity prices was reflected in a gradual slowdown of annual growth in import prices of mineral fuels to 12% in July. In August, however, the growth rebounded to 20.5%. As in the previous quarter, these import prices were strongly affected by annual depreciation of the koruna-dollar exchange rate[17] (see Chart III.2.3).

There was also a surge in annual growth in import prices of **food** (to 10.7%) and animal and vegetable oils, due to the weaker exchange rate and stronger growth in agricultural commodity prices on world markets. By contrast, the other import categories saw a continued slowdown in growth or a decline in prices linked with commodity price movements on global markets. This applies above all to import prices of **non-energy commodities**, which have been falling since May (and decreased by 4.6% in August) despite the weaker exchange rate of the koruna against the dollar. Import prices of **semi-finished products** and chemicals also recorded slower growth in July and August than at the end of 2012 Q2 (see Table III.2.1).

17 The koruna-dollar exchange rate weakened by 19.2% year on year in August.

August also saw a decline in the growth rate of import prices of **high-value-added commodities**,[18] whose strong year-on-year growth of over 6% in June was largely due to the weakening exchange rate. Although their growth slowed overall to 4.5% in August, their contribution to annual import price inflation, given their large weight, was still relatively high (see Chart III.2.2).

III.2.2 Producer prices

Industrial producer prices

Annual **industrial producer price inflation** rose slightly in 2012 Q3 (from 1.5% in June to 1.7% in September). This meant an interruption of the previous gradual decline (see Chart III.2.4), reflecting the fading impact of high prices of major global commodities on domestic producer prices.

A more detailed analysis of the causes and **structure of industrial producer price inflation** reveals that the reversal of the downward trend in August 2012 was due mainly to renewed annual growth in global oil prices, which – coupled with continuing sharp year-on-year depreciation of the koruna against the dollar – fed through quickly to producer prices in the primary oil processing sector. As a result, growth in producer prices accelerated in the energy category (see Chart III.2.5). The pick-up in industrial producer price inflation was also fostered by a recovery in growth of domestic prices of agricultural inputs of crop origin and stronger growth in import prices of food. By contrast, other factors had a downward effect on costs, as indicated in particular by year-on-year declines in prices of imported non-energy inputs and prices in mining and quarrying (see Chart III.2.4). Annual inflation in other branches of manufacturing went down at the same time.

The renewed annual growth in oil prices on world markets, accompanied by continued year-on-year depreciation, led (with a short lag) to a pick-up in producer price inflation in the **manufacture of coke and refined petroleum products** (from 5.1% in July to 13.3% in September). The contribution of this industry to annual industrial producer price inflation thus increased significantly (to 1 percentage point in September; see Chart III.2.4). Annual producer price inflation in the food industry also rose in Q3 (to 3.2% in September), owing mainly to renewed growth in prices of agricultural inputs of domestic origin. By contrast, prices in the manufacture of basic metals and fabricated metal products have been falling since the start of 2012 Q3 and their contribution to annual industrial producer price inflation was thus negative (see Chart III.2.6).

18 This category contains machinery, transport equipment and miscellaneous manufactured articles. Their prices are affected mainly by the koruna-euro exchange rate, which depreciated by 3.1% year on year in August.

TABLE III.2.1

STRUCTURE OF IMPORT PRICE INFLATION

Prices rose in most import categories, and most of all in the case of imported energy commodities
(annual percentage changes)

	5/12	6/12	7/12	8/12
IMPORTS, TOTAL	6.1	6.6	5.5	5.8
of which:				
food and live animals	6.4	8.8	8.7	10.5
beverages and tobacco	9.4	10.8	12.4	12.1
crude materials inedible, except fuels	-0.6	-1.0	-2.0	-4.6
mineral fuels and related products	21.2	15.4	12.0	20.5
animal and vegetable oils	2.2	3.7	3.8	4.0
chemicals and related products	5.1	5.8	4.0	3.5
manufactured goods classified chiefly by material	1.2	2.8	1.4	0.4
machinery and transport equipment	4.5	6.3	6.2	4.8
miscellaneous manufactured articles	4.3	6.0	5.0	3.9

CHART III.2.4

INDUSTRIAL PRODUCER PRICES

Industrial producer price inflation went up in 2012 Q3
(annual percentage changes; contributions in percentage points)

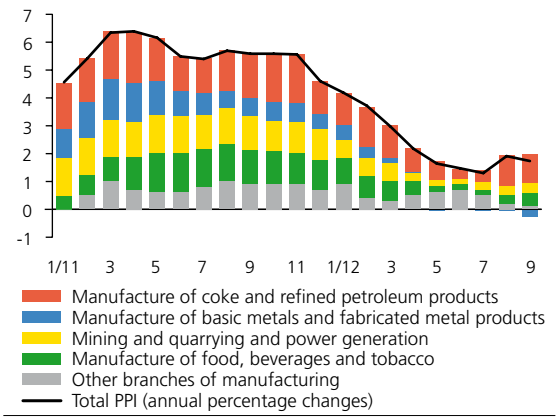


CHART III.2.5

PRODUCER PRICES BY MAIN INDUSTRIAL GROUPINGS

Inflation weakened in most of the industrial categories; only energy prices and prices of non-durable goods recorded higher growth
(annual percentage changes)

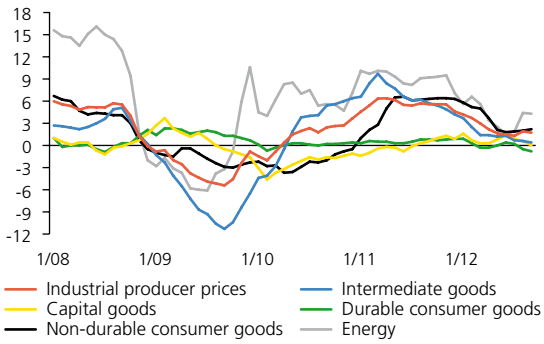


CHART III.2.6

PRICES OF METALS AND REFINED PETROLEUM PRODUCTS

Producer prices decreased in the metal industry, while renewed growth in oil prices fed through quickly to prices in the manufacture of coke and refined petroleum products
(annual percentage changes)

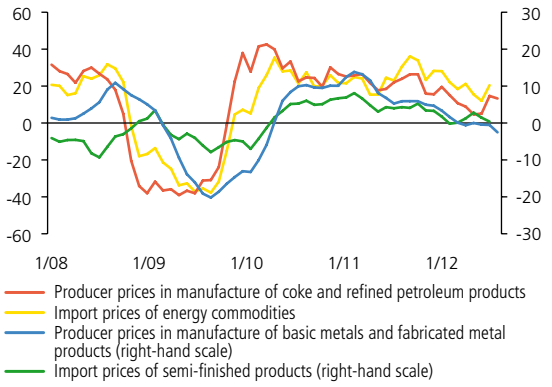
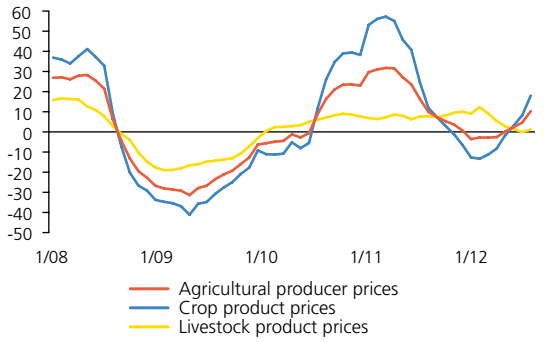


CHART III.2.7

AGRICULTURAL PRODUCER PRICES

Agricultural producer price inflation rose sharply in 2012 Q3
(annual percentage changes)



Producer prices in the **electricity, gas and steam supply industry** have been rising steadily since the start of this year (by 1.7% in September) and those in mining and quarrying have been falling since April. Prices in the water supply and sewerage-related services industry are also showing stable growth this year (of 8%), albeit higher than in 2011. Overall, the contribution of these industries to annual industrial producer price inflation thus increased only marginally in 2012 Q3.

Producer price inflation in the **other branches of manufacturing**, comprising the manufacture of high-value-added products, recorded a modest slowdown. Their contribution to overall annual industrial producer price inflation therefore decreased in September compared to June, reaching just 0.1 percentage point (see Chart III.2.4). Annual inflation decreased in the manufacture of rubber and plastic products. Prices of computer, electronic and optical products and prices of transport equipment have been falling since September. Annual decline in prices of electrical equipment deepened.

Agricultural producer prices

Agricultural producer prices, which had started rising again at the end of the previous quarter, continued to go up in 2012 Q3. Their annual growth rate accelerated further, reaching 10.3% in September (see Chart III.2.7). This was due exclusively to prices of crop products, which have been rising again year on year since the start of Q3 (by 18% in September). By contrast, growth in prices of livestock products kept slowing (to 1.2% in September).

The modest annual decline in agricultural producer price inflation in the first half of this year had been due to factors operating in 2011, in particular much better weather conditions and the related return of some traditional exporters to world markets. In addition, the 2011 domestic harvest had been well above average from the longer-term perspective. At the start of 2012 Q3, however, there was quite a major reversal in trend. Underlying this change was information about this year's weak harvest in major world producers (initially in the USA and later also in other countries, including European ones) and subsequent expectations of a marked decline in global stocks of food commodities, which led to a jump in their prices on world markets. This year's domestic harvest was also one of the lowest in years, down by about 20% from a year earlier. These factors led to renewed annual growth in domestic crop product prices. Prices of livestock products continued to be affected by the sudden rise in egg prices recorded at the start of 2012 due to stricter veterinary rules in the EU and a related shortfall in production. Their effect, however, was gradually outweighed by a decline in prices in other livestock product categories, milk and pigs in particular.

Other producer prices

Amid persisting low construction investment demand, **prices of construction work** continued to show a slight annual decline (of 0.4% in September; see Chart III.2.8). Prices of materials and products consumed in construction still showed modest growth (0.6% in September).

The weak domestic demand was also evident in **market services prices**, which continued to show an annual decline in 2012 Q3 (-0.5% in September). Falling prices were recorded for about half of the monitored branches of services, particularly advertising services and market research (-2.4%). Prices of architectural and engineering services also continued to fall (-2.8%), mainly reflecting persisting low demand for investment in buildings and structures. Prices of services in telecommunications and some other services decreased to a lesser extent. The other branches under review recorded only modest price growth in Q3 (e.g. transport, financial services except insurance and pension financing, programming and consultancy).

CHART III.2.8

OTHER PRICE CATEGORIES

Prices of construction work and prices of market services are falling

(annual percentage changes)

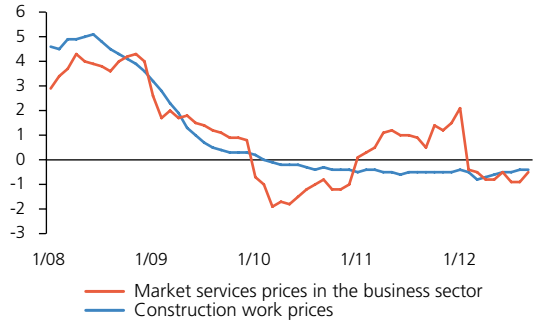


CHART III.3.1

GROSS DOMESTIC PRODUCT

The year-on-year decline in GDP deepened in 2012 Q2
(annual and quarterly percentage changes at constant prices; seasonally adjusted data)

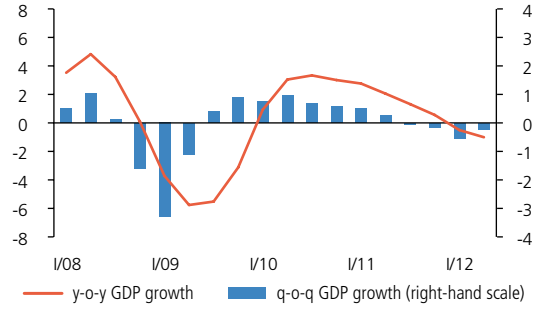


CHART III.3.2

STRUCTURE OF ANNUAL GDP GROWTH

Real GDP growth was driven by net exports in 2012 Q2, while domestic demand decreased overall
(contributions in percentage points; seasonally adjusted data)

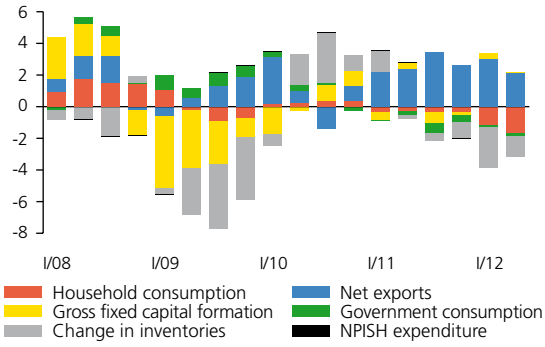
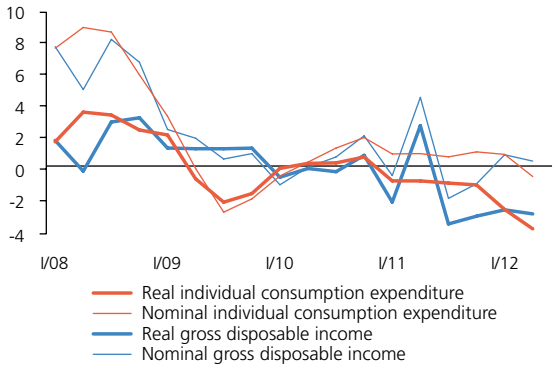


CHART III.3.3

HOUSEHOLD CONSUMPTION EXPENDITURE

The real decline in household consumption strengthened noticeably
(annual percentage changes)



III.3 DEMAND AND OUTPUT

The year-on-year decline in real GDP deepened further in 2012 Q2 (to -1.0%).[19] *In quarter-on-quarter terms, GDP declined by 0.2%. The year-on-year decline was due most of all to household consumption and change in inventories. Government consumption also fell in 2012 Q2, whereas fixed investment was flat at the level of the same period last year. Amid a persisting lead of export growth over import growth, only net exports had a pro-growth effect, albeit to a lesser extent than in the previous quarter. On the supply side, manufacturing was the biggest contributor to GDP growth, although its positive contribution shrank further. Gross value added decreased in most other industries (construction, trade and some services in particular). The estimated output gap continued to open into negative values.*

III.3.1 Domestic demand

The year-on-year decline in **domestic demand** deepened further in 2012 Q2. This was due above all to a stronger annual decline in household consumption (see Chart III.3.2), which is the largest expenditure component of GDP.[20] Government consumption also contributed to the further reduction in domestic demand. The contribution of inventories was again negative, whereas that of fixed investment was neutral.

Final consumption

Household consumption continued to fall in 2012 Q2. The decline deepened by a further almost 1 percentage point to -3.3% (see Chart III.3.3). The downward trend – observed since the start of 2012 – was linked with ongoing fiscal consolidation, the stagnating labour market and great uncertainty surrounding future economic developments and employment. These factors were reflected in lower growth rates of nominal and real household income and an increased propensity to save.

Nominal gross disposable income rose slightly year on year in 2012 Q2, to 0.7%. However, its **real purchasing power** was – as in the previous quarter – significantly eroded by annual inflation,[21] mainly because of the pass-through of the increased VAT to consumer prices and to an increase in administered prices at the beginning of this year. This was reflected in a decline in real gross disposable income, which reached 2.6% in Q2 (see Chart III.3.3). The fall in real consumption expenditure was even more pronounced (-3.6%).

19 The assessment of GDP expenditure and sources is based on seasonally adjusted data from the quarterly national accounts.
20 The share of household consumption in GDP at 2005 constant prices was 46% in 2012 Q2.
21 As measured by the household consumption deflator.

A closer look at the **structure** of nominal gross disposable income shows that only **wages and salaries** made a noticeable positive contribution to its annual growth in 2012 Q2. However, this contribution was smaller than in Q1 (see Chart III.3.4). Income from other current transfers and social benefits increased as well, although their contribution to disposable income growth was low. The relatively high-weight business income (gross operating surplus and mixed income) continued to record a modest annual decline, and property income also decreased for the second consecutive quarter. The effect of taxes and social contributions was also negative.

The gradual increase in the **gross saving rate** (see Chart III.3.5) in 2011 H2 and 2012 H1 indicates that some households are creating financial reserves despite the declining real income. This suggests that households are acutely aware of the persisting considerable uncertainty on the labour market and the expected further restrictive fiscal measures. Saving activity varied across social groups, however. The prudent consumption behaviour of households was also evidenced by persisting weak **consumer credit** growth in 2012 Q2 (see section III.5.2). In these circumstances, households' consumption spending fell in most monitored **consumer goods categories**, i.e. non-durable and durable goods and services. For the two last-mentioned categories this represents a significant change compared to 2011. Only real expenditure on semi-durable goods increased slightly year on year (see Chart III.3.6). A closer look at the household saving rate is provided in Box 1 below and in Box 2 in section III.5.6.

The latest available **leading indicators** do not yet suggest any noticeable recovery of household consumption in the quarter ahead. The seasonally adjusted August data on real retail sales including the automotive segment decreased year on year (by 0.8%), albeit more moderately than in July. This decline was due to a marked drop in sales in the automotive segment, which was partly offset by a modest rise in retail sales including fuels. The latest results of the CZSO's September business survey do not indicate any change in the consumption behaviour of households either. Following a slight improvement in July and August, the consumer confidence indicator decreased again in September, remaining close to the record lows of 1998 and 1999. This primarily reflected households' worsening expectations regarding the overall economic situation and unemployment.

The year-on-year decline in real **government final consumption expenditure** deepened further in 2012 Q2, reaching -0.9%. This reflects the continued implementation of austerity measures in the government consumption area.

CHART III.3.4

DISPOSABLE INCOME

Nominal gross disposable income increased, although only slightly

(annual percentage changes; contributions in percentage points; current prices)

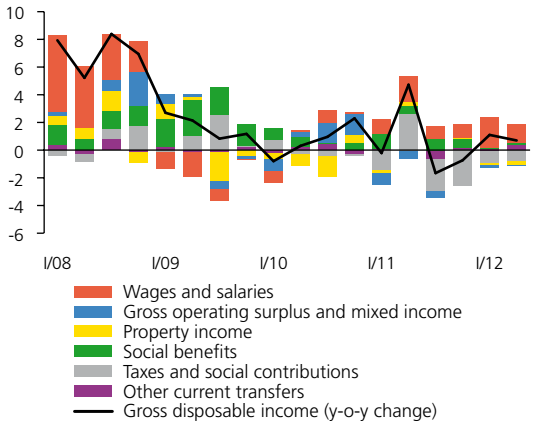


CHART III.3.5

SAVING RATE AND CONSUMER CONFIDENCE INDICATOR

The persisting low household confidence is being reflected in a gradual increase in the propensity to save

(percentages; basic index; year 2005 = 100; seasonally adjusted data)

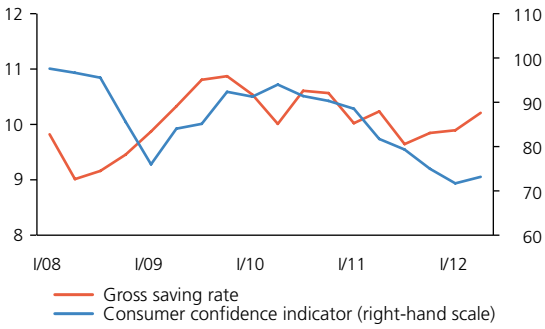


CHART III.3.6

STRUCTURE OF HOUSEHOLD CONSUMPTION

Households' expenditure on durable goods started to fall sharply in 2012 H1

(annual percentage changes; contributions in percentage points; constant prices)

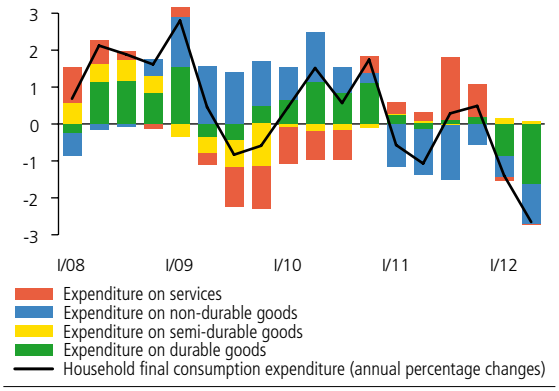


CHART 1 (BOX)

REVISIONS OF SAVING RATE

The revisions of the saving rate amount to almost 3 percentage points in individual quarters
(in % of gross disposable income; source: CZSO, seasonally adjusted)

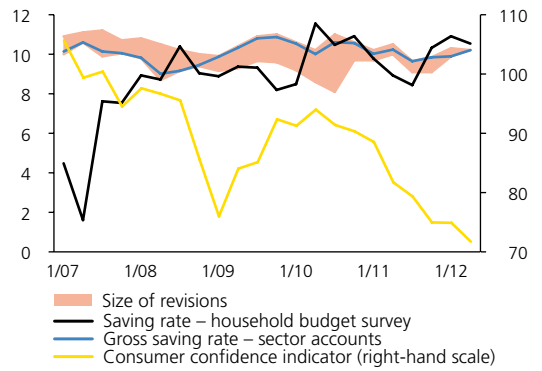


CHART 2 (BOX)

INTERNATIONAL COMPARISON OF SAVING RATE

The saving rate demonstrates different consumer behaviour in different countries during the crisis
(in % of gross disposable income; source: Eurostat, seasonally adjusted)

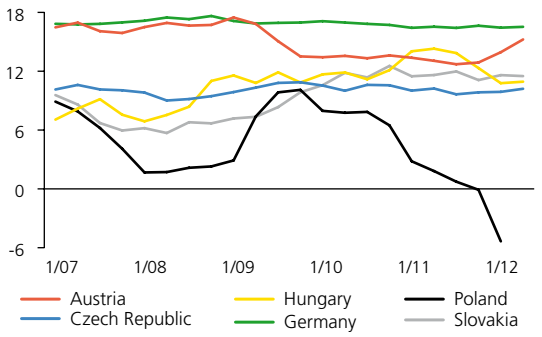
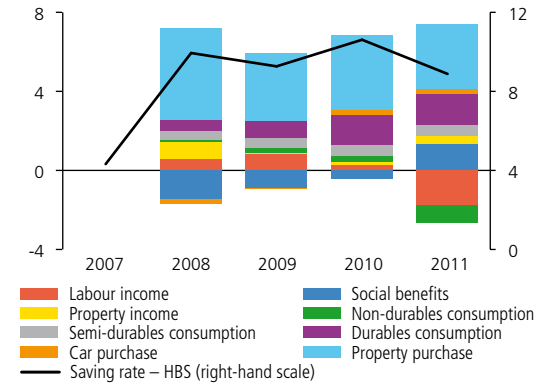


CHART 3 (BOX)

CONTRIBUTIONS TO SAVING RATE CHANGE AGAINST YEAR 2007

The change in the saving rate against 2007 was positively affected by a decline in property purchases and by deferred long-term consumption
(contributions in percentage points; saving rate in % – right-hand scale; source: CZSO household budget survey)



BOX 1
The household saving rate

A deepening decline in real consumption is evident this year. This decline is due – in addition to weak nominal disposable income growth and elevated inflation – to tax changes and the trend in the saving rate. The latter has been rising recently (see Chart 1), probably because of consumer cautiousness stemming from considerable uncertainty on the labour market and expectations of further restrictive fiscal measures.

The CZSO publishes household saving rate statistics in the quarterly non-financial sector accounts for households, where the saving rate is defined as the ratio of gross savings to gross disposable income. The non-financial sector accounts for households are subject to revisions as part of the revisions of the national accounts. These revisions have been quite significant in the last two years from the saving rate perspective (see Chart 1). Considerable variability in the saving rate can be seen in the period under review. The largest revision – 2.9 percentage points – was made for 2010 Q3. This means that the evolution of the saving rate should be interpreted with caution, taking account of the possibility of future data revisions.

Looking at an international comparison of saving rates (see Chart 2) we can see various reactions of households to the changes in national economies. Austrian households smoothed their consumption, so the saving rate decreased during 2009 and has only recently been gradually returning to its previous values. Polish households adjusted their saving rates much more flexibly in the period under review. Following a rise in 2009 H1, they pushed their saving rate down into negative territory. By contrast, the saving rate in Slovakia suggests a precautionary motive, as it exceeded 11% in 2010 and has remained at this level since then. In this light, the saving rate in the Czech Republic seems relatively stable over the entire period, as it is in Germany, although there it is more than 7% higher.

An alternative source of statistics – the household budget survey – can be used to analyse households' saving rate behaviour. The aggregated quarterly household budget statistics published by the CZSO since the start of 2007 (see Chart 3) allow us to compare the saving rate, calculated as the difference between net money income and expenditure over net money income, with the statistics available from non-financial sector accounts

(see Chart 1).[22] A comparison of the seasonally adjusted time series in the recent period reveals a similar saving rate trend for the two statistics, which is to a certain extent negatively correlated with the consumer confidence indicator. By contrast, a very different trend in the saving rate can be seen at the start of 2007, when the property market boom peaked.

A deeper analysis of annual household budgets available down to the level of individual households (see Chart 3) reveals that the growth in the saving rate compared to 2007 is due mainly to a marked decline in property purchases in the following years. In addition to falling expenditure on property purchases, however, the increase in the saving rate is due to falling long-term consumption. Falling purchases of motor vehicles have gradually acted in the same direction (although to a much lesser extent) since 2010. Based on this analysis, it is reasonable to assume that the saving rate growth observed in 2012 H1 was still due mainly to falling long-term household consumption.

Looking at the saving rate by income quartiles (see Chart 4), one can see a slightly downward trend in the saving rate among households in the first income quartile. By contrast, higher-income households are showing a gradual increase in the long run. The position of the saving rate curve comprising all the monitored households indicates that high-income households are the main contributors to the overall saving rate. The upper quartile accounts for more than half of savings, and its share together with the third quartile is dominant.

Investment

Continuing subdued growth in investment in 2012 Q2 indicated persisting considerable uncertainty among both households and corporations regarding future economic developments (see Chart III.3.7). Following a rise in 2012 Q1, **fixed investment** was flat in Q2 at the level of the same period a year earlier.

Investment was uneven across sectors (see Chart III.3.8). In the **non-financial corporations** sector, which accounts for more than 60% of total investment, annual fixed investment growth moderated to 3.3% in 2012 Q2. As in Q1, this growth was driven by investment in machinery and equipment, whereas investment in buildings and structures has long been falling. According to the latest business survey conducted by the CNB and the Confederation of Industry in September, the outlook for investment growth in non-financial

22 For the purposes of analysing the saving rate calculated from the CZSO household budget survey, property acquisition was included in money expenditure in full, unlike in the national accounts, which consider property purchases as investment and include only imputed rents in consumption expenditure.

CHART 4 (BOX)

BREAKDOWN OF SAVING RATE BY INCOME QUARTILE

With the exception of the first quartile, the saving rate is rising moderately

(in % of net income; source: CZSO household budget survey, CNB calculations)

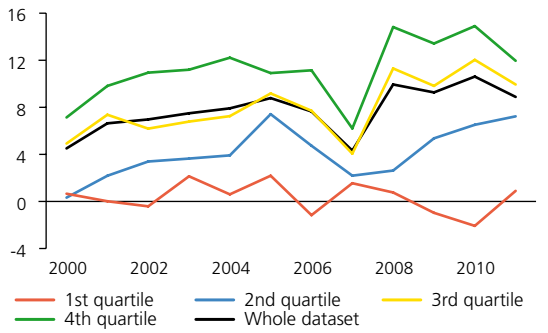


CHART III.3.7

FIXED CAPITAL FORMATION

Fixed investment was flat in 2012 Q2

(annual percentage changes; contributions in percentage points; constant prices)

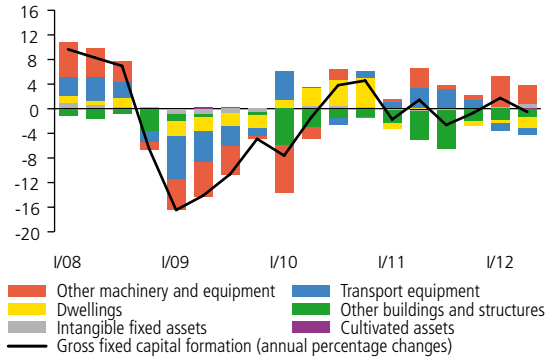


CHART III.3.8

INVESTMENT BY SECTOR

Investment went up in non-financial and financial corporations, but fell in households

(annual percentage changes; contributions in percentage points; constant prices)

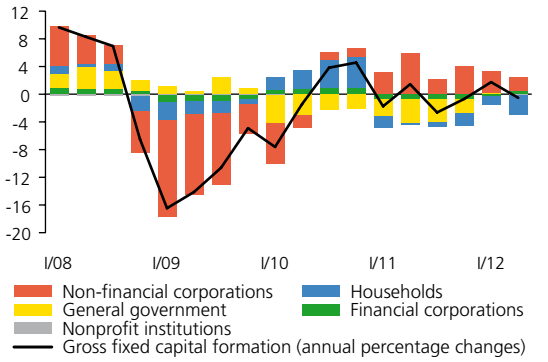


CHART III.3.9

INVESTMENT IN DWELLINGS

The decline in investment in dwellings deepened significantly
(annual percentage changes)

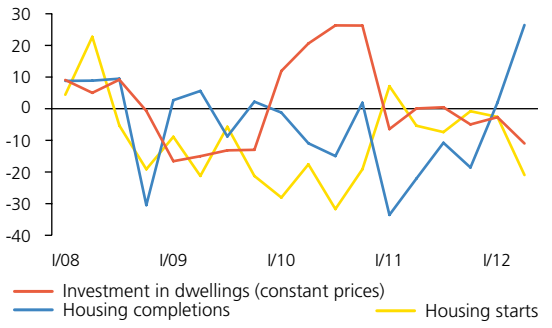


CHART III.3.10

NET EXPORTS

Net exports increased significantly year on year again in 2012 Q2
(CZK billions; constant 2005 prices; seasonally adjusted data)

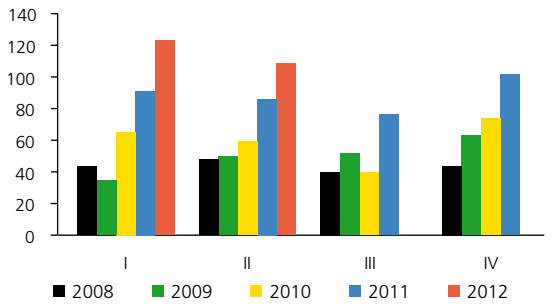
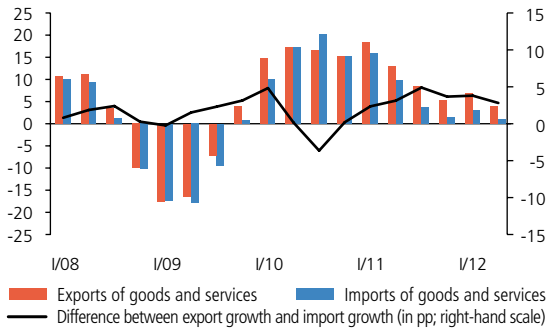


CHART III.3.11

EXPORTS AND IMPORTS

Foreign trade turnover slowed, but exports continued to rise faster than imports
(annual percentage changes; percentage points; constant prices; seasonally adjusted data)



corporations is rather more optimistic than in the previous quarter. This is evidenced by an increase in the balance of expected investment expenditure at both the 6-month and 12-month horizons.

By contrast, investment in the **household sector** fell by 13.6% year on year in Q2. This was mostly due to investment in dwellings, whose year-on-year decline deepened to 11% (see Chart III.3.9). The fall in investment in dwellings for the third quarter in a row indicated very cautious investment decision-making by households amid uncertain prospects for economic growth and employment. This was also evidenced by slowing growth in new mortgage loans (see section III.5.2). Leading indicators do not yet suggest a recovery in housing demand in the period ahead. The sharply falling numbers of housing starts (down by 21% year on year) instead suggest reduced estimates of housing demand on the part of developers, which also take into account the existing stock of new unsold apartments.[23] The long-term decline in fixed investment in the **government sector**, reflecting the government's austerity measures and problems with the drawdown of EU funds, halted in early 2012 (growth of 1%; see Chart III.3.8). In 2012 Q2, government fixed investment fell only negligibly (by 0.1%).

The negative contribution of change in **inventories** to GDP growth decreased in 2012 Q2 (to 1.3 percentage points; see Chart III.3.2). According to the latest business survey conducted by the CNB and the Confederation of Industry in September, there was a surplus of corporations expecting stocks of inputs to rise year on year in this quarter and the next. However, this surplus was lower than in the previous quarter and the balance of responses regarding the expected evolution of stocks of finished products was negative.

III.3.2 Net external demand

Amid a persisting decline in most components of domestic demand, **net exports of goods and services** were the main pro-growth component of GDP in 2012 Q2, although their positive contribution was smaller than in Q1 (see Chart III.3.2). Net exports grew for the seventh consecutive quarter in year-on-year terms. In 2012 Q2 alone, the surplus was CZK 108.5 billion, up by more than CZK 22 billion on the same period a year earlier. In quarter-on-quarter terms, however, it decreased by almost CZK 15 billion (see Chart III.3.10). The year-on-year growth in net exports was mainly due to the trade surplus again in Q2. By contrast, the services surplus decreased in this quarter.

As in the previous six quarters, the year-on-year increase in net exports was due to export growth leading over import growth. This lead, however, narrowed to 2.8 percentage points in 2012 Q2 (see Chart III.3.11). **Total exports** grew by 3.9% year on year, down by

23 The surge in housing completions in 2012 Q2 was due to the completed approval of a large housing project and also to base effects.

3 percentage points from the previous quarter. The moderation in goods export growth and the modest decrease in exports of services were linked with slowing growth in demand in the Czech Republic's major trading partner countries, reflecting persisting uncertainty about future economic developments in the euro area.

Annual growth of **total imports** also slowed in 2012 Q2, albeit to a lesser extent than that of exports (down by 2 percentage points from the previous quarter, to 1.1%). Amid a continuing fall in domestic demand and weakening growth in external demand, the slowdown of total imports was linked with a reduction in imports of goods for final and intermediate consumption. By contrast, growth in imports of services increased slightly compared to the previous quarter.

III.3.3 Output

The gradual slowdown in year-on-year growth in **gross value added** at basic prices observed during 2011 changed into a modest decline of 0.3% in 2012 Q2 (see Chart III.3.12). Positive, although lower, contributions to annual value added growth were recorded only by manufacturing and by some services, whereas the contributions of other branches were negative. The weakening domestic and external demand thus continued to affect the output of different branches with different intensity. Overall, however, a downward trend prevailed. The growth rate of gross value added increased in some services only.[24]

In **manufacturing**, whose production is largely exported, year-on-year growth in gross value added moderated in 2012 Q2 (to 4.8%). Its contribution to year-on-year value added growth thus decreased further, to 1.2 percentage points (see Chart III.3.12). Gross value added in the other branches of industry[25] continued to decline year on year.

The only modest growth in value added in industry overall in 2012 Q2 (of 1.4%; a contribution to gross value added growth in the economy of just 0.5 percentage point) was achieved amid stagnating[26] **industrial production**. A closer look at the structure of industrial production at the same time reveals that the low demand was reflected in the output of most branches. Production continued growing mostly in export branches, but the annual growth rates moderated in most cases. This was indicated by clearly slowing growth in direct export sales at current prices, which had already been low in Q2 (2.3%). At the same time, growth in new orders from abroad decreased and new domestic orders declined year on year.

24 For example health and social care, public administration and defence and education.
25 The mining and quarrying and energy supply sectors.
26 According to seasonally adjusted data.

Chart III.3.12

CONTRIBUTIONS OF BRANCHES TO GVA GROWTH

Gross value added declined modestly in 2012 Q2
(contributions in percentage points; annual percentage changes)

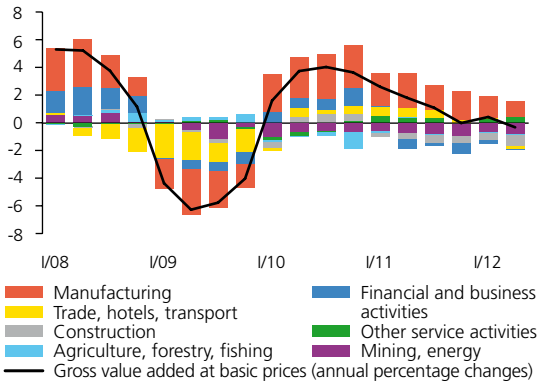


Chart III.3.13

INDUSTRIAL PRODUCTION

The seasonally adjusted volume of industrial production decreased
(basic index; year 2005 = 100)

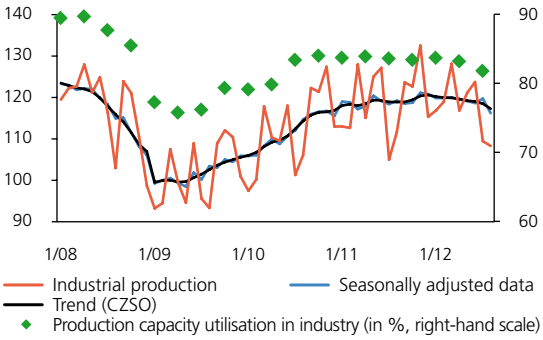


CHART III.3.14

BARRIERS TO GROWTH IN INDUSTRY

The effect of insufficient demand as a barrier to growth in industrial production continued to increase
(percentages)

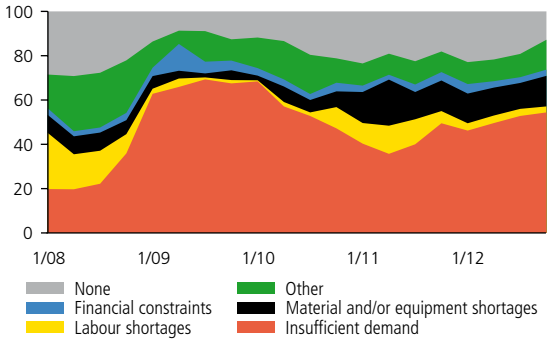


CHART III.3.15

NEW ORDERS IN INDUSTRY

Growth in new industrial orders turned slightly negative again in August
(annual percentage changes)

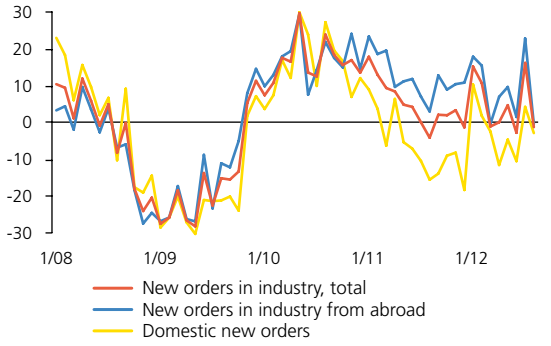
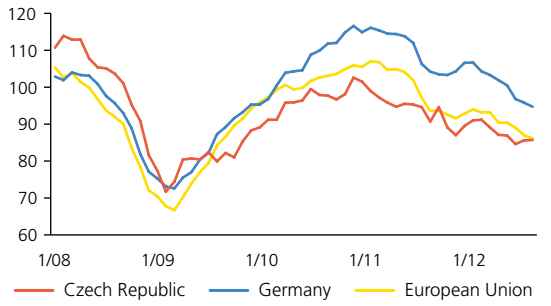


CHART III.3.16

ECONOMIC SENTIMENT

Economic sentiment both in the Czech Republic and in Germany and the EU as a whole indicated no improvement in confidence in 2012 Q3
(long-term average = 100; seasonally adjusted data; source: Eurostat)



According to seasonally adjusted data, industrial production growth continued to slow in the first two months of 2012 Q3. In July and August, it was quite volatile in year-on-year terms[27] owing to leave-taking. Overall, industrial production fell by 0.7% year on year in these two months. Consistent with these data are the results of the CZSO's July business survey, according to which the effect of insufficient demand as a **barrier to growth in industry** increased again (see Chart III.3.14),[28] while **capacity utilisation** in industry decreased noticeably (see Chart III.3.13). The decrease in the confidence indicator in industry observed since the start of 2012 Q2 continued. **New industrial orders** have been very volatile in recent months, but overall they do not indicate more favourable conditions for growth in industrial production (see Chart III.3.15).

Amid persisting low demand, the contribution of **services and trade** to total gross value added growth was still close to zero (0.1 percentage point in 2012 Q2). The very low growth in value added in this sector was a result of a combination of falling value added in most branches of market services[29] and rising value added in the real estate area and in some branches where non-market services predominate[30] (see Chart III.3.12). According to CZSO data for August, the overall decline in retail sales does not currently indicate that wholesale and retail trade will make any noticeable contribution to value added growth in the remainder of 2012.

The annual decline in value added in **construction** deepened further in 2012 Q2 (to 11.6%) and its negative contribution to the annual change in total gross value added growth approached 1 percentage point (see Chart III.3.12). This outcome was due to a double-digit fall in civil engineering amid flat building construction output. According to the August CZSO data, the outlook for construction in the next few months improved to some extent thanks to permits issued for large energy and industrial construction projects. This was reflected in a large rise in the approximate value of building notifications and permits. However, the numbers of building permits issued continued to fall (by 7.4%). Pessimistic expectations prevail in construction, as reflected in a reduction in the number of employees.

The CZSO's business survey shows that the **overall confidence indicator** in 2012 Q3 as a whole was lower than in Q2, owing mainly to a decrease in business confidence. Optimism prevailed in businesses operating in the trade and services sectors, whereas the balance of the industrial confidence indicator became more negative.

27 The year-on-year growth in industrial production in July and the decline in August were a result of a shift of company holidays in these months.
28 An increasing effect of insufficient demand as a barrier to growth in production is also indicated by the latest results of the CZSO's October business survey.
29 Value added decreased in wholesale and retail trade, transport, hotels and restaurants, financial intermediation and insurance, and information and communication technology.
30 In 2012 Q2, value added continued to grow in public administration and defence, education, health and social care, and scientific, technical and administrative activities.

The consumer confidence indicator was still at much lower levels than the business confidence indicator. An international comparison reveals that economic sentiment in Germany and the EU as a whole has been worsening constantly since the start of 2012 (see Chart III.3.16). At the end of 2012 Q3, economic sentiment in the Czech Republic was roughly at the same level as in the EU as a whole.

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

In 2012 Q2, the annual growth rate of potential output was broadly flat, while the output gap continued to open into negative values. According to the calculation of the **Cobb-Douglas production function**,[31] the rate of growth of potential output has recently stabilised at 0.9%[32] (see Chart III.3.17). The output gap opened up further to -1.3%[31] of potential output (see Chart III.3.18). The calculation suggests that the growth rate of potential output will slow only slightly over the forecast horizon and then remain broadly flat. According to the calculation of the production function, the related output gap should continue to open into negative values until the end of 2013 and later to start to close gradually. The output gap will not close until the end of 2014.

The breakdown of the **contributions of the individual factors** entering the baseline production function reveals that the gradual stabilisation of potential output growth was due to a decline in the negative contribution of equilibrium employment, a stabilisation of the growth rate of aggregate productivity and a stable contribution of capital. The contributions of the individual factors will not change significantly at the forecast horizon (see Chart III.3.19).

An alternative estimate using the **HP filter**[33] indicates only a slightly higher growth rate of potential output (1.0% in 2012 Q2) than that calculated using the production function. The output gap is similar under both methods for the rest of 2012, but the HP filter suggests slower closure of the output gap in 2013 and 2014. **The Kalman filter,** calculated using data including the forecast, indicates zero growth in potential output in 2012 Q2, a brief switch to negative values in 2013 Q3 (-0.1%) and a gradual pick-up thereafter. Compared to the calculation of the Cobb-Douglas production function, the Kalman filter indicates a greater opening of the output gap into negative values

31 The production function is computed in three ways using different input data. While the first (baseline) variant uses equilibrium employment, the second variant uses total employment. The third variant differs from the baseline variant by using slightly different coefficients α. 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.

32 Average of the three calculations.

33 The estimate using the HP filter also used coefficient λ = 10,000.

CHART III.3.17

POTENTIAL OUTPUT

The rate of growth of potential output remained unchanged in 2012 Q2 according to the calculation of the production function

(annual percentage changes)

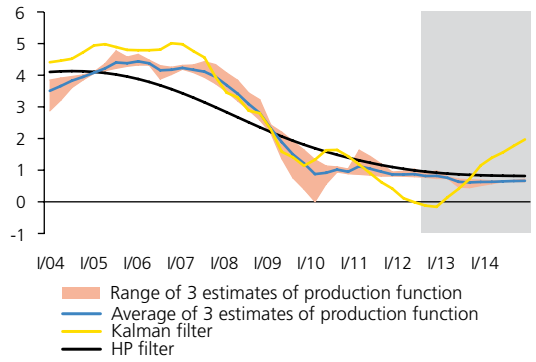


CHART III.3.18

OUTPUT GAP

The output gap opened further into negative values

(in % of potential output)

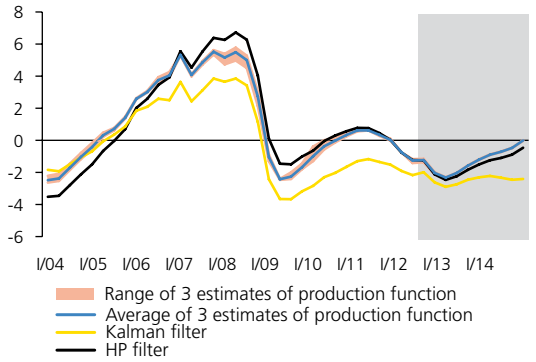
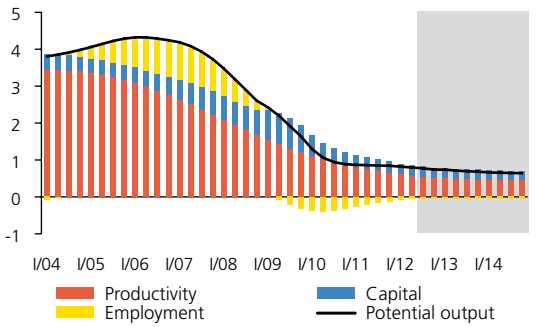


CHART III.3.19

CONTRIBUTIONS TO POTENTIAL OUTPUT GROWTH

The contribution of aggregate productivity will continue to be the main factor of potential output growth

(baseline production function; annual percentage changes)



(-2.1% of potential output) and more gradual closure at the longer end of the forecast. The persisting dispersion of the results of the individual methods indicates the degree of uncertainty surrounding the estimates of the cyclical position of the economy.

III.4 THE LABOUR MARKET

The labour market continued to be affected by weakening economic activity in 2012 Q2. Total employment increased modestly year on year, but the number of employees continued to decline. The general unemployment rate edged up quarter on quarter in 2012 Q2, while the registered unemployment rate was broadly unchanged in this period and did not increase until Q3. Annual growth in the average nominal wage slowed noticeably, contributing to a decline in the growth rate of the total volume of wages and salaries in the economy. Nevertheless, unit labour costs recorded a slightly larger increase than in the previous quarter, as the effect of a substantial deepening of the decline in economic activity prevailed. As a result, whole-economy labour productivity recorded a more pronounced decrease.

III.4.1 Employment and unemployment

Total employment[34] continued to record modest annual growth in 2012 Q2 (of 0.2%; see Chart III.4.1). This meant an increase of 11,800 in the number of employed people in absolute terms. Employment rose by 0.3% in quarter-on-quarter terms (after seasonal adjustment). The slight increase in total employment in 2012 Q2 again was due to pronounced contrary changes in employment in the categories of employees and entrepreneurs. While annual growth in the number of entrepreneurs increased (from 3.1% in 2012 Q1 to 4.3%), reaching more than 900,000,[35] the category of employees[36] saw a repeat of the annual decline observed in the previous quarter (-0.6%).[37] The subdued demand in the economy was reflected, besides weak employment growth (see Chart III.4.2), in a continued decline in the **number of hours worked** by employees, which deepened strongly again in Q2 (see Chart III.4.1).

Industry, where the previous growth in employment had switched to a decline in 2012 Q1, recorded a renewed – albeit insignificant – increase in Q2 (see Chart III.4.3). This was a result of a combination of increased recruitment in manufacturing and a continued decline in employment in the other branches of industry. The number of employees in industry declined again at the start of 2012 Q3 (by 0.6% and 1% in July and August respectively).[38] In Q2, employment in **non-market services** increased more significantly than in industry, with the previous gradual moderation of its annual decline turning into growth of 1.6%. By contrast, **market services** saw a correction of the sizeable growth in employment observed in 2012 Q1. This manifested

34 Employment according to the LFS.
35 Their share in total employment reached 18.6%.
36 Including members of production cooperatives.
37 In absolute year-on-year terms, the number of entrepreneurs increased by 37,800 and the number of employees declined by 26,000.
38 CZSO data from corporations with 50 employees or more, excluding agency workers.

CHART III.4.1

LABOUR MARKET INDICATORS

Employment rose only moderately in 2012 Q2, while average nominal wage growth slowed
(annual percentage changes)

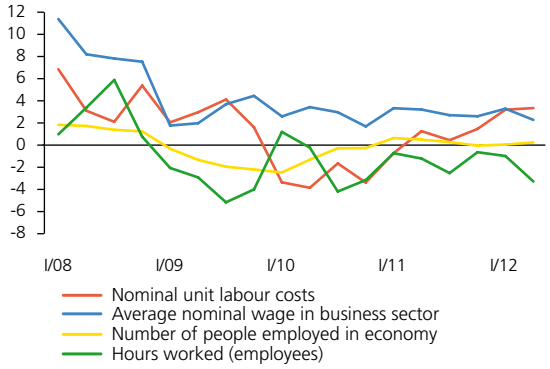


CHART III.4.2

GDP AND EMPLOYMENT

Employment continued to be affected by the weakening performance of the economy and the uncertain outlook for demand
(annual percentage changes; seasonally adjusted data)

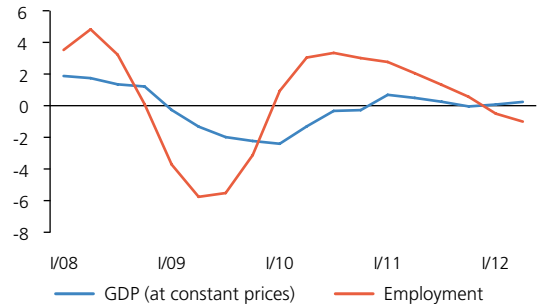


CHART III.4.3

EMPLOYMENT BREAKDOWN BY BRANCHES

The slight growth in employment was driven by non-market services
(contributions in percentage points to annual growth; selected branches; source: LFS)

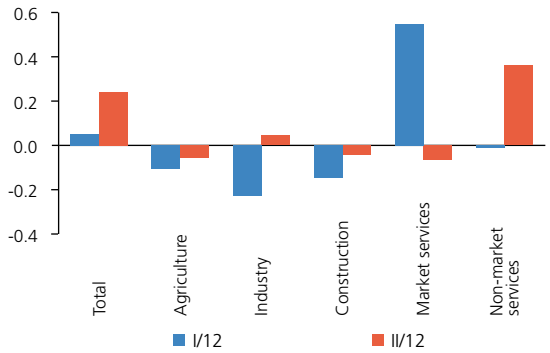


CHART III.4.4

UNEMPLOYMENT RATE

The registered unemployment rate went up in 2012 Q3
(percentages; seasonally adjusted data; source: MLSA, CZSO)

CHART III.4.5

BEVERIDGE CURVE

The number of vacancies decreased in 2012 Q3
(seasonally adjusted numbers in thousands)

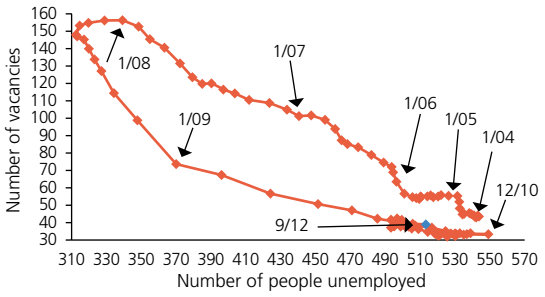


TABLE III.4.1

WAGES, PRODUCTIVITY, UNIT LABOUR COSTS

Average nominal wage growth moderated in 2012 Q2, while the decline in whole-economy labour productivity deepened
(annual percentage changes)

	III/11	IV/11	I/12	II/12
Average wage in Czech Republic				
nominal	2.4	2.4	3.3	2.3
real	0.6	0.0	-0.4	-1.1
Average wage in business sector				
nominal	2.7	2.6	3.3	2.3
real	0.9	0.2	-0.4	-1.1
Average wage in non-business sector				
nominal	1.0	1.6	3.4	2.3
real	-0.8	-0.8	-0.3	-1.1
Whole-economy labour productivity	1.2	0.2	-0.3	-1.9
Nominal unit labour costs	0.4	1.5	3.2	3.3

itself in a slight annual decline in Q2. The previous significant decline in employment in **construction** and **agriculture** moderated (see Chart III.4.3).[39]

Amid only slight growth in employment and the labour force, **the general unemployment rate**[40] was flat year on year in 2012 Q2. Adjusted for seasonal effects, however, it increased by 0.1 percentage point to 6.9% in quarter-on-quarter terms. The **total registered unemployment rate** (MLSA) declined by 0.1 percentage point in the same period, to 8.5%. In quarter-on-quarter terms it stayed at 8.7%.[41] However, the seasonally adjusted registered unemployment rate increased to 8.9% in Q3 (see Chart III.4.4).

The **Beveridge curve**[42] moved gradually in the south-east direction during 2012 Q2 and Q3. In Q3, the number of unemployed people increased while the number of vacancies fell slightly (see Chart III.4.5). The Beveridge curve thus indicated a slight cyclical deterioration in the labour market situation during the last quarter.

III.4.2 Wages and productivity

Following a sizeable pick-up in 2012 Q1, annual growth in the **average nominal wage** slowed significantly again to 2.3% in Q2. With annual inflation falling only slightly, the decline in the **average real wage** deepened to 1.1%. Average wages in both the business and non-business sectors contributed to this change (see Table III.4.1).

The year-on-year slowdown in average nominal wage growth in the **business sector** in 2012 Q2 (from 3.3% in Q1 to 2.3%) was due mainly to a significant decrease in wage growth in wholesale and retail trade to almost zero (0.1%). The average wage in manufacturing also rose much more slowly than in the previous quarter (by 3.4%), while that in construction fell year on year. In most other branches of the business sector[43] the average wage continued to rise, but the rates of growth were very mixed. Of the higher-weight branches, the fastest growing average wages were recorded in financial intermediation and insurance (4.9%) and health and social care (4.5%).

39 The CZSO's national accounts statistics report different developments in employment by sector than the above-mentioned LFS results. According to the national accounts, employment increased only in market services, while the other branches recorded declines. The inconsistency between these statistics may be partly due to changes in the employment of foreigners or indicates the possible direction of a revision of employment according to the national accounts (the LFS results are not revised).
40 In the 15–64 age category. Measured by the ILO methodology according to the LFS.
41 Seasonally adjusted data are used for the quarter-on-quarter figures.
42 The Beveridge curve has been affected by legislative changes in effect since 1 January 2012. Since that date, corporations have not been obliged to report the number of vacancies to labour offices.
43 Except real estate activities, transport and storage, and hotels and restaurants.

According to the CZSO, the lower average wage growth in 2012 Q2 was due among other things to a decline in hours worked, especially overtime hours. However, the proportion of ex gratia (irregular) bonuses continued to increase.

Year-on-year growth in the average nominal wage in the **non-business sector** also slowed considerably in 2012 Q2 (to 2.3%). This was mostly due to a significant slowdown in average wage growth in education (from 4.9% year on year in 2012 Q1 to 1.9%), accompanied by flat wage growth in public administration and defence, amid a sharp fall in the recalculated number of employees in this branch. The fall in the average wage in the non-business sector observed in previous quarters deepened further in real terms, reaching the same level as in the business sector (-1.1% year on year; see Table III.4.1).

Amid a pronounced decrease in real GDP and a slight increase in employment, the annual decline in **whole-economy productivity**[44] deepened significantly in 2012 Q2 (from -0.3% in 2012 Q1 to -1.9%; see Chart III.4.6). Productivity was mixed across sectors, but a trend of slowing growth or deepening decline prevailed overall. The fastest growth was recorded by productivity in non-market services (3.4% year on year), where, according to the national accounts statistics, accelerating growth in value added was accompanied by a continuing decline in employment. Productivity also continued to rise in manufacturing (by 3.3%), although at a slower pace than in the previous quarter. In industry as a whole, labour productivity was unchanged from the same period a year earlier. According to the national accounts, productivity fell in market services (by 2.6% year on year), amid continued employment growth and falling value added. Productivity in construction fell more significantly than in the previous quarter (by 11.9%) owing to a sharp decline in value added.

In these circumstances, **unit labour costs**[45] continued to rise at a similar rate in 2012 Q2 as in the previous quarter (see Chart III.4.7). The only slight increase in annual growth in nominal unit labour costs (of 0.1 percentage point to 3.3%) was due mainly to a deeper decline in GDP compared to 2012 Q1, as growth in the nominal volume of wages and salaries slowed considerably. Nominal unit labour costs increased in all the monitored sectors except non-market services, and most of all in construction. Unit labour costs rose by 3.3% year on year in the high-weight industry while remaining flat in manufacturing at the level of the same period a year earlier.

CHART III.4.6

WHOLE-ECONOMY PRODUCTIVITY

The decline in whole-economy productivity deepened in 2012 Q2
(annual percentage changes)

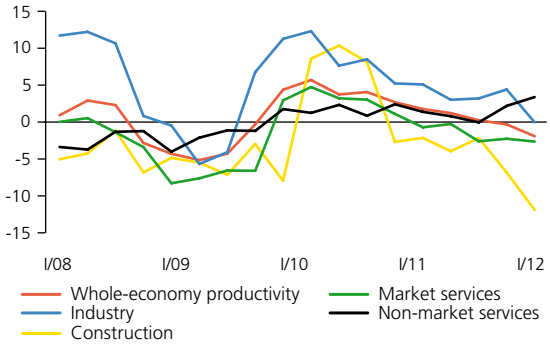
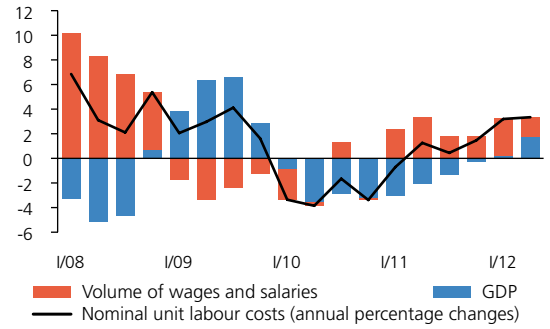


CHART III.4.7

UNIT LABOUR COSTS

Annual growth in nominal unit labour costs stayed just above 3%
(contributions in percentage points; annual percentage changes)



44 Productivity is calculated on the basis of non-seasonally adjusted data. The data for 2012 Q2 are partly affected by a revision of the 2012 Q1 data (a slower annual decline).
45 Nominal unit labour costs are calculated on the basis of non-seasonally adjusted data.

CHART III.5.1

MONETARY AGGREGATES

The annual growth rate of the broad monetary aggregates increased modestly
(annual percentage changes)

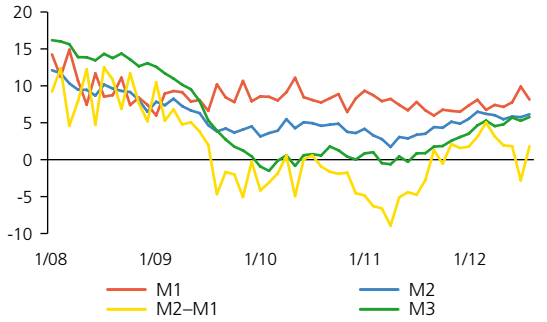


CHART III.5.2

MAIN COMPONENTS OF M2 AND INTEREST RATE SPREAD

The growth in overnight deposits reflected an increased preference for liquidity in conditions of very low interest rates and economic recession
(annual flows in CZK billions; spreads in percentage points)

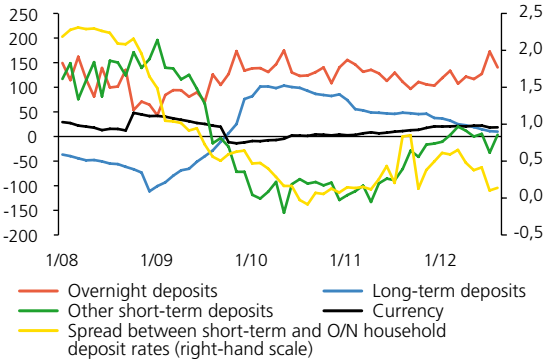
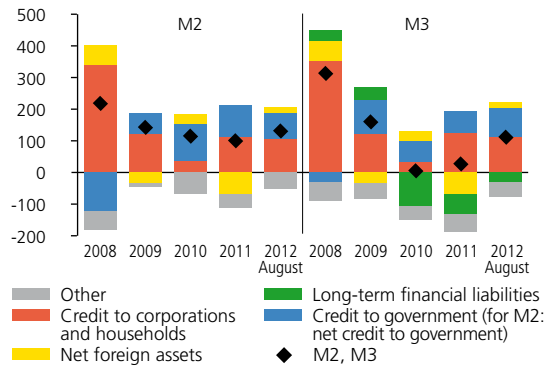


CHART III.5.3

MONEY CREATION

Growth in net foreign assets and credit to central government is being reflected in slightly faster money growth this year; lower growth in credit to the private sector is acting in the opposite direction
(average annual flows in CZK billions)



Note: Long-term financial liabilities of MFIs 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 debt securities with maturity of more than two years.

III.5 FINANCIAL AND MONETARY DEVELOPMENTS

Annual money aggregate growth picked up slightly. Growth in loans to corporations and households declined further. According to the Bank Lending Survey, credit standards and banks' terms and conditions for approving loans tightened, mainly due to the worse economic outlook. They remained unchanged for consumer credit only. Client interest rates mostly declined owing to declines in market rates. Corporate performance indicators worsened but corporations' acid-test ratio increased. The financial position of some households improved. The ratios of corporate and household debt to GDP edged up. Although asking prices of apartments in Prague increased according to one indicator, the other price indicators and a declining number of transactions on the property market continued to point to low demand for property.

III.5.1 Money

Following a previous slowdown, the annual growth rate[46] of **M2** picked up slightly during 2012 Q3, reaching 6.1% in August (see Chart III.5.1). The M2 growth in conditions of recession resulted in a continuing decline in the velocity of money. The annual rate of growth of M3 also edged up to 5.8%.[47]

The higher M2 growth was fostered by **highly liquid money** during Q3 (see Chart III.5.2). M1 growth increased to 8.1% as a result of higher growth in overnight deposits. The growth rate of currency in circulation slowed after a previous increase. The spread between interest rates on short-term time and overnight deposits decreased, fostering a further slowdown in growth in the first-mentioned segment. Growth in long-term time deposits fell further amid a continued downward tendency in interest rates in this segment.

Turning to the **creation of money**, net foreign asset growth has been positive this year, mainly as a result of issues of corporate bonds on foreign markets (see Chart III.5.3). Growth in central government financing is also higher than last year. Slower growth in loans to the private sector is acting in the opposite direction.

46 For money and credit aggregates, developments in the past twelve months are newly expressed in the Inflation Report by means of annual growth rates calculated based on financial transactions. The main advantage of the annual growth rate over the previously used annual change in stock is that the time series is adjusted for non-transaction effects. These include changes in the classification of some financial market products, other revaluations, exchange rate movements and other changes that are not consequences of financial transactions. The annual growth rate for month *t*, i.e. the change over the last 12 months ending with month *t*, is calculated as the product of the last twelve months' adjusted changes. For details see: http://www.cnb.cz/en/statistics/money_and_banking_stat/stat_mb_met/stat_mb_harm_growthrates.html

47 The annual growth rate of M3 in the euro area remained subdued, amounting to 2.9% in August.

The growth rate of total **client deposits** at monetary financial institutions (excluding general government deposits) picked up slightly to 6.3% in August. Within their structure, the growth rate of household deposits edged up, reaching 4% (see Chart III.5.4). Given subdued growth in disposable income and persisting uncertainty, the propensity of some households to save is increasing (see Box 2).[48] Although the annual growth rate of deposits of non-financial corporations declined to 10.5% in August, it is showing an upward tendency in the longer term. This indicates that corporations are trying to maintain a higher level of liquid money in an environment of increased uncertainty. The growth rate of deposits of non-monetary financial institutions is also showing an upward tendency. In August, it reached 21.6%.

III.5.2 Credit

The annual growth rate of **loans to the private sector** continued to decline gradually during 2012 Q3, reaching 3.8% in August (see Chart III.5.5). The decline in the ratio of loan flows to GDP also continued into 2012 Q2. The ratio of the stock of loans to GDP was around 55%. The lower growth in loans was due to weak demand for credit resulting from the decline in economic activity. According to the CNB's quarterly Bank Lending Survey,[49] **demand for loans** decreased for corporate loans and loans for house purchase in 2012 Q3. By contrast, it increased for consumer credit. On the supply side, banks mostly tightened their **credit standards**. This was due mainly to increased risks regarding the outlook for overall economic activity and for some sectors and to higher costs associated with banks' capital position. Banks also tightened their terms and conditions for approving loans, mainly via an increase in margins and higher collateral requirements (see Table III.5.1).

In the **euro area**, loans to the private sector declined by 0.6% in August 2012 due to weak demand and in some countries also to supply factors associated with a deterioration in banks' balance sheets. The demand side was affected by weak economic activity in an environment of increased uncertainty, low business and consumer confidence and greater pressure to reduce borrowing. On the supply side, the evolution of banks' balance sheet positions led to a tightening of standards to a lesser extent than in previous quarters. As in the Czech Republic, the tightening of standards reflected deteriorating expectations regarding overall economic activity (see the ECB's August 2012 Monthly Bulletin).

48 According to a CZSO survey, households' expectations regarding their financial situation in the coming 12 months worsened further in August.

49 A detailed report on the survey results, including aggregate data and charts, has been published quarterly on the CNB website since July 2012 (http://www.cnb.cz/en/bank_lending_survey/index.html).

Chart III.5.4

DEPOSIT STRUCTURE OF M2

Growth in deposits of non-financial corporations, non-monetary financial institutions and households increased during 2012 Q3
(annual percentage changes)

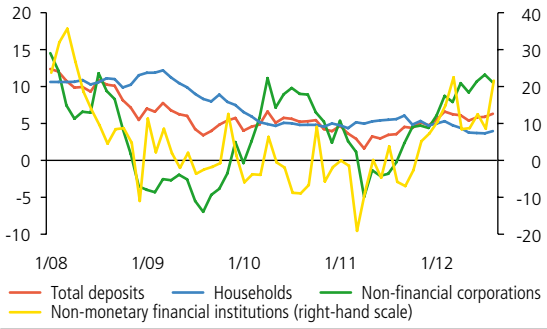


Chart III.5.5

LOANS TO CORPORATIONS AND HOUSEHOLDS

Growth in loans to the private sector continued to decline
(annual percentage changes; ratios in %)

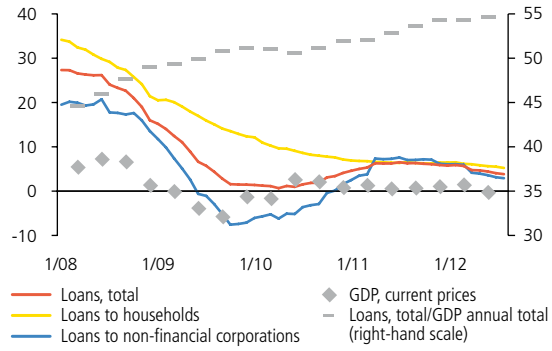


Chart III.5.6

LOANS TO NON-FINANCIAL CORPORATIONS

Growth in loans to non-financial corporations slowed further
(annual percentage changes)

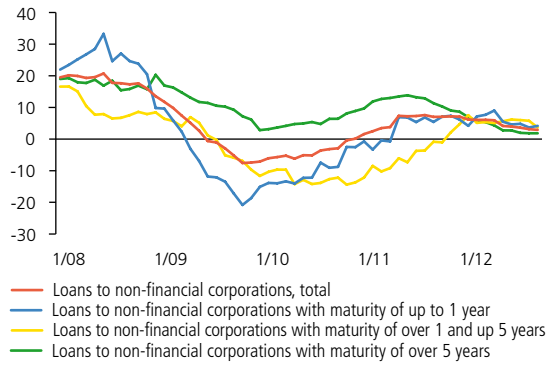


Table III.5.1

CHANGES IN BANKS' CREDIT CONDITIONS

Banks' credit standards and conditions for approving loans were mostly tightened

(net percentages; positive value = tightening standards/conditions, demand growth; negative value = easing standards/conditions, demand decrease)

	Supply			Demand
		Credit terms and conditions: of which		
	Credit standards	Average margin for loans	Banks' margin on riskier loans	Demand for loans
Loans to non-financial corporations				
II/12 actual	14	6	23	7
III/12 expected[a)]	18			6
III/12 actual	20	18	21	-5
IV/12 expected[b)]	19			-6
Loans for house purchase				
II/12 actual	-25	-34	13	8
III/12 expected[a)]	10			21
III/12 actual	8	41	17	-41
IV/12 expected[b)]	-44			24
Consumer credit				
II/12 actual	10	-29	-15	26
III/12 expected[a)]	0			-29
III/12 actual	0	0	6	24
IV/12 expected[b)]	0			7

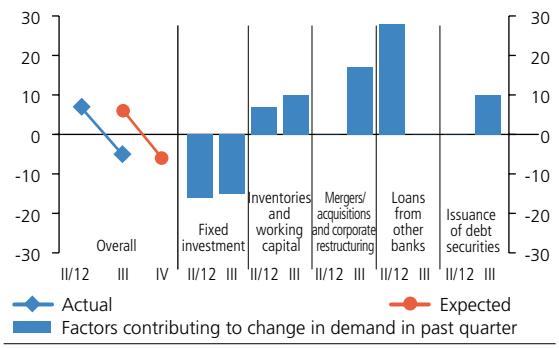
Note: Net percentages are calculated as the difference between the percentage share of loans provided by banks reporting that standards/conditions were tightened (or demand increased) and the percentage share of loans provided by banks reporting that standards/conditions were eased (or demand decreased). The individual responses are thus weighted by the volumes of loans of a given type.
a) Banks' expectations for III/12 reported in the II/12 survey.
b) Banks' expectations for IV/12 reported in the III/12 survey.

Chart III.5.7

NON-FINANCIAL CORPORATIONS' DEMAND FOR LOANS

Corporations' demand for loans fell

(net percentages; positive value = demand growth, negative value = demand decrease)



Note: Net percentages are calculated as the difference between the percentage share of loans provided by banks reporting that demand increased and the percentage share of loans provided by banks reporting that demand decreased. The individual responses are thus weighted by the volumes of loans of a given type.

The annual growth rate of **loans to non-financial corporations** declined further in the Czech Republic in Q3, and stood at 2.9% in August (see Chart III.5.6). Growth in medium-term loans continued to slow, while long-term loans were broadly flat. Growth in loans was fostered only by loans to the energy sector, developers and agriculture, although their contribution decreased. The contribution of loans to manufacturing turned negative. Loans to trade and construction also declined. Following a pick-up in the first half of this year, growth in new corporate loans slowed.

According to the CNB Bank Lending Survey, **demand of corporations for loans** declined due to lower financing of fixed investment (see Chart III.5.7). By contrast, demand for short-term loans for financing inventories and working capital and for financing mergers/acquisitions and restructuring of corporations increased in part of the credit market. A decline in demand was recorded for large corporations. Banks expect demand for loans to continue to decline in Q4, especially in the case of long-term loans and among small and medium-sized corporations.

On the **supply side**, according to corporations' perceptions in a survey conducted by the CNB, the availability of loans was still relatively good according to about 87% of the businesses surveyed. Only a small proportion of corporations expect loan availability to worsen in the coming twelve months. According to the CNB Bank Lending Survey, banks tightened their credit standards. As regards the terms and conditions for approving loans, they widened their average margins and their margins for riskier loans (see Table III.5.1) and increased their collateral requirements. Banks continued to have sufficient funds. The ratio of client deposits to loans stayed at around 131%.

The annual growth rate of **loans to households** slowed further in 2012 Q3, reaching 5.2% in August (see Chart III.5.8). The growth rates of new loans for house purchase (see Chart III.5.9) and consumer credit slowed in August 2012, while the other loans (including overdrafts and credit card debt) declined. The growth in new loans was also associated with continued refinancing and consolidation of old loans.

Turning to **house purchase loans**, growth in mortgages declined by a further almost 1 percentage point to 6.8%, while building society loans fell by a further 3.5% (see Chart III.5.8). Investment in dwellings decreased in Q2. Households' interest was focused on new loans with rate fixations of over one year and up to five years (52%). The share of new loans with short fixations was 27% (the share of loans with floating rates or rates fixed for up to three months being 24%). According to Hypoindex, the number and volume of new mortgages fell significantly further year on year in September 2012 (see Chart III.5.9).

According the CNB Bank Lending Survey, falling **demand for loans for house purchase** was perceived by a relatively large proportion of the credit market (a 41% net percentage). This decline was due mainly to low consumer confidence (see Chart III.5.10). By contrast, the outlook for the housing market (associated with a decrease in

prices) fostered demand for loans for house purchase. On the supply side, banks tightened their credit standards and their terms and conditions for approving loans. This was due to higher perceived risks associated with expected overall economic activity. Increased competition among banks fostered an easing, albeit to a lesser extent than in the previous quarter. Banks tightened their credit conditions through higher margins and a lower loan-to-value ratio. Banks expect standards to ease in Q4. According to their perceptions, this might foster growth in demand.

Bank **consumer credit** continued to record weak growth (as measured by the annual growth rate) of 1.3% (see Chart III.5.8). Loans from non-banks (i.e. leasing and hire-purchase companies), which are used primarily to fund consumer spending, dropped by 5.7%. According to the CNB Bank Lending Survey, demand for consumer credit increased in part of the credit market. Demand was adversely affected above all by low consumer confidence. Banks did not change their credit standards. They tightened their terms and conditions for approving loans by means of higher margins on riskier loans. According to banks' perceptions, standards will remain unchanged in 2012 Q4 and demand might increase in a small part of the credit market.

The ratio of **non-performing loans** to total loans did not worsen significantly in the individual segments of the credit market in Q3. In the case of non-financial corporations, the ratio gradually declined to 7.5%. In the case of households, it was flat at 5.2% (12.3% for consumer credit and 3.4% for loans for house purchase) following a previous increase resulting primarily from consumer credit defaults.

III.5.3 Interest rates

Monetary policy interest rates

The monetary policy decision-making of the CNB Bank Board in 2012 Q3 was based on the macroeconomic forecast published in the previous Inflation Report. Consistent with this forecast and its assumptions was a decline in market interest rates in the next few quarters, followed by a rise in rates as from 2014. At the August Bank Board meeting, the risks to the previous forecast were assessed as being broadly balanced and **key interest rates** were left unchanged. At its meeting in September the Bank Board assessed the risks to the forecast as being anti-inflationary and, in line with the forecast and this assessment, it decided by a majority vote to lower the CNB two-week repo rate by 0.25 percentage point, the discount rate by 0.15 percentage point and the Lombard rate by 0.75 percentage point. The two-week repo rate was set at 0.25%, the discount rate at 0.10% and the Lombard rate at 0.75% with effect from 1 October 2012 (see Chart III.5.11).

At its monetary policy meeting on 1 November 2012, the Bank Board decided **to lower the two-week repo rate** by 0.20 percentage point to 0.05%. At the same time it decided to lower the Lombard rate

CHART III.5.8

LOANS TO HOUSEHOLDS

The rate of growth of loans provided to households by monetary financial institutions decreased further
(annual percentage changes)

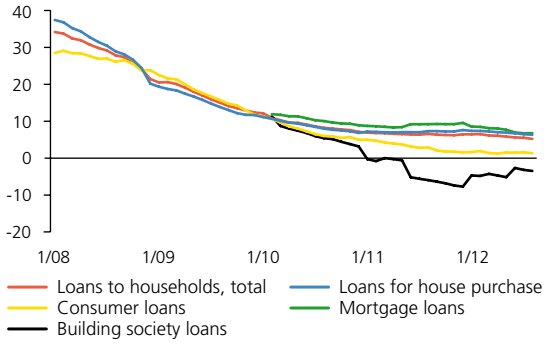


CHART III.5.9

NEW LOANS FOR HOUSE PURCHASE

Growth in new loans for house purchase was subdued; the volume of new mortgages also fell in September according to Hypoindex
(new business; annual percentage changes; interest rate in %)

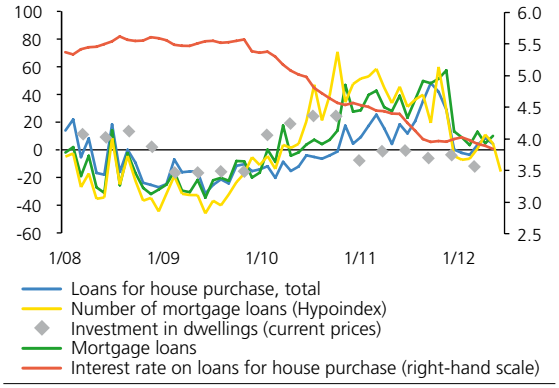
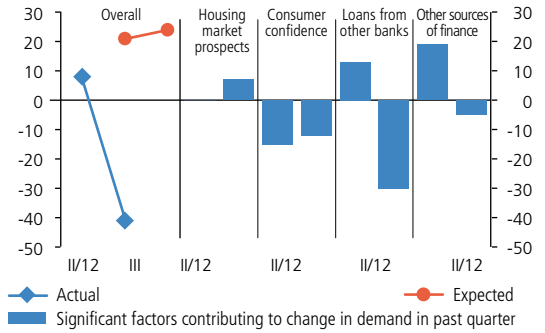


CHART III.5.10

DEMAND FOR LOANS FOR HOUSE PURCHASE

According to banks' perceptions, demand for loans for house purchase decreased due to low consumer confidence and migration of clients to other banks
(net percentages; positive value = demand growth, negative value = demand decrease)



Note: Net percentages are calculated as the difference between the percentage share of loans provided by banks reporting that demand increased and the percentage share of loans provided by banks reporting that demand decreased. The individual responses are thus weighted by the volumes of loans of a given type.

CHART III.5.11

CNB KEY RATES

The CNB lowered key interest rates in September 2012
(percentages)

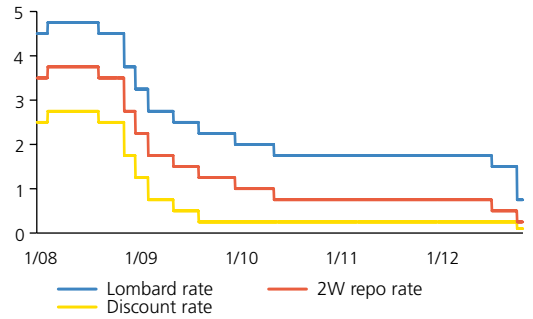
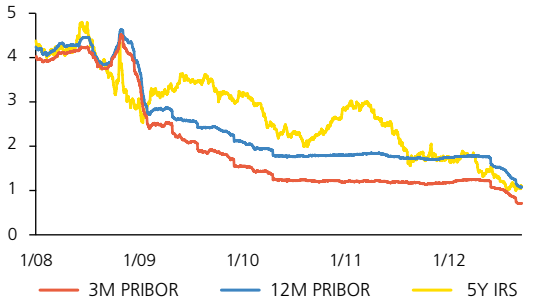


CHART III.5.12

MARKET INTEREST RATES

Interest rates with shorter and longer maturities decreased
(percentages)



by 0.50 percentage point to 0.25% and the discount rate by 0.05 percentage point to 0.05%. Rates will be kept at this level over a longer horizon until inflation pressures increase significantly. The risks of the new forecast were assessed as being balanced overall; a high degree of uncertainty surrounds the shape of the fiscal consolidation measures for next year and their impacts on the economy. The CNB Bank Board also decided to suspend the programme of sales of part of the investment income on international reserves, as a conflict cannot be ruled out between such operations and monetary policy implementation at a time when monetary policy interest rates are at technical zero.

Financial market interest rates

Money market interest rates gradually declined at all maturities in 2012 Q3. This was due to gradually strengthening expectations that the CNB would further ease monetary policy. The CNB did so at the end of September. Overall, since the start of July, PRIBOR rates have declined by around 0.2–0.3 percentage point at shorter maturities and by 0.5 percentage point at 6M–1Y maturities (see Chart III.5.12). **FRA derivative rates** also decreased at all maturities (by around 0.5 percentage point) to historical lows, thereby approaching the rate path consistent with the previous CNB forecast. The decline in FRA rates was due to strengthening expectations of a reduction in the CNB's key rates, macroeconomic data confirming a downturn in the Czech economy and a low outlook for euro area interest rates. FRA rates were mostly flat in October. The market outlook for 3M rates according to end-October FRA quotations is slightly declining in the near future and stable in the longer run. It is above the path consistent with the new forecast over the entire horizon; the deviation increases as the horizon lengthens (see sections I and II).

The above factors were also reflected in a decline in **interest rates with longer maturities**, which also reached new historical lows. External factors also continued to act in this direction. They included uncertainty relating to further developments in the euro area and macrodata published in major economies confirming a slowdown in global growth. However, some periods saw short-term increases in rates, reflecting the ECB's measures to support euro area sovereign bonds. Overall, IRS rates have dropped by as much as 0.5 percentage point since the start of July, with the largest declines being observed for the shortest and medium maturities.

The average **3M PRIBOR** was 1% in 2012 Q3, i.e. slightly higher than expected by the previous forecast. Money market interest rates continued to be influenced by the credit premium. This premium, as measured by the spread between the 3M PRIBOR and the 2W repo rate, was unchanged, averaging around 0.5 percentage point in 2012 Q3. In August and September, the spread gradually decreased to 0.3 percentage point, probably because of an expected reduction of the repo rate. After monetary policy rates were lowered at the end of September, the spread increased again slightly to just below 0.5 percentage point.

The positively sloped **PRIBOR yield curve** shifted to a lower level after the repo rate was lowered at the end of June. A similar shift was observed in late September and early October following a further reduction in monetary policy rates. The spread between the 1Y PRIBOR and the 2W PRIBOR fell slightly to 0.7 percentage point. The **IRS yield curve** also shifted to a lower level in 2012 Q3 and its positive slope increased. In September, the average 5Y–1Y spread was 0.5 percentage point and the 10Y–1Y spread 1.1 percentage points. The IRS yield curve was broadly flat in October.

Short-term **interest rate differentials** vis-à-vis the two main world currencies (PRIBOR/CZK–EURIBOR/EUR, or LIBOR/USD) reflected the lowering of key rates in the Czech Republic and the euro area and developments on foreign markets. With US money market rates broadly flat, the differentials vis-à-vis dollar rates declined slightly, while those vis-à-vis euro rates remained broadly unchanged (see Chart III.5.13). The 3M PRIBOR–3M EURIBOR interest rate differential was 0.6 percentage point on average in 2012 Q3. On 19 October, it was 0.5 percentage point.

Seven auctions of fixed coupon bonds and seven auctions of variable coupon bonds have been held on the primary **government bond market** since the start of July. The total volume of bonds issued was CZK 36.5 billion. Demand exceeded supply in all the auctions – strongly so in some cases. This means that the Ministry of Finance had again no problems subscribing government bonds in the primary market even in an environment of increased risk aversion and, moreover, with lower yields than in the first half of the year. In addition to koruna bonds, the Ministry of Finance issued EUR 750 million in ten-year eurobonds at the start of October. This was the second tranche of the said issue. The yield of 2.871%[50] is an all-time low for the Czech Republic on a foreign financial market.[51] The government bond yield curve shifted downwards in 2012 Q3, among other things as a result of the foreign bond market situation, while its positive slope remained approximately unchanged (see Chart III.5.14).

Client interest rates

Client interest rates mostly declined during Q3. This reflected a decline in market rates affected by the **lowering of the CNB repo rate in June** and by expectations of a possible further reduction of this rate.

The **interest rate on loans to non-financial corporations** has dropped by 0.5 percentage point since June 2012 to 2.5% in August (see Chart III.5.15). Declines were recorded by short-term rates and most long-term rates. Large loans (of over CZK 30 million, provided usually to

50 The yield on the 10Y koruna government bond on the secondary market was 2.41% on the issue day.

51 In July, Moody's confirmed its rating of the Czech Republic's liabilities at A1, with a stable outlook. At the end of August, S&P confirmed its long-term and short-term credit rating for the Czech Republic in foreign currencies at AA-/A-1+ and in the Czech koruna at AA/A-1, again with a stable outlook.

CHART III.5.13

INTEREST RATE DIFFERENTIALS

Interest rate differentials were broadly flat vis-à-vis the euro and decreased vis-à-vis the dollar
(percentage points)

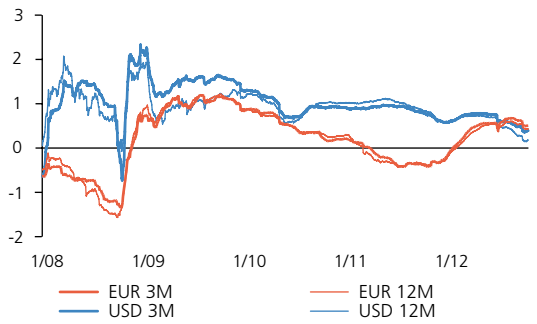


CHART III.5.14

GOVERNMENT BOND YIELD CURVE

The government bond yield curve shifted downwards
(percentages)

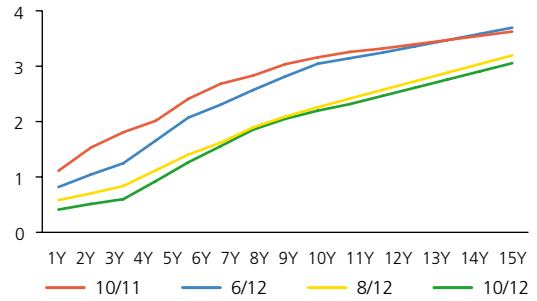


CHART III.5.15

INTEREST RATES ON LOANS TO CORPORATIONS

Short-term and most long-term interest rates on loans to non-financial corporations decreased
(new business; percentages)

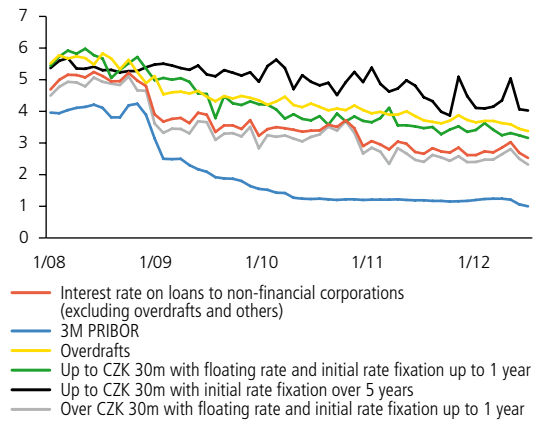


CHART III.5.16

INTEREST RATES ON LOANS FOR HOUSE PURCHASE

Rates on loans for house purchase decreased for all fixations
(new business; percentages)

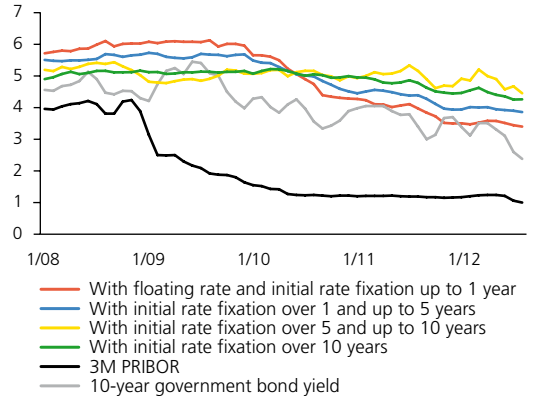


CHART III.5.17

CLIENT AND MARKET INTEREST RATE SPREADS

Risk premiums increased mainly for total loans for house purchase versus long-term government bonds
(percentage points)

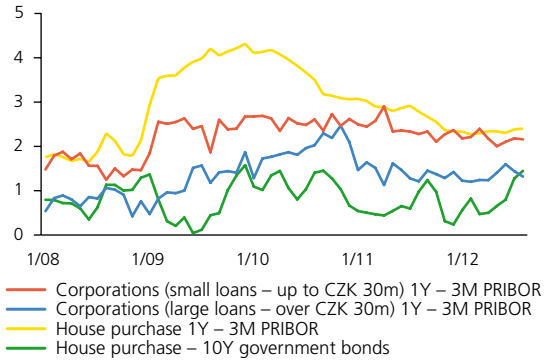
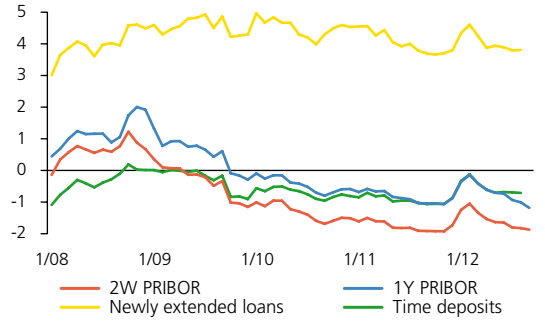


CHART III.5.18

EX ANTE REAL RATES

Ex ante real interest rates on new loans and deposits were broadly stable
(percentages)



large corporations) saw larger declines than small loans. The interest rates on small loans and large loans amounted to 3.3% and 2.3% respectively. With the 3M PRIBOR falling by 0.2 percentage point, the spread between the short-term rate on large loans and this market rate decreased, while remaining broadly unchanged for small loans (see Chart III.5.17). The rate on corporate loans is below the end-2011 level and is still close to record-low levels. The interest rate on corporate loans also decreased in the euro area, amounting to 2.6% in August (compared to the Czech Republic, it was higher at 3.9% for small loans and stood at 2.2% for large loans).

Interest rates on loans for house purchase for households decreased by 0.1 percentage point in the period under review, amounting to 3.8% in August (see Chart III.5.16). Rates with short-term and long-term fixations recorded similar declines. The spread between short-term client and market rates mostly widened following a previous decline (see Chart III.5.17). The spread between the average rate on loans for house purchase and the long-term financial market rate increased significantly on account of a fall in long-term government bond yields. Rates are slightly lower for all fixations compared to the end of last year. According to Hypoindex, the decline in interest rates on new mortgages continued into September 2012. The interest rate on loans for house purchase also declined in the euro area and was lower in August (at 3.3%) than that in the Czech Republic.

By contrast, the **interest rate on consumer credit** has increased since June by 0.4 percentage point to 14.5%, reflecting higher perceived risk of banks in this credit market segment. The rate on overdrafts and revolving loans stayed at 14.2% and the rate on credit card debt increased to just below 24%. Rates on consumer credit with longer fixations went up, while the rate with a short fixation declined. Rates are significantly higher than in the euro area even though rates there have edged up to 6.7% since June (8.1% on overdrafts and revolving loans and 17% on credit card debt).

Short-term **interest rates on time deposits** with an agreed maturity of up to one year declined for households and non-financial corporations during 2012 Q3 (by 0.3 and 0.1 percentage point to 0.8% and 0.5% respectively). Rates on overnight deposits remained at 0.7% and 0.4% for households and non-financial corporations respectively. The long-term rate on time deposits with an agreed maturity of over two years rose slightly to 1.3%, but has been showing a downward trend since 2009. The average rate on deposits of households was 1% and that on deposits of non-financial corporations was 0.4%.

Real client interest rates[52] were broadly flat in 2012 Q3 given the stability of nominal rates and expected inflation. Real rates on new loans were 3.8% in August, while real rates on time deposits were -0.7% (see Chart III.5.18).

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

III.5.4 The exchange rate

The average **exchange rate of the koruna against the euro** was CZK 25.1 in 2012 Q3. This represents a year-on-year depreciation of 2.8% and, conversely, a quarter-on-quarter appreciation of 0.8% (see Chart III.5.19). An appreciation trend of the koruna against the euro, eliminating the previous depreciation in Q2, was seen between the start of Q3 and mid-September. The koruna firmed from CZK 25.5 to CZK 24.4 against the euro in this period. A modest reversal then occurred and the koruna was fluctuating around CZK 25.0 to the euro at the end of Q3.[53] The koruna was just below this level in the first half of October. In Q3 it was one of the fastest appreciating convertible currencies (together with the Swedish krona, the Norwegian krone, the Polish zloty and the Russian rouble).

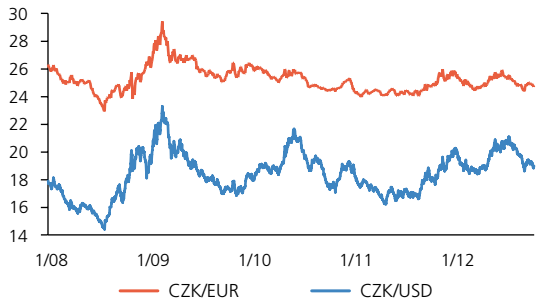
The main factor underlying the exchange rate movements in 2012 Q3 was the preparation of a mechanism allowing the ECB to make unlimited purchases of short-term bonds (of up to three years) of countries with limited market financing capacity. To some extent, this increased the financial markets' optimism about Europe and caused European currencies to appreciate against the dollar. However, the above-mentioned European currencies benefited much more from this measure than the euro, as they also appreciated against other non-European currencies. The effect of domestic factors on the exchange rate remained restricted in the period under review. A statement made by the CNB Governor on possible interventions on the foreign exchange market against the koruna had a short-term weakening effect on the koruna (of around 1%).

The average **exchange rate of the koruna against the dollar** was CZK 20.1 in 2012 Q3. This represents a year-on-year depreciation of 16.2% and a quarter-on-quarter depreciation of 1.7%. In Q3, the koruna depreciated from around CZK 20.2 against the dollar at the start of the quarter to CZK 21.2 in late July. The koruna then appreciated sharply for almost two months (by 14.6%) to about CZK 18.5 against the dollar in mid-September, affected by a calming of the situation in the euro area and the announcement of a third phase of quantitative easing in the USA. A minor correction to CZK 19.5 against the dollar occurred in the second half of September. This was caused partly by a slight depreciation of the koruna against the euro and partly by a slight appreciation of the dollar on world markets. The koruna's exchange rate fluctuated around this level in the first half of October.

Chart III.5.19

CZK/EUR AND CZK/USD EXCHANGE RATES

The koruna depreciated year on year against both the euro and the dollar in 2012 Q3



53 It has been oscillating quite widely around this level for about four years without showing signs of a longer-term trend.

CHART III.5.20

KEY FINANCIAL INDICATORS

The growth rates of all the main financial indicators deteriorated in 2012 Q2
(annual percentage changes)

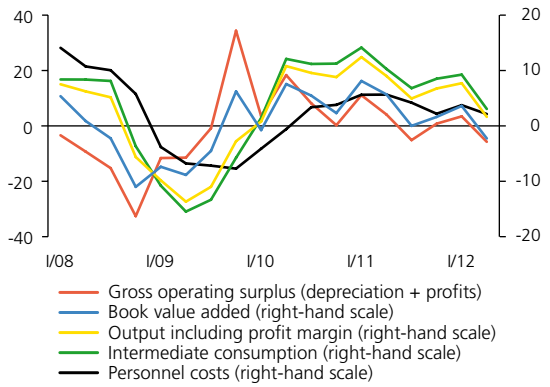


TABLE III.5.2

PERFORMANCE INDICATORS OF CORPORATIONS

The material cost-output ratio continued to increase and the personnel cost-output ratio was unchanged
(annual percentage changes)

	2011 Q2	2012 Q2	Annual percentage changes
Output incl. profit margin (CZK billions)[a]	1,407.4	1,430.3	1.6
Personnel costs (CZK billions)	199.4	203.6	2.1
Intermediate consumption (CZK billions)	1,028.7	1,060.2	3.1
Book value added (CZK billions)	378.6	370.1	-2.3
Sales (CZK billions)	1,804.1	1,853.1	2.7
	Percentages	**Percentages**	**Annual changes in pp**
Ratio of personnel costs to value added[a]	52.7	55.0	2.3
Material cost-output ratio[a]	73.1	74.1	1.0
Personnel cost-output ratio[a]	14.2	14.2	0.0
Ratio of book value added to output[a]	26.9	25.9	-1.0

a) CNB calculation

III.5.5 Economic results of non-financial corporations

In the monitored segment of **non-financial corporations with 50 employees or more**,[54] all the main monitored indicators deteriorated in 2012 Q2. Annual growth in sales and output slowed sharply, fostering a slight decline in book value added (see Chart III.5.20). The gross operating surplus also recorded a year-on-year decline in Q2 (of 5.7%), due to continued growth in personnel costs and intermediate consumption.

The only moderate growth in output continued to be accompanied by somewhat faster growth in intermediate consumption in 2012 Q2. This was reflected in a year-on-year rise in the **material cost-output ratio**[55] (of 1 percentage point; see Table III.5.2). Its growth therefore decreased no further and remained at the previous quarter's level. The rising material cost-output ratio of non-financial corporations was due mainly to continued two-digit growth in import prices of energy commodities, whose impact on the material cost-output ratio was most apparent in the electricity, gas, heat and air-conditioned air supply industry.

Following a slight decline in 2012 Q1, the **personnel cost-output ratio**[56] was flat in Q2 at the level of the same period a year earlier (see Table III.5.2). This was due to a significant decline in year-on-year output growth, which was accompanied by a more moderate slowdown in growth in personnel costs.[57] Annual growth in personnel costs moderated in Q2 amid a decline in the number of employees and slower growth in the average wage compared to the previous quarter.

Data for the narrower **segment of large corporations** (with 250 employees or more[58]) indicate similar trends in the main financial indicators in 2012 Q2 as in the larger segment of corporations. As in the previous quarter, faster growth was recorded for output and intermediate consumption as well as for total sales compared to the wider segment of corporations. Growth in the number of employees turned negative also in the narrower segment of large corporations (to -0.4% year on year).

54 The segment of corporations with 50 employees or more consisted of more than 9,300 non-financial corporations at the end of 2012 Q2.
55 The material cost-output ratio defined as the ratio of intermediate consumption to output.
56 The personnel cost-output ratio defined as the ratio of personnel costs to output.
57 Annual growth in output slowed by 6.1 percentage points to 1.6% in 2012 Q2 compared to 2012 Q1, while personnel costs grew by 1.6 percentage point to 2.1%.
58 The segment of corporations with 250 employees or more consisted of more than 1,700 non-financial corporations at the end of 2012 Q2.

III.5.6 Financial position of corporations and households

External financing of corporations fell by 4.4% year on year in 2012 Q2 (see Chart III.5.21).[59] This was due to a decline in quoted shares resulting primarily from reclassifications and to a decrease in other accounts payable relating to the time mismatch between transactions and payments. Annual growth in total loans increased to 7%. However, this also reflected base effects and exchange rate effects. Total corporate financing, which additionally includes shareholders' equity in the form of unquoted shares and other equity, also fell in Q2 (by 2.1%). The share of debt security financing in external corporate financing remains relatively low at less than 7%, or 19% including quoted shares. The ratio of corporate debt in the form of loans, debt securities issued and other accounts payable to equity rose from 97% to 99% as a result of an increase in debt and a decrease in equity.

Growth in **total corporate loans** reflected a slowdown in bank lending and a drop in non-bank lending.[60]

Financial investment by corporations recorded a year-on-year decline of 2.2% in Q2. As regards its structure, equity investment fell the most, whereas the growth rate of liquid financial assets of corporations in the form of currency and deposits increased. The share of financial investment by corporations in total financial investment in the economy remained at around 21%.

As regards the financial position, the **debt of non-financial corporations** (loans and debt security issuance) edged up to roughly 48% of GDP in Q2. In the euro area, this ratio has been flat at 78% in 2012, following two years of decline. The net interest burden on corporations resulting from bank loans relative to gross operating surplus decreased to 3% in the Czech Republic (see Chart III.5.22). From the long-term perspective, however, net interest payments are broadly flat.

The **financial indicators of non-financial corporations** point to a year-on-year rise in the acid-test ratio due chiefly to growth in liquid assets. Solvency also recorded a year-on-year improvement and the decline in leverage moderated (see Table III.5.3).

The difference between corporations' **internal funds** (gross savings, i.e. profit and depreciation) and their investment expenditure (i.e. gross capital formation) increased in Q2, reaching 2.5% of gross value added on an annual basis. Gross savings of non-financial corporations rose while investment fell.

59 The 2012 Q1 data were revised upon the publication of the financial accounts data for 2012 Q2.
60 Corporations received most of their loans from domestic banks (56%) and a smaller part from other (i.e. non-bank) financial institutions (12%), from abroad (19%) and from other (i.e. non-financial) corporations (13%).

Chart III.5.21

FINANCING OF NON-FINANCIAL CORPORATIONS

Total financial liabilities of corporations continued to decline
(contributions to external financing in percentage points; annual percentage changes)

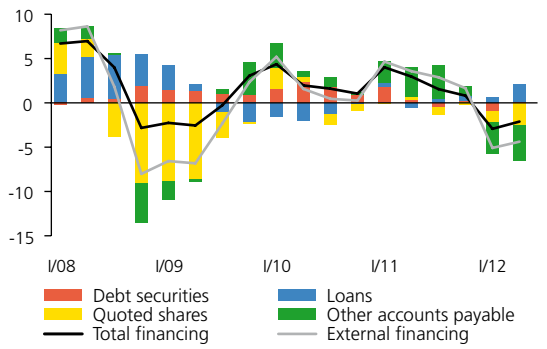


Chart III.5.22

DEBT AND NET INTEREST PAYMENTS

The ratios of corporate and household debt to GDP increased slightly, while the interest burden fell in both sectors
(percentages)

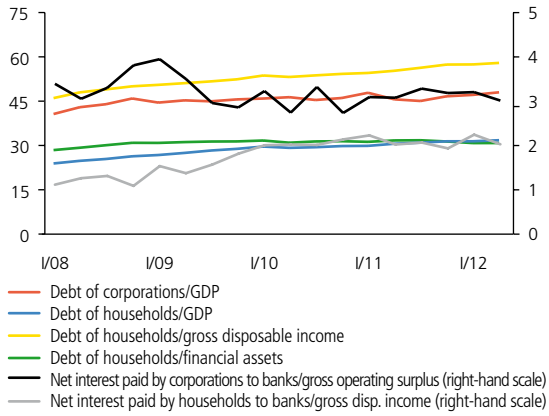


Table III.5.3

FINANCIAL INDICATORS OF CORPORATIONS

The acid-test ratio of corporations increased year on year

	III/11	IV/11	I/12	II/12	II/12
Corporations total[a)]	Annual percentage changes				CZK billions
Equity (shares and other equity issued)	-1.4	-0.6	-1.5	-1.9	4,033.1
Loans	1.2	2.0	2.1	7.0	1,528.3
Debt securities	-6.4	2.8	-13.3	0.7	303.7
Quoted shares	-7.2	-1.7	-9.3	-16.8	578.5
Other accounts payable	7.9	2.2	-7.2	-8.2	2,214.6
Total financing[1)]	1.6	0.8	-2.9	-2.1	8,079.5
Financial assets	2.5	-2.4	-7.0	-2.2	4,523.5
Corporations total[a)]	Annual changes in percentage points				Indicators in %
Acid-test ratio[2)]	15.4	6.1	6.0	12.2	167.4
Solvency indicator[3)]	-2.2	-5.1	-3.0	0.1	111.8
Financial leverage[4)]	4.3	-2.1	-6.4	-0.3	112.2

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

CHART III.5.23

FINANCING OF HOUSEHOLDS

Growth in the total financial liabilities of households continued to slow

(contributions in percentage points; annual percentage changes)

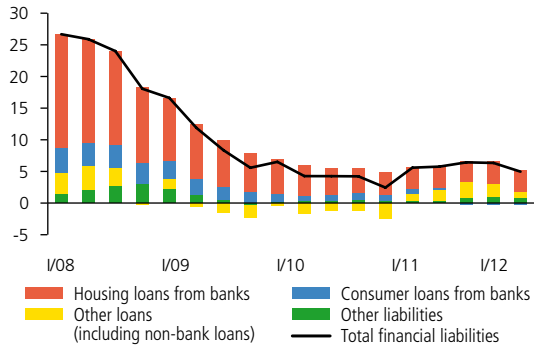
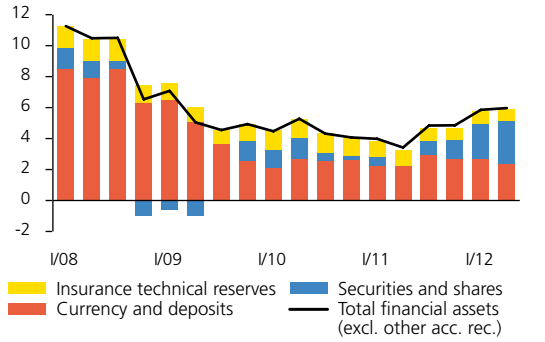


CHART III.5.24

FINANCIAL ASSETS OF HOUSEHOLDS

The financial assets of households grew

(contributions in percentage points; annual percentage changes; excluding other accounts receivable)



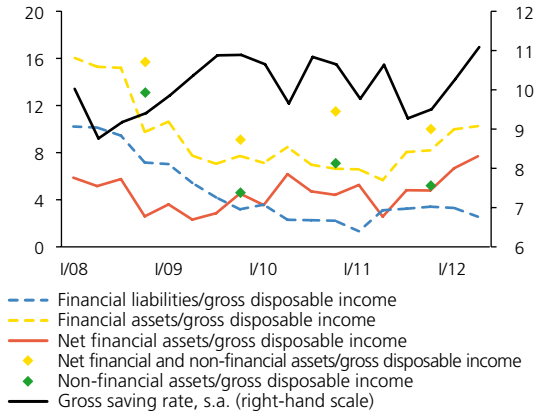
Note: The financial assets given in the chart do not include other accounts receivable, connected usually with the time mismatch between transaction and payment. This is due to a methodological change in reporting made in 2012 Q1 in the sole traders sector.

CHART III.5.25

HOUSEHOLDS' NET FINANCIAL ASSETS

The ratio of net financial assets to nominal disposable income increased

(annual changes calculated from annual flows; ratios in percentages; excluding other assets and liabilities)



The annual growth rate of overall **financing of households** by banks and non-bank institutions decreased further to 5% in 2012 Q2 (see Chart III.5.23). The ratios of household debt to gross disposable income and GDP increased slightly to around 58% and 32% respectively (in the euro area these ratios rose as well, reaching about 100% and 66% respectively). The ratio of debt to financial assets was flat at 31% in the period under review. The net bank loan and deposit interest burden on households fell to 2% owing mainly to a decrease in interest paid (see Chart III.5.22). The ratio of repayments of loan principal and interest to net money income of households was 6% in 2012 Q2. At the aggregate level, households' solvency (as measured by the ratio of financial assets to liabilities) and acid-test ratio (as measured by the ratio of selected short-term financial assets to short-term loans) increased year on year compared to the previous quarter.

The growth rate of **financial assets of households** (excluding other accounts receivable) rose further to 6% in Q2 (see Chart III.5.24). This reflected stronger growth in securities (including saving bonds). Currency and deposits were still the biggest contributor to the growth in household financial assets. However, its growth rate and that of insurance technical reserves recorded a slight decrease in Q2. The share of debt securities in financial assets thus increased, although it remains much lower than that of deposits.[61]

As regards the resulting **financial position of households**, year-on-year growth in net financial assets relative to total annual gross disposable income increased further in 2012 Q2. This was due to an increase in financial assets and a decrease in financial liabilities. The increase in financial assets was in line with a rise in the gross saving rate of households (see Chart III.5.25). Households have preferred to save in the recent period in conditions of falling real income and low consumer confidence (see Box 2). It is apparent from the annual national accounts that the ratio of net financial and non-financial assets of households to nominal disposable income was lower in 2011 than before the crisis, mainly because of lower property investment.

BOX 2
Consumption and money savings by household income group

The slowing growth in household consumption in nominal terms and its deepening decline in real terms are a result of subdued growth in nominal disposable income, higher inflation due mainly to tax changes, and weaker consumer confidence. The gross saving rate has increased (see Box 1 in section III.3.1). To understand the evolution of consumption, it is important to

61 Currency and deposits still make up 55%, debt securities 3%, shares 21%, shares in investment funds 4%, shares in pension funds 6%, reserves in insurance companies 8% and other assets 3% of the financial assets of households.

examine whether these tendencies are being displayed by most households or whether they are concentrated in particular income groups.

Declining **consumption expenditure** has been recorded for all income groups of households, but the fall has been most significant in the lowest income decile.[62] While nominal consumption growth in high- and middle-income households was around zero or slightly positive in 2011, consumption of low-income households declined (see Chart 1). The shares of expenditure on most consumption items (most notably household equipment and furnishings) in total consumption have recently decreased, while the shares of expenditure on housing, water, energy and fuels and expenditure on transport have increased considerably. In all household income groups, weaker nominal income growth has been reflected in lower consumption growth (see Chart 2).

At the same time, households have reduced their **debt**, probably as a result of perceived higher vulnerability in the event of future shocks. In recent years, the ratio of the annual balance of loans accepted and repaid to income has been negative on average for low- and middle-income households and slightly positive for high-income households. The observed growth in the outstanding amount of loans is therefore concentrated in the higher-income category.

The consumption behaviour of households also reflects the extent to which the income groups generate **savings** relative to their income. While for **high-income households** the ratio of money savings (as measured by net new deposits) to income is higher than before the financial crisis and that for medium-income households is showing an only weak upward trend, the same ratio for low-income households remains negative, albeit less so than in previous years (see Chart 3). In recent years, households have faced labour market shocks and have therefore been creating higher money savings for precautionary reasons since 2008.

The **ratio of money savings to income in the lowest-income group** of households has been negative or close to zero, reflecting mainly the representation of the unemployed and other socially weak households. The ratio for pensioners is around 4%. Low-income households therefore have a very limited ability to smooth their consumption over time at

62 The data are based on the CZSO family budget statistics. The income groups of households are broken down by net annual money income per person.

Chart 1 (Box)

CONSUMPTION OF SELECTED HOUSEHOLD INCOME GROUPS

Consumption growth has been weak in all selected income groups, and consumption has declined in low-income households
(annual percentage changes; moving averages; in nominal terms)

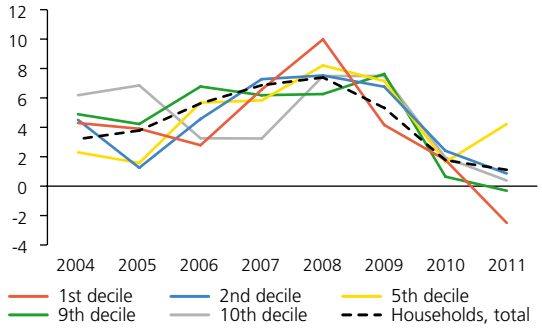


Chart 2 (Box)

NET MONEY INCOME OF SELECTED HOUSEHOLD INCOME GROUPS

Income growth has slowed sharply in all selected household income groups, and incomes have fallen in low-income households
(annual percentage changes; moving averages; in nominal terms)

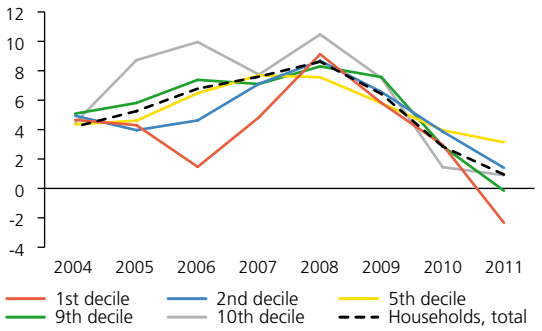


Chart 3 (Box)

MONEY SAVINGS OF SELECTED HOUSEHOLD INCOME GROUPS

Higher-income households have had a higher ratio of money savings to income than before the financial crisis, whereas for the lowest-income household groups this ratio has been negative
(percentages of net money income)

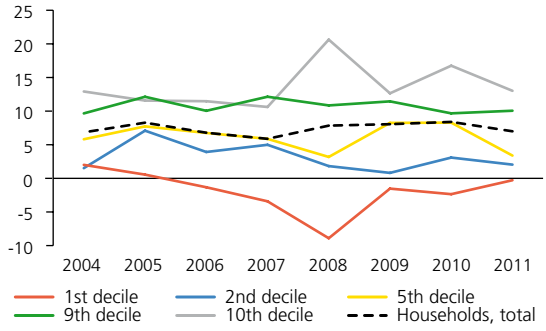
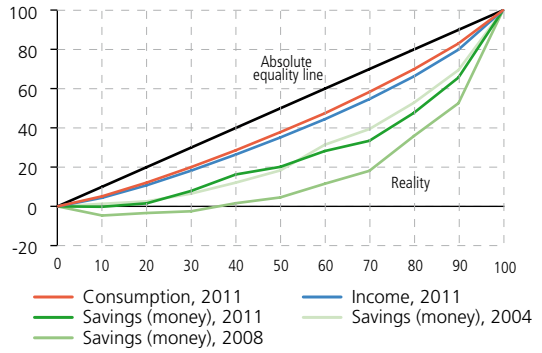


CHART 4 (BOX)

LORENZ CURVE

The money savings distribution is more unequal than the consumption and income distributions

(percentages on both axes; source: CZSO household budget survey, 2011; CNB calculations)



Note: The x-axis is the percentage cumulative share of households by income and the y-axis is the percentage cumulative share of households in income, consumption and savings.

the expense of savings if their real purchasing power drops (moreover, they are generally more overindebted[63] – roughly 30% of households in the two lowest income groups were above the excessive debt threshold in 2011).[64] In addition, overindebtedness has followed a rising trend in recent years and is spreading to middle-income households. However, the impact on total consumption in the economy is mitigated by the fact that consumption of low-income households is lower overall than that of the other groups.

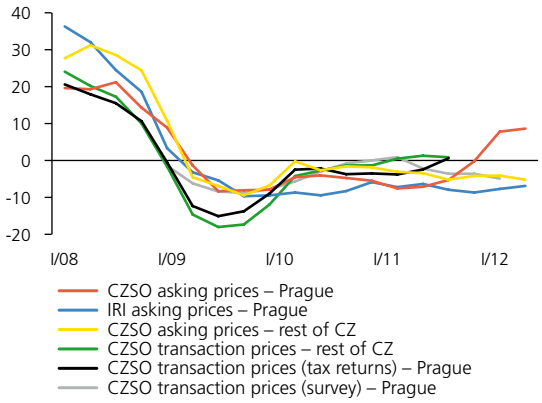
The shape of the **Lorenz curve** indicates that the lowest-income 20% of households account for about 10% of total consumption and these households create virtually no savings (see Chart 4). The inequality is lower for consumption than for income; for household money savings it is stronger. Chart 4 also shows that the upper 50% of households in terms of income generated 80% of money savings, a similar level as in 2004. The most uneven distribution of savings occurred in 2008, when this group of households created almost 95% of savings. Thereafter, the Lorenz curve returned to the shape seen in previous years. This is consistent with the evolution of the Gini coefficient, measuring the rate of relative inequality, which for money savings increased from 0.43 in 2004 to 0.67 in 2008 and then fell back to 0.46 in 2011.

CHART III.5.26

TRANSACTION AND ASKING PRICES OF APARTMENTS

Asking prices of apartments in Prague rose again year on year in 2012 Q3, but alternative price indicators do not suggest a recovery

(annual percentage changes; source: CZSO, Institute for Regional Information)



III.5.7 The property market

According to CZSO data, **asking prices of older apartments** saw mixed trends across regions in 2012 Q3. While asking prices in Prague rose for the third consecutive quarter (by 0.4% quarter on quarter), those in the rest of the Czech Republic continued to fall (by 1.9% quarter on quarter). Annual growth in asking prices of apartments in Prague picked up pace to 8.6% (see Chart III.5.26). However, alternative data sources do not confirm such rapid price increases. According to the Institute for Regional Information, for example, asking prices of apartments in Prague declined by a further 6.9%.

63 The excessive debt threshold for households is defined as the situation where debt repayment costs exceed 50% of net money income after subtracting essential expenditure (food, housing, energy, etc.).

64 The CZSO survey on living conditions in 2011 reveals that around 73% of low-income households could not afford to pay an unexpected expense of around CZK 9,000, while the figure for middle-income households was 46% and that for high-income households was 13%. Furthermore, the survey revealed that 31% of households in the lowest income decile had great difficulty making ends meet, compared to 7% of middle-income households and 1% of high-income households.

Likewise, stronger apartment price growth in Prague is not confirmed by **transaction prices** obtained from a CZSO survey in estate agencies[65] (see Chart III.5.26), which recorded year-on-year declines of 4.9% for older apartments and 3.4% for new apartments in 2012 Q2. In the Czech Republic outside Prague, transaction prices of older apartments fell by 5.8%. The current apartment price trend can thus still be viewed as a continuation of the decline of previous years. This price decline is also more consistent with macroeconomic fundamentals (in particular the Czech Republic's return to recession).

Low demand for property is also indicated by a continuing decline in the **number of property market transactions**, as measured by the number of proceedings on entry of ownership rights in the cadastre. It fell by 3.7% year on year overall in 2013 Q3. The number of proceedings on entry of ownership rights only for houses and apartments fell even more markedly (by 6.6%; see Chart III.5.27). In addition, following relatively strong increases in the past, the number of new mortgages for property purchase dropped in year-on-year terms for the second consecutive quarter (by 4.0% in 2012 Q3; Fincentrum Hypoindex data; see also section III.5.2). On the other hand, demand for new apartments in development projects in Prague continued to recover. The number of apartments sold in 2012 Q3 was virtually the same as in the same period a year earlier, when a frontloading effect had emerged before this year's rise in VAT on sales of new property. The number of new apartments sold in the first three quarters of 2012 thus rose by 3.6% year on year (Ekospol data). The rise in sales of new apartments may be linked with the decline in new apartment prices, but renewed uncertainty regarding VAT next year may also be playing a role (another wave of frontloading). The higher sales are also partially related to a rather surprising increase in apartment completions (see section III.3.1). However, excessive optimism is inappropriate, as developers' supply increased even more than demand, so the number of completed but unsold apartments rose further (by 6.0% quarter on quarter).

The property price sustainability indicators decreased in 2012 Q3. The **price-to-income ratio** fell by 1.4% quarter on quarter (and 0.7% year on year), while the **price-to-rent ratio** decreased by 1.0% quarter on quarter (and 3.6% year on year; see Chart III.5.28). Both indices fell to five-year lows and thus indicate no risk of property price overvaluation. On the contrary, the decline in the price-to-rent ratio, which occurred despite a fall in interest rates, opens up the possibility of speculative purchases of property, which could support apartment price growth in the future. Given the subdued economic growth outlook, however, we continue to expect apartment prices to go down slightly or stagnate in the near future.

65 The CZSO publishes a transaction price index based on prices from property transfer tax returns, for which no new data were available in the last quarter, and an index based on surveys in estate agencies. The advantage of the latter index is that it has a shorter publication lag; moreover, the survey also covers prices of new apartments, which are not subject to property transfer tax. On the other hand, the CZSO survey does not cover property transactions outside estate agencies, its structure is less detailed and its time series is shorter (the oldest data are from 2008 and are only for older apartments in Prague).

CHART III.5.27

NUMBERS OF TRANSACTIONS IN THE PROPERTY MARKET

The number of transactions in the property market continued to decline

(2006 average = 100; numbers of transactions as one-year moving sums; source: CZSO, COSMC, Fincentrum Hypoindex)

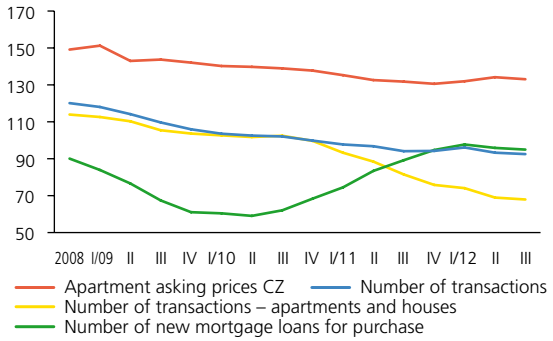


CHART III.5.28

APARTMENT PRICE SUSTAINABILITY INDICATORS

The property price sustainability indicators fell to their lowest levels in five years

(2000–2007 average = 100; source: CZSO, Institute for Regional Information)

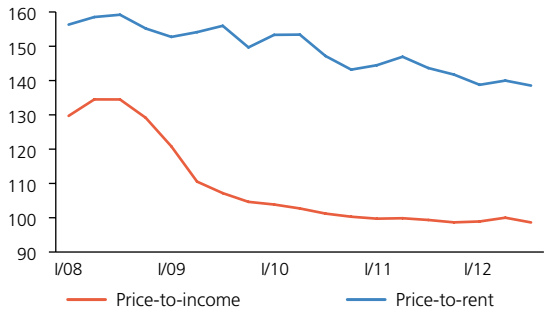
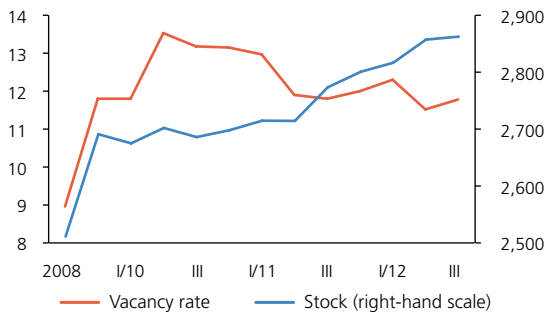


CHART III.5.29

SITUATION IN THE OFFICE PROPERTY MARKET

New supply of office space continued to recover, and the vacancy rate increased

(vacancy rate in %; stock in thousands of m²; source: Jones Lang LaSalle, Prague Research Forum)



Following a recovery in the **commercial property sector** in 2011, growth in the total volume of investment transactions slowed in 2012 H1. These transactions recorded a sizeable year-on-year decline of 65%. However, office property rental demand remained high (positive net take-up of 85,900 m²). New office construction also continued, with the total office floor area rising by 3.2% year on year in Q3. The vacancy rate increased by 0.3 percentage point quarter on quarter in 2012 Q3 and was flat in year-on-year terms, although it was well below the peak recorded in 2010 (see Chart III.5.29). Similarly, the vacancy rate increased for other types of commercial property; for example, for industrial property it rose from 6.7% at the end of 2011 to 7.7% at the end of 2012 H1.

III.6 BALANCE OF PAYMENTS

In 2012 H1, the balance of payments was characterised by a high goods and services surplus, linked with a rise in the trade surplus. Its effect on the current account was largely offset by an income deficit resulting from high direct investment income debits, although the income deficit decreased year on year. On the financial account, direct investment and portfolio investment recorded a surplus. However, these net inflows were largely offset by a net outflow of other investment, due to rapid growth in short-term deposits and loans by monetary financial institutions to non-residents.

III.6.1 The current account

The **current account** recorded a surplus of CZK 16.3 billion in 2012 H1. In year-on-year terms, the balance improved by more than CZK 50 billion. The switch of the current account from deficit to surplus was due above all to the year-on-year change in the trade balance and in Q2 also in the income balance (see Chart III.6.1). The annual moving ratio of the current account deficit to GDP fell for the fourth consecutive quarter, to 1.5%.

The **trade surplus** increased by more than CZK 38 billion year on year to CZK 101.4 billion in 2012 H1. The increase in the trade surplus was due to developments in real terms, which were slightly offset by the price effect stemming from a persisting negative year-on-year change in the terms of trade. The significant slowdown in external demand in Q2 was reflected in a marked slowdown in export growth. However, the nominal annual growth rate of goods exports was still relatively high in H1 as a whole, reaching almost 9%. Goods imports, whose growth rate exceeded 6%, also slowed owing to the traditionally high import intensity of exports and the continued decline in total domestic demand. Nominal growth in foreign trade turnover was significantly supported by year-on-year depreciation of the koruna, especially against the US dollar. Turning to the commodity structure, growth in the machinery and transport equipment surplus was again the biggest contributor to the increase in the overall surplus (see Chart III.6.2). The year-on-year rise in the trade surplus observed in the previous quarter continued during 2012 Q3. The surplus for July–August increased by more than CZK 19 billion.

In 2012 H1, the **services surplus** fell by almost CZK 9 billion year on year to CZK 26 billion (see Chart III.6.3). The surplus was due to travel and transport, whose positive balances increased in year-on-year terms owing to faster growth in credits than in debits (especially in private travel, business travel and road transport). By contrast, other services ended in a deficit stemming mainly from a merchanting deficit. At the same time, the switch of other services from surplus to deficit had the largest impact on the year-on-year evolution of the overall surplus.

CHART III.6.1

CURRENT ACCOUNT

The current account deficit decreased in 2012 Q2, owing to a rise in the trade surplus and a fall in the income deficit
(annual moving totals in CZK billions)

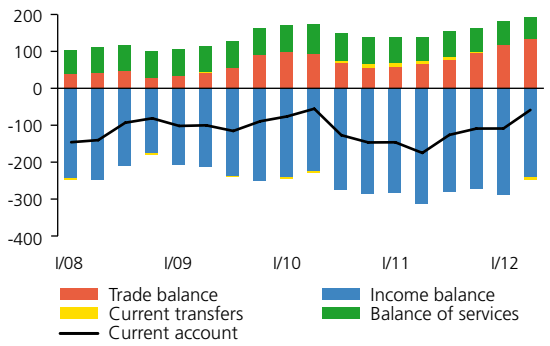


CHART III.6.2

TRADE BALANCE

The year-on-year change in the trade balance was affected most strongly in 2012 H1 by growth in the machinery surplus
(accumulation since start of year in CZK billions; change of ownership principle)

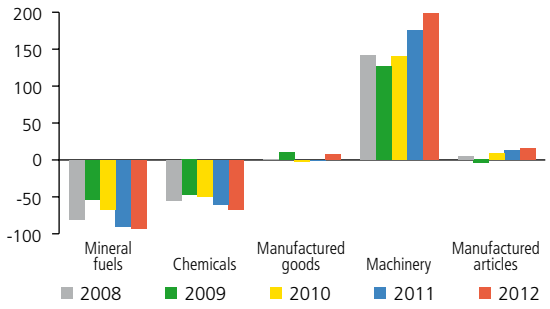


CHART III.6.3

BALANCE OF SERVICES

Travel and transport contributed to the services surplus in 2012 H1
(CZK billions)

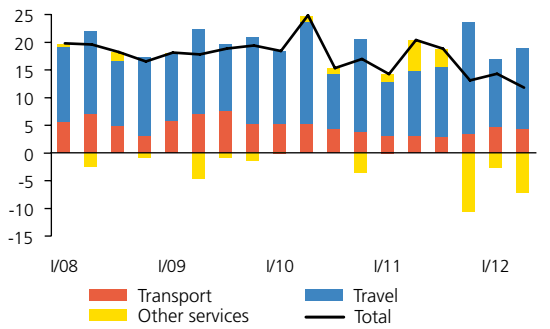


CHART III.6.4

INCOME BALANCE

Within the income balance, the direct investment income deficit decreased in particular in 2012 H1
(accumulation since start of year in CZK billions)

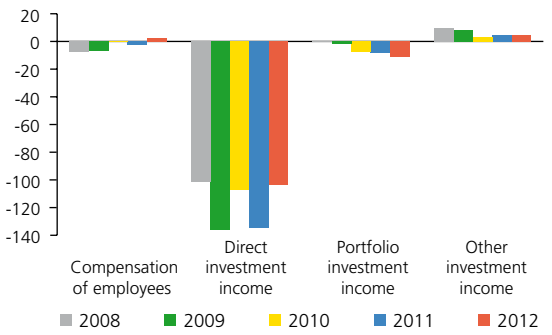


CHART III.6.5

FINANCIAL ACCOUNT

The financial account surplus decreased in 2012 Q2, owing mainly to a rise in the net outflow of other investment
(annual moving totals in CZK billions)

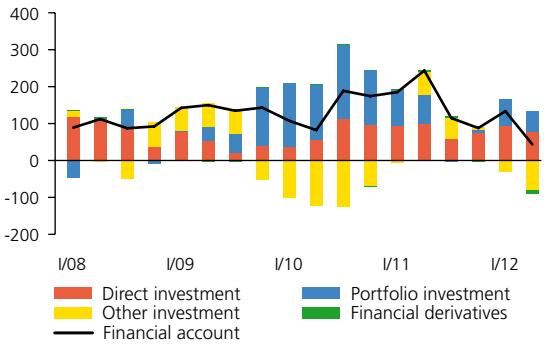
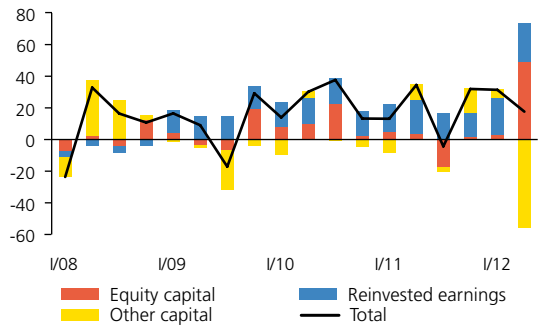


CHART III.6.6

DIRECT INVESTMENT

A strengthening of equity capital and reinvested earnings in the Czech Republic contributed to the net inflow of direct investment in 2012 Q2
(CZK billions)



In contrast to the goods and services surplus, the **income balance** showed a deficit of CZK 108.1 billion, representing a year-on-year decrease of more than CZK 32 billion. The direct investment income deficit (of CZK 103.8 billion) was the largest component of the overall balance (see Chart III.6.4). It was linked chiefly with estimated reinvested earnings in the Czech Republic and with income in the form of dividends paid to non-residents. The year-on-year moderation of the overall deficit was due above all to a lower direct investment income deficit resulting from significantly lower dividend payments in Q2. Portfolio investment income also ended in a lower deficit. By contrast, other investment income and compensation of employees recorded a modest surplus.

Current transfers recorded a deficit of CZK 3 billion and decreased by almost CZK 12 billion year on year. Private transfers, which ended in a deficit of CZK 9 billion, were the largest contributor to the balance. Two-thirds of the deficit was offset by a surplus on government transfers stemming from a surplus on transfers of funds between the Czech Republic and the EU. The year-on-year switch of current transfers from surplus to deficit was linked above all with lower government credits and higher transfers to the EU budget.

III.6.2 The capital account

The **capital account** ended in a very modest surplus of CZK 0.7 billion in 2012 H1, almost unchanged from a year earlier. The overall surplus was associated mainly with net credits from trading in emission allowances. Net drawdown of income from the EU budget was only negligible.

III.6.3 The financial account

The **financial account** ended 2012 H1 in a surplus of CZK 14.2 billion (see Chart III.6.5), due to net inflows of direct and portfolio investment. However, these net inflows were largely offset by a net outflow of other investment.

Direct investment recorded a surplus of CZK 49 billion in 2012 H1 (see Chart III.6.6), representing a slight year-on-year increase. The overall inflow of foreign direct investment into the Czech Republic was almost CZK 60 billion and was linked mainly with estimated reinvested earnings (see Box 3). As a result of a large operation, higher equity investment was also recorded, but this was offset by a rise in credit provided by a domestic subsidiary to its parent company abroad. Reinvested earnings were also the largest component of direct investment of domestic corporations abroad. The outflow of capital abroad went mainly into the electricity, gas and heat supply sector.

Portfolio investment also recorded a net inflow – of CZK 40.2 billion – in H1 (see Chart III.6.7). Issues of government and corporate bonds on foreign markets were the most important operations. Government bond issuance was also the biggest contributor to the annual change in portfolio investment flows, which reached almost CZK 51 billion. On the other hand, holdings of short-term government bonds and shares by non-residents declined. On the liabilities side, the overall inflow of portfolio investment exceeded CZK 58 billion. Total purchases also dominated domestic investors' transactions in foreign securities. They were associated mainly with an increase in bond holdings, whereas interest in share purchases was much lower.

Settlement of **financial derivatives** recorded a net inflow of CZK 2.4 billion in 2012 H1, down by almost CZK 6 billion year on year.

By contrast, **other investment** saw a high net outflow of funds totalling CZK 77.5 billion. The overall deficit was due chiefly to a net outflow of CZK 47.1 billion in the monetary financial institutions sector, linked with a rise in short-term deposits and loans abroad. A significant net outflow of capital (over CZK 29 billion) was also recorded by the corporate sector in connection with export credits to non-residents and repayment of earlier loans. Other investment in the government sector also ended in a small deficit associated with repayment of foreign loans, especially from the EIB. The marked year-on-year change in other investment flows was due mainly to a change in the short-term position of monetary financial institutions.

The CNB's **international reserves** totalled CZK 782.7 billion at the end of 2012 Q3, representing a quarter-on-quarter decrease of more than CZK 21 billion due mainly to valuation changes. In dollar terms, by contrast, the reserves rose by USD 1 billion to USD 40.5 billion in the same period (see Chart III.6.8). The CNB's international reserves covered more than 42% of all external debt liabilities of domestic entities at the end of 2012 Q2.

BOX 3
The share of reinvested earnings in total FDI income

With the rising significance of foreign direct investment (FDI) in the Czech Republic, the income on this investment increased gradually from the late 1990s onwards (see Chart 1), peaking in 2007 at almost CZK 310 billion. Following an initial phase in which reinvestment predominated, the shares of dividends and reinvested earnings were approximately equal as from 2003. When the financial crisis broke out in 2008, the absolute volume of FDI income decreased, but above all there was a sizeable decline in the share of reinvested earnings in favour of repatriated dividends (see Chart 2). This trend was visible not only in the Czech Republic, but also in other monitored countries. It was related to a general lack of liquidity in foreign

CHART III.6.7

PORTFOLIO INVESTMENT

Portfolio investment recorded a net inflow in 2012 Q2, owing mainly to issuance of corporate bonds abroad
(CZK billions)

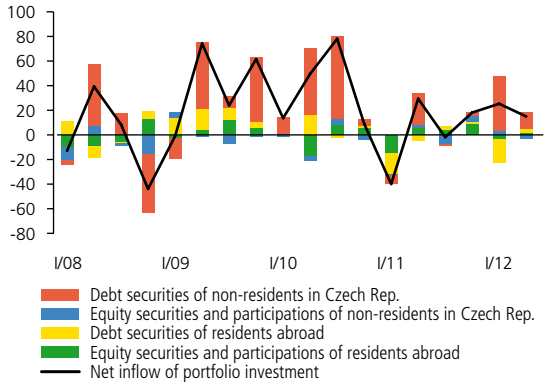


CHART III.6.8

CNB INTERNATIONAL RESERVES

The CNB's international reserves increased moderately in dollar terms in 2012 Q3 compared to the previous quarter
(USD billions, end of quarter)

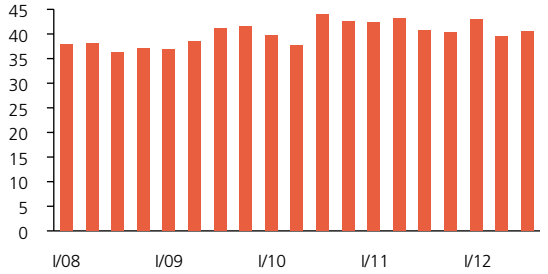
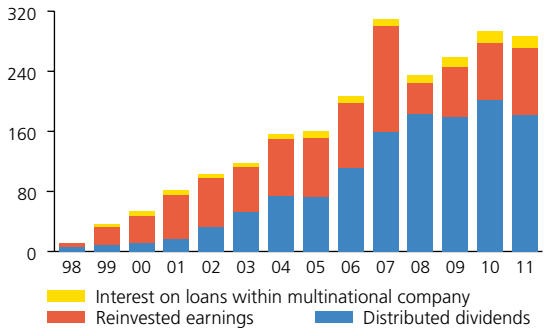


Chart 1 (Box)

FDI INCOME: DEBIT SIDE

Total FDI income in the Czech Republic increased almost linearly until 2010
(CZK billions)



Note: Closer analysis of the latest direct investment income figures is complicated by the fact that these data are only preliminary and will subsequently be revised on the basis of annual questionnaires with a 15-month lag. Definitive data for 2011 will therefore not be available until March of next year.

Chart 2 (Box)

SHARE OF REINVESTED EARNINGS IN TOTAL FDI INCOME

The onset of the financial crisis accelerated the outflow of dividends from the Czech Republic and from the other monitored countries
(percentages; source: CNB, Eurostat)

Note: Average for Austria, Croatia, Cyprus, Estonia, Hungary, Ireland, Portugal, Slovakia, Spain and Sweden

parent companies, which led to transfers of liquidity from subsidiaries, and to limited investment opportunities. The share of reinvestment in total FDI income has recovered in the following years, but at around 30% it is still below the pre-crisis level. This fall in reinvestment was probably one of the key factors reducing the estimated potential growth of the economy (see section III.3.4).

In the case of the Czech Republic, moreover, it should be noted that the potential for further privatisation FDI inflows or large greenfield FDI projects was largely exhausted a few years ago, and reinvested earnings have been the predominant source of FDI inflows into the economy approximately since 2006. Since the onset of the financial crisis, reinvested earnings have dominated the overall FDI inflow into the Czech Republic (over 90% in 2011; preliminary balance of payments data indicate a figure of 87% between January and July 2012).[66]

Reinvestment can be expected to continue to play a pivotal role in the inflow of FDI and will therefore be one of the main sources of growth in the potential of the Czech economy. It will be affected by the changing time structure (ageing) of the current FDI stock and its impact on the share of reinvested earnings in total FDI income. This is because the older is the investment, the higher is the share of repatriated dividends that can be expected at the expense of reinvested earnings (see the FDI life cycle theory).[67] Novotný and Podpiera (2008)[68] estimate the total life cycle of an initial direct investment at roughly 15 years, with FDI profitability peaking in the sixth year. Given the current time structure of the FDI stock in the Czech Republic, even with a pessimistic assumption of zero FDI inflows, we can expect – *ceteris paribus* – FDI income of over EUR 10 billion a year over the next four or five years. Given a slightly optimistic assumption of the reinvestment ratio returning to 50% as the euro area crisis dissipates, this would mean an FDI inflow to the Czech economy in the form of reinvestment of around EUR 5 billion a year, although probably beyond the horizon of the current forecast. At the same time, productivity growth would rise gradually from its current low levels.

66 However, reinvested earnings can take the form of only temporarily undistributed funds without representing actual investment.
67 Brada and Tomšík (2003) *Reinvested Earnings Bias, The "Five Percent" Rule and the Interpretation of the Balance of Payments – With an Application to Transition Economies.* William Davidson Institute WP No. 543.
68 Novotný and Podpiera (2008) *The Profitability Life-Cycle of Direct Investment: An International Panel Study.* Economic Change & Restructuring 41(2).

III.7 THE EXTERNAL ENVIRONMENT

In 2012 Q2, GDP decreased in the euro area and increased in the USA, albeit at a slowing pace. The outlooks for 2012 H2 are not very optimistic either. Consumer price inflation increased during 2012 Q3, but inflation is still mostly expected to be subdued owing to weak economic growth. In response to the unsatisfactory economic situation, the Fed started a third round of quantitative easing for an unlimited time period. The launch of the European Stability Mechanism (ESM), and the ECB's declaration that it was ready to undertake (conditional) purchases of the bonds of Member States, also helped to calm financial markets in the euro area. As a result, the depreciation trend of the euro against the US dollar reversed in August and the euro strengthened back to the level of USD 1.3. The price of Brent crude oil started to increase in August and then stabilised around USD 110 a barrel.

III.7.1 The euro area

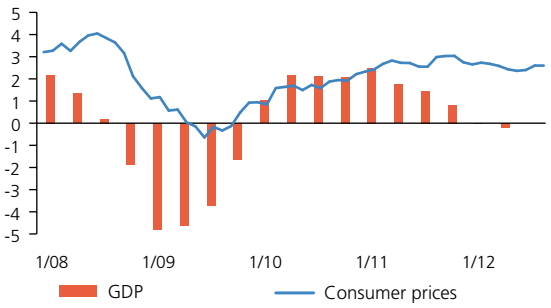
In quarter-on-quarter terms, the **euro area economy** switched from stagnation to a decline of 0.2% in 2012 Q2 as a result of a fall in the positive contribution of net exports and a persisting negative contribution of domestic demand. The year-on-year stagnation in economic growth recorded in 2012 Q1 turned into a contraction of 0.5% in Q2, mainly as a result of a decline in inventories (see Chart III.7.1). For 2012 Q3, the October CF lowered its forecasts for annual and quarterly growth in economic activity (to -0.8% and -0.3% respectively) compared to July. Lower expected economic growth in 2012 H2 is also suggested by July and August data showing a year-on-year decline in industrial production (of 2.8% on average) and retail turnover (of 1.3% on average).

CHART III.7.1

GDP AND INFLATION IN THE EURO AREA

GDP decreased in 2012 Q2, while inflation went up at the end of 2012 Q3

(annual percentage changes; source: Datastream)



The October CF left its **GDP growth estimate** for 2012 as a whole unchanged from July and continues to expect a contraction of 0.5%. For 2013, however, it reduced its GDP growth forecast from 0.5% to 0.2% owing to lower expected growth in fixed investment and consumption. The ECB also revised its economic outlook for this year and the next (from -0.1% to -0.4% for 2012 and from 1.1% to 0.5% for 2013), and so did the IMF (from -0.3% to -0.4% and from 0.9% to 0.2% respectively).

As in August, **inflation in the euro area** was 2.6% in September, up by 0.2 percentage point on the previous three months. This increase was caused mainly by faster growth in energy prices. By contrast, core inflation declined further to 1.6%. The October CF revised its headline inflation predictions for 2012 and 2013 slightly upwards compared to July. It expects headline inflation to fall by 0.3 percentage point to 2.2% in 2012 Q4 and to decrease below 2% at the start of next year.

On 4 October, the ECB **left its key interest rate unchanged** at 0.75%. According to the Governing Council, the rise in inflation in August and September was transitory, inflation pressures are insignificant

due to weak current and future economic growth, and inflation will decline this year. The assumption of weakening inflation is supported by monetary data. Annual M3 growth fell to 2.9% and the decline in loans to the private sector deepened to -0.6% in August.

In September, the Governing Council decided to make changes as regards purchases of government bonds of overindebted euro area countries. A new programme of OMTs (Outright Monetary Transactions) replaces the SMP (Securities Markets Programme), which the ECB had not used for quite some time. Bond purchases under the new programme, which, according to an ECB communication, is unlimited in quantity and fully sterilised, are conditional on application for assistance from the EFSF (European Financial Stability Facility) or the ESM (European Stability Mechanism) and on compliance with the conditions stipulated in the programme related to such assistance. The IMF will also be involved in supervising compliance with these conditions. The ECB will purchase government bonds with a residual maturity of between one and three years on secondary markets only.

In addition, in September the Governing Council also relaxed its requirements for **securities eligible as collateral** for loans provided in Eurosystem operations. The minimum credit rating threshold requirements were lowered, and the list of eligible assets was expanded to include securities denominated in some currencies other than the euro.

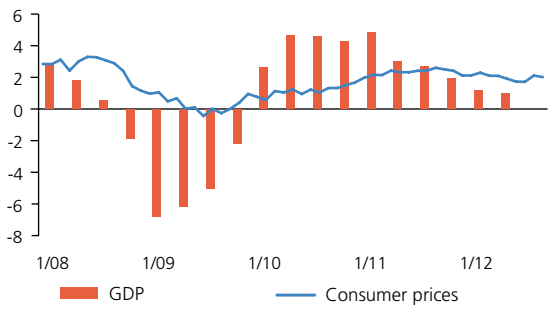
A permanent **European Stability Mechanism (ESM)** was launched in early October. It will have at its disposal EUR 500 billion plus the roughly EUR 200 billion remaining in the EFSF. The new fund will be allowed to purchase government bonds of overindebted countries and thereby reduce their yields. It will also be able to increase directly the capital of troubled banks from euro area countries, so that such assistance will not be reflected in the debt of the country concerned. However, this is conditional on the creation of an integrated banking supervisory authority for the euro area.

German GDP rose by 0.3% quarter on quarter in 2012 Q2. This represents a slowdown from the growth of 0.5% recorded in Q1. The contributions of fixed investment and changes in inventories to GDP were negative (-0.3 percentage point). By contrast, the quarter-on-quarter increase in GDP was aided by household consumption (with a contribution of 0.2 percentage point) and net exports (0.3 percentage point). Annual GDP growth was 1.0%, down by 0.2 percentage point from the previous quarter. Despite the subdued growth, Germany is still succeeding in keeping unemployment low (6.5% in September). Industrial production and new orders in industry declined in August in both month-on-month and year-on-year terms, pointing to an economic slowdown in 2012 Q3. The Ifo indicator fell for the fifth consecutive month. The decline in both the Purchasing Managers' Index (PMI) and the ZEW index halted, but all these leading indicators are signalling that the German economy is losing its growth momentum, mainly because of falling external demand, especially

CHART III.7.2

GDP AND INFLATION IN GERMANY

Economic growth is slowing and inflation stabilised at 2%
(annual percentage changes; source: Datastream)



in the euro area. This is confirmed by the October CF outlook for economic growth in Germany in 2012, which was lowered by 0.1 percentage point compared to July, to 0.8%. Both CF and the IMF are forecasting only slightly higher growth of 0.9% for 2013. The IMF is slightly more optimistic for 2012, estimating German GDP growth at 0.9%. According to the IMF, even this relatively weak growth is still threatened by a possible deterioration of the European debt crisis.

Annual inflation in Germany stabilised at 2% in September. The October CF expects inflation to remain at 2% this year, while the IMF expects the inflation rate to be 0.2 percentage point higher. CF predicts that inflation in Germany will edge down to 1.9% next year, the same figure as forecasted by the IMF. Annual M3 growth fell to 7.6% in August following a period of rapid increases.

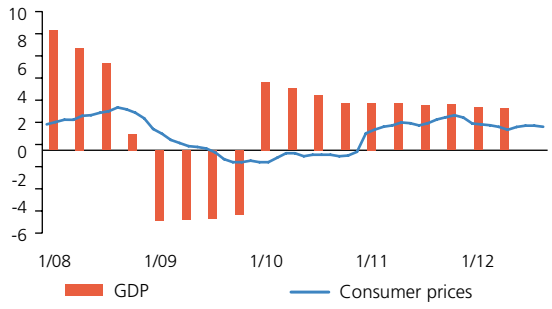
In 2012 Q2, **Slovakia** maintained high quarterly and annual rates of GDP growth (0.7% and 3% respectively). A decrease in domestic demand, caused mainly by a drop in household consumption and fixed investment, was sufficiently offset by a positive contribution of net exports. Compared to the July issue, the October CF increased its estimate of economic growth for this year as a whole by 0.2 percentage point to 2.2% (however, this still implies a marked slowdown in both quarterly and annual growth in 2012 H2) and decreased its estimate for 2013 to 1.9%. Slower growth in household consumption and fixed investment is expected.

Inflation in Slovakia fell slightly to 3.6% in September, but remains high. This is due to rapid growth in energy prices and administered prices. The October CF expects average inflation of 3.5% for 2012 as a whole and 2.9% for 2013.

CHART III.7.3

GDP AND INFLATION IN SLOVAKIA

GDP maintained a high rate of growth in 2011 Q2, and inflation also remained relatively high in Q3
(annual percentage changes; source: Datastream)



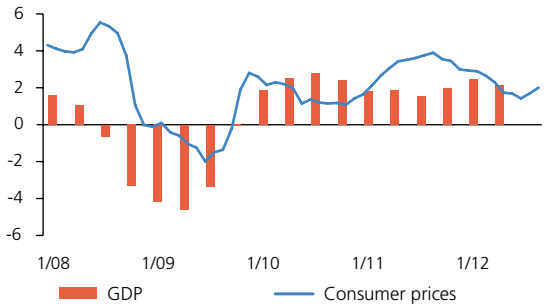
III.7.2 The United States

Annual and quarterly **GDP growth in the USA** decreased moderately in 2012 Q2, to 2.1% and 0.3% respectively (see Chart III.7.4). Quarterly growth in private consumption and investment slowed compared to Q1. By contrast, the growth rate of goods and services exports increased and the quarter-on-quarter decline in government expenditure slowed. Available data for Q3 indicate a slowdown in annual growth in industrial production in July and especially in August, to 4.3% and 2.8% respectively. However, the PMI index in industry is looking positive, having returned above 50 in September for the first time in three months. This is the threshold separating perceived improvement and perceived deterioration of the situation. Nominal retail sales retained their annual momentum from the previous quarter in 2012 Q3, and the University of Michigan consumer confidence index rose for the third consecutive month in October. Nevertheless, the US labour market is weak and the US economy is not creating new jobs despite a decrease in unemployment below 8% in September. Furthermore, the share of part-time employees remains high.

CHART III.7.4

GDP AND INFLATION IN THE USA

GDP growth slowed slightly in 2012 Q2, while annual inflation started rising in July
(annual percentage changes; source: Datastream)



As regards internal and external economic equilibrium, both the annual cumulative current account deficit and the annual cumulative federal government expenditure deficit decreased in 2012 Q2 (to 3.1% of GDP and 8% of GDP respectively). According to the October CF, economic growth should reach 2.1% in 2012, implying a slight slowdown in the second half of the year. However, large uncertainties persist in the outlook for 2013. The October CF expects growth of 2%, but there are downside risks connected with the need to adopt additional fiscal policy measures. These, however, are being postponed because of the presidential and congressional elections in November.[69]

Annual **consumer price** inflation rose to 2% in September. The average for 2012 so far is 2.1%, which is also the level for the whole year predicted by the October CF. The rising inflation probably already reflects the impacts of the extreme drought that affected agricultural production in North America this year. Inflation excluding energy and food prices also increased slightly compared to August, reaching the same level as headline inflation. After recording a three-year low in July, annual growth in industrial producer prices started to rise rapidly, reaching 2.2% in September. Annual M2 growth accelerated slightly to 6.9% in August.

At its meeting in mid-September, the **Fed** decided to begin purchasing additional mortgage-backed securities (MBS) at a pace of USD 40 billion per month. The purchases will continue until the current economic situation improves. In the Fed's opinion, the current economic growth is not strong enough to generate sustained improvement on the labour market. The Fed will also continue to extend the average maturity of its securities holdings and reinvest the funds from maturing securities. These actions should put downward pressure on long-term interest rates. Moreover, the Fed undertook to keep its key interest rate at a record-low level at least until mid-2015.

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

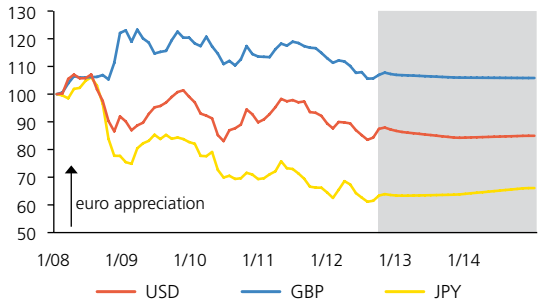
The **exchange rate of the euro against major world currencies** weakened in 2012 H1, but this trend reversed in August and the euro rebounded (see Chart III.7.5). Developments in the euro area, especially the central bank's actions against the debt crisis and weakening economic growth, remain crucial for the exchange rate. Declarations of readiness to take steps to save the single currency and the announcement of a programme to purchase bonds of countries hit by the debt crisis were of key importance in this respect. In addition, the last important obstacle to the creation of the ESM (approval of ratification by the German Constitutional Court) was

CHART III.7.5

EURO EXCHANGE RATE AGAINST MAJOR CURRENCIES

At the one-year horizon, the euro is expected to depreciate modestly against the dollar

(January 2008 = 100; source: Datastream, outlook from CF)



69 Without the adoption of additional fiscal measures, the tax relief adopted in the previous period would automatically expire in January 2013. At the same time, government spending cuts would be implemented, as agreed during negotiations on the debt ceiling in 2011.

overcome. Following the announcement of an additional round of quantitative easing in the USA, the size of which exceeded market expectations, the euro appreciated to its strongest level in more than four months (1.31 USD/EUR). In year-on-year comparison, however, it was more than 4% weaker, and the average year-on-year depreciation for Q3 as a whole was even greater (12%). The euro depreciated less significantly against the British pound and the Japanese yen (by 10% year on year).

In the **first half of October 2012**, the euro weakened again against the major currencies. Its rate against the dollar fell to USD 1.28 after Spain was downgraded by two notches. However, subdued domestic demand and fiscal uncertainty in the USA are preventing stronger appreciation of the dollar. Although political tensions and a lack of will to take more radical measures persist in the euro area, the ECB has declared its conditional readiness to launch a government bond purchase programme. This has calmed the bond market situation.

The **October CF** expects the dollar to appreciate modestly against the euro to USD 1.24 at the one-year horizon. The actions of other central banks will also have a major effect on the euro's rate against other world currencies. The current situation in the UK is increasing expectations that the central bank will approve more bond purchases in November. Speculation is also rising that the Bank of Japan intends to significantly weaken its currency after the latest indicators suggested that the Japanese economy was slipping into recession. CF thus expects the single European currency to appreciate against the yen at the two-year horizon. The outlook for the rate against the pound remains almost stable at the current level.

III.7.4 Prices of oil and other commodities

The **price of Brent crude oil** rebounded from a short-term low of USD 91 a barrel at the end of June to almost USD 117 a barrel during July and August. It then moved within a narrow band of USD 112–116 a barrel until mid-September and subsequently fell slightly. In the second week of October, the price of oil rose again to around USD 114 a barrel, still roughly 10% below the peak recorded in March (see Chart III.7.6). The price increase in 2012 Q3 was due mainly to the EU's embargo on oil imports from Iran, which took effect in July as a follow-up to US sanctions. Part of the shortfall in Iranian oil supplies was made up for by almost record-high oil extraction in Saudi Arabia. Conversely, extraction in some other countries was limited due to adverse weather (Hurricane Isaac in the Gulf of Mexico), maintenance of extraction facilities, extraction disruptions in the North Sea and internal turmoil in Syria, Yemen and South Sudan. Expectations regarding the actions of major central banks were another factor pushing up prices. Together with falling oil supplies, these actions were reflected in the activity of financial investors, whose open net long positions in oil rose to record highs in July and August according to OPEC. By contrast, the strengthening of the

Chart III.7.6

OIL AND NATURAL GAS PRICES IN USD

The price of Brent crude oil climbed back above USD 110 a barrel during 2012 Q3, but the outlook expects it to fall gradually

(oil in USD/barrel; gas in USD/1,000 m³ – right-hand scale; source: IMF, Bloomberg)

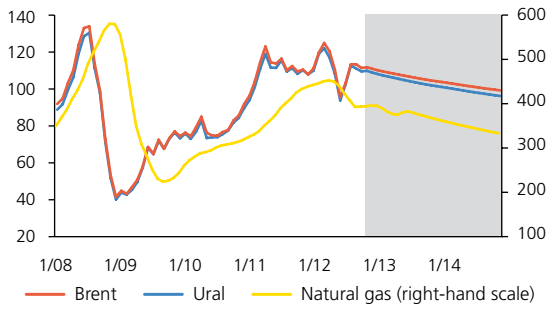


CHART III.7.7

DECOMPOSITION OF KORUNA OIL PRICE GROWTH

Oil price growth in koruna terms was higher than that in dollar terms in 2012 Q3 owing to the weaker koruna

(Brent crude oil in CZK/litre – annual percentage changes; contributions of dollar price of Brent crude oil and CZK/USD exchange rate in percentage points; source: Bloomberg, CNB calculation)

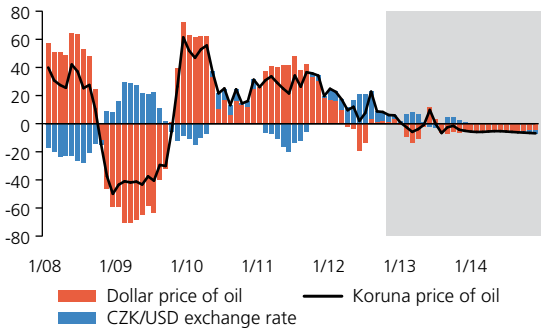
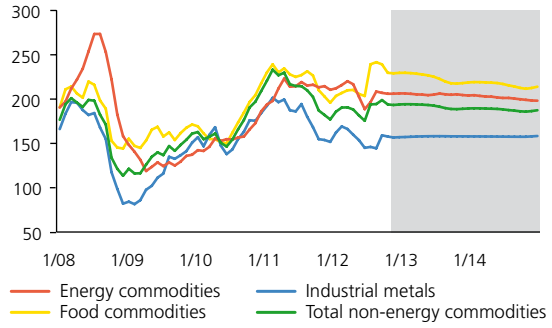


CHART III.7.8

COMMODITY PRICES

All the monitored commodity indices went up in 2012 Q3; the price outlook is falling for foods and stable for other commodities

(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).

dollar in mid-September and concerns regarding the global economy generated the fall in oil prices and long positions in the second half of September. Owing to depreciation of the koruna, the annual growth in the price of oil in koruna terms was more marked than that in dollar terms (see Chart III.7.7).

Because of the weaker-than-expected global economic performance, the IEA and OPEC revised their **forecasts for growth in oil demand** downwards to 0.7 million barrels a day in 2012. However, the forecast for 2013 remained unchanged, with oil consumption expected to grow by 0.8 million barrels a day. Oil extraction should recover in the final months of this year as extraction facilities currently out of operation come on line again and extraction in Libya and Iraq recovers. The expected rise in extraction capacity and subdued demand for oil are reflected in a shift in futures-based market outlooks, which decreased in mid-October, indicating an oil price of less than USD 105 a barrel at the end of 2013. The koruna price of oil should also decrease. Similarly to oil prices, natural gas prices went down in Q3 and their outlook is also falling.

The overall index of **energy prices** increased in July and August and has been flat since then. The market outlook at the two-year horizon is also constant, with a rising outlook for coal prices being offset by falling outlooks for the other two components, i.e. oil and natural gas.

Compared to June, the **non-energy commodity index** jumped by 10% in July and has been virtually flat since then (see Chart III.7.8). The increase was due mainly to rising prices of food commodities, especially maize, wheat and soy, as a result of a poor harvest in the USA caused by extreme drought. The food price index reached a short-term peak in August then fell back slightly in September and October thanks to a slightly improved outlook for the US harvest and an optimistic outlook for the harvest in Brazil. The food price outlook decreased similarly. Prices of industrial metals were flat in July and August, but in September their index rose by 10%, with aluminium, lead, platinum and silver recording the biggest increases. The outlook for the industrial metal price index is more or less constant at the two-year horizon.

BIS	Bank for International Settlements
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
ECB	European Central Bank
EFSF	European Financial Stability Facility
EIB	European Investment Bank
ERM II	Exchange Rate Mechanism
ESA 95	European System of National Accounts
ESCB	European System of Central Banks
ESM	European Stability Mechanism
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
FDI	foreign direct investment
Fed	US central bank
FMIE	Financial Market Inflation Expectations
FRA	forward rate agreement
GBP	pound sterling
GDP	gross domestic product
GVA	gross value added
HICP	Harmonised Index of Consumer Prices
HP filter	Hodrick-Prescott filter
IEA	International Energy Agency
Ifo	Ifo Institute Business Climate Index
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, M3	monetary aggregates
MFIs	monetary financial institutions
MLSA	Ministry of Labour and Social Affairs
OMTs	outright monetary transactions
OPEC	Organization of the Petroleum Exporting Countries
PMI	Purchasing Managers Index
pp	percentage points
PPI	producer price index
PRIBOR	Prague Interbank Offered Rate
(1W, 1M, 1Y)	(one-week, one-month, one-year)
repo rate	repurchase agreement rate
SMP	Securities Market Programme
USD	US dollar
VAT	value added tax
WTI	West Texas Intermediate
ZEW	The Centre for European Economic Research in Mannheim (Zentrum für Europäische Wirtschaftsforschung)

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
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The share of reinvested earnings in total FDI income	(Box)	IV/2012

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 stance: 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 total deposits with agreed maturity and redeemable at notice and repurchase agreements. The broad monetary aggregate M3 (harmonised with EU standards) comprises currency in circulation, overnight deposits, deposits with agreed maturity of up to two years, deposits redeemable at notice of up to three months, repurchase agreements, money market fund shares/units and issued debt securities with maturity of up to two years.

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 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).

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.

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: The situation where the volume of production rises without an increase in the production factors of labour or capital. Growth in technology thus causes the real volume of production to rise given a constant price of production, or the output price to fall relative to input prices given a constant real volume of production.

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										
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
DEMAND AND SUPPLY												
Gross domestic product												
GDP	CZK bn, constant p., seas. adjusted	2,915.1	3,114.1	3,339.3	3,530.3	3,632.5	3,467.6	3,557.0	3,616.2	**3,584.4**	**3,590.8**	**3,660.5**
GDP	%, y-o-y, real terms, seas. adjusted	4.6	6.8	7.2	5.7	2.9	-4.5	2.6	1.7	**-0.9**	**0.2**	**1.9**
Household consumption	%, y-o-y, real terms, seas. adjusted	3.1	3.0	4.4	4.1	3.0	-0.4	0.5	-0.6	**-2.7**	**-0.1**	**0.9**
Government consumption	%, y-o-y, real terms, seas. adjusted	-3.3	1.6	-0.6	0.4	1.2	3.8	0.6	-1.7	**-0.4**	**-0.7**	**0.0**
Gross capital formation	%, y-o-y, real terms, seas. adjusted	6.4	4.4	10.9	15.4	1.3	-20.5	5.6	-1.3	**-6.3**	**2.6**	**1.4**
Exports of goods and,services	%, y-o-y, real terms, seas. adjusted	13.2	11.8	14.2	11.2	3.6	-9.7	16.0	11.1	**3.8**	**3.6**	**8.5**
Imports of goods and,services	%, y-o-y, real terms, seas. adjusted	9.6	6.0	11.1	12.8	2.4	-11.4	15.7	7.5	**1.2**	**4.3**	**7.6**
Net exports	CZK bn, constant p., seas. adjusted	-17.7	85.2	156.4	139.3	175.1	198.7	237.8	354.7	**440.4**	**437.2**	**499.2**
Coincidence indicators												
Industrial production	%, y-o-y, real terms	10.4	3.9	8.3	10.6	-1.8	-13.6	10.3	6.5	-	-	-
Construction output	%, y-o-y, real terms	8.8	5.2	6.0	7.1	0.0	-0.9	-7.1	-3.5	-	-	-
Receipts in retail sales	%, y-o-y, real terms	3.8	8.1	10.8	10.0	2.7	-4.7	1.3	1.8	-	-	-
PRICES												
Main price indicators												
Inflation rate	%, end-of-period	2.8	1.9	2.5	2.8	6.3	1.0	1.5	1.9	-	-	-
Consumer Price Index	%, y-o-y, average	2.8	1.9	2.5	2.8	6.4	1.1	1.5	1.9	**3.3**	**2.3**	**1.6**
Regulated prices (18.70%)*	%, y-o-y, average	3.5	5.7	9.3	4.8	15.6	8.4	2.6	4.7	**8.6**	**3.5**	**1.9**
Net inflation (81.30%)*	%, y-o-y, average	1.8	0.7	0.4	1.7	2.4	-0.9	0.0	1.3	**1.0**	**1.1**	**1.4**
Food prices (including alcoholic beverages and,tobacco) (24.58%)*	%, y-o-y, average	2.8	0.0	-0.2	3.8	3.0	-0.9	0.9	3.9	**2.8**	**2.0**	**1.7**
Adjusted inflation excluding fuels (53.32%)*	%, y-o-y, average	1.2	0.7	0.6	0.7	2.0	0.0	-1.2	-0.7	**-0.3**	**0.7**	**1.4**
Fuel prices (3.39%)*	%, y-o-y, average	5.7	7.7	3.7	-0.2	4.3	-11.1	12.1	9.9	**6.7**	**1.2**	**-0.7**
Monetary-policy inflation (excluding tax changes)	%, y-o-y, average	2.0	1.8	2.3	2.2	4.4	0.9	0.4	1.9	**2.1**	**1.4**	**1.5**
GDP deflator	%, y-o-y, seas. adjusted	4.0	-0.3	0.5	3.3	1.9	2.0	-1.7	-0.8	**1.4**	**2.6**	**0.0**
Partial price indicators												
Producer prices	%, y-o-y, average	5.5	3.1	1.5	4.1	4.5	-3.1	1.2	5.6	**2.1**	**1.5**	**1.8**
Agricultural prices	%, y-o-y, average	9.6	-9.8	1.3	16.4	10.8	-24.3	5.6	20.0	**3.3**	**3.3**	**2.1**
Construction work prices	%, y-o-y, average	3.7	3.0	2.9	3.9	4.5	1.3	-0.2	-0.5	-	-	-
Brent crude oil	%, y-o-y, average	32.7	42.1	18.6	12.6	34.3	-36.6	28.7	39.5	**1.0**	**-4.6**	**-5.2**
LABOUR MARKET												
Average monthly wage	%, y-o-y, nominal terms	6.3	5.0	6.6	7.2	7.8	3.3	2.2	2.4	**2.6**	**2.4**	**2.9**
Average monthly wage	%, y-o-y, real terms	3.4	3.0	4.0	4.3	1.4	2.3	0.7	0.5	**-0.8**	**0.1**	**1.2**
Number of employees	%, y-o-y	-0.2	2.0	1.1	1.8	1.6	-2.2	-2.2	0.0	**-0.5**	**-0.5**	**-0.1**
Unit labour costs	%, y-o-y	3.7	0.6	0.2	2.4	4.3	2.7	-3.1	0.6	**3.2**	**1.7**	**0.8**
Unit labour costs in industry	%, y-o-y	1.2	-7.2	-7.2	2.4	-3.3	0.1	-7.9	0.5	-	-	-
Aggregate labour productivity	%, y-o-y	5.1	4.6	5.6	3.5	0.8	-3.5	4.5	1.4	**-1.2**	**0.5**	**2.0**
ILO general unemployment rate	%, average, age 15–64	8.4	8.0	7.2	5.4	4.4	6.7	7.4	6.8	**7.0**	**7.4**	**7.4**
Registered unemployment rate	%, average	10.0	9.5	8.6	7.0	5.8	8.3	9.3	8.9	**8.9**	**9.2**	**9.0**
PUBLIC FINANCE												
Public finance deficit (ESA95)	CZK bn, current p.	-82.9	-101.1	-79.2	-26.7	-85.0	-217.7	-180.7	-124.8	**-130.5**	**-101.9**	**-95.4**
Public finance deficit / GDP**	%, nominal terms	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.8	-3.2	**-3.4**	**-2.6**	**-2.4**
Public debt (ESA95)	CZK bn, current p.	847.8	885.4	948.1	1,023.4	1,104.3	1,285.6	1,436.6	1,567.9	**1,692.8**	**1,797.6**	**1,894.3**
Public debt / GDP**	%, nominal terms	28.9	28.4	28.3	27.9	28.7	34.2	37.8	40.8	**43.9**	**45.3**	**46.9**
EXTERNAL RELATIONS												
Current account												
Trade balance	CZK bn, current p.	-13.4	48.6	59.3	46.9	25.7	87.3	53.8	94.0	**170.4**	**180.0**	**210.0**
Trade balance / GDP	%, nominal terms	-0.5	1.6	1.8	1.3	0.7	2.3	1.4	2.5	**4.5**	**4.6**	**5.2**
Balance of services	CZK bn, current p.	16.6	37.9	49.0	59.2	73.9	73.9	75.3	66.3	**55.0**	**55.0**	**60.0**
Current account	CZK bn, current p.	-147.5	-30.9	-67.1	-156.9	-81.3	-89.3	-146.6	-109.1	**-54.7**	**-55.0**	**-40.0**
Current account / GDP	%, nominal terms	-5.0	-1.0	-2.0	-4.3	-2.1	-2.4	-3.9	-2.9	**-1.4**	**-1.4**	**-1.0**
Foreign direct investment												
Direct investment	CZK bn, current p.	101.8	279.6	90.3	179.1	36.3	37.7	95.0	75.2	**115.0**	**95.0**	**95.0**
Exchange rates												
CZK/USD	average	25.7	24.0	22.6	20.3	17.1	19.1	19.1	17.7	**19.5**	**20.2**	**20.2**
CZK/EUR	average	31.9	29.8	28.3	27.8	25.0	26.5	25.3	24.6	**25.1**	**25.1**	**25.2**
CZK/EUR	%, y-o-y, real (CPI euro area), avg.	0.0	-6.3	-5.1	-2.2	-12.5	5.4	-4.6	-1.9	**1.2**	**0.2**	**0.6**
CZK/EUR	%, y-o-y, real (PPI euro area), avg.	-2.9	-5.6	-1.5	-3.7	-8.7	4.1	-3.1	-2.4	**1.9**	**0.4**	**0.6**
Foreign trade prices												
Prices of exports of goods	%, y-o-y, average	3.6	-1.5	-1.2	1.3	-4.6	0.2	-1.0	1.7	**2.6**	**1.1**	**1.9**
Prices of imports of goods	%, y-o-y, average	1.6	-0.5	0.2	-1.0	-3.3	-3.5	2.0	4.3	**4.1**	**0.6**	**0.8**
MONEY AND INTEREST RATES												
M2	%, y-o-y, average	8.8	5.9	9.5	11.6	9.5	5.7	4.3	3.6	**5.8**	**6.6**	**3.8**
2W repo rate	%, end-of-period	2.50	2.00	2.50	3.50	2.25	1.00	0.75	0.75	-	-	-
3M PRIBOR	%, average	2.4	2.0	2.3	3.1	4.0	2.2	1.3	1.2	**1.0**	**0.2**	**0.6**

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

2010				2011				2012				2013				2014			
QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV
878.6	887.1	893.1	898.3	902.8	905.2	904.8	903.3	898.3	896.1	898.0	892.0	890.8	894.7	900.2	905.1	909.4	912.6	916.3	922.2
0.9	3.0	3.3	3.0	2.8	2.1	1.3	0.6	-0.5	-1.0	-0.8	-1.2	-0.8	-0.2	0.3	1.5	2.1	2.0	1.8	1.9
0.3	0.4	0.7	0.7	-0.7	-0.5	-0.7	-0.7	-2.4	-3.3	-2.7	-2.3	-0.7	0.3	0.2	-0.1	0.4	0.8	1.0	1.3
1.5	1.5	0.4	-1.1	-0.4	-1.2	-3.1	-2.1	-0.5	-0.9	-0.5	0.5	-1.2	-0.3	-0.7	-0.9	-0.5	-0.2	0.2	0.6
-9.9	7.4	17.9	8.6	3.8	0.5	-3.8	-5.0	-9.2	-5.2	-10.1	-0.1	8.6	0.4	0.7	1.3	1.4	1.6	1.4	1.1
14.8	17.3	16.7	15.3	18.4	12.9	8.5	5.2	6.9	3.9	1.2	3.3	-3.7	3.1	6.2	9.3	10.0	9.0	7.8	7.3
10.0	17.2	20.3	15.1	16.0	9.8	3.6	1.5	3.1	1.1	-3.3	4.0	-1.2	3.9	6.6	8.1	8.5	8.0	7.2	6.8
65.2	59.2	39.6	73.8	91.0	86.1	76.2	101.4	123.2	108.5	108.6	100.1	100.5	106.2	112.7	117.9	120.7	122.8	125.7	130.0
6.9	11.5	10.7	11.8	12.1	8.7	3.2	2.4	2.9	-1.5	-	-	-	-	-	-	-	-	-	-
-22.7	-8.3	-2.8	-2.1	5.9	-5.2	-9.0	-0.8	-9.4	-4.9	-	-	-	-	-	-	-	-	-	-
-0.2	2.1	1.6	1.5	5.3	1.1	0.5	0.9	1.2	-2.4	-	-	-	-	-	-	-	-	-	-
0.7	0.6	1.1	1.5	1.7	1.9	1.8	1.9	2.4	2.7	3.2	-	-	-	-	-	-	-	-	-
0.7	1.1	1.9	2.1	1.7	1.8	1.7	2.4	3.7	3.4	3.3	3.0	2.1	2.2	2.4	2.3	1.6	1.6	1.7	1.7
0.8	2.3	3.6	3.8	4.4	4.0	4.5	5.9	9.7	9.4	8.2	7.3	3.7	3.6	3.5	3.4	2.2	2.0	1.8	1.6
-0.5	-0.3	0.3	0.4	1.0	1.2	1.2	1.7	1.3	1.0	0.9	0.8	0.9	1.0	1.3	1.2	1.3	1.4	1.5	1.5
-1.4	-0.2	2.3	2.8	3.2	4.1	3.6	4.5	3.5	2.5	2.8	2.4	2.4	2.2	2.1	1.3	1.4	1.7	1.8	1.8
-1.1	-1.2	-1.2	-1.3	-0.8	-0.8	-0.7	-0.4	-0.3	-0.2	-0.4	-0.4	0.0	0.4	1.0	1.3	1.4	1.4	1.5	1.5
18.5	13.6	7.4	9.0	10.8	9.1	9.5	10.2	8.0	5.8	6.4	6.7	3.0	1.2	1.0	-0.2	-0.4	-0.7	-0.9	-0.9
-0.3	0.1	0.8	1.0	1.6	1.7	1.7	2.4	2.5	2.2	2.0	1.8	1.3	1.4	1.6	1.5	1.5	1.5	1.5	1.5
-2.6	-1.0	-0.8	-2.4	-1.7	-1.5	-0.6	0.8	1.5	1.4	1.7	1.2	2.8	3.5	2.4	1.7	0.0	-0.6	-0.1	0.7
-1.4	1.3	2.2	3.0	5.4	6.0	5.6	5.2	3.6	1.8	1.6	1.4	0.7	1.2	1.9	2.3	2.2	1.8	1.5	1.4
-5.6	-2.8	8.2	22.7	27.9	30.1	16.6	5.4	-1.9	-1.8	5.8	11.1	9.1	2.9	1.2	-0.2	0.3	2.6	2.8	2.8
0.0	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.4	-	-	-	-	-	-	-	-	-
70.5	35.9	11.9	15.8	36.7	49.0	48.0	26.2	13.2	-7.2	-2.5	1.9	-7.4	-0.1	-3.3	-6.0	-5.6	-5.3	-5.0	-4.8
2.8	3.1	2.2	0.7	2.4	2.4	2.4	2.4	3.3	2.3	2.4	2.4	2.2	2.3	2.4	2.6	2.7	2.8	2.9	3.0
2.1	1.9	0.3	-1.4	0.7	0.6	0.6	0.0	-0.4	-1.1	-0.9	-0.6	0.1	0.1	0.0	0.2	1.1	1.2	1.3	1.3
-3.3	-2.7	-1.4	-1.6	-0.2	0.4	0.1	-0.5	-0.6	-0.6	-0.6	-0.1	-0.3	-0.6	-0.6	-0.4	-0.3	-0.2	-0.1	0.0
-3.4	-3.9	-1.7	-3.4	-0.7	1.3	0.4	1.5	3.2	3.3	2.5	3.6	2.7	1.8	1.6	0.6	0.3	0.7	1.1	1.1
-11.0	-10.4	-5.4	-5.2	-0.5	1.2	1.3	0.3	0.9	3.3	-	-	-	-	-	-	-	-	-	-
4.4	5.7	3.7	4.1	2.7	1.8	1.2	0.2	-0.3	-1.9	-0.9	-1.5	-0.9	0.3	0.7	1.8	2.3	2.1	1.8	1.9
8.2	7.2	7.1	7.0	7.3	6.8	6.6	6.5	7.2	6.8	7.0	6.9	7.6	7.3	7.5	7.3	7.8	7.4	7.5	7.2
10.1	9.1	8.8	9.1	9.8	8.6	8.4	8.5	9.4	8.5	8.6	9.0	9.8	8.9	8.9	9.0	9.8	8.9	8.6	8.7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.0	22.9	-4.5	4.4	33.7	29.3	7.9	23.2	53.8	47.6	34.0	35.0	54.0	45.0	37.0	44.0	60.0	52.0	46.0	52.0
3.6	2.4	-0.5	0.4	3.8	3.0	0.8	2.3	6.0	5.0	3.5	3.5	5.9	4.5	3.7	4.3	6.4	5.2	4.5	4.9
18.3	24.8	15.3	16.9	14.2	20.3	18.8	13.0	14.2	11.7	15.0	14.0	11.0	16.0	17.0	11.0	12.0	18.0	18.0	12.0
22.3	-28.1	-106.4	-34.5	22.7	-56.8	-57.6	-17.4	22.9	-6.6	-55.0	-16.0	22.0	-21.0	-53.0	-3.0	27.0	-22.0	-49.0	4.0
2.6	-2.9	-11.1	-3.5	2.6	-5.9	-6.0	-1.7	2.6	-0.7	-5.6	-1.6	2.4	-2.1	-5.3	-0.3	2.9	-2.2	-4.8	0.4
13.9	30.2	37.6	13.3	13.1	34.5	-4.3	32.0	17.3	17.6	-	-	-	-	-	-	-	-	-	-
18.7	20.2	19.3	18.3	17.8	16.9	17.3	18.8	19.1	19.7	20.1	19.2	20.1	20.1	20.2	20.3	20.3	20.3	20.2	20.1
25.9	25.6	24.9	24.8	24.4	24.3	24.4	25.3	25.1	25.3	25.1	24.9	25.1	25.2	25.2	25.2	25.2	25.1	25.2	25.2
-6.3	-4.1	-3.2	-4.8	-5.2	-4.2	-1.0	2.6	2.0	2.9	2.0	-2.1	0.0	-0.4	0.2	0.9	0.9	0.5	0.5	0.6
-5.6	-2.9	-1.0	-2.7	-4.9	-4.6	-1.8	1.9	3.0	4.3	2.8	-2.4	-0.9	-0.7	0.6	2.6	1.4	0.7	0.2	0.3
-6.5	-0.3	2.2	1.0	0.8	-0.1	1.6	4.6	4.0	3.9	3.2	-0.6	0.1	0.2	1.4	2.9	2.4	1.9	1.7	1.7
-4.4	2.5	5.8	4.7	4.7	2.4	3.5	6.5	5.7	5.7	4.6	0.5	0.0	-0.3	0.8	1.9	1.3	0.9	0.6	0.6
3.5	5.0	4.8	4.1	3.4	2.6	3.8	4.8	6.1	5.8	5.7	5.7	6.6	7.4	6.8	5.8	4.1	3.4	3.6	3.9
1.00	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.50	0.50	-	-	-	-	-	-	-	-	-
1.5	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.5	0.4	0.2	0.2	0.2	0.3	0.4	0.6	0.9

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