MAGYAR NEMZETI BANK

Quarterly Report on Inflation

December 2013

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Act CXXXIX of 2013 on the Magyar Nemzeti Bank, defines the primary objective of Hungary's central bank as the achievement and maintenance of price stability. Low inflation allows the economy to function more effectively, contributes to better economic growth over time and helps to moderate cyclical fluctuations in output and employment.

In the inflation targeting system, since August 2005 the Bank has sought to attain price stability by ensuring an inflation rate near the 3 per cent medium-term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of the expected development of inflation every three months, in order to establish the monetary conditions consistent with achieving the inflation target. The Council's decision is the result of careful consideration of a wide range of factors, including an assessment of prospective economic developments, the inflation outlook, money and capital market trends and risks to stability.

In order to provide the public with clear insight into the operation of monetary policy and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Financial System Analysis and Directorate Financial Analysis, as well as the macroeconomic developments underlying these forecasts. The Report is published quarterly. The forecasts of the Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis are based on assumption of endogenous monetary policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this Report were prepared by staff in the MNB's Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis under the Executive Director Dániel Palotai. The Report was approved for publication by Dr. Ádám Balog, Deputy Governor.

The Report incorporates valuable input from the Monetary Council's comments. The projections and policy considerations, however, reflect the views of staff in the Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis and do not necessarily reflect those of the Monetary Council or the MNB.

The projections are based on information available in the period to 11 December 2013.

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The Monetary Council's statement in the December 2013 issue of the Quarterly Report on Inflation

Since August 2012, the Monetary Council has reduced the base rate significantly

The reduction in the base rate was justified by the low inflation environment, subdued inflationary pressures over the medium term and a degree of spare capacity in the economy. Perceptions of the risks associated with the economy were supportive throughout the period. In the Council's judgement, the significant reduction in the base rate implemented since August 2012 contributed to the recovery in domestic economic growth and enabled the Bank to meet its medium-term inflation target. The Council is seeking to maintain a balanced and conservative approach to monetary policy. In addition to the priority of meeting the inflation target, the Council also takes into account the condition of the real economy and incorporates financial stability considerations into its decisions. A marked and sustained shift in perceptions of the risks associated with the Hungarian economy may influence the room for manoeuvre in monetary policy.

In the Council's judgement, there is no material inflationary pressure in the Hungarian economy

In recent months, the consumer price index and the measures of underlying inflation have been at historically low levels. Low underlying inflation reflects the combined effect of weak domestic demand, declining inflationary pressures in external markets and the gradual adjustment of inflation expectations. In addition to the decline in underlying inflation, the reductions in regulated prices, implemented in a series of steps this year, have also contributed significantly to the development of a low inflation environment. Looking forward, loose labour market conditions and the adjustment of inflation expectations are likely to lead to moderate wage growth, which in turn may contribute to the maintenance of the low inflation environment. On the whole, inflationary pressures are likely to remain muted over the medium term, with inflation expected to move into line with the target by the end of the forecast period.

The Council judges that the Hungarian economy returned to a growth path in 2013 and, looking ahead, expects economic growth to continue

Hungarian economic growth may continue in a more balanced pattern than previously. Rising exports are likely to play an important role as a source of growth, supported by an increase in market share due to the establishment of new production capacity in the automobile industry, in addition to the recovery in external activity. Moreover, domestic demand is expected to strengthen in the coming years. Whole-economy investment is likely to pick up further, bolstered by the increasing use of EU funding. Corporate investment is expected to grow, driven by the positive economic outlook and the easing of credit constraints due to the Bank's Funding for Growth Scheme. However, household consumption is likely to grow only gradually, even despite the increase in real income. Propensity to save is expected to remain high, reflecting the ongoing reduction in debt built up during the years prior to the crisis and the slow improvement in credit conditions.

Hungary's external position is likely to improve further

The external surplus of the Hungarian economy is likely to rise further this year, reflecting a rising surplus on goods and services partly due to the improvement in the terms of trade, the expected moderate decline in the income account deficit and the increasing use of EU transfers. On the forecast horizon, the external financing capacity is expected to remain high and the trade surplus to stabilise at its current level, while the net amount of EU transfers, although falling slightly, is likely to exceed the level of previous years, due to the new budget cycle of the EU. With the external financing capacity remaining high, the external debt ratio is likely to fall further, which in turn will reduce the country's vulnerability.

In the Council's view, the medium-term achievement of the price stability and the condition of the real economy provide scope for further cautious monetary policy easing

In the Council's judgement, the economic data becoming available in the course of the year indicate that weak domestic demand and loose labour market conditions have a strong disciplinary effect on economic agents' price and wage-setting decisions. Although temporary effects have also contributed strongly to the reduction in inflation, underlying developments point to continued moderate inflationary pressure even in the medium term, supported by low inflation in external markets and the gradual fall in inflation expectations. The productive capacity of the economy continues to be lower than optimal, with the output gap remaining negative. The negative output gap may close at the end of the forecast horizon, mainly driven by the performance of the export sector and the revival of investment. On the other hand, household consumption is likely to strengthen only gradually and, consequently, real economic factors are expected to continue to have a disinflationary impact, although to a declining extent. Under the current projection, inflation remains significantly below the target next year, before moving into line with the rate of change consistent with price stability in 2015, even as the output gap closes. The low inflation environment may help the Bank's inflation target to better anchor the nominal path of the economy.

On the whole, the global financial environment has been supportive in the past quarter. However, sentiment has been volatile, due to uncertainty about the future of unconventional measures used by global central banks, which warranted an even more cautious approach to domestic monetary policy.

The macroeconomic outlook continues to be surrounded by a range of uncertainties

The Monetary Council identified several alternative scenarios around the baseline projection in the December Report. Two of these scenarios represent risks relevant to the future conduct of monetary policy. In the Council's judgement, the alternative scenarios allowing for the possibility of a lower inflation environment, on the one hand, and a potential increase in investor risk aversion as a result of external developments, on the other, imply a different monetary policy stance relative to the baseline projection. In addition, the Monetary Council perceives upside risks to growth linked to the pick-up in corporate lending and the stimulatory impact of the Funding for Growth Scheme.

Under the alternative scenario assuming a lower inflation environment, the ratio of unused domestic and external capacities available may be higher than assumed in the baseline projection, which in turn may imply more subdued domestic wage dynamics and a sharper decline in external inflationary pressure, and therefore the inflation target can be met with a persistently more accommodative monetary policy conditions. Under the alternative scenario assuming an unfavourable external environment and higher investor risk aversion, a sustained and marked shift in risk perceptions related to the economy points to the adoption of a tighter policy stance. A stronger pick-up in lending than assumed in the baseline projection may lead to an improvement in the long-term growth potential of the economy through a stimulus to productive investment, and therefore it does not imply a markedly different policy response from that assumed in the baseline projection.

Based on the above considerations, the Monetary Council has decided to reduce the base rate by 20 basis points

In the Council's judgement, there remains a significant degree of unused capacity in the economy and inflationary pressures are likely to remain moderate over a sustained period. Global financial markets continue to be volatile. A sustained and marked shift in perceptions of the risks associated with the Hungarian economy may influence the room for manoeuvre in monetary policy. The projection in the December Report implies that further policy easing is likely to be required in order to deliver price stability in the medium term. Considering perceptions of the risks associated with the economy as well as the improvement in the pace of economic growth, further easing of monetary policy may follow, but a reduction in the increment is likely to be warranted in the future.

Summary table of baseline scenario
(our forecast is based on endogenous monetary policy)

	2012	2013	2014	2015
	Fact	Projection		
Inflation (annual average)				
Core inflation	5.1	3.3	3.0	3.0
Core inflation without indirect tax effects	2.5	1.5	2.2	2.8
Consumer price index	5.7	1.7	1.3	2.8
Economic growth				
External demand (GDP based)	0.8	0.6	1.7	2.2
Household consumption expenditure	–1.7	0.1	1.5	1.8
Gross fixed capital formation	–3.7	3.5	7.4	4.8
Domestic absorption	–3.5	0.6	2.4	2.3
Export	1.7	5.2	5.4	6.1
Import	–0.1	5.0	6.0	6.4
GDP	–1.7	1.1	2.1	2.4
External balance[1]				
Current account balance	1.0	2.8	2.8	3.2
External financing capacity	3.6	6.0	5.5	5.8
Government balance[1, 6]				
ESA balance	–2.0	–2.6	–2.5	–2.9
Labour market				
Whole-economy gross average earnings[2, 4]	4.5	3.2	3.9	5.1
Whole-economy employment	1.7	1.3	1.7	0.3
Private sector gross average earnings[3]	7.2	3.5	2.8	3.5
Private sector employment	1.4	0.8	1.3	0.9
Unemployment	10.9	10.4	9.4	8.8
Unit labour costs in the private sector[4]	7.2	2.3	1.4	1.1
Household real income[5]	–4.0	0.9	1.8	1.2

[1] *As a percentage of GDP.*
[2] *Calculated on a cash-flow basis.*
[3] *According to the original CSO data for full-time employees.*
[4] *Private sector unit labour costs calculated with a wage indicator excluding the effect of whitening and the changed seasonality of bonuses and domestic employees.*
[5] *MNB estimate.*
[6] *With complete cancellation of free reserves.*

1 Inflation and real economy outlook

In recent months, increasing growth and further decreasing inflation were the main characteristics of the Hungarian economy. In line with the upturn in economic activity, private sector employment continued to increase. The economic environment continues to be marked by strong nominal adjustment. Inflation data received were lower than our short-term expectations, mostly reflecting favourable effects on the cost side, in addition to the continued disinflationary real economic environment. In the slack demand environment, companies continue to improve their profitability mainly by keeping their production costs under control, instead of raising prices. As a result, wage dynamics were modest in the autumn.

In our current forecast, inflation may remain significantly below our medium-term target next year and become consistent with the quantitative definition of price stability in 2015. With subdued consumption demand, the favourable cost shocks in the foregoing period and yet another reduction in regulated energy prices on 1 November will reduce inflation noticeably over the short run. Determinants of underlying medium-term inflation trends – which are of key importance for monetary policy – suggest that core inflation excluding tax changes will remain moderate. The slow recovery of domestic consumption and second-round effects emerging from moderating inflation expectations both point to a persistently low inflation environment.

In our forecast, we anticipate a continued improvement in economic growth. The economy may continue to grow in a more balanced structure than before, and in the following quarters domestic demand is also expected to pick up gradually. In the short run, growth will probably be driven primarily by strengthening exports and investment. In addition to recovering international economic activity, the upswing in exports is also supported by the constantly growing utilisation of new capacities in the automotive industry. The new production capacities may give yet another boost to the market share of Hungarian exports. The strengthening of investment activity may be primarily supported by expansion in public-sector investment projects financed from EU funds and corporate investment projects including the positive contribution of the Funding for Growth Scheme. In the low inflation environment, households' purchasing power may continue to increase, but owing to the tight lending conditions and households' debt reduction, any turnaround in household consumption can only be gradual.

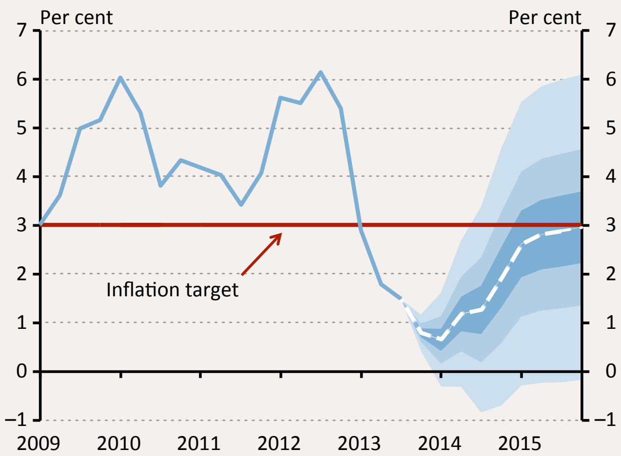
As regards the labour market, in parallel with the upturn in economic activity we anticipate an expansion in employment. Subdued internal demand is disciplining pricing decisions, and consequently, companies are attempting to improve their profitability primarily by keeping their wage costs under control. Improving demand conditions may increase corporate productivity, the pace of which is expected to outperform real wage dynamics. Nominal wage dynamics are expected to remain consistent with medium-term target over the entire the forecast horizon, partly due to the loose labour market conditions and low inflation expectations. The gradual improvement in the demand outlook and the upward trend in productivity growth will support an improvement in corporate profitability.

The negative output gap may close in the second part of the forecast horizon, mainly owing to the performance of exports and the upturn in investment projects. At the same time, the recovery of household consumption will be slower and gradual, and its level is expected to fall significantly behind pre-crisis levels even at the end of the forecast horizon. On the whole, the real economy environment will continue to display disinflationary effects. Over the medium term, the Hungarian economy may be characterised by low inflationary pressures overall, supported by moderate imported inflation, the disciplinary effect of subdued demand on pricing decisions and a gradual decline in inflation expectations. In the interest rate path consistent with our forecast, we expect to see stabilisation of the financial environment.

1.1 Inflation forecast

Inflation may remain below the medium-term target on the forecast horizon. In the second half of 2015 approaching from a lower level, inflation gradually increases close to the 3 per cent medium-term target in line with price stability. The reduction in regulated energy prices in several steps this year decreases inflation considerably over the short run. According to our inflation outlook, imported inflationary effects may remain moderate, while subdued domestic demand continues to have a strong price-reducing effect. The adjustment of inflation expectations and restrained wage dynamics may generally contribute to preserving the low inflation environment.

Chart 1-1
Fan chart of the inflation forecast



Consumer price inflation may remain substantially below the target next year, and only approach the medium-term, 3 per cent inflation target at the end of the forecast horizon, in 2015 Q4. In line with the more favourable underlying inflation trends observed in recent months, inflation is expected to be lower than our September forecast over the entire forecast horizon.

Core inflation excluding indirect tax effects shows historically low dynamics, mainly as a result of the slowing global price dynamics of imported products. In addition, disinflationary real economic environment, restrained wage dynamics and the moderation of inflation expectations may have put downward pressure on core inflation.

Medium-term inflation trends point to a low inflation environment. Inflationary pressures are muted both on the demand and the cost side. Although the output gap may close in the second half of our forecast period, the structure in which this occurs ensures that inflationary pressures in the real economy may remain low. Narrowing of the output gap will mainly be driven by the recovery in the export sector and investment. According to our expectations, while GDP may exceed its pre-crisis value by 2015, consumption may well fall short of the values observed in pre-crisis years in 2015. Owing to weak domestic demand, retail prices reflect the production cost-increasing taxes introduced in 2013 to a modest degree only. Keeping the production costs under control may continue to be a key element of corporate sector adjustment. Loose labour market conditions point towards moderate wage increases. Low wage dynamics may also be facilitated by the gradual adjustment of inflation expectations. The persistently low inflation environment may reduce price and wage expectations over the long term, reinforcing the medium-term sustainability of low inflation.

Chart 1-2
CPI with and without indirect taxes and subsidies

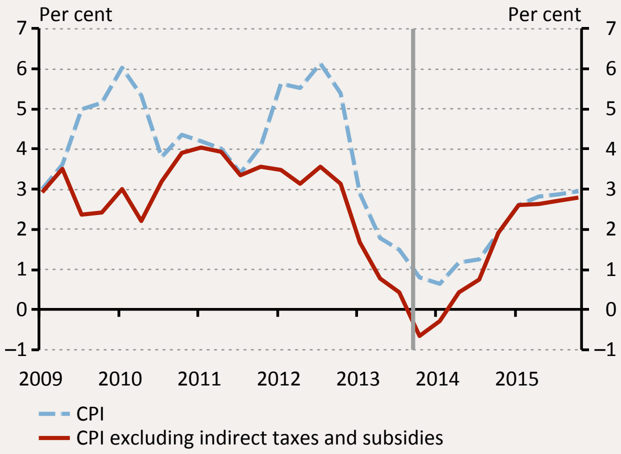
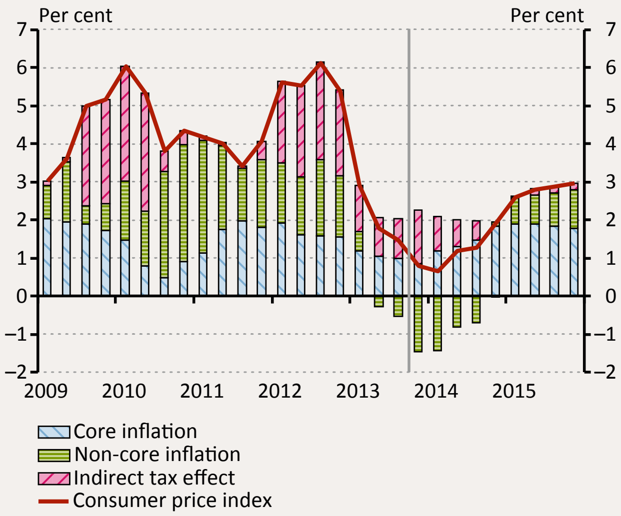


Chart 1-3
Decomposition of the inflation forecast



Price increases of non-core items may remain subdued over the entire forecast horizon. Global crude oil prices have fallen since our September forecast, with futures contracts pointing to a moderate price level. Owing to globally favourable harvest results, unprocessed food prices are low. As futures prices indicate, the growth rates of agricultural commodity prices are expected to remain moderate.

The direct impact of government measures on inflation may remain well below the historical average over the entire forecast period. At the end of the year, another round of regulated price cuts will contribute to the low dynamics of administered prices. The 11.1 per cent cut in regulated energy prices (gas, electricity, district heating) as of 1 November has a 1 percentage-point total impact on inflation, most of which will be reflected in next year's inflation. Due to the lack of detailed information, our forecast does not contain the effect of te third round of regulated price cuts. These measures represent downside risk to inflation in 2014 compared to our forecast. In recent months, the increase in the financial transaction levy may have already been reflected in the consumer prices of market services, but the opportunity of free-of-charge cash withdrawal may mitigate this effect.

On the whole, however, subdued domestic demand, low imported inflationary pressures and the predominantly disinflationary government measures combined with moderating inflation expectations point to a persistently low inflation environment. Inflation may stay below the central bank's medium-term target over the entire forecast horizon, and is expected to increase close to the 3 per cent target at the end of the horizon.

Table 1-1
Details of the inflation forecast

		2012	2013	2014	2015
Core inflation		5.1	3.3	3.0	3.0
Non-core inflation	Unprocessed food	6.8	6.2	1.1	4.0
	Gasoline and market energy	11.9	−0.9	2.1	2.1
	Regulated prices	4.7	−3.4	−4.8	2.2
	Total	6.8	−1.2	−2.1	2.5
Consumer price index		**5.7**	**1.7**	**1.3**	**2.8**

1.2 Real economy forecast

We expect to see a continued improvement in economic growth. Over the forecast horizon growth may be driven primarily by exports and investment projects. The MNB's Funding for Growth Scheme may ease the financing constraints of small- and medium-sized enterprises significantly, with its stimulatory impact on demand emerging mainly in 2014. Despite the significant increase in real wages, household consumption may only pick up gradually, due to the reduction of debts accumulated prior to the crisis, tight lending conditions and precautionary considerations.

Economic growth strengthened further in Q3. Following the correction of last year's one-off effects (e.g. poor agricultural harvest, end-of-year factory shutdowns), domestic economic activity is gradually improving. Production figures and business cycle indicators suggest that an increasingly wide range of sectors made positive contributions to growth in the second half of the year. Primarily due to the dynamic growth of investment projects, domestic demand has been on the rise since mid-2013.

Economic growth may pick up further over our forecast horizon. Real economy growth may be determined by the gradual improvement in global business activity, favourable utilisation of EU funds, accommodating monetary conditions and the MNB's programme to stimulate lending. The economic growth can take place in a more balanced structure than before, where besides export, domestic expenditure may also pick up.

In addition to improving international activity, exports are boosted by the further increase in production generated by new automotive industry capacities. Although a gradual improvement is anticipated, economic activity remains weak in the markets of Hungary's most important trading partners. The new manufacturing units established in recent years in the automotive industry may reach their full capacity next year, while the production of sectors, which have suffered from capacity deterioration in recent years, may stabilise this year. Motor vehicle exports and the permanently devalued real exchange rate, compared to the pre-crisis level, significantly add to the renewed growth in Hungary's export market share.

According to our forecast, national economy investment projects are expected to expand significantly. The expansion in public investment implemented from EU funds may continue to significantly contribute to investment growth. Due to the considerable acceleration in the use of EU

Chart 1-4
Fan chart of the GDP forecast
(based on seasonally adjusted and reconciled data)

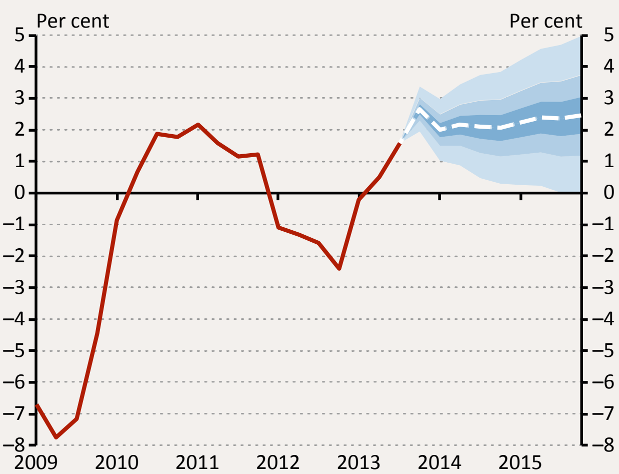


Chart 1-5
Changes in GDP growth

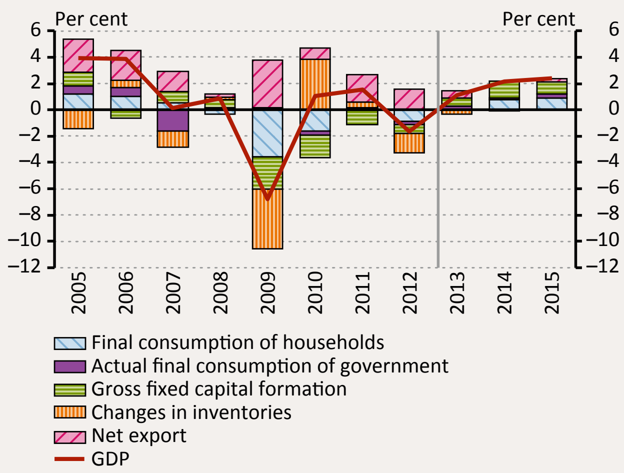


Chart 1-6
Changes in export market share

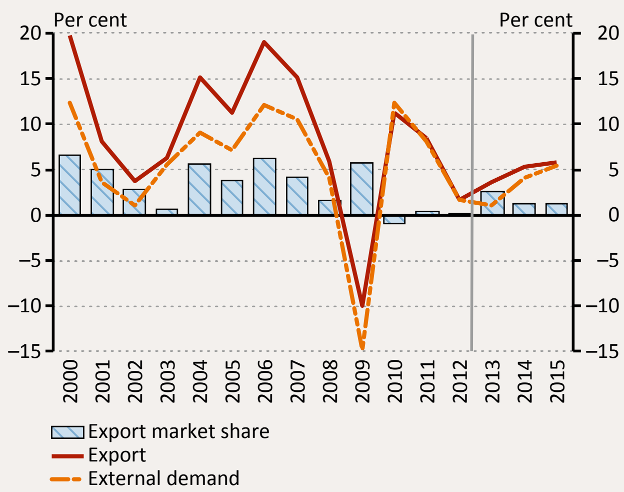
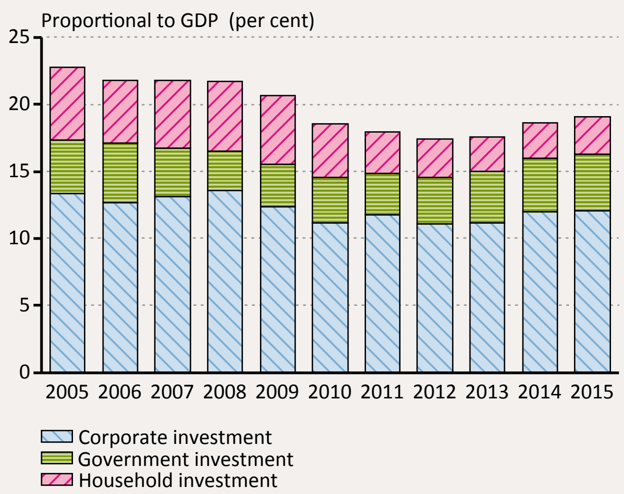


Chart 1-7
Development of sectoral investment



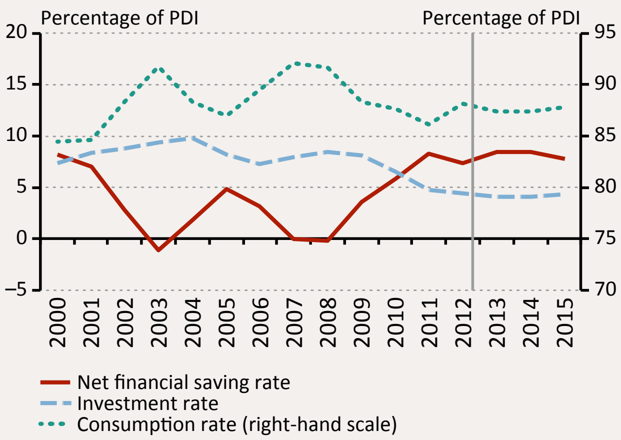
transfers, the volume of co-funded investment projects may be significant both in 2014 and in 2015. The absorption of funds from the next EU financing cycle (2014–2020) may be gradually included.

In parallel with the better outlook for economic activity, corporate investment may be boosted by easing lending constraints. The major investment projects of the automotive industry observed in recent years may have positive spillover effects through supplier relations, which may strengthen investment activity in the export sector even in the short run. Along with the currently unused production capacities primarily in the sectors producing for the domestic market, corporate investment may follow the upswing in economic activity with some delay. The Funding for Growth Scheme represents a significant contribution to easing the financing constraints of small and medium-sized enterprises, thereby facilitating the implementation of investment projects allowing the preservation and expansion of capital. Over the short term, the programme may allow for the implementation of investment projects postponed in the previous period; new projects can be expected from Pillar II of the FGS.

In parallel with the downturn in the domestic housing market, household investment may reach a low point this year, which can only be followed by a slow recovery in household investment. Despite the improving real income trends precautionary considerations and tight lending conditions can ease gradually, and thus we foresee a modest recovery in household investment.

Along with the improving income position, the consumption decisions of households may be determined by the reduction of accumulated debt, tight credit conditions and precautionary considerations. The low inflation and expansion of wage-type incomes are expected to increase the real income of households. The pension and minimum-wage increase, which exceeds the low inflation and the real income growth, will mainly affect low income households with a higher consumption proportion. The reduction of debts accumulated in the pre-crisis era may continue, and in the meanwhile precautionary savings may ease slowly. Accordingly, the savings rate of households may hover at high levels over the forecast horizon. On the whole, we predict a slow, gradual turn in household consumption.

Chart 1-8
The use of household income



Note: As percentage of disposable income. Net financial savings of households exclude mandatory contributions payable to the private pension funds.

Chart 1-9
Our forecast for household and corporate lending

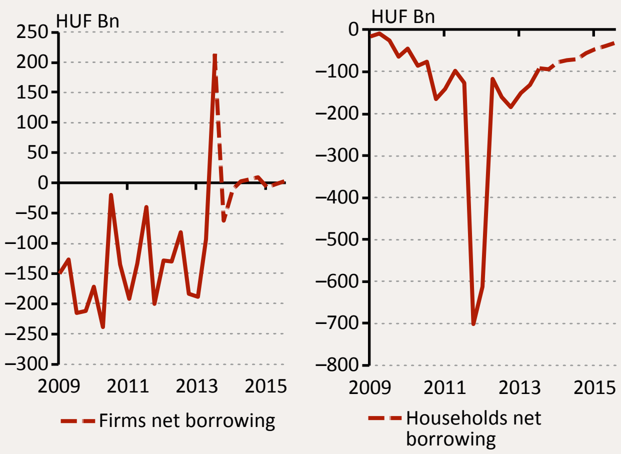
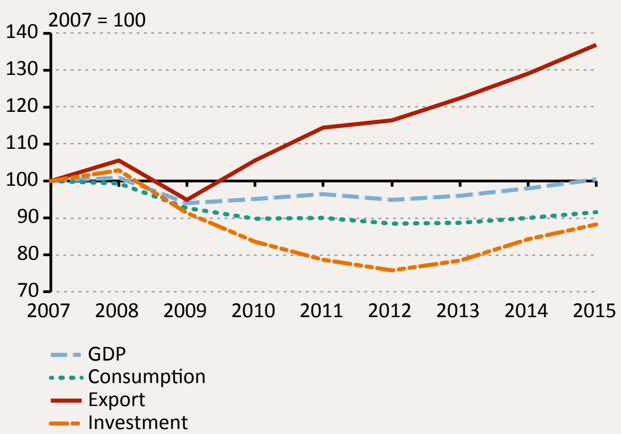


Chart 1-10
Changes in GDP and main components since the crisis

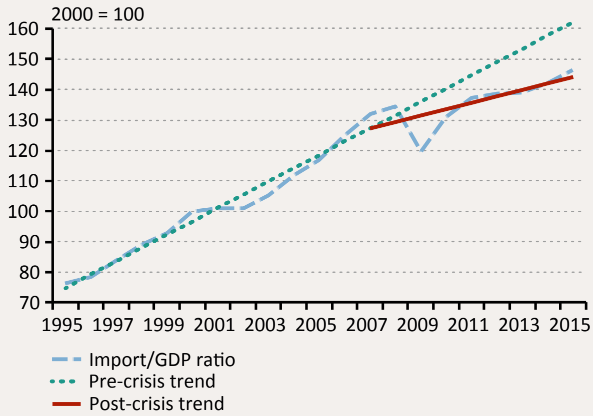


Aggregate output may reach its potential level determined by the production capacities of the economy in the second part of the forecast period, and thus the output gap may close. The improvement in the business cycle may be driven by exports and investment. At the same time, even in 2015 household consumption may fall short of its pre-crisis level by nearly 8 per cent, despite its steady increase. Thus narrowing of the output gap will take place in a structure that allows the general real economy environment to retain its disinflationary effect.

Box 1-1
Cycle or trend? – Change of import intensity of global growth

The expansion of global trade has decelerated perceptibly in the years following the crisis. Global trade had been expanding dynamically for decades before 2008. Each per cent of growth in the GDP of Hungary's export markets entailed a 1.8 per cent increase in their import demand in average. Since the global crisis, however, the expansion of international trade has slowed and now hardly exceeds the growth of GDP. This is a challenge for every export-oriented economy, including the Hungarian economy too, which is closely integrated with the global economy, with an extremely high proportion of its output geared towards export. This box addresses cyclical and permanent factors underlying the deceleration of global trade.

Chart 1-11
Ratio of import-based and GDP-based external demand



The decreasing trade intensity of global economic growth may to some extent be a cyclical phenomenon. Due to increased precautionary considerations and tight credit conditions amidst global deleveraging, demand for investment and durable consumer products has been decreasing in particular. International trade in these products is especially intensive. The euro area, Hungary's main export market, has been particularly hard hit by this decline.The recovery of growth and the increasing business and consumer confidence may boost demand for durable and investment. Consequently, the import intensity of economic growth may increase somewhat over the medium term.

On the other hand, the expansion in trade seen in recent decades may have been an extraordinary phenomenon. According to a WTO analysis,[1] the boom in global trade was driven by a variety of factors since the end of the 1970s.Among others, the most important factors are:

- Transport costs plummeted thanks to technological development.
- Also, the populations of developing countries rose rapidly, coupled with a dramatic spike in the capital intensity of production of these economies.
- Finally, the end of the Cold War and the conclusion of free trade agreements also strengthened international trade relations.

Some factors may, however, change radically in the coming decades. The high level at which global oil prices have stabilised since the mid-2000s prevents any continued decrease in transportation costs. At the same time, the population of certain large developing countries (primarily China) is also growing older. Moreover, massive capacity surpluses were built up in developing economies in the period leading up to the crisis. The financial intermediaries' reduced willingness to take risk could make the financing of international transactions more difficult. Finally, protectionism has been on the rise since the crisis. Based on the above, the import intensity of global economic growth may remain steadily lower than during the pre-crisis period.

In summary, the economic recovery in the years to come may be characterised by slower trade expansion than observed in the past. More sluggish recovery in global trade limits Hungary's export possibilities as well. However, the negative impacts may also be offset by a variety of factors. For one, according to trends observed in recent years the structure of Hungary's exports in terms of countries and products may shift towards relatively faster growing regions (East-Central Europe, Asia). Also, due to the rising output of the automotive industry associated with new capacities, Hungary's export market share is expected to continue expanding over the forecast horizon.[2]

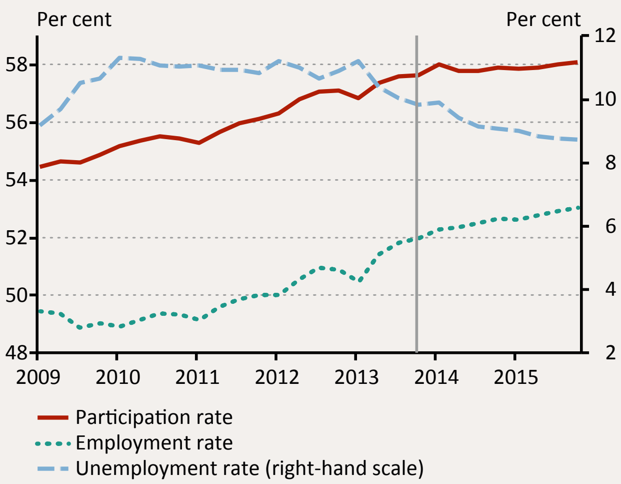
[1] World Trade Organization (2013), "Factors shaping the future of world trade", *World Trade Report.*

[2] See Bognár et al. (2013), "A külkereskedelmi egyenleg dinamikája, az export és az import alakulása", [The dynamics of foreign trade balance, evolution in export and import], *MNB Bulletin,* Special issue, October. (Currently available only in Hungarian.)

1.3 Labour market forecast

We project both activity and employment to expand further over the forecast horizon. Along with the upturn in private sector employment, the broadening of public employment programmes may contribute to the increase in whole economy employment. After rising during the crisis, the unemployment rate may drop close to 9 per cent by the end of the forecast horizon. Part-time employment forms may continue to gain ground, and thus the number of hours worked may increase at a slower rate than the expansion of employment. Labour market conditions may remain loose over the forecast horizon, and unused capacities will decline gradually. Due to the strong price-reducing effect of subdued domestic demand, companies are attempting to stabilise their profitability by cutting other production costs. Consequently, subdued wage dynamics may continue to persist over the forecast period.

Chart 1-12
Employment and unemployment, total economy



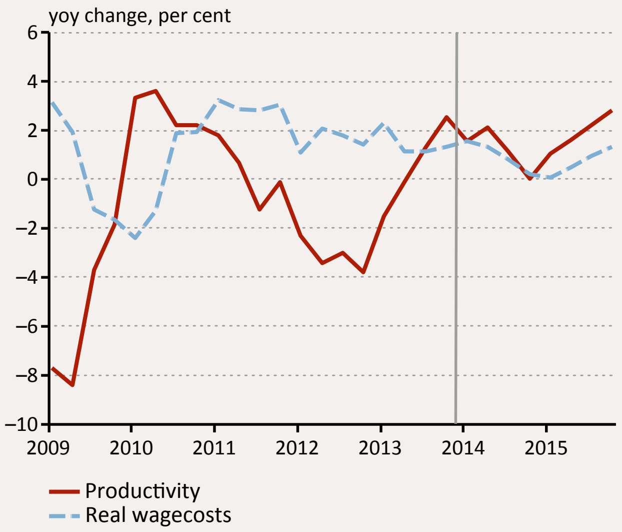
Employment in the private sector increased in Q3. The pick-up in growth had a stronger effect on employment, mainly contributed by the trend-like growth of part-time employment, which may have been also facilitated by the new Labour Code in force since January 2013. Accordingly, in our forecast we foresee a further increase in the number of part-time employees.

In our forecast, employment is increasing in line with output growth. The number of employed in the private sector may reach pre-crisis levels in 2015. In parallel with this trend, part-time employment may continue to gain ground, and thus the corporate sector's effective labour demand may rise more moderately than indicated by employment figures. In addition to private sector developments, public employment programmes may continue to play a key role in the increase in whole economy employment.

Due to expanding activity and gradually increasing labour demand, the unemployment rate may drop to the vicinity of 9 per cent. The persistently elevated level of unemployment since the crisis continues to have a considerable wage-reducing effect. Although based on confidence indicators the pick-up in demand in certain, rapidly growing sectors may also lead to temporarily labour supply shortages, at the level of the national economy labour supply still considerably surpasses labour demand.

In line with the slack labour market environment, wage dynamics may remain low in the following years. Opportunities to improve the profitability of the corporate sector by increasing consumer prices may remain restricted. Prudent wage cost adjustment may continue to be usual, despite the pick-up in the demand environment. As the

Chart 1-13
Evolution of productivity and real wagecosts



minimum wage increase envisaged for 2014 is only slightly higher than the average wage increase expectations, it is not expected to cause a significant extrusion of wages in our view. Real wages in the next few years may increase more slowly than labour productivity, which may result in a gradual improvement in corporate profitability in strengthening demand enviroment.

The fall in inflation expectations may support permanent nominal adjustment of the economy. Persistently below-target inflation may facilitate a decline in inflation expectations, which in turn may contribute to the stabilisation of low wage dynamics. In total, inflationary pressures from the labour market are invariably weak.

Table 1-2
Changes in our projections compared to the previous Inflation report

	2012	2013		2014		2015
	Fact	Projection				
		September	Current	September	Current	Current
Inflation (annual average)						
Core inflation	**5.1**	3.5	**3.3**	3.8	**3.0**	**3.0**
Core inflation without indirect tax effects	**2.5**	1.7	**1.5**	2.8	**2.2**	**2.8**
Consumer price index	**5.7**	2.0	**1.7**	2.4	**1.3**	**2.8**
Economic growth						
External demand (GDP-based)	**0.8**	0.6	**0.6**	1.7	**1.7**	**2.2**
Household consumer expenditure	**–1.7**	0.4	**0.1**	1.2	**1.5**	**1.8**
Government final consumption expenditure	**–2.3**	–1.2	**1.1**	0.2	**0.7**	**1.4**
Fixed capital formation	**–3.7**	–1.3	**3.5**	7.8	**7.4**	**4.8**
Domestic absorption	**–3.5**	0.3	**0.6**	2.1	**2.4**	**2.3**
Export	**1.7**	3.4	**5.2**	5.3	**5.4**	**6.1**
Import	**–0.1**	3.3	**5.0**	5.6	**6.0**	**6.4**
GDP	**–1.7**	0.7	**1.1**	2.1	**2.1**	**2.4**
External balance[1]						
Current account balance	**1.0**	3.4	**2.8**	3.3	**2.8**	**3.2**
External financing capacity	**3.6**	6.6	**6.0**	5.5	**5.5**	**5.8**
Government balance[1, 6]						
ESA balance (data for 2012 is preliminary data)	**–2.0**	–2.6	**–2.6**	–2.9	**–2.5**	**–2.9**
Labour market						
Whole-economy gross average earnings[2, 4]	**4.5**	3.3	**3.2**	4.5	**3.9**	**5.1**
Whole-economy employment	**1.7**	0.8	**1.3**	0.8	**1.7**	**0.3**
Private sector gross average earnings[3]	**7.2**	3.5	**3.5**	3.0	**2.8**	**3.5**
Private sector employment	**1.4**	0.2	**0.8**	0.4	**1.3**	**0.9**
Private sector unit labour cost[4]	**7.2**	1.5	**2.3**	1.3	**1.4**	**1.1**
Household real income[5]	**–4.0**	1.1	**0.9**	1.0	**1.8**	**1.2**

[1] *As a percentage of GDP.*
[2] *Calculated on a cash-flow basis.*
[3] *According to the CSO data for full-time employees.*
[4] *Private sector unit labour costs calculated with a wage indicator excluding the effect of whitening and the changed seasonality of bonuses and domestic employees.*
[5] *MNB estimate.*
[6] *With complete cancellation of free reserves.*

Table 1-3
MNB baseline forecast compared to other forecasts

	2013	2014	2015
Consumer Price Index (annual average growth rate, %)			
MNB (December 2013)	1.7	1.3	2.8
Consensus Economics (November 2013)[1]	1.7 – 1.9 – 2.1	1.3 – 2.2 – 2.9	
European Commission (November 2013)	2.1	2.2	3.0
IMF (Okctober 2013)	2.4	3.0	3.0
OECD (November 2013)	1.9	2.1	3.5
Reuters survey (December 2013)[1]	1.7 – 1.7 – 2.0	1.2 – 2.0 – 3.1	2.5 – 2.9 – 4.3
GDP (annual growth rate, %)			
MNB (December 2013)	1.1	2.1	2.4
Consensus Economics (November 2013)[1]	0 – 0.4 – 1.0	1.0 – 1.5 – 2.5	
European Commission (November 2013)	0.7	1.8	2.1
IMF (October 2013)	0.2	1.3	1.5
OECD (November 2013)	1.2	2.0	1.7
Reuters survey (December 2013)[1]	0.5 – 0.9 – 1.2	1.3– 1.9 – 2.3	
Current account balance[3]			
MNB (December 2013)	2.8	2.8	3.2
European Commission (November 2013)	3.0	2.7	1.8
IMF (October 2013)	2.2	2.0	1.3
OECD (November 2013)	1.8	2.1	2.4
Budget deficit (ESA-95 method)[3, 4]			
MNB (December 2013)	2.6	2.5	2.9
Consensus Economics (November 2013)[1]	2.7 – 2.9 – 3.5	2.8 – 3.1 – 4.0	
European Commission (November 2013)	2.9	3.0	2.7
IMF (October 2013)	2.7	2.8	3.0
OECD (November 2013)	2.7	2.9	2.9
Reuters survey (December 2013)[1]	2.7 – 2.9 – 3.5	2.9 – 3.0 – 4.0	
Forecasts on the size of Hungary's export markets (annual growth rate, %)			
MNB (December 2013)	1.0	4.1	5.1
European Commission (November 2013)[2]	1.7	5.3	6.1
IMF (October 2013)[2]	1.7	3.9	3.8
OECD (November 2013)[2]	1.2	4.5	5.5
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (December 2013)	0.6	1.7	2.2
European Commission (November 2013)[2]	0.6	1.9	2.4
IMF (October 2013)[2]	0.8	1.8	2.3
OECD (October 2013)[2]	0.5	1.8	2.1

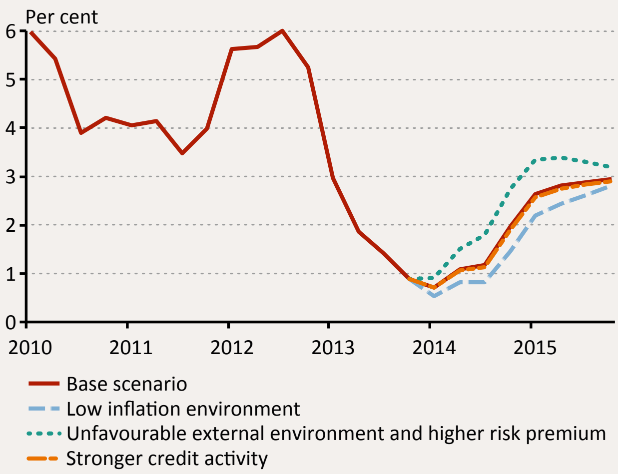
[1] *For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the medium value), we also indicate the lowest and the highest values to illustrate the distribution of the data.*
[2] *Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.*
[3] *As a percentage of GDP.*
[4] *With complete cancellation of free reserves.*
Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. [London], November 2013); European Commission Economic Forecasts (November 2013); IMF World Economic Outlook Database (October 2013); Reuters survey (December 2013); OECD Economic Outlook, No. 93 (November 2013).

2 Effects of alternative scenarios on our forecast

The Monetary Council identified several alternative scenarios around the baseline projection in the December Report. Two of these scenarios represent risks relevant to the future conduct of monetary policy. In the Council's judgement, the alternative scenarios allowing for the possibility of a lower inflation environment, on the one hand, and a potential increase in investor risk aversion as a result of external developments, on the other, imply a different monetary policy stance relative to the baseline projection. In addition, the Monetary Council perceives upside risks to growth linked to the pick-up in corporate lending and the stimulatory impact of the Funding for Growth Scheme.

Under the alternative scenario implying a lower inflation environment, the ratio of unused domestic and external capacities available may be higher than assumed in the baseline projection, which in turn may imply more subdued domestic wage dynamics and a sharper decline in external inflationary pressure, and therefore the inflation target can be met with more accommodative monetary conditions for a longer period of time. In the alternative scenario implying an unfavourable external environment and higher investor risk aversion, a sustained and marked shift in risk perceptions of the economy points to the adoption of a tighter policy stance. A stronger pick-up in lending than assumed in the baseline projection may lead to an improvement in the long-term growth potential of the economy through stimulus to productive investment, and therefore it does not imply a markedly different policy response from that assumed in the baseline projection.

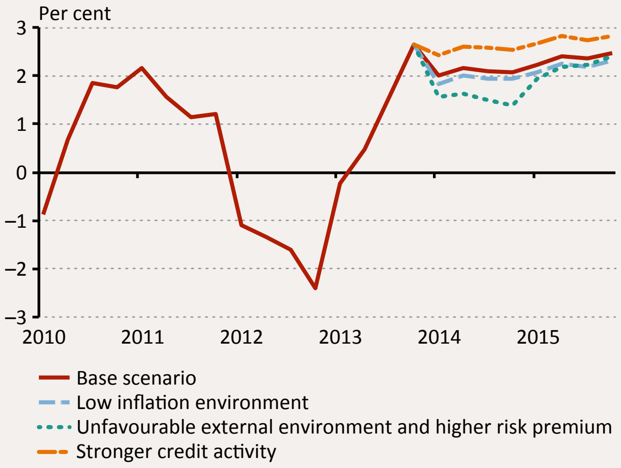
Chart 2-1
The impact of the risk scenarios on our inflation forecast



Incoming data from recent months reflect lower inflation and fragile economic outlook in the euro area. If external inflationary pressure remains low for an extended period, imported inflation could develop more favourably than in the baseline scenario. Furthermore, nominal developments can also be significantly influenced by inflation expectations. Sharply declining and below-target inflation in Hungary may result in a significant downward revision of economic agents' inflation expectations. This can be manifested in both pricing and wage-setting decisions. Accordingly, disciplined pricing, restrained wage setting and the resulting low inflation environment may support one another in an endogenous manner.

This scenario assumes that the ratio of available unused domestic and external capacities may be higher than assumed in the baseline projection. As a result, weak external and domestic demand, a lower external inflation environment and imported inflation, as well as subdued domestic wage dynamics and inflation expectations may already entail lower inflationary pressure over the medium term. In this scenario, as a result of stronger disinflation, the inflation target can be met with looser interest rate conditions than assumed in the baseline scenario, while accommodative monetary policy can only partially offset the dampening effects on growth of weak demand.

Chart 2-2
The impact of the risk scenarios on our GDP forecast



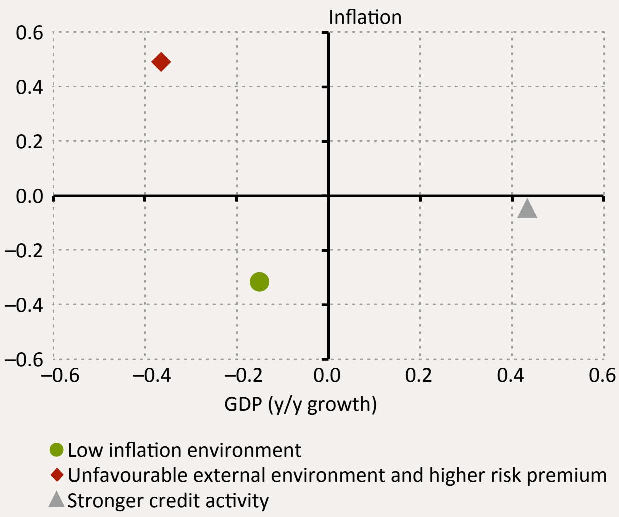
Global economic growth was restrained in Q3, and the significant differences in growth rates that emerged across the most important economic regions during the crisis still prevail. The baseline scenario still assumes a slow acceleration in external demand and gradual improvement in the risk premium, despite no major change in the fundamental factors determining growth.

Meanwhile, there are a number of risk factors that could have a negative impact on Hungary's external demand and risk premium. These include the re-emergence of the European debt crisis, the uncertain outlook for economic activity in emerging countries, tapering of the Fed's asset purchase programme or the intensification of budgetary problems in the US. Thus, both the demand and financial side involve risks that may result in financial tensions and deepening problems for the real economy. In the light of these factors, the Monetary Council's judgement is that it is warranted to consider a scenario characterised by a more pronounced economic downturn and greater investor risk aversion.

This scenario assumes lower external demand and a significant increase in the risk premium due to external factors. Weaker external demand is mainly reflected in the deteriorating cyclical position. The deteriorating global investor climate raises Hungarian risk premia which restrains bank lending through higher funding costs, and consequently credit conditions both for firms and households may tighten. A rise in the risk premium causes exchange rate depreciation, which in turn pushes up inflation. Due to the deterioration in external demand and the impact of the risk premium on the exchange rate and on lending, growth in this scenario is lower than outlined in the baseline scenario. In terms of inflation developments, the effect of the weakening exchange rate is only partly offset by the increasingly negative output gap and the disinflationary impact of the external environment. With deteriorating risk perceptions and rising inflation, tighter monetary policy compared to the baseline scenario may ensure that inflation developments are in line with the 3 per cent target by the end of the forecast horizon.

Additionally the Monetary Council perceives upside risks to growth linked to the pick-up in corporate lending and the stimulatory impact of the Funding for Growth Scheme. Investment dynamics are decisive in shaping prospects for economic growth. Looking forward, the cautious, albeit substantial monetary easing seen so far and the government investment spending backed by EU funding foster investment activity. In addition, the extended Funding for Growth Scheme (FGS) may influence that, as it can mitigate the financing constraints of small and medium-sized enterprises.

Chart 2-3
Risk map: The effect of alternative scenarios on baseline forecast



Note: The risk map presents the average difference between the inflation and growth path of the alternative scenarios and the baseline forecast on the forecast horizon. The red markers mean tighter and the green markers mean looser monetary policy than the baseline forecast. In the case of the grey markers there is not significant deviation related to the baseline forecast.

Furthermore, developments in lending are also influenced by the extent to which corporates apply for loans under the FGS, and also by the ratio of such loans used for implementing additional investments.

Demand for loans by companies may be stronger, and thus banks may lend the funds available under the Funding for Growth Scheme faster and in higher proportion for new investments than assumed in the baseline scenario. This scenario assumes that firms channel the loans granted under the extended scheme into productive investments, which could enhance Hungary's growth potential in the long run. Thus more robust lending could foster higher GDP growth compared to the baseline scenario, while the long-term growth potential of the economy may improve through stimulus to productive investment, resulting in an essentially unchanged cyclical position. Therefore the impact on inflation is so minor that it does not result in any major deviation of monetary policy from the baseline scenario.

3 Macroeconomic overview

3.1 International environment

Global economic activity was characterised by moderate growth and decelerating inflation in the past quarter. In 2013 Q3, growth in the major developed and developing economies slowed down somewhat, and the post-crisis economic recovery remains fragile. The significant differences in growth rates observed across the most important economic regions in the years following the outbreak of the crisis are still present. Demand-side global inflationary pressure continues to be moderate, and thus inflation in developed regions is hovering mostly below central bank target values. Consistent with slow growth and subdued inflation risks, key central banks maintained – and the ECB further eased – their loose monetary conditions. Financial market sentiment continues to be shaped by expectations about the tapering of the Fed's asset purchase programme. After the turbulences observed in the middle of the year, the mounting pressure on the foreign currencies and bond markets of emerging markets has eased somewhat.

3.1.1 DEVELOPMENTS IN GLOBAL ECONOMIC ACTIVITY

Global economic growth remained subdued in Q3. In 2013 Q3 economic growth in major developed and developing economies slowed down overall. The significant differences in growth rates that evolved across the most important economic regions in the years of the crisis can still be observed.

Economic recovery continued in the USA, and general economic developments appear to be favourable, but the durability of these dynamics is still questionable. GDP figure for Q3 caused a positive surprise: instead of the expected 2 per cent, annualised quarterly growth reached +3.6 per cent. At the same time, in addition to the deceleration of import dynamics, the higher-than-expected growth rate can be attributed to the faster growth of inventories and the higher level of public expenditures, while exports, corporate investment and private sector consumption slowed down. The partial shutdown of the federal government may have a negative effect on Q4 GDP. The recovery of lending and housing markets could be impeded by the fact, that due to uncertainties surrounding the future of the monetary policy, long-term yields were on the rise from the middle of the year. Although the Fed is continuously working to support growth using unconventional instruments, fiscal consolidation may reduce the efficiency of such instruments. Following its rate-setting meeting in October, the Fed stressed that it would await more evidence that the progress

Chart 3-1
GDP growth in the major economies
(seasonally adjusted quarterly change)

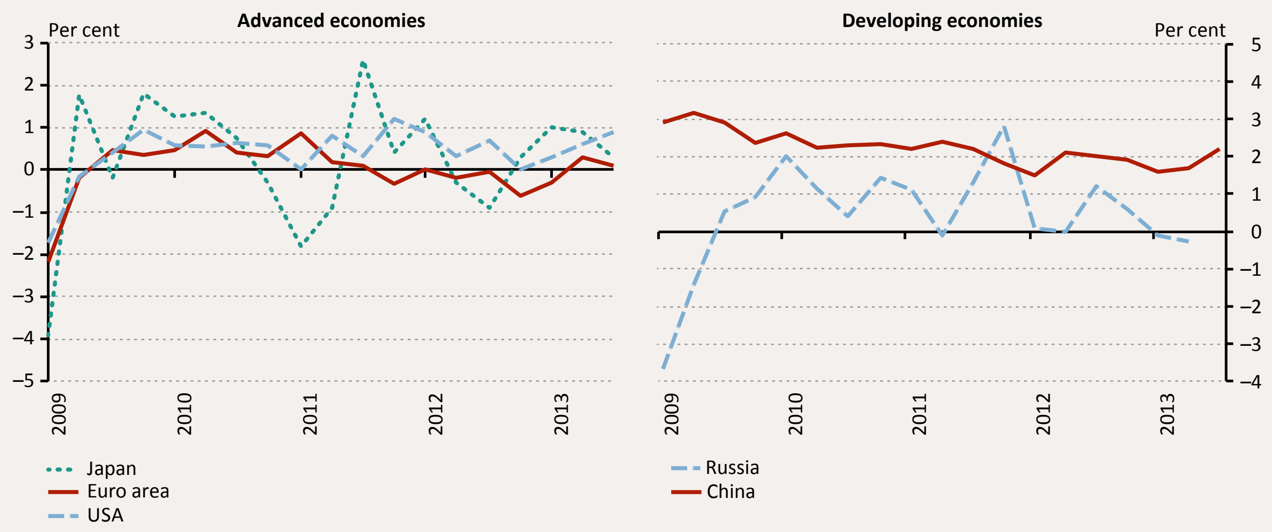
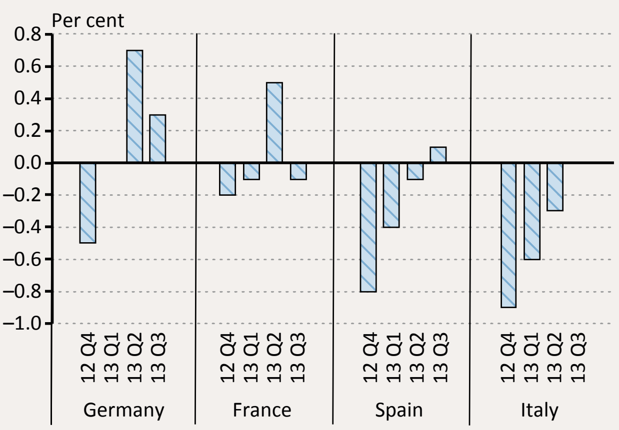


Chart 3-2
Quarterly GDP growth in major euro area economies



observed in economic activity was sustainable before reducing the monthly amount of its asset purchases.

In Japan, in Q3 economic growth fell short of the dynamics registered in H1, primarily as a result of a decline in household consumption and a slowdown in export dynamics. Over the short run, some leading indicators point to a favourable outlook, but based on household expectations, there may be an increased probability of the unfavourable dual trend of higher inflation and slower growth. The further acceleration of inflation may have been facilitated by the fact that consumption tax rates will be raised to 8 per cent from 5 per cent. The government may mitigate the growth-dampening effects of the decision by temporary stimulus packages.

After more favourable growth data in Q2, economic growth in the euro area continued at a more moderate pace in Q3. Among core euro area countries, Germany and France saw more subdued economic activity. After having been hit by a severe economic downturn and struggling with high debt levels in previous years, the output of Mediterranean countries showed signs of stabilisation. In the context of an unemployment rate approaching 12 per cent by the middle of the year and continued tight credit conditions, domestic demand can only increase at a sluggish pace in the euro area. Outside of the euro area, there was a remarkable upswing in the economic growth of the United Kingdom. In Q3, its economy grew 1.5 per cent in year-on-year terms.

In Q3, the Central and Eastern European region saw a more favourable growth than the EU average. Although economic

Chart 3-3
Business climate indices for Germany and the euro area

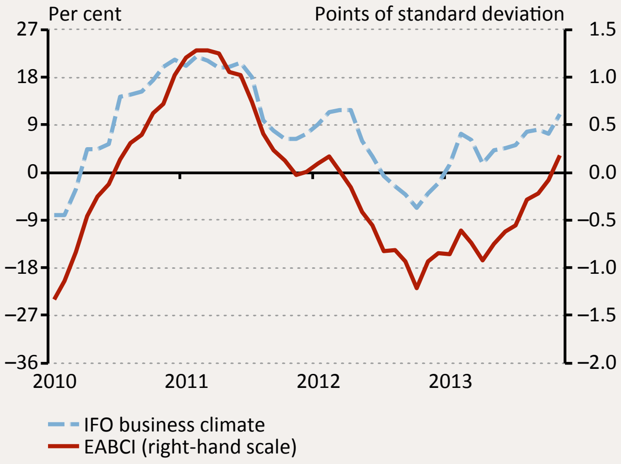
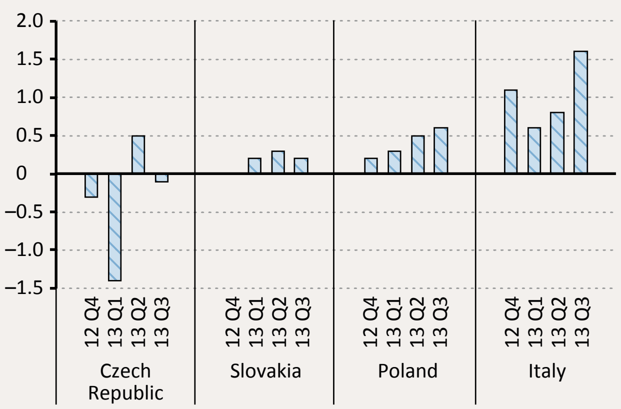


Chart 3-4
Quarterly economic growth of the CEE countries



output declined in Q3 after the positive figure recorded for Q2 in the Czech Republic, growth accelerated in the other countries of the region. Leading confidence indicators signalled an improvement in the region in November, in addition to the confidence indicators of the German economy, the main trading partner of these countries. Thus the region's growth prospects may remain favourable in the coming quarters.

Most developing and emerging countries achieved significant economic growth in the years following the crisis, but these dynamics have decelerated gradually since 2010. These trends are most pronounced in the BRIC countries (Brazil, Russia, India and China). According the IMF's analysis, in these countries the swift recovery from the crisis could be attributed to expansive economic policy measures and a supportive financial environment. As a result, the growth achieved in these countries by 2010 exceeded the level of potential growth. Since then, expansion in emerging countries has decelerated by around 3 percentage points. Both cyclical and structural factors are underlying causes of this slowdown.

In Q3, the economy of China expanded by 7.8 per cent in year-on-year terms. In addition to still-subdued external demand, the acceleration observed relative to the previous quarter may be attributed primarily to the expansion in manufacturing and infrastructural investment, as well as favourable development in retail sales. The growth rate of real estate investment decelerated both in the household and the commercial segments. The Chinese growth path is mainly jeopardised by increasing financial stability risks. The growth rate of money supply (social financing)[3] slowed down somewhat in Q2, but lending picked up in August and September once again, primarily owing to financing types other than bank loans.

The Russian economy has stagnated in recent quarters. Weak external growth, capital outflows and the drop of investments played major role in the weaker than expected performance.

3.1.2 GLOBAL TRENDS IN INFLATION

Commodity prices have declined further in recent months. Global oil prices fell after the easing of tensions in military conflicts (Syria, Iran) in September and due to the subdued demand of developing economies. In addition to declining commodity prices, the mild strengthening EUR/USD exchange rate also contributed to the deceleration of imported inflation in Europe. Following a price increase linked to the surge in

[3] Aggregated indicator of money supply which, in addition to yuan-denominated loans, includes the value of trust loans, corporate bond issues and capital increases of non-financial corporations.

Chart 3-5
Brent spot and futures prices in various currencies

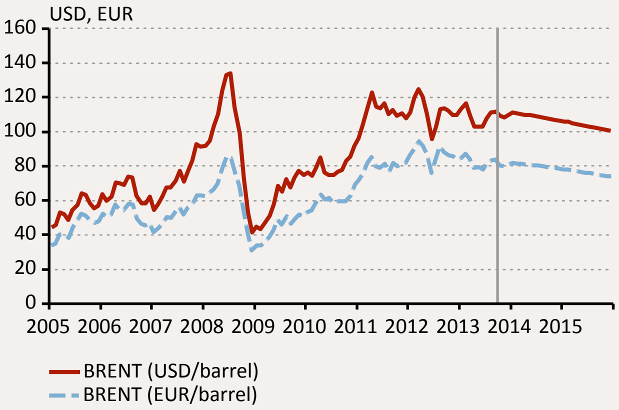
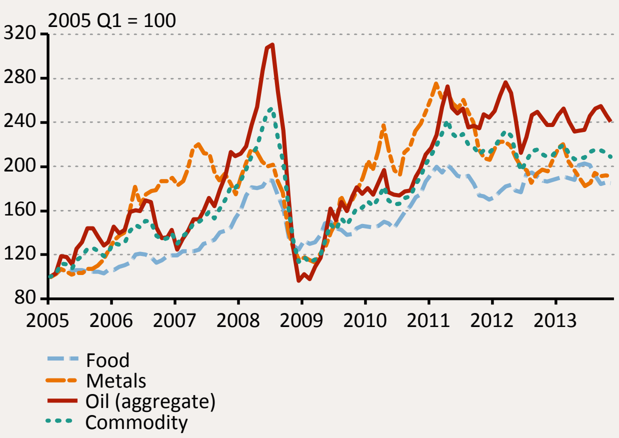


Chart 3-6
Changes in major commodity prices
(USD)

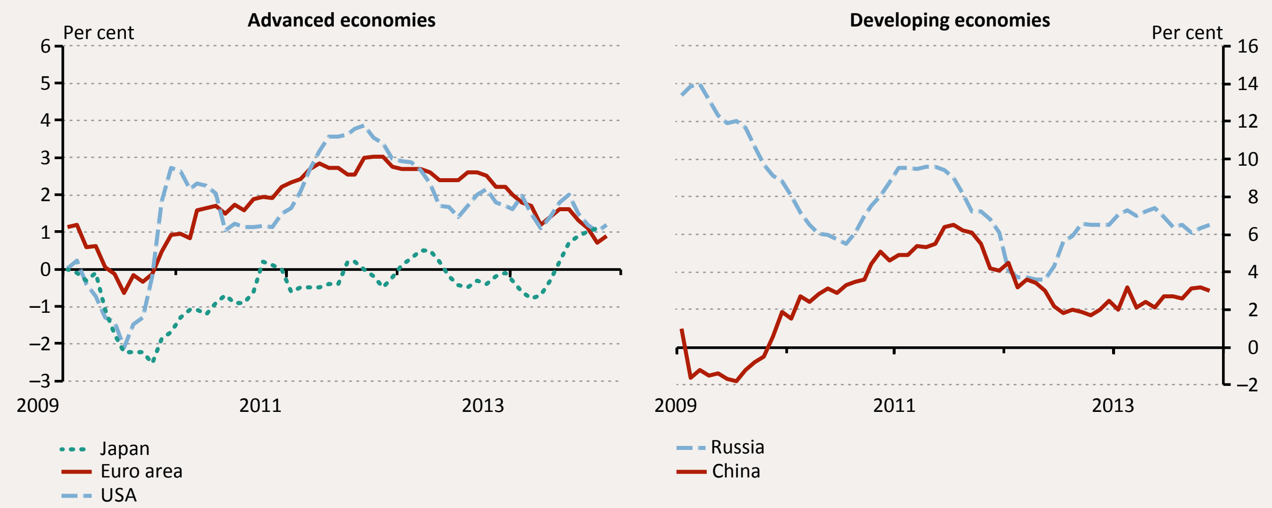


Chinese steel production in August, prices of industrial commodities (iron ore, coal) stabilised in the autumn. Global unprocessed food prices have declined in recent months thanks to favourable crop yields at the global level.

For the most part, inflation rates moderated in the major economies in Q3, remaining below target in the case of major central banks. In addition to muted domestic demand, subdued inflationary pressures primarily reflected the fall in commodity prices. The consumer price index of the USA was 1 per cent in October, while preliminary data for November indicate a 0.9 per cent consumer price index in the euro area. Annual inflation dynamics remained considerably below the price stability target in both cases. In Japan, inflation accelerated somewhat and rose to 1.1 per cent in the past quarter, which can be partly attributed to the rising prices of imported goods amidst a weakening yen exchange rate. According to consumer surveys, in line with the trend observed since the end of 2012, inflation expectations continued to rise in Q3. In the United Kingdom, inflation was above the target both in Q3 and in October, but in view of the moderate medium-term inflationary pressures and the weak real economy position, the Bank of England maintained its loose monetary conditions. As regards the larger emerging economies, compared to its low level in the previous quarter, inflation in China accelerated somewhat. By contrast, despite the decline observed in Q3, the inflation rate in Russia is still high.

Annual inflation remained below target in every country in the CEE region. In the Czech Republic, the consumer price index was around 1 percent in recent months. Weak domestic demand is having a significant disinflationary impact. At the beginning of 2014 inflation may decelerate further due to the waning of the effects of VAT increases and the decline in

Chart 3-7
Inflation in major economies



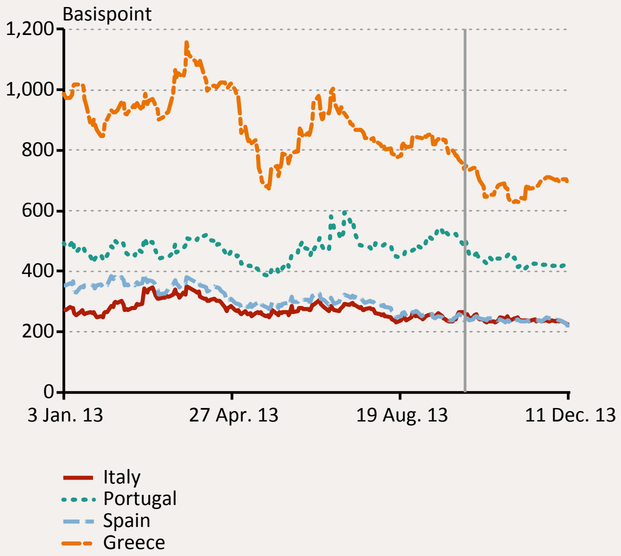
administered prices. In Poland, inflation fell far below the target to 0.8 per cent in October, while core inflation indicators stabilised or even decreased somewhat. Disinflation strengthened in Romania as well, mostly linked to a steep decline in food prices, the negative output gap and the improvement in inflation expectations.

3.1.3 MONETARY POLICY AND FINANCIAL MARKET DEVELOPMENTS

Due to intensifying disinflation in developed countries and low medium-term inflation risks, large central banks either maintained or eased monetary conditions further. Over the past three months, global financial market sentiment was mainly shaped by developments regarding the phasing out of the Fed's asset purchase programme. Due to the better-than-expected labour market data published in November, the number of analysts anticipating the launch of tapering in December increased significantly. However, the majority still expect the start of reduction of asset purchases in March 2014. Another crucial event of the past three months was the debate over the US budget and the federal debt ceiling. Following a shutdown for two weeks, the parties reached a temporary agreement, but a more lasting solution to the problem has yet to be found. In December, the parties agreed on the main budget numbers. However there was not any change related to the federal debt ceiling.

ECB cut its benchmark rate to 0,25 per cent after the release of surprising Eurozone inflation data in October. In addition MPC members signaled potential further monetary stimulus if required. In line with analyst's consensus the MPC decided to hold MRO rate in December. Risk assessment regarding Eurozone's perihery has improved onwards and as a result most of the CDS spreads moderately increased in deteriorating market sentiment in the end of the time horizon.

Chart 3-8
10Y periphery bond spreads over the 10Y German bond yields



In Japan, while the Bank of Japan did not adjust either its asset purchase programme or its key policy rate, according to market expectations, the central bank may take recourse to further monetary easing in 2014 in order to mitigate the decelerating effect of the indirect tax raise approved by the parliament during the quarter.

In the CEE region, central bank policymakers worked to further ease monetary conditions. In response to mounting risks of deflation with the key policy rate hitting the zero-lower bound, the Czech central bank decided at its rate-setting meeting on 7 November to carry out FX market intervention. The Romanian central bank reduced the base rate by 75 basis points in Q3. The Magyar Nemzeti Bank eased monetary policy conditions by continuing the ongoing cautious interest rate cuts and extending the Funding for Growth Scheme.

Asset prices of emerging markets were highly volatile in Q3 as well. In China, the financial market tensions seen in June proved to be long lasting and the central bank attempted to alleviate the turmoil by providing liquidity on two occasions. Higher-than-expected inflation and growth rates coupled with a continued expansion in lending suggest that the central government's declaration in June about stepping up against the shadow banking system only had a limited impact for the time being.

Box 3-1

Reasons for the low global inflation environment

In the recent past, inflation risks have abated globally and inflation steadily decelerated compared to the pre-crisis period. This may have been driven by a variety of factors whose effects may have been intensified partly by globalisation and the financial crisis.

One set of the explanations emphasize favourable supply shocks due to the process of globalization:

• *Global economic competition* not only helps keep prices down directly (through price competition), but also indirectly by slowing the rise in wages. Global competition and participation in global value chains contribute to improvements in productivity which may also reduce prices indirectly.

• Another key feature of globalisation is an *increasing supply of cheap labour* in production. Despite relatively low levels of labour productivity, developing countries are supplying the world's consumers with vast quantities of cheap products. Globally segmented production systems outsource each phase of production to the most cost-effective areas.

Besides, the current low inflation environment may also be attributed to the weak demand in the wake of the 2007–2008 crisis:

• The crisis resulted in the significant decline in *aggregate demand* in several countries. The crisis was preceded by the build-up of excessive debt levels in several developed countries. Thus, after the crisis deleveraging permanently moderates aggregate demand. Financial cycles are longer than usual business cycles[4], therefore disinflationary environment may persist for longer.

• Several countries reacted to the increasing public debt with *decreasing fiscal deficits.* This among other things may have alleviated inflationary pressures and demand by limiting public sector wages and social benefits.

• Finally, developments in *global commodity prices* also have a profound impact on inflation processes. During the intense boom preceding the crisis, rapid economic growth in emerging economies increased global commodity prices significantly and widespread. During the past years emerging economies decelerated, which contributed to the stabilization of commodity prices from the demand side. In the case of energy the increase of shale oil and gas extraction (mostly in the U.S.) may also contribute to a decrease in energy prices from the supply side. According to some analysts commodity prices exhibit long-term cycles, which are mostly driven by demand-side developments.[5] Thus, in the medium term slower world economic growth may bring lower inflationary pressure from commodity prices.

On the whole, several factors can be identified from both the supply and the demand sides, which may point to lower inflation in the medium term, in line with modest world economic growth.

[4] Business cycles typically last 1-8 years, while the average length of financial cycles was found 16 years; see Drehmann, M., C. Borio and K. Tsatsaronis (2012), "Characterising the financial cycle: don't lose sight of the medium term!", *BIS Working Papers,* No. 380.

[5] See e. g. Jacks, D. S. (2013), "From Boom to Bust: A Typology of Real Commodity Prices in the Long Run", *NBER Working Paper Series,* No. 18874.

3.2 Aggregate demand

After a temporary deceleration in Q2, Hungarian economic growth accelerated again in 2013 Q3. The recovery was driven primarily by an expansion of exports and investment, which resulted in a more balanced growth structure compared to previous years. The expansion in exports increasingly reflected the boosted output of the automotive industry associated with new capacities. Public sector investment projects may have been stimulated by the better absorption of EU funds, while corporate investment may have been spurred by the improving economic activity outlook and easing lending constraints. Strong precautionary motives combined with the protracted reduction of accumulated pre-crisis debt continue to impede the recovery of household consumption, and therefore rising real incomes are reflected for the most part in the high level of net savings.

Chart 3-9
Economic growth in Hungary and in Europe
(2013 Q3)

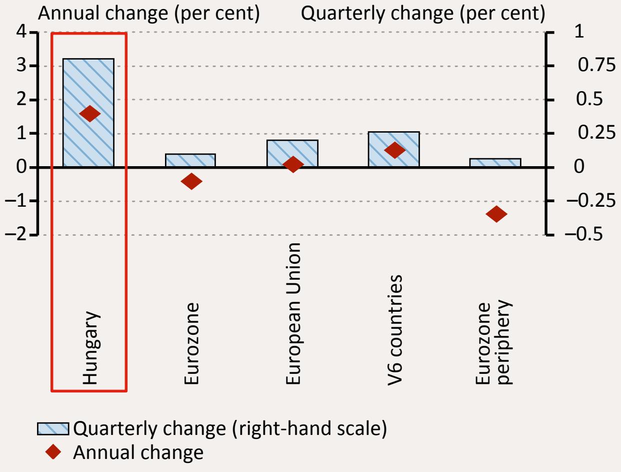
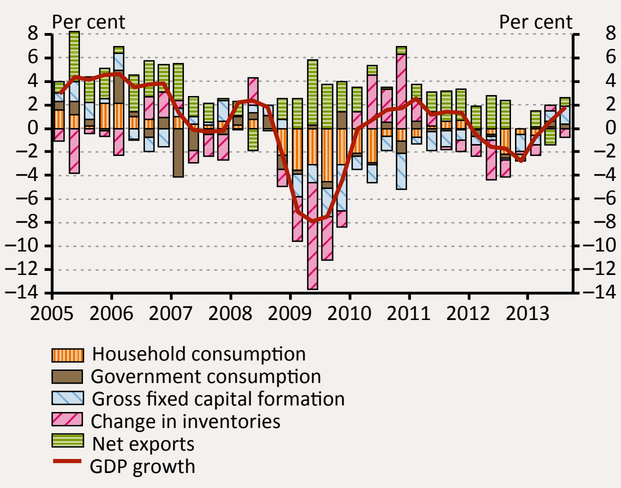


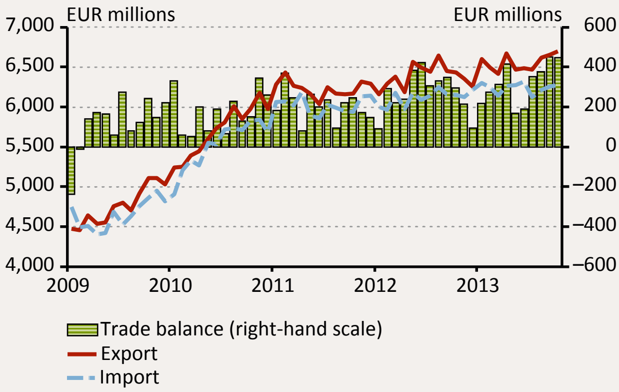
Chart 3-10
Structure of annual change in domestic GDP



The Hungarian economy continued to expand in 2013 Q2. Gross domestic product increased by 0.9 per cent compared to the previous quarter, which can be considered a high figure in a regional comparison as well.

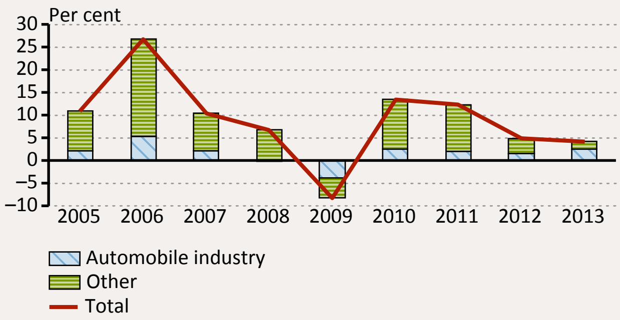
In recent quarters, the growth structure of Hungary has become more balanced. Net exports made a positive contribution to economic growth again. Meanwhile, domestic demand also started to increase gradually at the beginning of the year. Public sector investment is rising owing to the faster absorption of EU funds, while corporate investment is being spurred by the improving economic activity outlook and easing lending constraints. The real income of households has increased substantially this year, but the reduction of accumulated debts and precautionary considerations continue to keep the financial savings of households at high levels.

Chart 3-11
Value and balance of foreign trade in goods



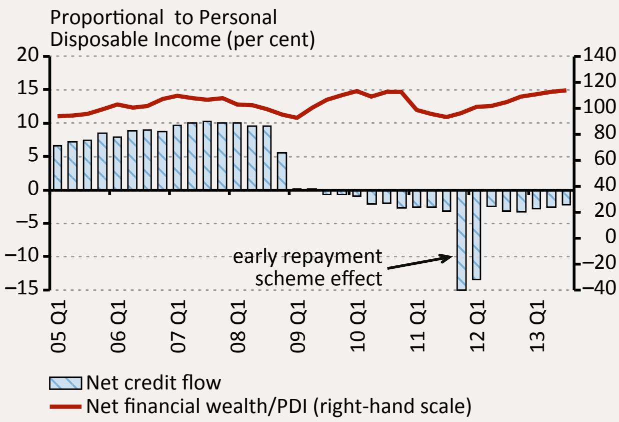
Note: The export of goods was adjusted for working day, missing data effects and distortions related to VAT registration. The import of goods was corrected by the Gripen jet and the Combino tram purchases besides the activity of the VAT residents. The seasonal adjustment of the trade balance was made directly.

Chart 3-12
Contribution of vehicle manufacturing to export growth
(at current prices)



Note: 2013 estimate.

Chart 3-13
Change in the household sector's net financial wealth as a proportion of income



3.2.1 FOREIGN TRADE

In the wake of a moderate Q2, foreign trade surplus rose again in Q3. Hungary's goods exports made an increasingly positive contribution to GDP in Q3. The stabilization of international economic activity and the rising production of new capacities in the automotive industry have contributed to the increase in goods exports. In parallel with this, with the one-off effects from H1 – such as government purchases of transport equipment, inventory needs of the new automotive capacities – tapering off, import dynamics slowed. The gap between exports and imports has increased again, and therefore net exports contributed positively to the development of gross domestic product in Q3.

Expansion in exports of services came to a halt in Q3. The performance of the tourism sector improved to a lesser degree than previously, while other services were characterised by a slight moderation.

In 2013 H2, a further increase in Hungary's exports and share in the export market should be driven the new capacities added in the automotive industry, which may reach their full production capacity next year. Looking forward, the contribution of net exports may remain positive in the coming quarters.

3.2.2 HOUSEHOLD CONSUMPTION

After the substantial decline observed since the outbreak of the crisis, household consumption showed signs of slow stabilisation this year. The consumption decisions of households may be determined by an improving income position, reduction of accumulated debt, precautionary considerations and continuing tight credit conditions. In the low inflationary environment, the real value of the net wage bill has been on the rise since the beginning of the year. In addition, the wage increases in the public sector in Q3 (in healthcare and education) additionally accelerated the growth of real wages. However, the effect of these favourable income developments was mainly reflected in debt repayments and the increase in net savings. As a result, households' net financial wealth increased to a historically high level in 2013.

In addition to the size of household debt, households' pronounced precautionary considerations have also contributed to the high level of households' propensity to save. Although the unemployment and income expectations of households have been improving gradually in recent quarters the unemployment rate is still higher than its pre-crisis level.

Chart 3-14
Households' expectations of unemployment and financial position

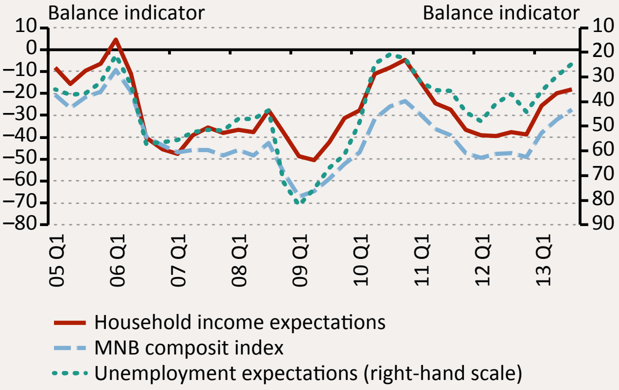


Chart 3-15
Changes in retail sales, earnings and the consumer confidence index

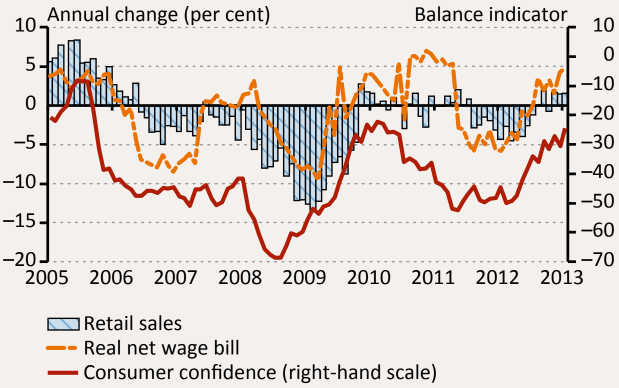
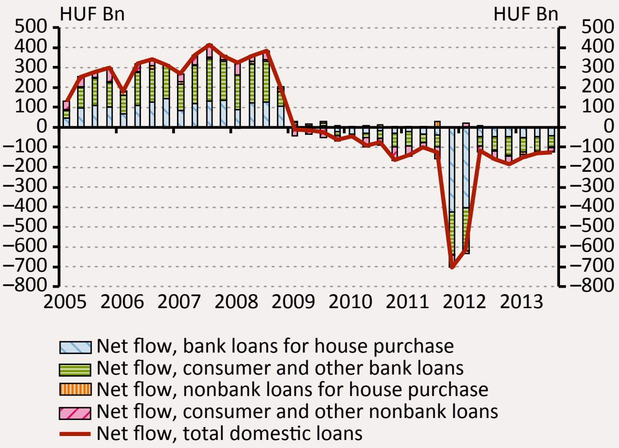


Chart 3-16
Net quarterly change in outstanding domestic loans to households; breakdown by loan purpose



Note: Seasonally unadjusted change in outstanding amounts, with rolling exchange rate adjustment.
Source: MNB.

Cautious consumer behaviour is also seen in the structural breakdown of retail sales by product group. This year saw an expansion in the turnover of less durable goods, i.e. those correlated more closely with current income, while durable sales have stabilised only in recent months after a steep downturn last year. In H1, the sales of less durable goods were also supported by declining fuel prices.

Loans to households by the overall financial intermediary system continued to fall in Q3 (by roughly HUF 125 billion in total). As a result of the continued, drastic fall in foreign currency loans, lending declined across all product types, while a slight increase was observed in forint-denominated loans. Despite the shrinking loan portfolio, compared to the record trough it reached at the beginning of the year, the volume of newly disbursed loans shows an improvement, possibly also fostered by lower interest rates and favourable interest subsidy schemes. **However, any material upswing in the household loan market is impeded by households' cautious attitude and continued balance sheet adjustment on the one hand, and tight credit conditions from the supply side on the other hand.**

Chart 3-17
Developments in sectoral investment
(annual change)

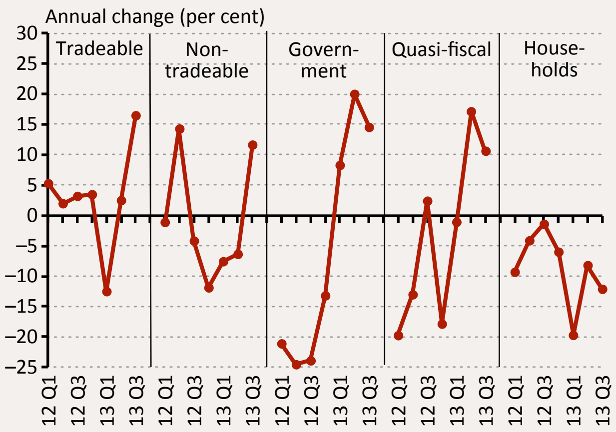


Chart 3-18
Development of the total and the manufacturing investment rates

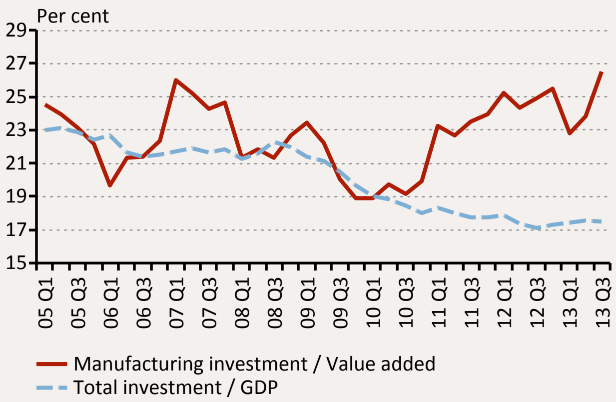
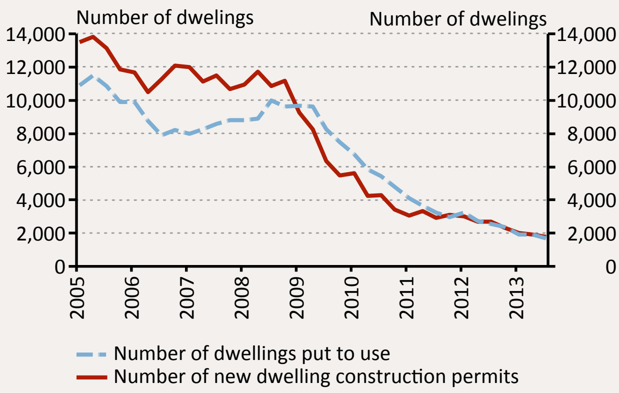


Chart 3-19
New dwelling construction permits, dwellings put to use quarterly



3.2.3 PRIVATE INVESTMENT

The decreasing trend in the investment rate has come to a halt in Q3. Recovering investment demand characterised a wide range of sectors. Besides companies producing for exports, the investment activity of sectors producing for domestic demand increased as well. In the case of the latter, replacement investments may have become necessary after the postponement of investment projects due to poor demand and lack of funds in the years following the crisis.

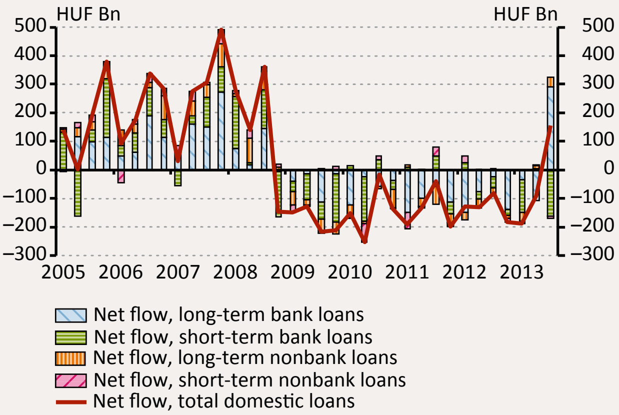
From this year, financing constraints may be alleviated by the Funding for Growth Scheme, while the stabilisation of domestic demand may improve companies' demand expectations. The positive feed-through effect of large investment projects resulted in stronger investment activity in the export-oriented sectors, including – in addition to the automotive industry and its supplier base – other manufacturing sectors, such as the rubber, plastic and textile industries. Corporate investment prospects are analysed more in detail in Box 3-2.

Households' investment activity remained restrained. Besides tight credit conditions and strong precautionary considerations, restraining their investment demand is still an important adjustment channel for households.

In Q3, loans outstanding granted by domestic financial intermediaries (banking system, cooperative credit institutions, financial enterprises) to the corporate sector increased significantly, rising by HUF 154 billion. The driving force behind the increase was the MNB's Funding for Growth Scheme (FGS). The expansion was the net result of the HUF 324 billion increase in long-term loans and the HUF 170 billion decrease in short-term loans. In addition to increasing the portfolio, the FGS also contributed to the extension of maturities and the shift of the denomination structure toward the forint.

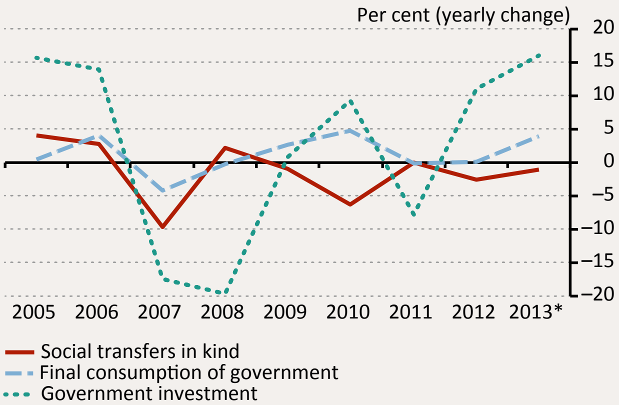
Apart from these developments, credit conditions on corporate loans are still tight. Although in the lending survey for Q3 a small group of responding banks reported easing, the vast majority of banks indicated unchanged conditions. Accordingly, for the time being, credit supply constraints are tempered mainly by the central bank's credit scheme and the decrease in lending rates in line with the reductions of the central bank policy rate. Meanwhile, based on banks' responses, corporate demand both for short-term and long-term loans has picked up, which can be largely attributed to the upturn in industrial production and investment activity.

Chart 3-20
Net quarterly change in outstanding domestic loans to corporations; breakdown by maturity



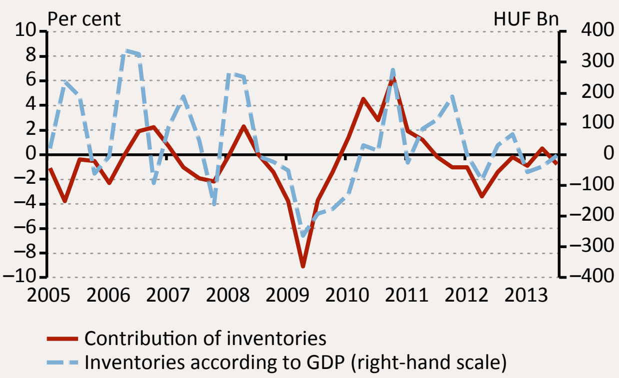
Note: Seasonally unadjusted change in outstanding amounts, with rolling exchange rate adjustment.

Chart 3-21
Annual change in transfers in kind and public consumption



** 2013 estimate.*

Chart 3-22
Changes in inventories at current prices and according to GDP; and inventory level as a proportion of nominal GDP



3.2.4 GOVERNMENT DEMAND

In Q3, government demand continued to increase significantly due to the accelerating pace of the utilisation of EU funds. The absorption rate of the funds available under the 2007–2013 budget period is accelerating. In recent quarters, the development projects related to the public sector (infrastructure developments, such as road and railway upgrades) have contributed significantly to the upswing in construction output. However as a result of fiscal policy aiming to maintain a low general government deficit, government demand may continue to be subdued this year.

3.2.5 CHANGES IN INVENTORIES

The Central Statistical Office revised downward the previous inventory figures in data disclosure for Q3 According to the latest data, changes in inventories contributed to the change in gross domestic product by –0.8 per cent in Q3.

Box 3-2
The effect of the Funding for Growth Scheme on corporate investments in Q3

In 2013 Q3, growth in investment demand in the private sector was observed across a wider range of sectors than earlier. Along with the gradual improvement of demand expectations, this increase in investments coincided with the first phase of the Funding for Growth Scheme (FGS). This box analyses the primary investment enhancing effects of the Programme using the available macroeconomic data and discusses the factors influencing investment demand in the coming quarters.

By the end of Q3, commercial banks had granted loans worth around 700 billion HUF in the framework of the FGS. More than 60 percent of loans granted in the framework of the first pillar of FGS was provided as a new loan, out of which 60 percent was used for investment purposes. Based on the sectoral distribution of the provided loans, lending also increased in sectors where the adverse effects of the crisis were more pronounced and financial constraints were significant. The FGS has resulted in an easing of financing conditions in a wide range of sectors. **In certain sectors which participate in the FGS with larger weight, the upturn in investment activity was already observable during the third quarter.** Taking

Chart 3-23
Changes in the volume of investment and loans disbursed in the context of the FGS in the private sector

(2013 Q3)

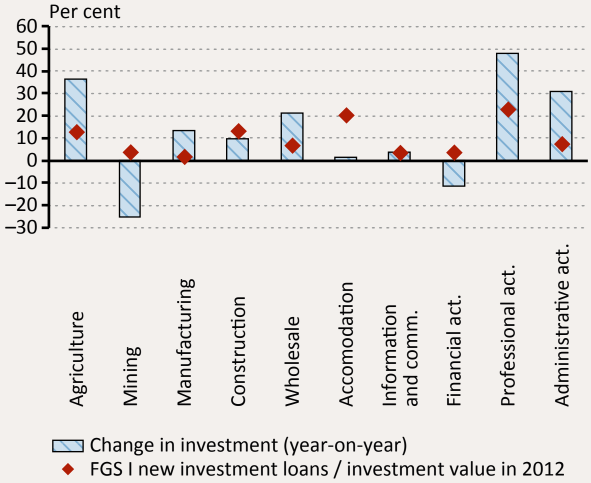
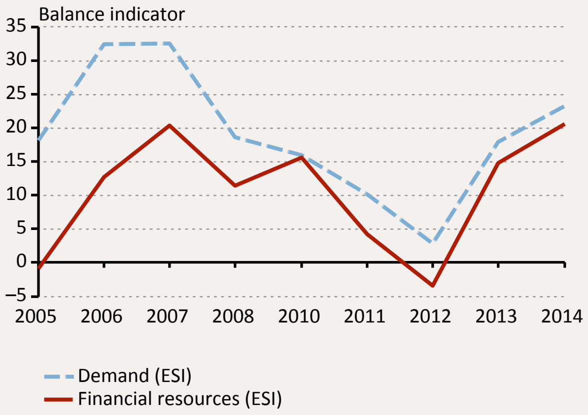
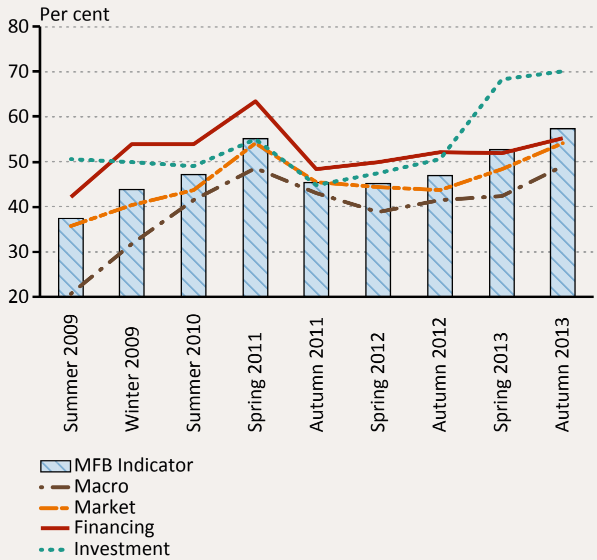


Chart 3-24
Corporate confidence indicators

*(ESI Investment Survey and MFB Indicator)**





Note: In the case of the two examined questions of the ESI the firms are evaluating on the one hand capacity utilisation and sales expectations (demand), on the other hand they evaluate the financial resources for investment and the return on investments (financial resources), The ESI Investment Survey provides no data for 2009. In the case of the MFB Indicator the firms evaluate the macroeconomic environment (Macro), their own financial situation (Financing), and their investment demand (Investment). The MFB indicator is the arithmetic average of the four subindices.
Source: EC ESI Survey, MFB.

into consideration that the major part of the loans was disbursed in the last month of the quarter (September), the investment enhancing effect of the FGS may strengthen further in the coming quarters.

The improvements in firms' investment and financing situation are also reflected by qualitative surveys. The European Commission carries out a survey twice a year to assess manufacturing firms' investment plans (ESI, Investment Survey), in the context of which a total of 1,500 Hungarian firms were interviewed. The survey is implemented in Hungary by GKI, based on the methodology of the European Commission. The latest November data show that firms' expectations concerning demand may, after the deterioration observed since the onset of the crisis, start to improve this year again, and increase further slightly next year. Expectations concerning financial resources also improve considerably from this year.

A wider range of sectors is covered by the Hungarian Development Bank's (MFB) business survey, including firms in the agricultural and service sectors as well beside those operating in the industrial sector. The November 2013 sample comprises responses received from 509 firms. The improvement in the MFB indicator since spring 2013 is mainly linked to improvements in macroeconomic and market indices, reflecting the positive changes in the perception of domestic demand and the financing environment. The investment index remains the highest of all and may reflect the upturn in investment demand with the easing of financial constraints.

On the whole, the upturn in firms' investment activities may be a combined result of the need to make up for delayed investment projects, the improvement in the growth environment and the weakening of lending constraints. The investment effect of loans provided in the framework of the FGS until the end of September may have already appeared in Q3. As a result of the Programme, an easing of financial constraints has been observable in a wide range of sectors. **Taking into consideration the timing of the use of FGS (large proportion of loan disbursals in September) and the improvement in the survey results monitoring firms' investment demand, the investment enhancing effects of the FGS may become more generally manifest from the end of this year.**

3.3 Production and potential output

In 2013 Q3, economic activity picked up in a broader range of sectors. Economic output expanded not only in sectors producing for exports, but also in those producing for domestic demand (e.g. trade, construction). Gross domestic investment, which is now expanding again following a long period of contraction, may stimulate the potential growth of the economy.

Chart 3-25
Rate of economic growth

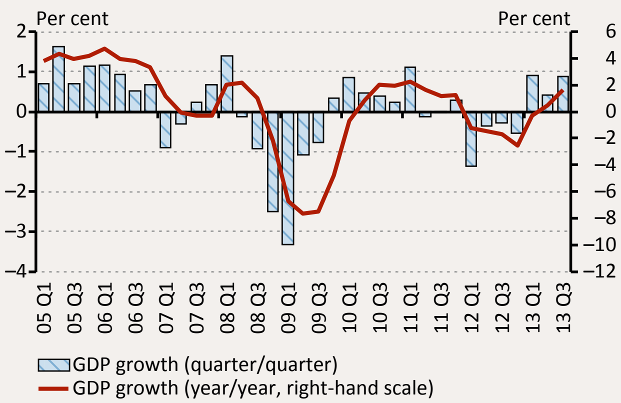
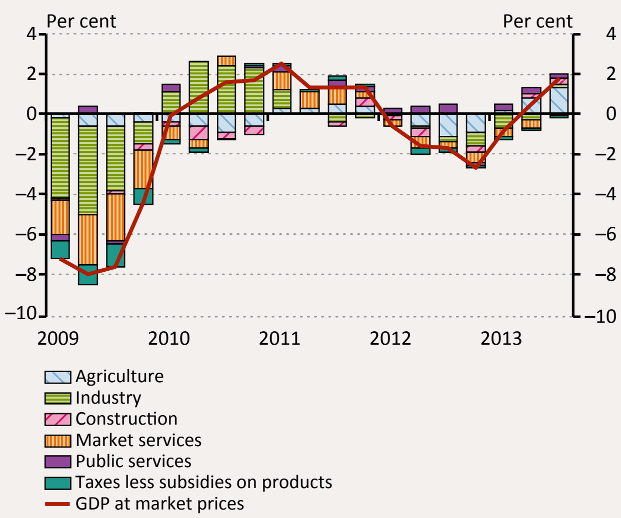


Chart 3-26
Contribution of the output of the main sectors of the national economy to GDP growth



In 2013 Q3, gross domestic product expanded by 1.8 per cent in an annual comparison, and by 0.9 per cent compared to the previous quarter. The strong Q3 GDP figure exceeded the expectations presented in the September issue of the Quarterly Report on Inflation.

The upturn in economic activity was perceivable in a broader range of sectors. In addition to construction and agriculture, industry and market services also made a positive contributions to GDP growth during the third quarter.

Industrial production in Q3 was up 1.9 per cent on the previous quarter and the expansion continued on a year-on-year basis in October as well. The expansion of production was mainly attributable to vehicle manufacturing. Besides the increasing output of new capacities in the automotive industry, the strengthening performance of domestic suppliers may also have contributed to the sector's increased output. In addition to the favourable performance of vehicle manufacturing, a broader range of manufacturing subsectors experienced a lower degree of growth. After having declined drastically since 2011, the performance of the electronics sector has shown the signs of slow stabilisation in recent quarters.

Short-term, forward-looking indicators point to a further expansion in industrial production. The confidence indicators of industry improved, and new orders in manufacturing increased significantly in the past months.

The performance of the construction industry continued to expand significantly in Q3. Growth continued to be driven mainly by infrastructural investment financed from EU funds. In addition, construction of industrial facilities is also on the rise. By contrast, dwelling constructions remain subdued. The value of contracts increased primarily in the case of other structures related to government investment (e.g. construction of the motorway network, upgrade of tram tracks). In Q3, there was an additional increase in the

Chart 3-27
Production of the main branches of the machine industry

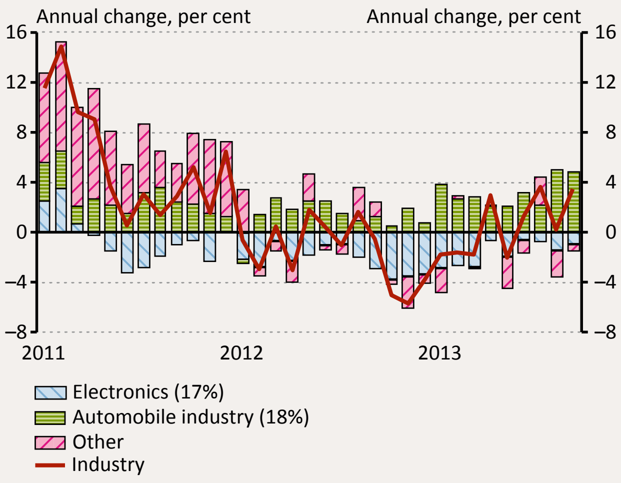
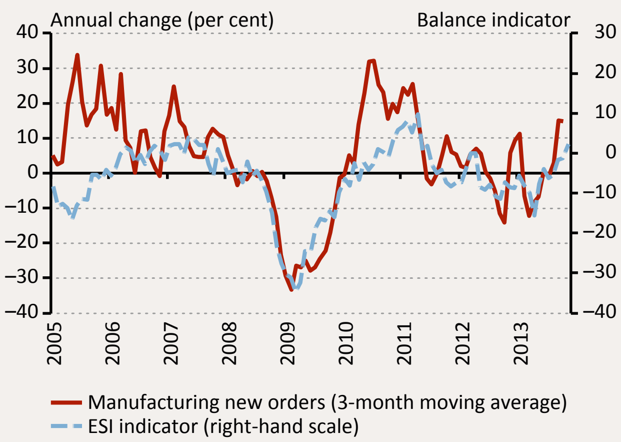
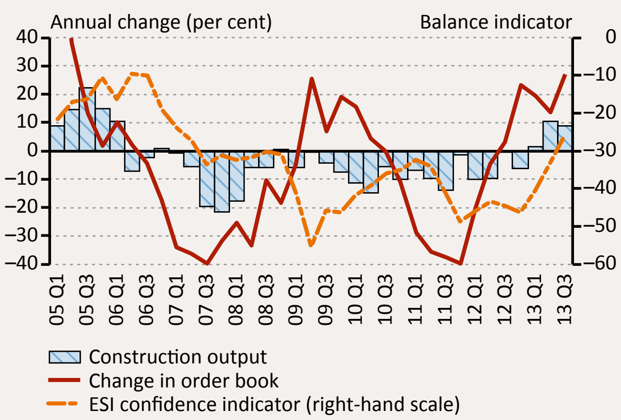


Chart 3-28
New industrial orders and confidence indices



Chartg 3-29
Construction output, orders and ESI confidence indices



value of contracts for the construction of industrial buildings. Based on the number of orders and confidence indices, the production of the construction industry may increase further in the coming quarters.

The performance of agriculture improved significantly in an annual comparison. The sector contributed to GDP growth with 0.8 percentage points in the first three quarters of the year. This year's harvest results of the main cereals may exceed last year's levels substantially. According to preliminary crop results, the grain harvest was close to its average.

Retail trade turnover expanded slightly in Q3 (uncertainties surrounding the seasonal adjustment of retail trade data are described in Box 3-3). In line with the stabilisation of household consumption, trend indicators of retail sales have been rising gradually since end-2012. For the time being, mostly sales of food and non-durable products have expanded, which are more strongly correlated with current incomes. In September, however, the turnover of consumer durables – which are more sensitive to longer-term income prospects – also increased slightly. Preliminary data on retail trade turnover in October indicates further expansion in retail trade sales.

Turnover in the hospitality sector continued to increase in 2013 Q3. In contrast with previous quarters, the growth was mainly attributable to an increase in reservations by domestic guests. The pick-up in domestic demand reflects the improving income position of households.

The performance of the financial and real estate sectors continued to be subdued. Both household and corporate borrowing remained subdued. In addition, the contraction of the housing market continued in Q3. The number of building permits kept declining as well, and therefore the number of dwellings put into use may remain at historically low levels in the coming quarters.

Chart 3-30
Value added in agriculture and cereal production

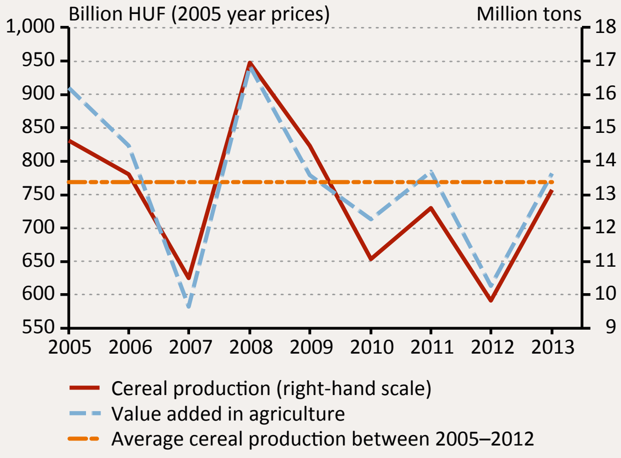


Chart 3-31
Evolution of retail sales

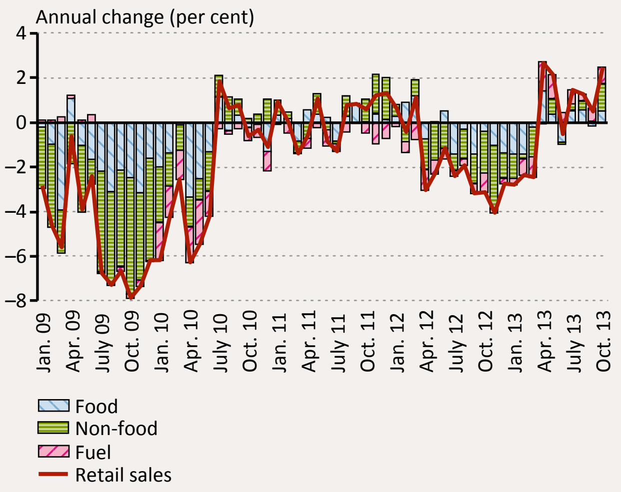
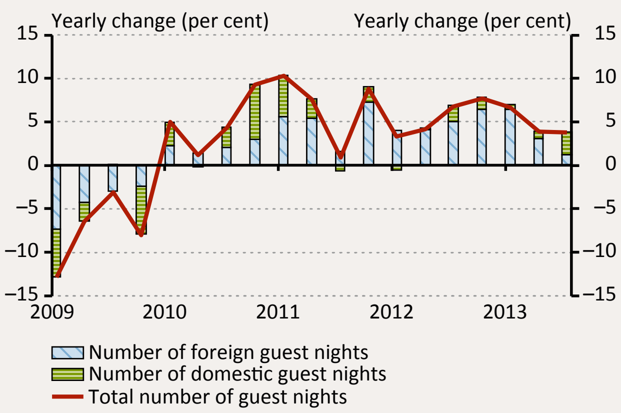


Chart 3-32
Number of tourism nights in accommodation establishments



The growth rate of potential output may be enhanced by the increased capital accumulation associated with recovering investment activity. Investment by the more productive manufacturing sectors, which typically produce for exports, was already close to the pre-crisis levels in recent years. The favourable spillover effects of the newly expanded automotive production capacities were felt by suppliers in recent quarters. In the case of sectors producing for domestic demand, the gradually improving demand environment boosts companies' propensity to invest, while the Funding for Growth Scheme may contribute to the preservation and expansion of capacities. If the upturn in investment continues in the coming quarters, it may have a positive impact not only on the actual output but also on the supply capacities of the economy.

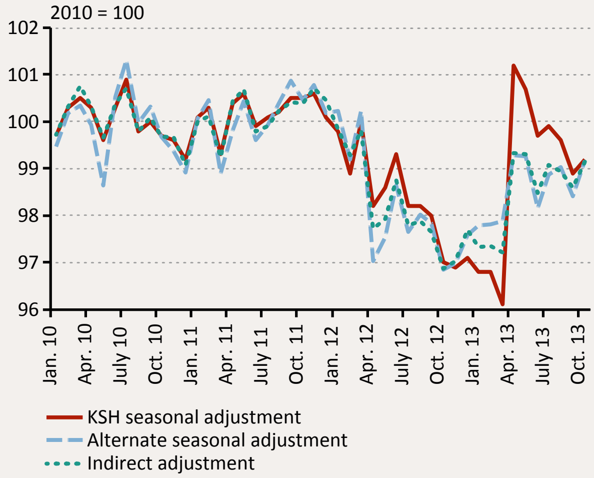
Box 3-3

Seasonal adjustment of retail trade turnover and the interpretation of underlying economic developments

In the recent months, press coverage drew attention to the difficulties of evaluating underlying economic developments. Based on the latest data of the Central Statistical Office (CSO), in recent months retail trade sales showed a slight increase in annual terms (compared to the same month of the previous year), while the level of the turnover has decreased almost each month since April compared to the previous month. **In our opinion, these difficulties of the identification of underlying economic developments may stem from methodological specificities occurring frequently in the treatment of seasonal timelines.** Near-term developments in economic processes are best shown by data adjusted for seasonality and fluctuations in the number of workdays. In addition, economic data frequently include outliers which may be linked to extraordinary events (e.g. tax changes, extreme weather). Seasonal adjustment seeks to eliminate these outliers, a major concern alongside seasonality and the effects of workdays.[6]

During the treatment of outliers, several technical assumptions can be applied in our adjustment procedures (see the box at the end of this article) which, however, may yield completely different conclusions. **The seasonal adjustment applied by the CSO identified outliers with permanent effect in the development of the retail trade turnover in April of 2013.** With these modelling assumptions, the retail trade turnover of the past months indeed shows a decreasing trend. If during the treatment of outliers we apply assumptions that are different from those of the CSO, our assessment of the current processes may also change significantly.

Chart 3-33
Seasonally adjusted level of retail trade turnover



Fuel turnover increased significantly in April 2013 due to several factors. Fuel prices decreased significantly in the spring, which may have mainly stimulated purchases for business purposes. This impact may have been amplified by the fact that the extreme weather around 15 March may have caused disruptions in the delivery of goods by road which may have increased the turnover of the following weeks. Finally, preparations for the flood may also have increased the fuel requirements of freight vehicles.

The implicit assumption behind the seasonal adjustment which may applied by the CSO is that in the spring of 2013 the performance of the retail trade sector may have determined by the one-off effects observed in the fuel turnover, then the timeline contains a transitory change in April 2013. However, the weight of fuel trade is relatively small (around 15 per cent), therefore, it does not necessarily define the changes to total retail trade turnover. Statistically, no individual impact can be detected in the performance of the retail trade sector as a whole in April 2013. Therefore, in the alternative seasonal adjustment, we dispense with the definition of this outlier.

Under these alternative assumptions, April remained an outstandingly strong month in 2013, although to a lesser extent. However, the level of retail trade turnover has been slowly, gradually creeping upwards since the end of 2012.

It may provide further assistance in the judgement of underlying economic developments if we examine the seasonally adjusted turnover of the three major types of business (food, fuel, other) that comprise the retail trade sector. **Significant fluctuations can be observed in fuel sales. At the same time, turnover has slowly but gradually improved in most of the market groups since the end of 2012.** If we aggregate the data (officially published by the CSO) of these three timelines, we also obtain dynamics that are close to the seasonal adjustment recommended as an alternative for the retail trade sector as a whole.

[6] An outlier is a piece of data that does not fit into the observed timeline's trend and significantly deviates from the value expected based on the long-term trend and usual seasonality of the timeline. Generally, there is a one-off economic or social occurrence underlying the value considered as an outlier and as a result of it, the timeline data deviate from the previous trend for a longer or a shorter period of time. There are different types of outliers out of which the three most common ones are: additive outliers, transitory changes, level shifts.

In summary, we can establish that the seasonal adjustment of the timeline of retail trade sales in recent months is very sensitive to the outlier filter applied during the procedure. Based on the timeline yielded by the alternative procedure (which does not define outliers in advance), the signs of a slow pick-up can be seen in the changes in retail trade turnover and can also be observed among the main macroeconomic indicators defining household consumption.

3.4 Employment and labour market

Labour market activity continued to increase in Q3. Both the activity and the employment rate rose to historically high levels, while the unemployment rate fell below 10 per cent for the first time since the outbreak of the crisis. Employment growth was observed in both the private sector and public work programmes. In the case of the private sector the stronger growth was combined with a faster expansion of labour demand this year. The stronger response of employment is partly attributable to the structural specificities of growth and partly to the rising trend of part-time employment, which previously stood at low levels in international comparison. Labour market conditions remained slack, exerting a strong downward pressure on wage-setting decisions.

Chart 3-34
Participation, employment and unemployment

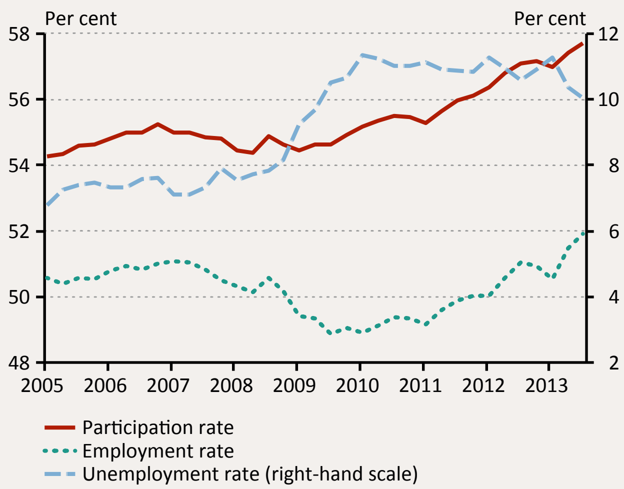


Chart 3-35
Labour demand in the private sector

Note: Employment survey, employment at Hungarian sites.

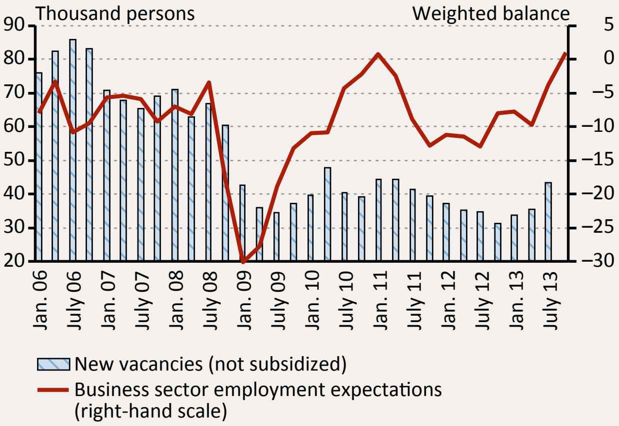
The participation rate continued to increase in 2013 Q3, approaching the level of 58 per cent. The reduction of benefits that serve as incentives for inactivity and the tightening of retirement options are still the possible reasons behind the expansion of labour supply. In addition, certain measures of the job protection action plan, such as benefits provided to the long-term unemployed and parents entitled to child care allowance and child care benefit (GYES-GYED) may have also inhibited separation from the labour market.

The number of employed in the national economy grew by more than 28,000 people in Q3, independently of seasonal effects. This growth was more pronounced than projected in our September forecast. **Employment rose both in the public sector and the private sector.** The higher employment rates of the public sector reflect the expansion of public work programmes, which turned out to be stronger than expected in our preliminary assumption.

The expansion of the private sector followed the turnaround in activity faster and more closely than shown by historical experiences. As a result of rising employment, the unemployment rate dropped to 10 per cent, the lowest level recorded since the outbreak of the crisis. Based on forward-looking indicators, labour demand in the private sector may continue to increase in the coming quarters.

The faster-than-expected increase in employment data may reflect both labour market trends and growth structure effects. As opposed to the economic upturn in 2010–2011, this year's expansion also manifested itself in the output of several more labour-intensive sectors (e.g. construction, agriculture, tourism). The resulting composition effect may have also contributed to employment growth. Due to both supply and demand factors, in recent years a rising trend has been observed in part-time employment, which in previous

Chart 3-36
Indicators of labour demand



Note: The series of business sector employment expectations is the weighted average of the series for industry, construction, trade and services in the ESI survey.
Source: National Employment Service (vacancies), European Commission (business sector expectations).

Chart 3-37
Intensive margin of employment adjustment: part-time workers and hours per employee

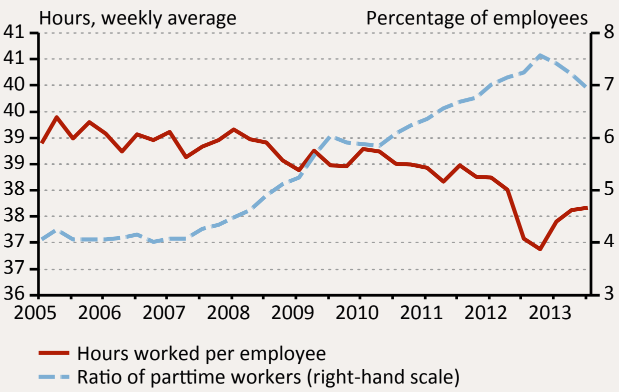
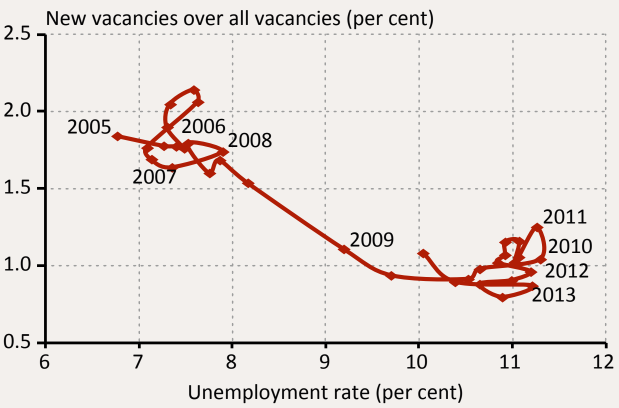


Chart 3-38
Beveridge-curve



Source: National Employment Service.

years had been low even in international comparison. In line with this trend, the number of hours worked per capita declined gradually. As a net result, labour demand measured in total hours worked tends to increase at a slower pace than employment rates. We provide a more detailed explanation for the latter phenomenon in Box 3-4.

In line with the more subdued work hour demand, labour market conditions can be still considered slack. Labour supply still exceeds actual labour demand, which continues to put downward pressure on wages.

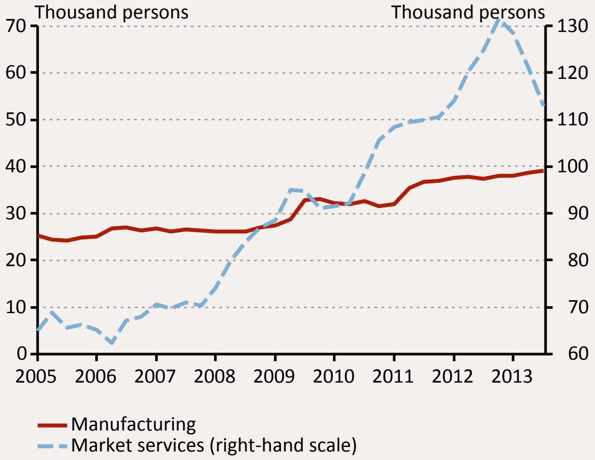
Box 3-4

Reasons and consequences of part-time employment

In this box we will review the potential reasons behind the increase of part-time employment and what we can expect in the recovery.

Significant changes have taken place on the labour market since the onset of the crisis in 2008. During the crisis employment fell moderately as compared to economic activity, even in international comparison. At the same time, the total hours worked and per capita number of hours worked fell significantly. **The reason for this is that labour market adjustments partly took place on the intensive side,[7] one form of which is the increase of part-time employment.** The number of part-time employees, staying at a very low level before the crisis, has increased significantly. Since 2008, one third of the full-time jobs that have been slashed in the private sector since the onset of the crisis were replaced by part-time jobs. Despite the increase that can be considered significant even in international comparison, the ratio of part-time workers still lags behind the EU-average.

Chart 3-39
Number of part-time employees by sector



Source: Labour force survey

The question we examine is to what extent cyclical and trend reasons explain the increase part-time employment. **Part-time employment usually co-moves with the economic cycle more intensively than full-time employment.** There can be several explanations for this:

From the side of labour demand:

- During a downturn, it is worthwhile for companies to hoard labour since they can decrease recruitment and training costs during the economic recovery and prevent the loss of the employees' knowledge during unemployment.

- The government can also support part-time employment in order to decrease unemployment.

From the side of labour supply:

- During a downturn, at the time of high or rising unemployment, job seekers are more likely to accept part-time jobs and the activity of the second, third family members who can potentially earn money will increase. The latter are more likely to want to work part-time.

- As opposed to this, high unemployment rates during recessions may discourage individuals, which primarily offered their workforce for part-time jobs, to seek jobs.

In addition, *processes that are independent of the cycle* can also explain the increase in the number of part-time employees:

From the side of labour demand:

- The changes to goods and labour market regulations and institutions (for example the rules on weekend and night opening hours and work, the rules on the wages of full-time and part-time employees , the power of trade unions as well as their attitude towards part-time employment) influence demand for part-time workers permanently, mainly in service sectors.

[7] When (labour market) adjustment happens on the intensive side, it is the hours worked or the intensity of the work that changes. In case of adjustment on the extensive side, it is the number of employees that changes.

- Part-time employment among low earners may rise even after significant increases in the minimum wage, companies can thus compensate for more expensive labour with low productivity.

From the side of labour supply:

- The increase of the activity of women and the rise of the fertility rate generally increase part-time labour supply since women, particularly mothers, are more likely to seek part-time jobs. Allowing employment while receiving child care allowances also increases the part-time labour supply. The improving qualifications of the 15-24 age group may result in the increase of part-time labour supply since students can work part time in order to gain practical experience and to cover their costs of studies. However, it is difficult to investigate whether these factors are the reasons or the consequences of the increase in part-time employment.

- The changes to the tax system also influence labour supply: in the higher earning categories, labour supply may grow if taxes on labour are reduced, primarily by the increase of the per capita hours worked or the intensity of work (as a result of the tax changes, the flexibility of adjustment on the intensive side is greater in the higher earning categories than in the lower ones). Family taxation, however, may diminish part-time labour supply since it increases the marginal tax rate for the second person who earns money.

Based on our examinations, the increase in the number of part-time employees partially reflects a trend, but cyclical impacts may have become stronger during the crisis. This is what the different sectoral trends imply. The weight of the service sectors within GDP is below the average of the more developed EU member states, similarly to the ratio of part-time workers. The number of part-time employees was already on the rise before the crisis in several service sectors, mainly trade, accommodation services and the catering sector. Part-time employment in these sectors facilitates more flexible adjustment to fluctuating demand (e.g. accommodating daily peak times; offering late night or weekend opening hours). This type of adjustment may have facilitated more efficient operation after the crisis.

Cyclical labour hoarding may have increased part-time employment in manufacturing at the beginning of the crisis. Both in 2010 and in 2013, at the time of a re-start of GDP-growth part-time employment has moderately decreased, reflecting cyclical effects.

The number of part-time employees has primarily risen because of labour demand factors since the beginning of the crisis. Although part-time employment increased mainly among women, we cannot link it to women with small children or the expansion of the activity of young people still studying. Labour supply (the number of active) has increased since the crisis mainly among 35-45 and 55-65 year olds, the participation of those aged below 35 decreased. The activity *rate* rose most markedly among 40-60 year olds. In addition, micro data imply that the expansion of part-time employment was not caused by labour supply reasons. Based on the labour survey, almost one third of the part-time employees would like to work more hours and 40 per cent of them only work part time because they could not find full-time jobs. The growth of part-time employment since the onset of the crisis is mainly attributable to these part-time positions that cannot be considered voluntary.

Out of the factors influencing labour demand listed above, labour market regulations and the level of the minimum wage changed in the past period. **The amendments to the Labour Code in 2012 contributed to the spread of more flexible, atypical employment forms, thus prospectively may increase the number of part-time employees. The increase of the minimum wage in 2012, however, did not explain the rise in the number of part-time employees.** One of the reasons for this can be that the government compensated for the increase of wages, thus it did not mean any actual increase of costs for the companies.

Chart 3-40
Ratio of part-time employees in international comparison

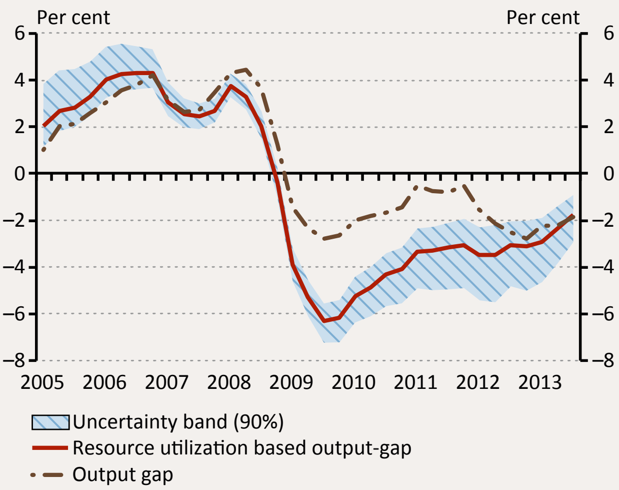
Source: Eurostat.

In summary, slow increase, partially reflecting trend processes started already before the crisis, mainly in the market services. During the crisis, growth of the number of part-time employees accelerated as a result of efficiency-improving steps of private sector companies, also promoted by measures of the government supporting part-time employment. It may help the ratio of part-time employment further approximate the EU average.

3.5 Cyclical position of the economy

The Hungarian economy is characterised by significant underutilisation of production capacities, compared to the optimum level. The output gap is still negative. The economic environment exerts a strong disciplinary impact on nominal trends. According to the latest activity indicators, the utilisation of capacities may increase gradually as demand picks up. Capacity utilisation may increase mainly in sectors producing for exports. A higher-than-expected growth rate and a lower level of inflation at the same time suggest the emergence of positive supply shocks, such as the effects of globally falling commodity prices and favourable agricultural crop yields.

Chart 3-41
Output gap indicators

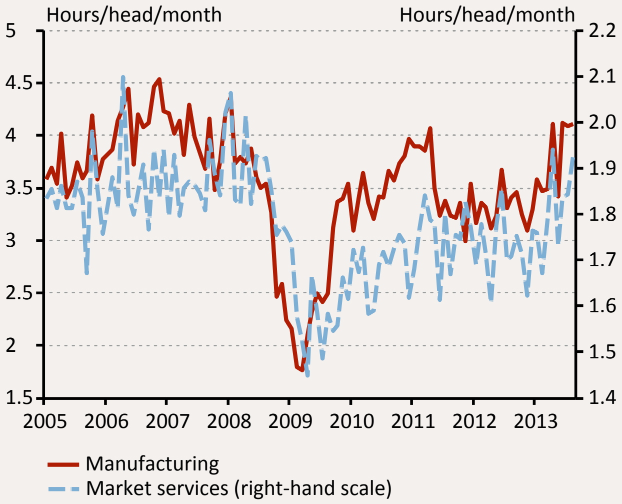


Note: the RU gap indicates resource utilisation (for further information on the methodology. The uncertainty band illustrates the uncertainty of this estimate.. For more details see Rácz, O. M. (2012), Using confidence indicators for the assessment of the cyclical position of the economy, MNB Bulletin, June 2012).

Hungary emerged from the recession at the beginning of this year, but a significant part of capacities may have remained unused despite the upturn in economic activity. The output gap is still negative. Based on indicators measuring the utilisation of resources, the performance of the economy continues to fall short of its potential level. In line with this, the economic environment exerts a strong disciplinary impact on the nominal trends.

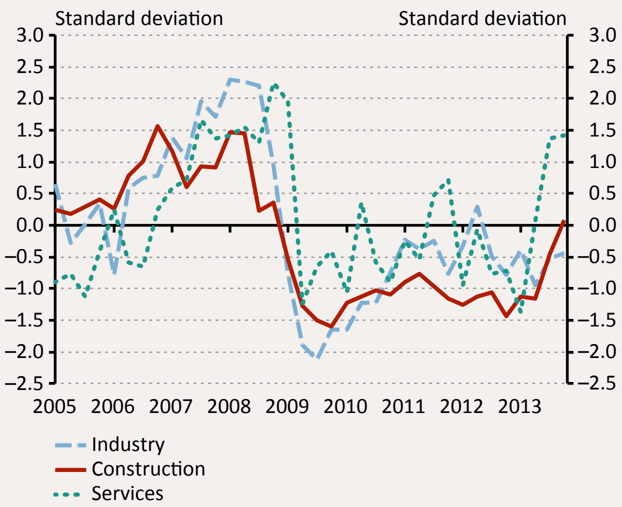
At the same time, a number of indicators suggest that the utilisation of capacities may increase gradually as demand picks up. Overtime increased both in the manufacturing sector and in market services in Q3. In addition, in the latest GKI survey an increasing number of companies reported labour shortages as a primary factor limiting their production.

Chart 3-42
Employee overtime



Note: Institutional statistics, those employed for at least 60 hours per month, three-month central moving averages.

Chart 3-43
Primary factors limiting production: labour



Note: Standard deviation from sample average; originally the ratio giving a positive answer in the sample.
Source: GKI, ESI survey.

Q3 was characterised by better-than-expected growth and inflation data. The duality of a higher-than-expected activity rate and a lower price index suggests the emergence of positive supply shocks, such as the effects of globally falling commodity prices and favourable agricultural crop yields.

3.6 Costs and inflation

Nominal economic trends have been characterised by consistently falling inflation rates and moderate wage dynamics in recent months. Inflation remained below the medium-term target. Moderate cost-side inflationary pressures, a disinflationary economic environment, the gradual adjustment of expectations and government measures all contributed to the low level of inflation. The private sector wage index remains restrained which, combined with the recovery of value added, contributed to the deceleration of unit labour cost in this year.

Chart 3-44
Changes in the private sector's regular gross monthly average wages (wages excluding bonuses, premiums, or extra one-month wages) vs. gross monthly average wages

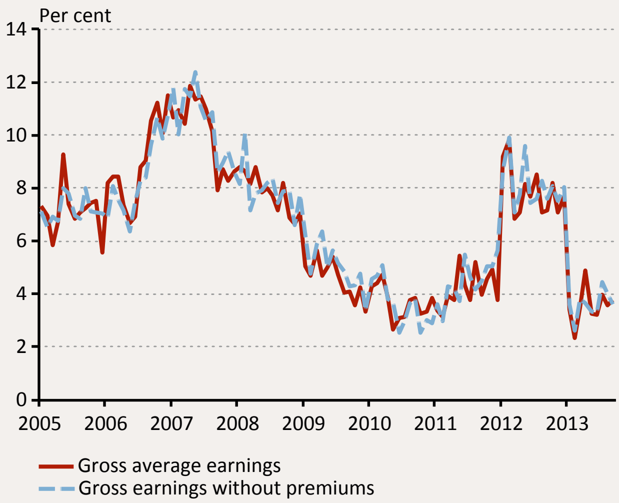
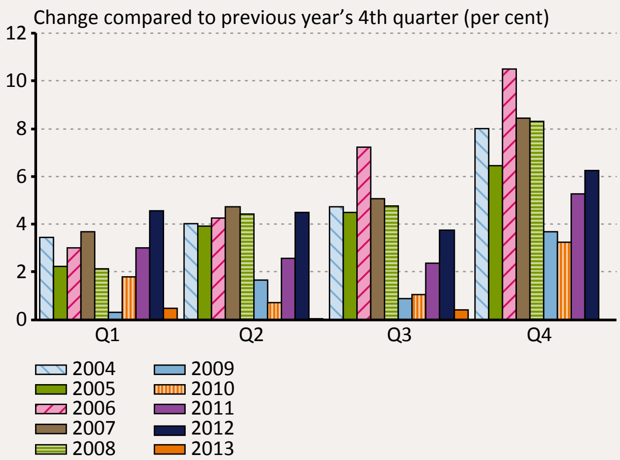


Chart 3-45
Changes in regular gross monthly average wages in the private sector



3.6.1 WAGES

In order to stabilise their profitability, companies' wage-setting decisions were restrained at the beginning of the year. The second half of the year was also characterised by this prudent behaviour, and consequently, private sector wage dynamics remain modest. This restrained wage-setting behaviour, which is measured by the institutional statistic, is also confirmed by alternative wage-setting indicators, which take better account of the adjustment in the hours worked (see Box 3-5). Moderate wage increases were more typical of market services which produce for the domestic market and significantly affect inflationary pressure. Overall, no significant inflationary effects are perceived from the cost side of the labour market.

In terms of the level of earnings, significant wage increases affected mostly the lower earnings categories; their magnitude was in line with the increase in the minimum wage. As regards higher earnings categories, the wage index was at historically low levels in 2013.

Growth in unit labour costs remained restrained, which may facilitate the gradual restoration of corporate profitability. The slowing dynamics of wage costs contributed significantly to the moderate trend of unit labour costs in the private sector. Nevertheless, higher profitability will also require an additional increase in productivity, which may be supported by a further improvement in economic activity.

Chart 3-46
Indices of the regular wages of those who earn less and of those who earn more than HUF 120,000

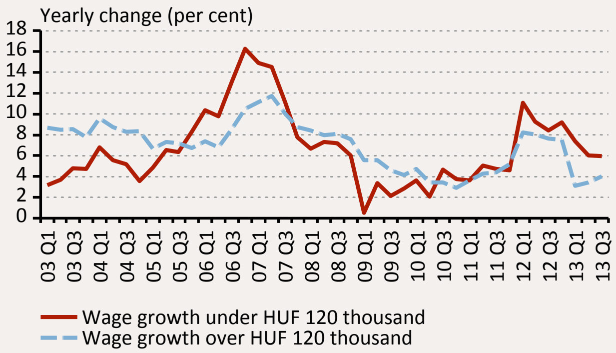


Chart 3-47
Changes in and components of unit labour costs in the private sector

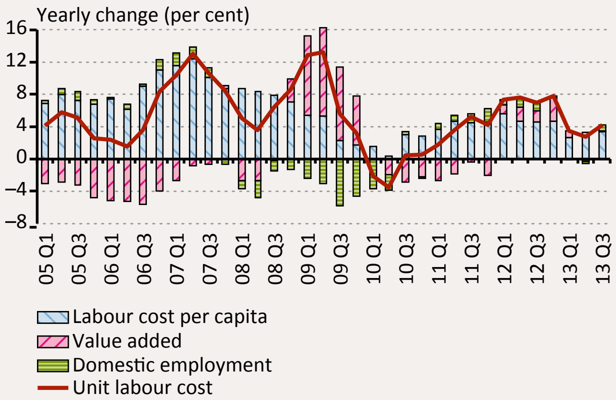
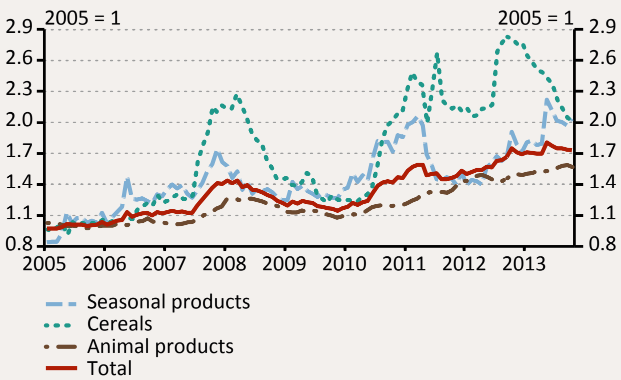


Chart 3-48
Agricultural producer prices



Note: Seasonal products: fruit, vegetables, potato; cereals: wheat, oil seeds; products of animal origin: pork, poultry meat, egg, milk; weighting was based on the estimated size of the effects on the consumer price index.

3.6.2 PRODUCER PRICES

Inflationary pressures from commodity prices have generally eased in recent months. In respect of agricultural products, the prices of cereals and seasonal products continued to decline, with the price indices of oil seeds and potato showing the most remarkable fall. Over the short term, favourable crop yields continue to point to modest price dynamics. The prices of products of animal origin rose slightly, predominantly because of the price increases of milk and pigs raised for meat. The decline in the producer prices of animal feed may also restrain the price dynamics of products of animal origin in the coming quarters.

Global prices of oil have fallen since the September Quarterly Report on Inflation. Futures oil prices indicate that this downtrend will continue. In addition, the stock exchange prices of refined products (mainly gasoline) were at lower levels than warranted by the changes in oil prices, which may be attributed to gasoline inventories accumulated during the summer months. As these inventories run out, the price difference between oil and refined products may be adjusted in the short term, leading to a gradual increase in domestic fuel prices.

Industrial producer prices retained the previously observed modest price dynamics. This process characterised both the domestic and global markets. Domestic producer prices of sectors producing consumer goods and goods for further processing show declining dynamics, while the inflation of energy producing sectors was unchanged.

Hungarian trends were broadly consistent with developments in the euro area and the global market: restrained demand and falling energy costs both hinder price increases in tradables. As a result, **even in the case of processed goods the level of imported inflationary pressures is low.**

Chart 3-49
Industrial producer prices

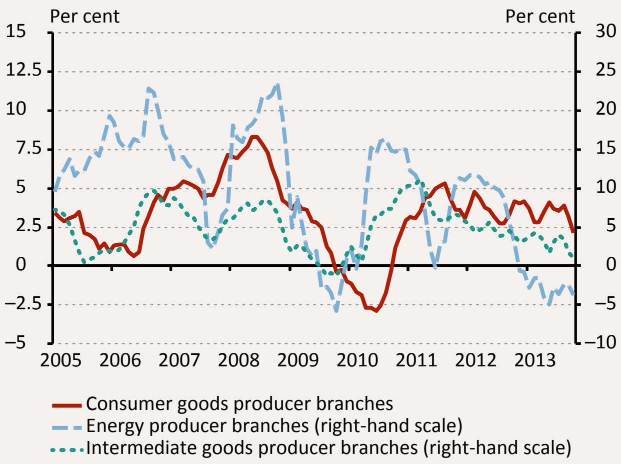


Chart 3-50
International price changes of processed products

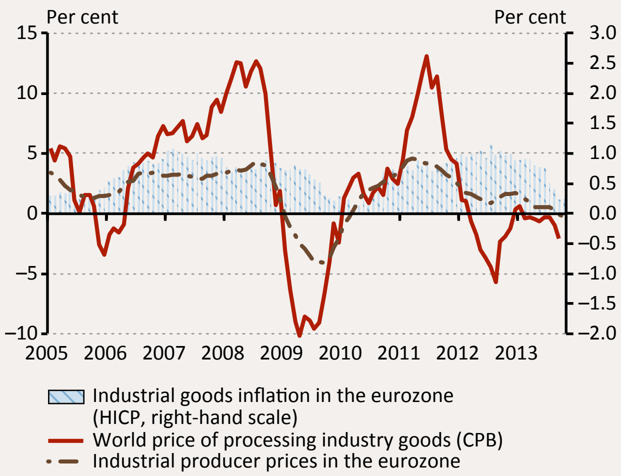
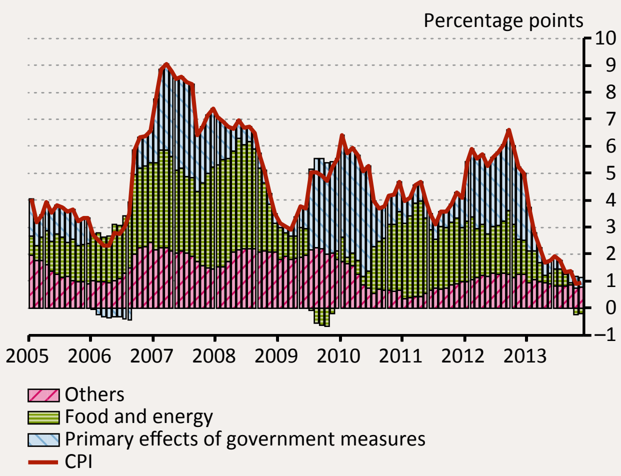


Chart 3-51
Consumer price index and its components



3.6.3 CONSUMER PRICES

Inflation decelerated further in the autumn months, and currently stands at a historically low level, far below the 3 per cent target. Regulated prices were reduced in several steps throughout the year, reducing annual inflation by 1 percentage point overall. Thus, the consumer price index would show a moderate value even without these measures. Besides the government measures, moderate cost-side inflationary pressures, a disinflationary economic environment and the gradual adjustment of expectations also contributed to the low level of inflation. In line with the latter effects, **underlying inflation trends are modest.** Core inflation excluding tax changes has remained restrained in recent months, reflecting steadily weak demand side inflationary pressures.

Prices of tradables were moderate in recent months, with these low price dynamics possibly attributable to the low level of import prices and slack demand. Within this range of products, prices of durables have declined in recent months. In addition, the inflation of non-durable goods was influenced significantly by one-off factors as well, such as airfares, which showed high volatility throughout the year.

Price indices of market services rose in Q3. The price increase was fundamentally determined by the financial transaction levy, which raised the price index of banking services. In addition, slightly higher-than-usual monthly price increases were observed in the case of other services as well during the autumn months. At the same time, since end-of-year repricing is rather rare for services, new, substantive information on inflationary pressures on the sector will be gained from data released in the first few months of 2014.

Chart 3-52
Core inflation excluding tax changes, demand-sensitive inflation and sticky price inflation

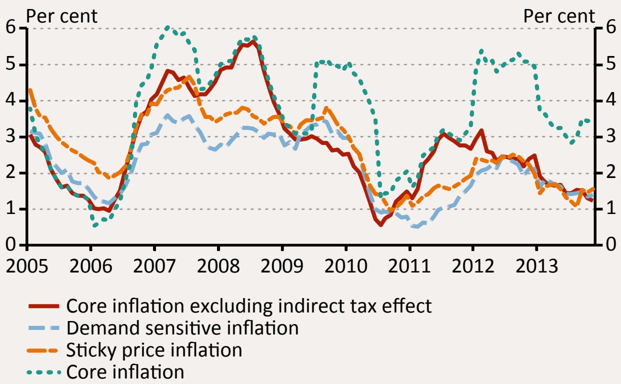
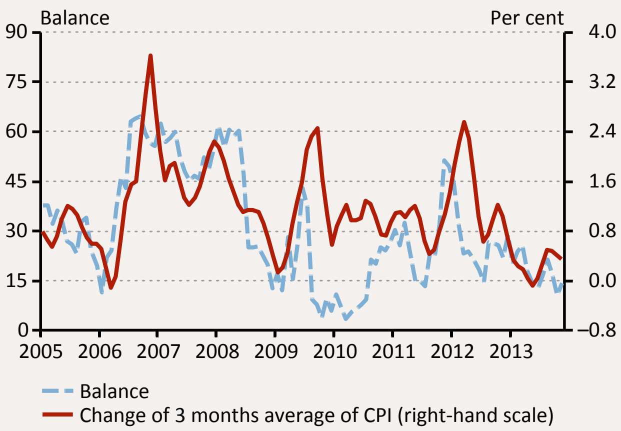


Chart 3-53
Inflation of market services and industrial products excluding taxes

(annual change)

Chart 3-54
Expected changes in retail sales prices in the next 3 months* and actual inflation



** The balance is the difference between the share of companies expecting a price increase and a price decrease.*

In line with declining producer prices, the inflation of food prices moderated slightly in Q3. The price level of unprocessed products showed a modest trend. Dairy products put upward pressure on prices, but this was offset by the falling prices of several other products. The seasonally adjusted price level of unprocessed products has remained practically unchanged in recent months.

The increase in the retail margin is gradually feeding through into tobacco prices. Around three-quarters of the price increase expected from the increase in July materialised by November. The slow feed-through may reflect the decline in legal tobacco sales; thus previously purchased, lower-priced inventories will taper off gradually only.

Fuel prices have fallen in recent months, mainly as a result of lower international oil prices expressed in HUF. However, a correction was observed in price-setting over the past few weeks.

The dynamics of regulated prices remained slow, further reducing the annual index of these products from the already low levels observed last year. The dynamics of this product category will be reduced further by the next round of the energy price cuts (11.1 per cent) in November, affecting gas, electricity and communal heating. Since the price cuts will be reflected in the CPI and HICP indices with different timing,[8] the two inflation indicators will show a temporary gap in November.

Inflation data received in the past few months were more favourable than expected by the central bank. The difference can be mainly attributed to cost-side factors, such as declining oil and commodity prices. The moderate inflation of industrial products also contributed to the difference.

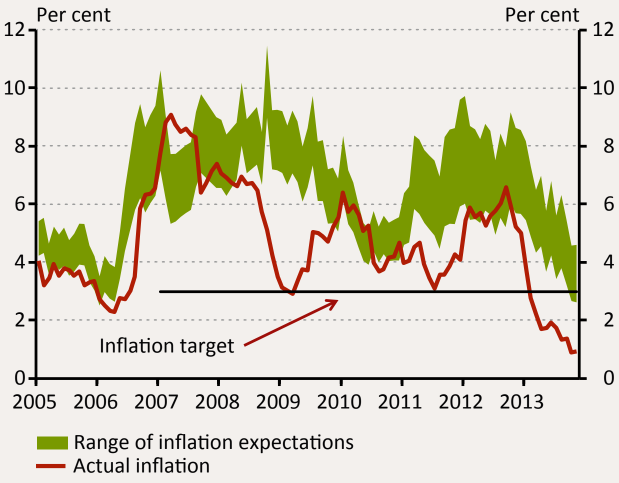
On the whole, a wide range of products have been subject to modest price increases so far during the year. Over the short term, the consumer price index may be reduced further by the next round of utility cost reductions and the significantly lower level of imported inflation. A contrary effect will be generated by the increase in tobacco prices and the expected pick-up in internal demand.

3.6.4 INFLATION EXPECTATIONS

The expectations of the retail sector in respect of sales prices, which play a crucial role in the short-term development of consumer prices, declined further in the past quarter. This suggests that cost and demand side

[8] As regards HICP data, the price cut will be reflected in the November price index, while it will be mostly reflected in the December price index for CPI.

Chart 3-55
Households' inflation expectations



factors, overall, do not warrant a price increase over the next few months.

Households' inflation expectations have continued to decline in recent months, in line with the declining trend of actual inflation. The moderation of inflation expectations may help ensure that the wage- and price-setting decisions of economic agents are consistent with the central bank's inflation target over the medium term.

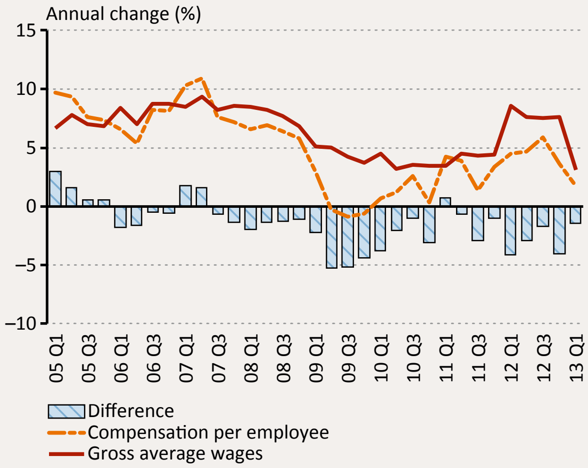
Box 3-5
Alternative wage indicators

Wage developments can affect inflation via several channels: through firms' labour costs, disposable household income and by impacting inflation expectations. Therefore wage developments are highly relevant for inflation targeting central banks.

There are several measurements available for wage assessments. **Our labour market analyses are based on the average gross earnings (AGE) of full-time employees** (source: HCSO institutional statistics). This indicator contains all payments made by the employer regularly to the employee (base wages, overtime and shift work pay, commissions, bonuses, gratuities and absence fees) but does not include amounts paid in advances, annual bonuses, sick leave, benefits in-kind or travel reimbursements. As an advantage, the monthly figures are available with less than a two-month delay. Its drawback is that it only **covers wage compensations of full-time employees of companies with a minimum headcount of five, thus ignoring a number of channels of corporate wage adjustment unaccounted for,** such as:[9]

- unreported income
- the downward effect on wages of rising part-time employment[10]

Chart 3-56
Alternative wage indicators in the private sector



[9] To some extent, these can be remedied within institutional statistics as well. This corporate data collection includes average wages of non-full-time employees and other labour incomes reported by companies.

[10] Growth in part-time employment has a negative composition effect on labour income per capita – an indicator that also covers workers in non-full-time employment – provided that the average wages of part-timers do not exceed those of working full-time. However, this composition effect is part of corporate cost adjustment and therefore should be taken into account.

- fringe benefits
- employer's taxes and contributions

In contrast, compensation per employee (CPE), calculated from national accounts, can be applied to Hungary's entire private sector. In addition to gross earnings, this also contains benefits in-kind and employer's contributions, regardless of whether these items are real or estimated through imputation. As a result, this indicator may be more closely linked to actual consumption of consumers while also indicating more. As a shortcoming, it is only available on a quarterly basis, after more than a six-month delay.

Of these two indicators, our calculations suggest that the CPE is more closely aligned to developments in the output gap, as there is a significantly[11] higher correlation than in the case of average gross earnings. **As a result, CPE offers a more accurate diagnosis of wage inflation pressure emerging from the utilisation of labour market capacities.**

While the AGE indicator shows that, over the past months, substantial wage moderation has occurred, **the CPE suggest that wage adjustments carried out since 2009 have been more significant than what was observed in the institutional statistics.** The broader-scoped wage indicator therefore reinforces the impression that the economy continues to be characterised by a slack labour market.

[11] Output gap correlates to CPE by 0.37 (with standard error 0.13), and correlates to AGE by 0.25 (s.e. 0.14).

4 Financial markets and lending

4.1 Domestic financial market developments

Over the past three months, although there were substantial fluctuations, Hungary's overall risk assessment remained unchanged. During this period, international factors tended to warrant an increase in Hungary's sovereign risk premium, but country-specific factors were capable of offsetting this trend. Accordingly, Hungary's five-year CDS spread was an outperformer in a regional comparison, which is also confirmed by our decomposition methodology.

The forint fluctuated vis-à-vis the euro within a range of ±1 per cent throughout nearly the entire review period (EUR/HUF 292–300), except at the end of November, when due to country-specific depreciation the exchange rate moved close to EUR/HUF 304. Overall, the forint depreciated by 1.5–2 per cent. Trading in the FX swap market was basically free of tensions. The turbulence characterising the end of last year were related for the most part to balance-sheet clean-ups, and appeared only moderately until mid-December.

The net FX-swap holdings of non-residents were down by HUF 700 billion by the end of October, particularly as a result of long positions established in the context of a strong forint exchange rate. Subsequently, however, the net FX-swap portfolio started to climb once again, and long forint positions established in the first half of the period declined. The forward holdings of domestic participants demonstrated shifts of similar magnitude in the opposite direction.

On average, short-term government paper auctions were characterised by double or triple coverage amid declining yields. Apart from a few minor fluctuations, demand was stable for long-term government securities. Yields declined considerably until the end of October, but the decline almost entirely corrected by the end of the review period. The yield curve of the government securities market became considerably steeper compared to the beginning of the period. The short-end of the yield curve shifted downward by nearly 60–70 basis points compared to the levels observed in September, while, amid volatile shifts, the long-end stagnated overall.

Over the past three months, expectations about possible base rate cuts intensified further. At present, analyst expectations, as well as money market yields suggest that the cycle may reach its trough in 2014 Q1 at a level below 3 per cent.

Chart 4-1
5-year sovereign CDS spreads in the region

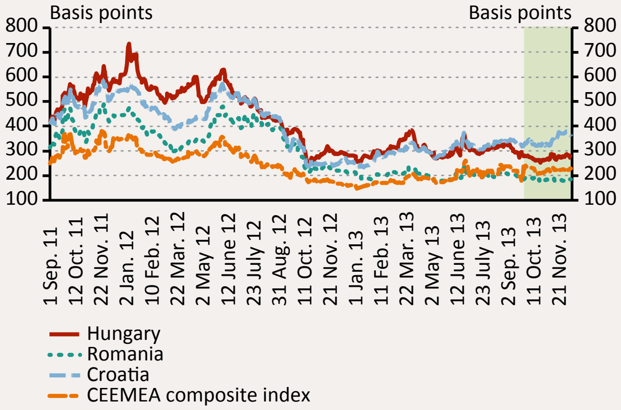
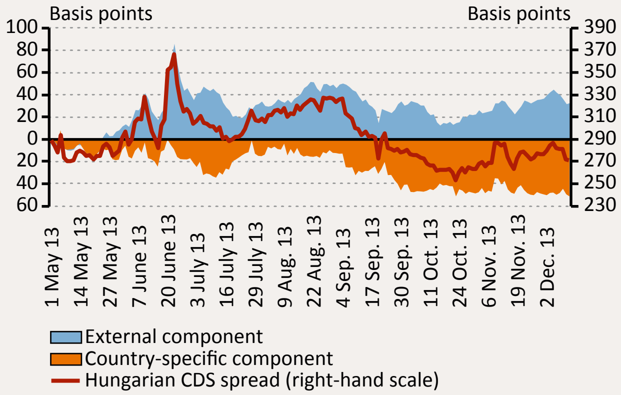
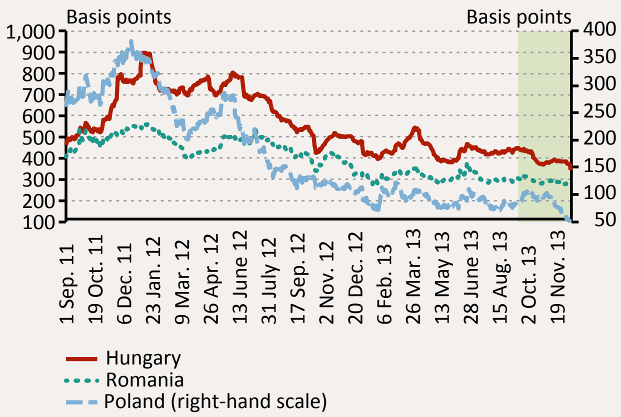


Chart 4-2
Factors of the domestic 5-year sovereign CDS spread



Note: The description of the applied decomposition method can be found in Kocsis and Nagy (2011), "Variance decomposition of sovereign CDS spreads", MNB Bulletin.

Chart 4-3
5-year EUR-denominated currency bond spreads in the region



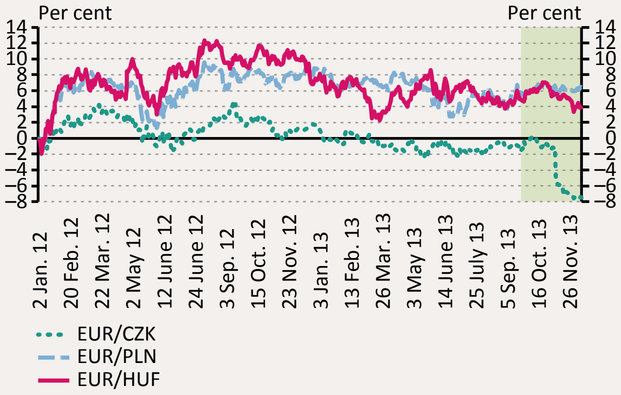
4.1.1 RISK ASSESSMENT OF HUNGARY

Over the past three months, although there were substantial fluctuations, Hungary's overall risk assessment remained unchanged. The largely positive investor sentiment observed at the beginning of the period can be attributed to the fact that, despite the expectations, the Fed did not begin to taper off its asset purchase programme. Accordingly, risk premia on emerging market assets moderated once again, and there was also no negative impact from the US debt crisis. By the end of October, the five-year Hungarian CDS spread contracted by 30–40 basis points overall, approaching a level of 260. Communications following the Fed's October meeting and the ensuing deterioration in emerging market sentiment triggered a pronounced change in sentiment, which was only slightly offset by the ECB's decision to lower the interest rate and its communications pointing to further easing. At the same time, this did not affect the CEE region as much as other emerging countries. The Hungarian spread returned to levels observed in mid-September. Accordingly, the Hungarian CDS spread outperformed its peers in a regional comparison (see Box 4-1). This can be mainly attributed to the alleviation of the uncertainties related to the programme for foreign currency debtors and the successful government bond issuance.

According to our CDS decomposition methodology, international factors tended to warrant an increase in Hungary's sovereign risk premium during the review period, but the decline in the premium triggered by country-specific factors was able to offset this trend.

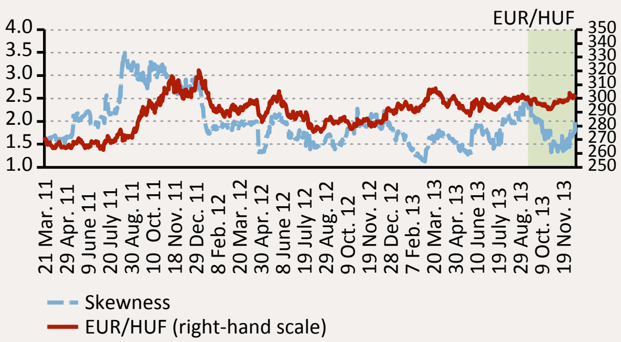
USD- and EUR-denominated bond yields both tended to decline significantly during the past 3 months. As regards spreads, EUR-denominated bond spreads decreased by 30–50 basis points on average, while bonds denominated in USD saw a 15–30 basis point decline.

Chart 4-4
Foreign-exchange rates in the region



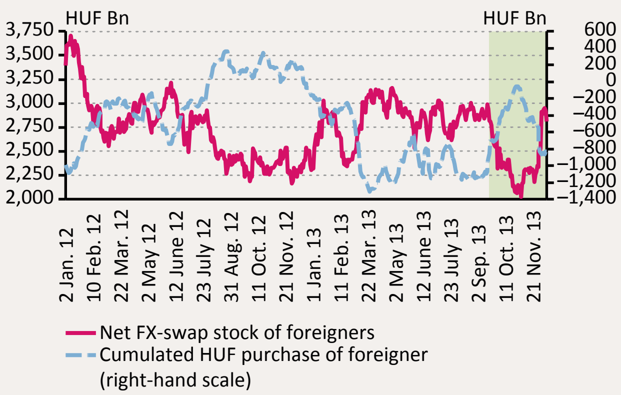
Note: Change compared to the beginning of the year. Positive values indicate appreciation of the currency.

Chart 4-5
Changes in the level of the EUR/HUF exchange rate and one-month skewness in the distribution of the exchange rate



*Note: (skewness) = risk reversal/volatility*10 (indicator without a unit of measurement).*

Chart 4-6
Non-residents' net FX swap holdings and cumulated forint purchases



Note: Cumulated HUF purchase of foreigners: 4 January 2010 = 0.

4.1.2 DEVELOPMENTS IN THE FOREIGN EXCHANGE MARKETS

The forint fluctuated vis-à-vis the euro within a range of ±1 per cent throughout nearly the entire review period (ranging between 292–300). At the same time, following a 1.5–2 per cent depreciation at the beginning of December, the exchange rate remained at a level above 300. For most of the review period, the forint moved in tandem with other currencies in the region, except the Czech koruna, although a minor deviation was observed during its depreciation at the beginning of December.

The skewness of the EUR/HUF exchange rate and the EUR/HUF volatility declined considerably for nearly the entire period, reflecting the moderation of depreciation expectations. At the end of the period this trend ended, and the skewness indicator rose slightly. At the same time, the indicator continues to hover around historically low levels, suggesting that market participants' expectations of depreciation of the forint exchange rate are less likely to materialise.

The domestic FX swap market was basically characterised by calm trading. Amidst volatile fluctuations, short-term spreads declined slightly, while there was a moderate increase in spreads on transactions with a maturity of over 1 week but up to one year. The tensions seen at the end of last year were linked for the most part to the balance sheet adjustment of non-residents, and these reappeared only moderately until mid-December: only one-month swaps saw a more significant increase in market spread, but the level of the spread is still lower than seen in recent years.

The net FX-swap holdings of non-residents declined HUF 700 billion by the end of October, with investors setting up forint positions. After the Fed's rate-setting decision at end-October, however, the net FX-swap holdings of non-residents started to climb once again, and **the long forint positions established in the first half of the period almost completely disappeared by mid-December.** At the same time, the government security holdings of non-residents were relatively stable, hovering within a range of HUF 4,900–5,000 billion and, following a 2-percentage point increase, their share approached 46 per cent.

Chart 4-7
Non-residents' government securities holdings

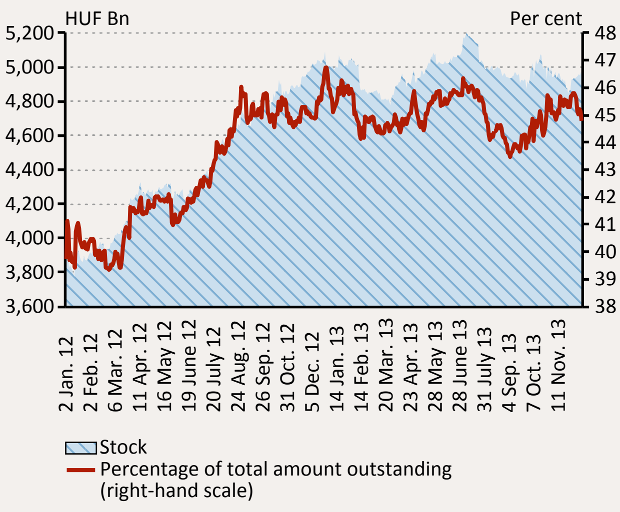
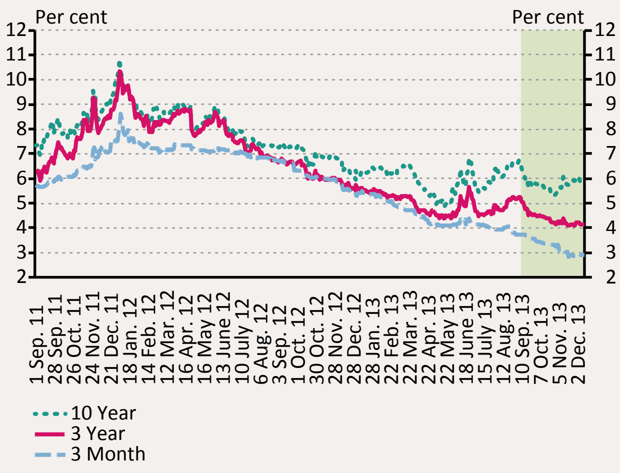


Chart 4-8
Changes in government securities benchmark yields



4.1.3 GOVERNMENT SECURITIES MARKET AND CHANGES IN YIELDS

Short-term treasury bill auctions were characterised by 2.5 times coverage on average, and in most cases the volume of the government securities issued by the Government Debt Management Agency (ÁKK) corresponded to the announced quantity. **The average auction yield declined in the period as a whole,** consistent with the changes observed in interest rate cut expectations. The decline in auction yields amounted to 60–65 basis points for three-month bills and 45–50 basis points for one-year bills.

Apart from a few exceptions, demand was broadly stable for 5- and 10-year government bonds in the primary market of government securities. On the whole, the auction yields of longer-term papers reflected a substantial deterioration in foreign market sentiment at the end of October. While yields declined significantly by 30–40 basis points until the end of October, the yield on the 5-year benchmark security returned to its initial level by the end of the review period and yields on 10-year bonds increased overall.

The yield curve on the government securities market became considerably steeper compared to the beginning of the period. The short-end of the curve moved down by nearly 60–70 basis points from the levels observed in September, while long-term yields stagnated overall. As regards HUF-denominated papers, a trend similar to the steepening Hungarian yield curve occurred in Romania, while developments in Poland were somewhat more moderate.

Expectations of possible interest rate cuts continued to intensify in the past three months. At present, both analysts' expectations and money market yields suggest that the cycle may reach its trough in 2014 Q1 at a level below 3 per cent.

Box 4-1
Changes in Hungary's risk assessment since May

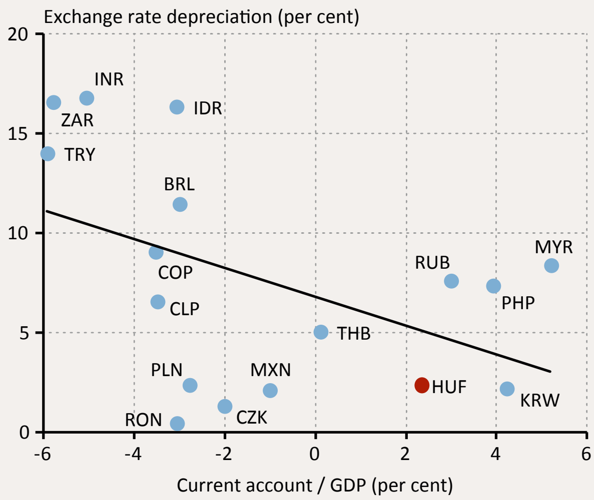
The mounting concerns about the most dominant market story in the last six months, namely Fed tapering, triggered strong fluctuations in emerging asset prices, albeit to sharply differing degrees in various countries. The global decrease in risk appetite was also reflected by Hungary's risk indicators, but **Hungary – along with other Central and Eastern European economies – was one of the less affected countries:** the forint depreciated only to a relatively minor extent, and – following a temporary increase – by December Hungary's CDS spread had reached a level lower than the one seen in May. The most significant change was observed in Hungary's long-term yields: the 10-year benchmark rate was around 5.2 per cent in early May, from which it increased by more than 150 basis points during the turbulent summer months. By the end of October, however, after a considerable correction, it had fallen back to 5.3 per cent. It is currently fluctuating at around 6 per cent.

Within the context of the market tensions related to Fed tapering, developments in the aforementioned market indicators reveal that **Hungary's relative risk perception has remained stable.** Accordingly, despite the recent wave of emerging market sell-offs, the Hungarian government bond holdings of foreign investors have not decreased considerably, whereas in general the mounting concerns have been accompanied by a wave of capital withdrawal from emerging markets.

Analyses suggest that in the recent period – and thus during the wave of emerging market selling – **the market's focus gradually shifted much more towards flow indicators and away from the stock indicators, which were more closely watched during the financial crisis. This change in market focus was favourable for Hungary.** While the deterioration in macroeconomic fundamentals of the countries hit hardest by the wave of emerging market selling – materialising in the form of declining growth prospects, increasing inflationary pressure and weakening external financing capacity – may have materially contributed to the increasing vulnerability of these countries, in the case of Hungary the current account adjustmentsince the financial crisis, the improving growth perspectives and decelerating inflation all contributed to a relative improvement in Hungary's risk perception. **Markets focused mostly on the level of current account deficit:** experience shows that the currencies of emerging countries featuring the highest current account deficits in terms of GDP depreciated the most.

Another important factor was that **the improving macroeconomic outlook and growth prospects of the euro area had a positive impact on the growth prospects and thus the risk perception of the countries of the Central and Eastern European region, including Hungary.** At the same time, the decrease in the risks relating to the euro-area periphery debt crisis may also have had a favourable impact on the market tendencies.

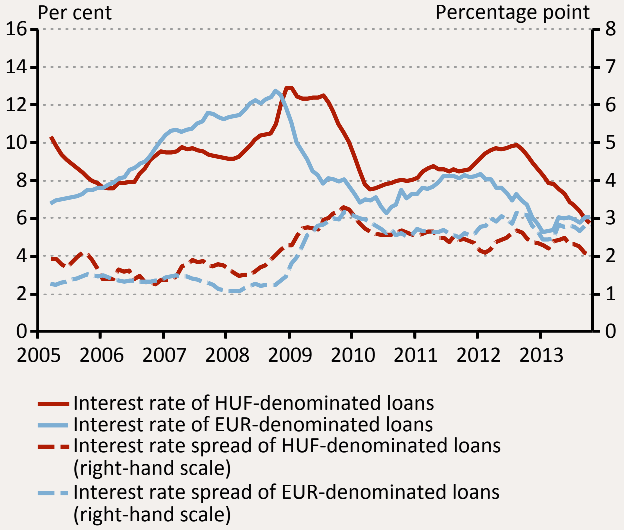
Chart 4-9
Relationship between the depreciation of emerging market currencies versus USD between January and September 2013 and their current account balances in 2013 Q1



4.2 Credit conditions of the financial intermediary system

In 2013 Q3, corporate lending conditions eased. Interest expenses fell by a substantial degree, partly due to the favourable credit conditions available under the Funding for Growth Scheme and to the central bank's policy rate cuts. According to respondents to the Lending Survey,[12] non-price conditions eased somewhat overall during the quarter, but most banks reported unchanged credit standards for the previous three months. In the household segment, conditions for unsecured loans continued to ease, whereas those of secured loans remained practically unchanged. The APR declined in all lending segments, but interest spreads on housing loans remain high, in excess of 5 percent. As a result of lower benchmark yields and unchanged inflation expectations, the 1-year real interest rate decreased and continues to be at a historic low.

Chart 4-10
Changes in commercial lending rates and spreads by denomination



Note: Three-month moving average of monthly interest data. Spreads represent the three-month moving average of the premia over the 3-month EURIBOR and BUBOR interest.
Source: MNB.

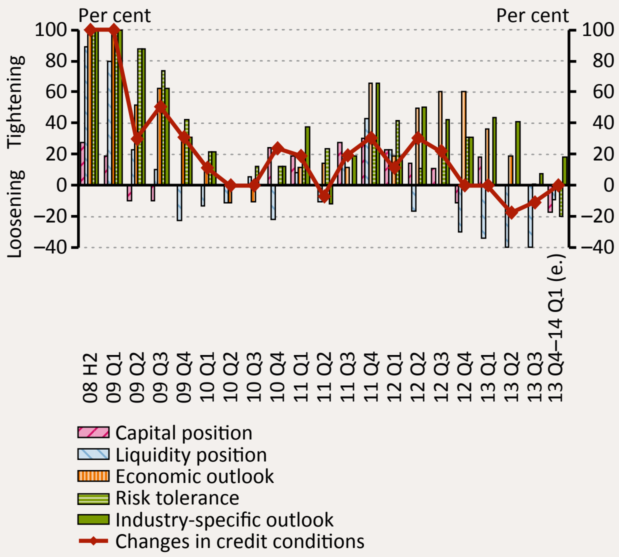
4.2.1 CORPORATE CREDIT CONDITIONS

Based on contracts realised, corporate lending rates – on a three-month average – were at 5.7 percent in October, down from 6.7 percent at the end of July. Accordingly, the decline in interest rates was not only in line with, it actually exceeded the amount of base rate cuts. This managed to bring the spread down as well, from 2.3 percent in July to 2 percent. **Lending rates for SMEs were declined further with the launch of the Funding for Growth Scheme,** under which the majority of firms in this segment are entitled to financing at a rate of 2.5 percent. Meanwhile, interest rates and spreads on EUR-denominated loans remained practically unchanged, at 3 and 2.8 percent, respectively, in October.

The Lending Survey revealed that corporate credit conditions eased somewhat in 2013 Q3; nevertheless, most banks reported unchanged credit standards for the period. Most respondent banks indicated liquidity positions pointing towards easing. At the same time, only a limited number of banks continued to cite economic prospects and industry-specific obstacles as factors justifying tightening. Looking ahead, on the whole banks expect conditions to remain unchanged over the next six months. **Despite the easing that has occurred in the past two quarters, corporate credit conditions are still tight, and only enterprises identified as the lowest-risk clients have access to financing.**

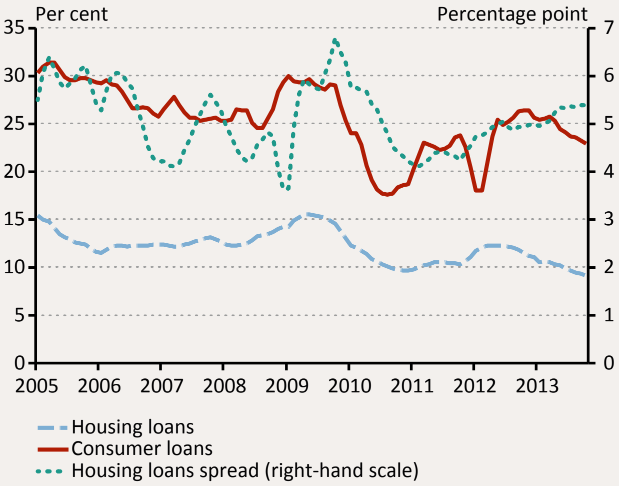
[12] For a detailed analysis of the findings of the Lending Survey, refer to the MNB's latest 'Trends in Lending' publication, available at: http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Kiadvanyok/trends-in-lending/Hitelezesi_folyamatok_2013_nov_ENG_final.pdf.

Chart 4-11
Changes in credit conditions and factors contributing to changes in the corporate segment



Note: Net percentage balance of banks reporting tightening and easing, weighted by market share.
Source: MNB Lending Survey, based on the responses by banks

Chart 4-12
APR on HUF-denominated housing and consumer loans



Note: Interest rates are smoothed with a three-month moving average. Prior to 2009, HUF-denominated housing loans played a marginal role. Spreads are smoothed with a three-month moving average.
Source: MNB.

4.2.2 HOUSEHOLD CREDIT CONDITIONS

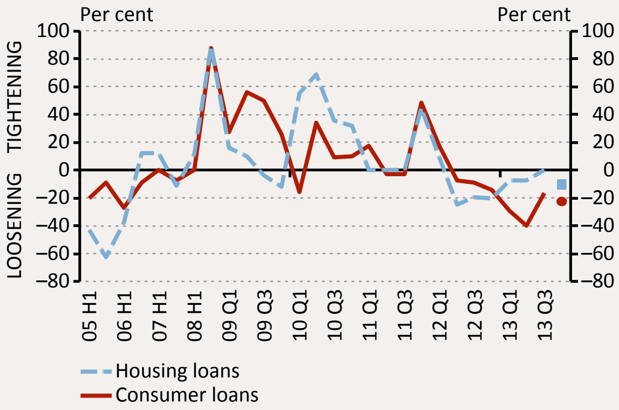
The APR on new housing loans fell by 0.6 percentage points between July and October to 9.1 per cent on a three-month average. The decline in lending rates was equivalent to that registered in the 3-month BUBOR, and thus the interest rate spread essentially remained unchanged, at 5.4 per cent. The state interest subsidy may further alleviate the cost of credit for customers, bringing APR down to around 6-7 per cent, i.e. over 2 per cent below the average market rate.

The APR on new consumer loans continued on its downward trend observed since April, falling by another 0.7 percentage points between July and October on a three-month average. The decline affected both home equity loans and unsecured consumer loans, with the APR on the latter falling from 26.8 to 26 per cent and from 12 to 11.3 per cent on the former.

The findings of the Lending Survey revealed that banks left conditions on secured loans unchanged in Q3, while a net 17 per cent of them reported[13] a loosening of conditions on unsecured consumer loans. Credit conditions are still tight: the LTV based on completed home loan transactions remained at just 55 per cent in the third quarter, and was coupled with an elevated interest rate premium of over 5 per cent. The LTV hovered above 60 per cent prior to prepayment, whereas the regulation allows the ratio to rise as high as 80 per cent.

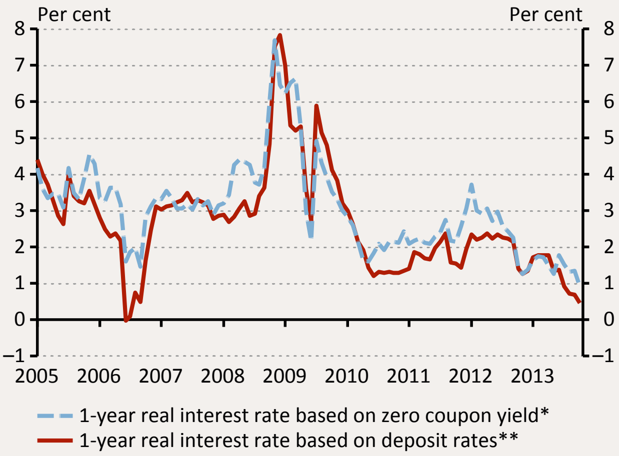
[13] Difference between the banks reporting tightening and easing, weighted by market share.

Chart 4-13
Changes in credit conditions in the household segment



Note: Difference between the banks reporting tightening and easing weighted by market shares.
Source: MNB Lending Survey, based on the responses given by banks.

Chart 4-14
Changes in forward-looking real interest rates



** Calculated from the 1-year zero coupon yield and MNB analysts' corresponding 1-year forward inflation expectations from the Reuters poll.*
*** Based on MNB analysts' 1-year forward inflation expectations using bank deposit rates with maturities of up to 1 year (corporate and household weighted) and the Reuters poll.*

4.2.3 CHANGES IN REAL INTEREST RATES

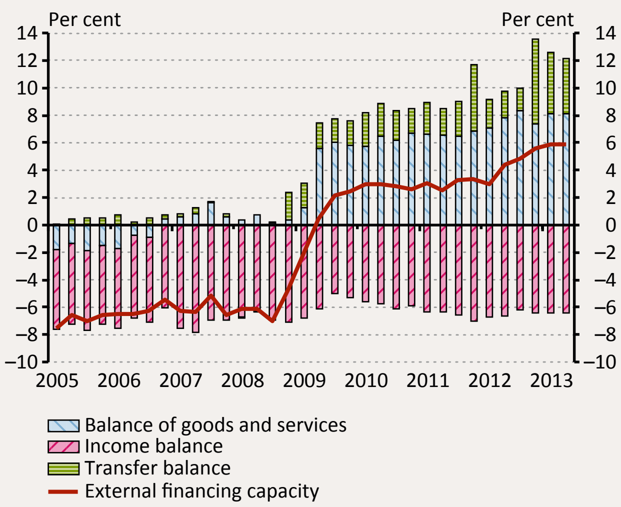
Between July and October 2013, one-year forward looking real interest rates fell based on both the 1-year government bond yield and the short-term deposit rates. The decline stems from falling yields on 1-year government bonds and deposit rates, while inflation expectations remained at the level prevailing over the past months. In October, the real interest rate was at a historic low based on both methods of calculation, standing at 0.9 per cent determined based on 1-year government bond yields and at 0.5 per cent based on short-term deposit rates.

5 The balance position of the economy

5.1 External balance and financing

Hungary's external financing capacity remained historically high in Q2 2013. The external balance surplus amounting to 6 per cent of GDP was sustained mostly due to the real economy balance, but the elevated transfer account balance also played a prominent role. At the same time, the structure of capital withdrawals changed; while in the past withdrawals were mainly tied to debt financing, there was now an outflow in non-debt creating financing as well, mainly in connection with a decline in reinvested earnings. The dynamic decline in net external debt continued – resulting primarily from the reduction of bank and corporate sector debt – and gross external debt resumed its downward trajectory.

Chart 5-1
Changes in external financing capacity
(seasonally adjusted values, as a percentage of GDP)



5.1.1 DEVELOPMENTS IN HUNGARY'S EXTERNAL BALANCE POSITION

Financing capacity viewed from the real side of the economy remained historically high in Q2 2013. Based on seasonally adjusted data, an external balance surplus amounting to 6 per cent of GDP emerged mostly due to a real economy balance that remained elevated, although the high transfer account also played a prominent role. Net exports of goods and services as a percentage of GDP stabilised at 8 per cent of GDP in Q2, which is also a historically high figure. The rise in exports exceeded the rise in imports, thanks in part to improving terms of trade. Q3 foreign trade data suggest that the value of net exports may have continued on its upward trajectory. The transfer balance surplus fell compared to the exceptionally high figures of the past two quarters, but remains at a high level.

The second quarter did not see any major shift in the income balance deficit, which dampened the economy's balance position by nearly the same amount as earlier. Nevertheless, there was some minor restructuring in the components of the balance. The delayed impact of declining net debt and the falling cost of financing is now manifested in the decreasing interest balance of debt financing, while incomes on shares increased.

Chart 5-2
Structure of external financing in Hungary
(GDP-proportionate transactions)

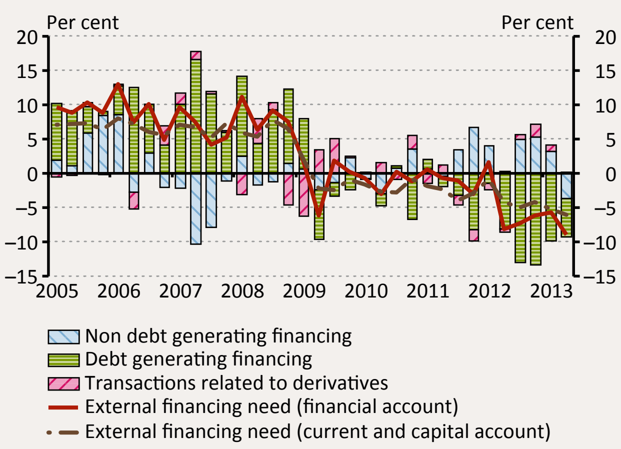


Chart 5-3
Developments in non-debt investments
(cumulative transactions)

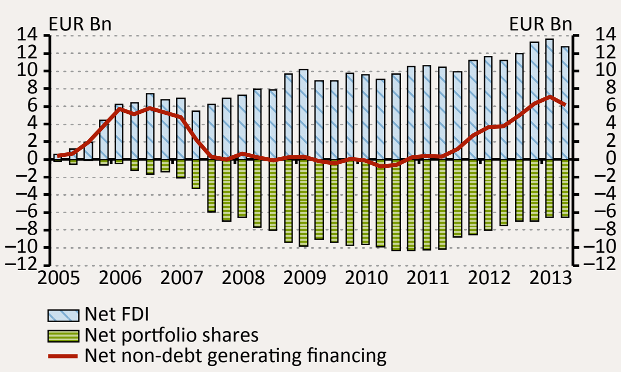
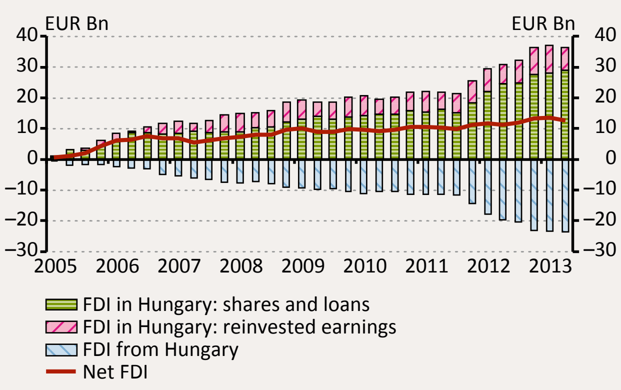


Chart 5-4
Developments in FDI components
(cumulative transactions)



5.1.2 DEVELOPMENTS IN FINANCING

The savings position based on financing data rose again in the second quarter and reached nearly 10 per cent of GDP, a historically elevated figure; once again it exceeded the financing capacity based on the real side of economy. At the same, the structure of withdrawals stemming from the savings position changed compared to the previous quarters; while in the past outflows were mainly tied to debt financing, they are now seen in non-debt creating financing as well.

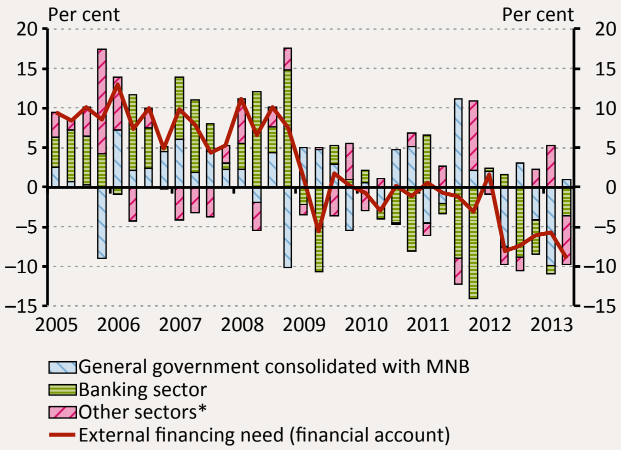
The inflow of non-debt financing which characterised past years reversed in the quarter under review. Direct capital investments (working capital) within non-debt financing were withdrawn from the economy in a nominal amount of almost EUR 1 billion. Within foreign direct investments, non-residents slightly increased their investments in shares; the outflow was linked to a fall in reinvested earnings.[14] As dividends are generally paid out in the second quarter, the decline in reinvested earnings mainly stems from seasonal effects, roughly equalling the degree observed during similar periods. In recent years, however, net inflow of portfolio investments linked to shares was generally positive during spring, and this failed to materialise this year thus did not offset the outflow of working capital.

In terms of developments in external financing by sector, **the fall in external liabilities during the period under review was tied to the private sector.** While the largest outflows affected the consolidated public sector and the banking sector in the previous quarters, Q2 saw a substantial outflow, alongside the banking sector, also among non-financial corporations, the latter being related to the withdrawal of working capital referred to above.

The dynamic decline in net external debt continued in the second quarter, and gross external debt resumed its downward trajectory. Net external debt fell below 40 percent of GDP, and now stands lower than at the onset of the US subprime mortgage crisis at the middle of 2007. Net consolidated external public debt essentially remained unchanged. For one, the repayment of sovereign debt was offset by the repayment of the required foreign currency from international reserves. In addition, the issuance of Premium Euro Hungarian Government Bonds (PEMÁK) and EU transfers fuelled an increase in foreign exchange reserves, and thus a decline in net external debt, which was offset, however, by a new peak in the volume of forint government securities held by non-residents. Net external debt within the banking and corporate sector declined further.

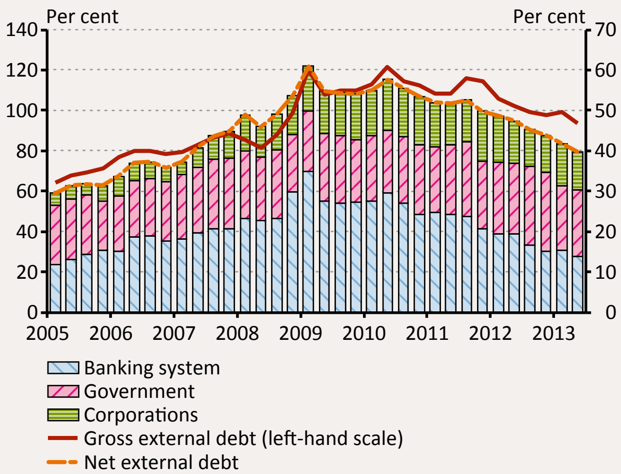
[14] Reinvested earnings are determined as the difference between net profits realised during the period under review and the dividends voted during that period. Given that dividends can be paid out from the profits of a different period also, reinvested earnings can take on a negative value as well.

Chart 5-5
External financing by sector
(GDP-proportionate transactions)



** Non-financial corporations, other financial corporations, households.*

Chart 5-6
Net external debt in a sectoral breakdown
(GDP-proportionate values)



Gross external debt fell more than net external debt. The gross external debt of the banking sector displayed the sharpest decline. The fall in gross external debt within the public sector in the third quarter was able to continue primarily through the pre-payments on IMF loans, albeit this has no impact on net external debt as prepayments were made from foreign exchange reserves.

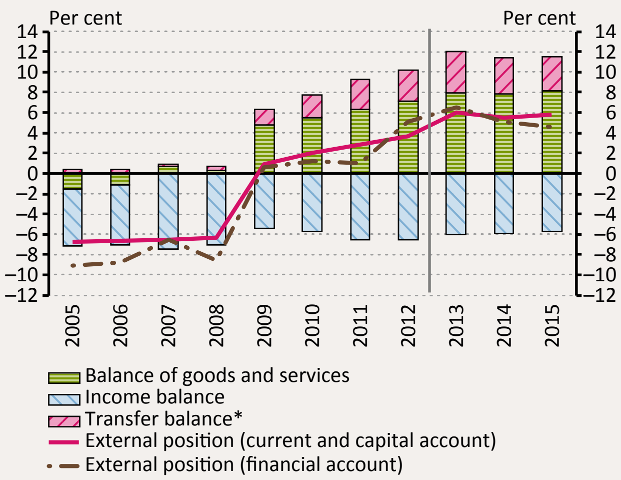
5.2 Forecast for Hungary's external balance position

The developments observed in 2013 H1 may continue during the second half of the year. The real economic and the transfer balance may remain at a high level, and the income balance deficit may also remain more or less unchanged. The level of the external financing capacity may remain high in the coming two years. Within this, the balance of goods and services may also stabilise at a high level. The transfer balance may decrease slightly owing to the new EU budget period, but may still be higher than in the previous years. This year's improvement in Hungary's external financing capacity may stem from the increase in net corporate sector savings, while these savings may contract next year due to increased investment activity. Net household savings may stabilise at a high level, while the general government financing requirement may remain low.

The developments observed in 2013 H1 may continue during the second half. The surplus in the real economic and the transfer balance may remain at the high level observed in the first half of the year. The income balance deficit may also be similar as during the first half of the year. **The net external financing requirement may amount to nearly 6 per cent of GDP in 2013, reflecting a substantial increase compared to the previous year.** In line with the developments observed in the first half of the year, the improvement may result primarily from the year-on-year increase in the foreign trade surplus which stems, along with the growth of exports exceeding that of imports, from the improving terms of trade. The transfer balance may also increase in comparison to the balance recorded in 2012, while the income balance deficit may fall slightly short of the figures of previous years.

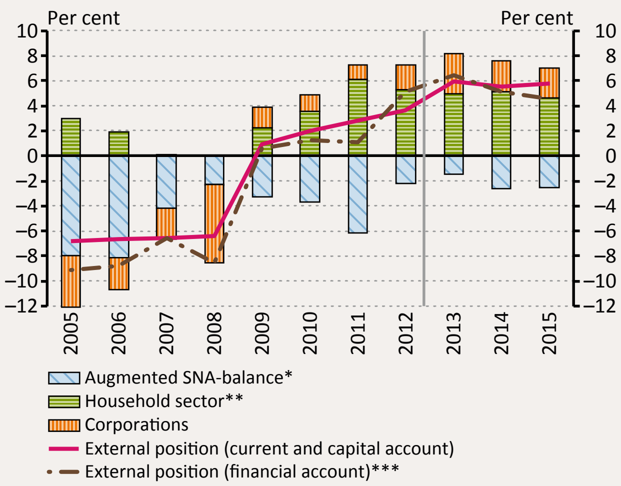
External financing capacity may remain high in the next two years. Within this indicator, the balance of goods and services may also stabilise at a high level. Although exports will continue to expand dynamically in 2014, imports also grow considerably in accordance with the import content of exports and the growth of investments. The contribution of net exports to economic growth may be around zero or slightly positive in the upcoming years, as a consequence of which the foreign trade surplus will not continue to grow considerably in comparison to this year's high level. The transfer balance may decrease only slightly next year and may remain high even thereafter, since the allocation of funds linked to the EU budget period ending in 2013 has accelerated and the earmarked sums may even be disbursed in the upcoming two years. In the coming years, the amount of transfers may continue to exceed the levels of earlier years.

hart 5-7
Changes in external financing capacity
(as a percentage of GDP)



** Amount of the balance of current transfers and the capital balance.*

Chart 5-8
Changes in the financing capacity of each sector
(as a percentage of GDP)



** The extended general government system includes, in addition to the central budget, municipal governments, ÁPV Zrt. and institutions performing quasi-fiscal tasks (MÁV, BKV) and the Magyar Nemzeti Bank. The augmented SNA indicator also includes savings in private pension funds.*
*** Households' net financing capacity consistent with the SNA indicator, exclusive of the pension savings of those opting to transfer. The official net financing capacity (as stated in the financial account) differs from the level presented in the chart.*
**** The difference between the real economic financing requirement and the amount calculated on the financing side is a result of the balance of errors and omissions which is considered to return to its historical level.*

As for developments in the various sectors, the improvement in external financing capacity this year is linked to the increase in net corporate sector savings. In addition to the expected improvement in the profitability of corporations, rising EU transfers are improving the financing capacity as well, while corporate investments are still only expected to increase slightly this year. Savings in the sector may decrease in 2014 since corporate investments may increase materially, partly as a result of the continuation of the Funding for Growth Scheme. Along with continued growth in investment, corporate savings may remain high in 2015.

Net household savings may stabilise at a high level similar to that of last year. Despite the rise in real incomes during the next two years, household consumption is expected to expand only modestly. The higher rate of unemployment compared to the pre-crisis period and the loan repayment burdens as well as the tight lending conditions result in sustained prudent consumer behaviour. Household investments are also expected to recover slowly.

The financing requirement of the extended general government may remain low thanks to the disciplined fiscal policy and, similarly to the accrual-based deficit, may remain below 3 per cent of GDP over the forecast horizon.

5.3 Fiscal developments

According to our forecast, the ESA deficit will remain below 3 per cent of GDP over the entire forecast horizon. The underlying revenue side developments in the past months were more favourable than expected, improving our balance expectations by 0.4 per cent of GDP both in 2013 and 2014. However, the impact of this improvement will be offset by new information and measures affecting the expenditure side in 2013, while the balance effects of expected shifts in expenditures will cancel out each other in 2014. As a result, our projection for the 2013 ESA deficit remained practically unchanged, while our deficit expectation for 2014 is reduced by 0.4 per cent of GDP compared to the forecast in the September issue of the Quarterly Report on Inflation. For 2015 we have prepared a rule-based projection, which takes into account the future effect of currently known measures. Gross government debt at constant foreign-exchange rate declines steadily over the forecast horizon.

5.3.1 CHANGES IN GENERAL GOVERNMENT BALANCE INDICATORS

According to our forecast, the 2013 ESA deficit may amount to 2.6 per cent of GDP, and thus our projection has remained practically unchanged compared to the September issue of the Quarterly Report on Inflation. New information and measures in recent months affecting the expenditure side would raise the deficit by 0.4 per cent of GDP, but their effect is offset by better-than-expected underlying revenue side developments.

In the case of consumption-type tax revenues, the trend of gross VAT payments has been on the rise in recent months, which improved our revenue projection by 0.25 percent of GDP.[15] At the same time, in view of the latest figures, we

Table 5-1
General government balance indicators
(as a percentage of GDP)

	2013	2014	2015
ESA-deficit*	–2.6	–2.5	–2.9
Augmented (SNA) balance*	–2.8	–2.9	–2.9
Cyclical component (MNB)	–0.6	–0.2	–0.1
Cyclically-adjusted augmented (SNA) balance*	–2.2	–2.7	–2.7
Fiscal impulse**	0.8	0.3	0.1

** Complete cancellation of the available free reserves (National Protection Fund) was assumed upon the calculation of the balance indicators.*
*** Change in the augmented (SNA) primary balance.*

[15] In our VAT forecast we had previously assumed HUF 30 billion and HUF 60 billion in revenues for 2013 and 2014, respectively, owing to the improvement of tax collection efficiency. Actual data pertaining to recent months suggest that VAT revenues have increased in line with our technical assumptions in 2013. This effect was also incorporated into our projections for 2014, and therefore the expected revenue surplus for next year (and 2015) is only HUF 30 billion.

Table 5-2
Decomposition of the change in the 2013 ESA balance forecast

(compared to the September issue of the Quarterly Report on Inflation; as a percentage of GDP)

	Change
I. Revenues	**0.4**
Consumption-type tax revenues (VAT, excise duties)	0.2
Wage-related revenues (PIT, contributions)	0.3
Other tax revenues	−0.1
II. Expenditures	**−0.4**
Preventive and medical care (hospitals' extra funding)	−0.1
Lifting of the expenditure lockup of budgetary organisations	−0.1
Expenditure of budgetary organisations – EU co-financing	−0.1
MOL refund	−0.1
III. Other effects	**0.1**
Local governments	0.1
Other items	0.0
Total (I.+II.+III.)	**0.0**

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing items, respectively.

Table 5-3
Decomposition of the change in the 2014 ESA balance forecast

(compared to the September issue of the Quarterly Report on Inflation; as a percentage of GDP)

	Change
I. Revenues	**0.4**
VAT	0.1
Wage-related revenues (PIT, contributions)	0.4
Other tax revenues	−0.1
II. Other effects	**0.0**
Public employment expenditures	−0.1
Expenditure of budgetary organisations – EU co-financing	−0.1
Local governments	0.1
Other items	0.1
Total (I.+II.)	**0.4**

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing items, respectively.

adjusted slightly downwards our projection in respect of the revenue from excise duties levied on tobacco products. As regards wage-related revenues (PIT, contributions), we raised our projections by around 0.3 per cent of GDP, primarily due to wage bill index higher than earlier expected (see Chapter 1.3). By contrast, the deficit is increased by higher-than-expected medical and preventive care services and the partial lifting of the expenditure lockup of budgetary organisations announced in May. Compared to our September projections, further balance deterioration has resulted from the higher own contribution requirement associated with the higher-than-estimated EU disbursements and the fact that, in line with the ruling of the European Court of Justice, the unjustifiably imposed penalty paid by MOL in 2010 must be refunded from the budget.

In 2014, the ESA deficit of the general government may be 2.5 per cent of GDP assuming the complete cancellation of the available reserves included in the budget bill; thus a deficit below the 2.9 per cent government deficit target can be achieved. Compared to the September issue of the *Quarterly Report on Inflation,* our updated projections project a balance improvement of 0.4 percentage points which, for the most part, can be attributed to our increased expectations regarding revenues from wages (PIT, contributions). In the case of contribution revenues, we adjusted our projections upwards primarily because of the shift observed in the macroeconomic path and, to a lesser degree, because of the weaker-than-expected use of contribution allowances. The balance effects of shifts on the expenditure side compared to our September projections essentially cancel out each other. An increase in expenditures results from the fact that we adjusted upwards our estimate of public employment expenditures in line with government statements, primarily due to the expected increase in the number of those participating in the public work programme. In addition, the higher own contribution requirement associated with the higher-than-estimated EU disbursements deteriorates our balance expectation by 0.1 per cent of GDP. On the other hand, a lower expenditure level compared to our earlier forecast can be expected due to the fact, among other things, that we extended the positive impact of local governments' improved 2013 balance to 2014 as well.

We forecast a deficit level lower than the deficit target established in the 2014 budget bill for three main reasons. Firstly, as in the September issue of the *Quarterly Report on Inflation,* we assumed the cancellation of the National Protection Fund, an amount equal to 0.3 per cent of GDP; secondly, we expect a higher contribution revenue than the government (due to the 2013 basis and the wage bill

Chart 5-9
Expected change in the implicit interest rate on gross public debt

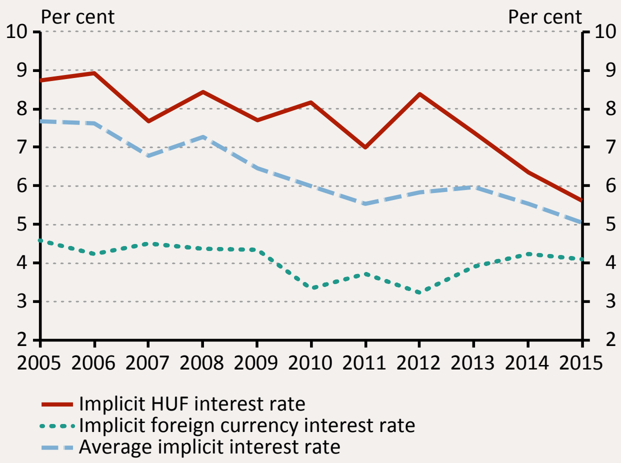
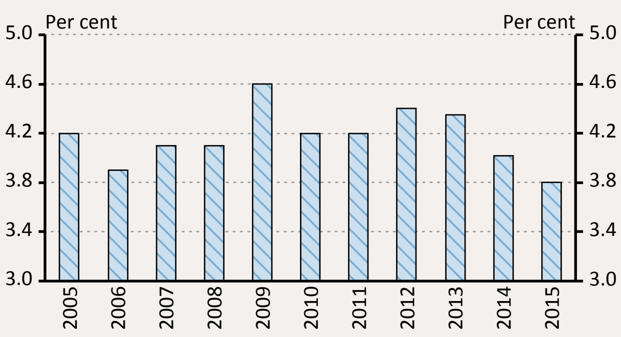


Chart 5-10
Expected change in accrual-based gross interest expenditures

(as a percentage of GDP)



expected for 2014); and thirdly, because we expect less recourse to the funds available from the EU, which assumes a lower own contribution requirement payable from the budget. As opposed to all of the above, we expect significantly lower VAT revenues than the budgeted figure despite the fact that our projections have been adjusted upwards based on actual data of recent months.

Our forecast for 2015, based on technical assumptions, indicates an ESA deficit of 2.9 per cent of GDP, which implies a deficit increase of 0.4 percentage points compared to the previous year. The bulk of the difference is due to revenues associated with the frequency tenders conducted in 2014, which are not repeated in 2015, while some of it can be attributed to the surge in the career model of teachers. At the same time, the observed decline in yields in 2012 and 2013 lowered the implicit interest rate on gross public debt, and thus the decreasing GDP-proportionate interest expenditures of the state in 2015 as compared to 2014 will reduce the GDP-proportionate deficit by 0.1 percentage point.

5.3.2 FISCAL DEMAND EFFECT

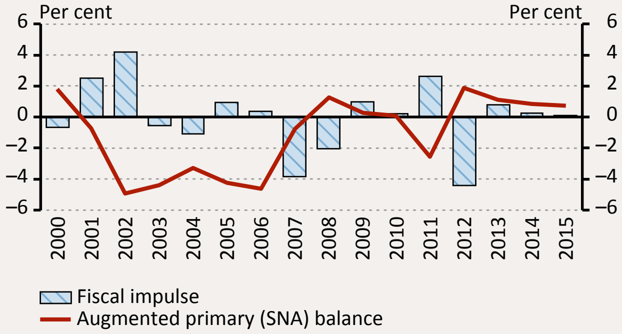
The demand effect generated by the budget, i.e. the *fiscal impact,* gauges the impact of fiscal measures, fiscal developments and the automatic stabilisers on the income position of the other sectors. Fiscal impact is measured by the change in the augmented (SNA) primary balance.[16]

Our impact indicator suggests that, following a significant demand restraint in 2012, fiscal policy points to an increase in aggregate demand in 2013. For 2013, our indicator measuring the fiscal demand effect indicates income growth corresponding to 0.8 per cent of GDP, with one half of the growth affecting households, and the other half occurring in the corporate and non-profit sectors. The rise in household income is mainly due to preferential social security contributions, development of the actual flat rate tax system and the increase in pensions in excess of the inflation rate.

In 2014, fiscal policy will implement yet another round of demand expansion corresponding to 0.3 per cent of GDP, mainly vis-à-vis households, primarily in relation to the teachers' career programme and the implementation of the demographic policy programme. In addition, compared to 2013, the deficit increases by 0.4 per cent of GDP in 2014 due to the fact that public investment expenditures and material

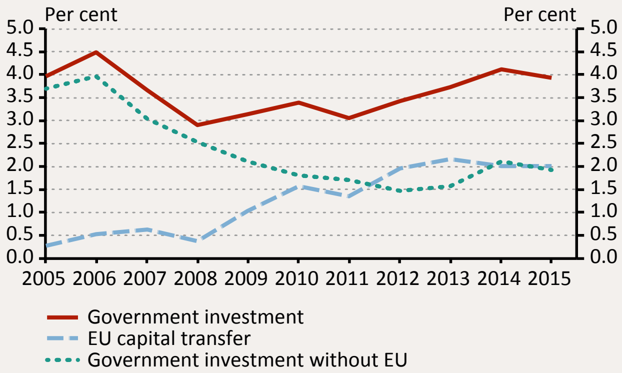
[16] Over and above the official ESA statistics, the augmented (SNA) balance takes into account fiscal expenses currently included in the accounting of state-owned companies (e.g. public transport) and makes other economic adjustments, thereby spreading out any capital income that affects a longer period of time (e.g. concessions).

Chart 5-11
Fiscal impact
(as a percentage of GDP)



Note: 1) The fiscal impact corresponds to the change in the augmented (SNA) primary balance. 2) The positive prefix indicates demand expansion, while the negative prefix implies demand restraint. 3) Assuming the cancellation of the available free reserves in 2013–2015.

Chart 5-12
Public sector investment
(as a percentage of GDP)



expenditures will remain unchanged, while the EU funds financing such expenditures will decline. However, the effect of this will be offset by the reversal of the easing carried out in 2013 vis-à-vis the corporate and non-profit sectors (e.g. operating transfers). **On the whole, both the fiscal impact and its structure may be neutral in 2015.**

The cyclical position of the economy may have a significant impact on the fiscal balance. We measure this effect by means of the *cyclical component* indicator. According to our estimate, in 2013, 2014 and 2015 tax revenues corresponding to 0.6, 0.2 and 0.1 per cent of GDP, respectively, could improve the balance of the public sector, provided that the economy converges to its potential level. Taking account of all these factors, we receive an indicator capturing the medium-term position achievable by the general government.[17] **If no further measures other than those incorporated into our forecast intervene in the fiscal path and the performance of the economy converges to its medium-term level, the deficit may approach a level close to 2.7 per cent of GDP over the medium term.**

5.3.3 RISKS SURROUNDING THE BASELINE SCENARIO

On the revenue side, risks surrounding our baseline scenario can be attributed to the inevitable uncertainties of the macroeconomic path, and on the expenditure side, risks are linked to certain items on the expenditure side. In 2013, depending on precise statistical classification, the accrual-based deficit may be increased by the budgetary contribution to be provided to the Savings Cooperatives Integration Unit. In addition, the deficit could reach higher levels than indicated in our projections for 2013 if the (now partially lifted) freezes on expenditures of budgetary organisations are not implemented as planned.

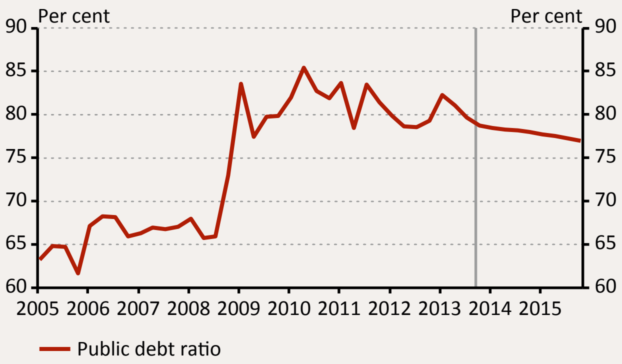
5.3.4 EXPECTED DEVELOPMENTS IN PUBLIC DEBT

Based on the MNB's preliminary financial accounts statistics, **the gross consolidated general government debt amounted to 79.7 per cent of GDP at the end of the third quarter of 2013.**[18] The decline compared to 2013 Q2 was mainly caused by the prepayment of the HUF 650 billion loan provided by the IMF, while the weakening of the forint exchange rate increased the debt ratio.

[17] Cyclically adjusted augmented (SNA) balance.

[18] The latest release of GDP-proportionate quarterly data of the preliminary financial accounts does not reflect the fact that the nominal GDP figure has been adjusted downward retrospectively by the Central Statistical Office.

Chart 5-13
Expected developments in public debt at constant
(end-2012 foreign-exchange rate)



According to our forecast calculated using end-2012 exchange rates, the gross government debt-to-GDP ratio may fall to 78.7 per cent by the end of 2013.[19] Due to the below 3 per cent deficit forecast for the coming years and the continued recovery in economic growth, the debt ratio is expected to **decline to 78 per cent by the end of 2014 and to 77 per cent by the end of 2015.**

In our baseline scenario we do not expect any further asset sales linked to the Pension Reform and Debt Reduction Fund. Fluctuations in the forint exchange rate, which have a significant impact on the debt-to-GDP ratio expressed in the current exchange rate, pose a risk to the debt path.

[19] Including the effects of the downward adjustment of the nominal GDP figure.

6 Special topics

6.1 Forecasting Hungary's medium-term external balance position

Developments in the external balance and external debt indicators are pivotal from the perspective of Hungary's financial vulnerability. Global financial market developments this year have highlighted the impact that external financing capacity can exert on the market perception (see Box 4-1) of the Hungarian economy. In our analysis, we seek to find out what factors contribute to the stable subsistence of the high external financing capacity.

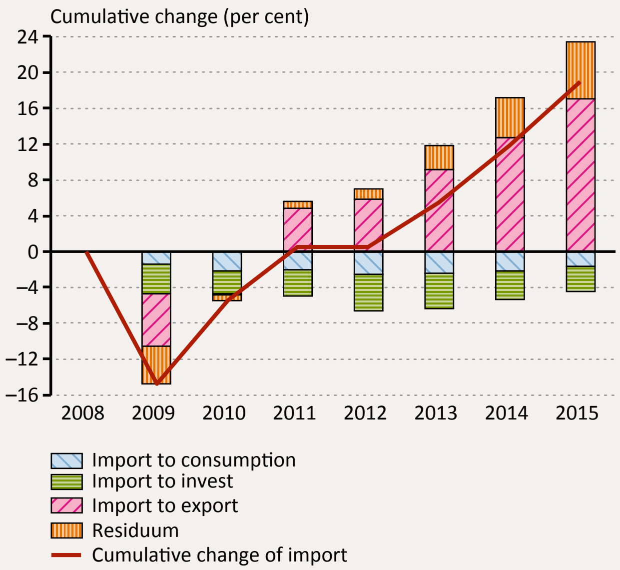
6.1.1 UNDERLYING FACTORS OF HUNGARY'S HIGH EXTERNAL FINANCING CAPACITY

In our forecast, we expect to see Hungary's external financing capacity remain high. The rise in domestic demand that emerged during the decades leading up to the crisis was generally coupled with a deteriorating external balance position. The question is whether the pick-up in domestic demand predicted in our forecast might once again result in deterioration in the external balance position. In the following, we examine our overview of the fundamental developments included in our forecast and the risks surrounding the expected developments in the external balance position. Contrarly in our forecast, we expect to see that the pick up of growth rate and the increasing domestic demand will not lead to the deterioration of the external balace position. This excpectation is explained by multi-processes in financing and in the real economy.

Our forecast projects a sustained surplus in the real economy balance. For one, the pick-up in external demand and Hungary's increased export market share are conducive to a rise in the export volume. In addition, despite higher demand for imports stemming from domestic demand, the major share of higher imports may be linked to the import demand of rising exports. Finally, the continuously improving terms of foreign trade since the recession also contribute to sustaining the external balance surplus. The sustained improvement in the terms of trade may stem from the declining electronics sector which has a falling price index, and on the other hand the stabilization of energy prices.

The substantial external financing capacity may also have improved the Hungarian economy's external balance position through the reduction of foreign debt. From the financing side, the current account balance surplus also means that Hungary has begun repaying its debt since the onset of the crisis. The elevated savings position expected in the coming years suggests the further unwinding of debt, which in turn could help push down risk premia. This could lower the interest paid by Hungary abroad, narrowing the expected income balance deficit in a sustained manner.

Chart 6-1
Contribution of absorption items to changes in import in our September forecast



Finally, the influx of EU transfers bolsters the high external financing capacity, which can contribute to a positive external balance position over the long term. The influx of EU transfers picked up from 2009, growing continuously from 3 per cent of GDP to reach approximately 4 per cent by 2012. Data on the new EU budget period shows that grants for Hungary will remain roughly the same, thus contributing to its external financing capacity to the same extent. In other words, the influx of EU transfers would enable a net external financing position 3-4 percentage points higher than before the crisis even if the other determinants of the current account balance reassumed their pre-crisis tendencies.

6.1.2 INTERNATIONAL EXPERIENCES

Experiences from international events show us that after notable current account corrections the external financing capacity can improve further on the medium term. Experiences[20] from past crises reveal that the drying up of formerly dynamic capital influxes triggered a rapid adjustment in the balance of payments, which was coupled with a strong decline in domestic demand. Following the adjustment period, the current account balance in the past crisis episodes may have again taken on a negative figure, but the deficit often falls short of the pre-crisis value. One possible explanation is that economic agents have drawn their lessons from the period leading up to the crisis: stricter fiscal and monetary policies and tighter supervisory regulations may have emerged, coupled with a sustained decline in households' propensity to borrow.

In recent years, Hungary's current account balance displayed a pattern similar to earlier crisis periods, but contrarly to the international experiences, the high external financing capacity's subsistence should be stable. In past experience Hungary's current account balance improved by 5-6 percentage points over the course of a year during crisis periods and sustained its current account balance surplus in the two years that followed. Hungary's deep initial indebtedness and the intensity of the global crisis in 2009 may have led to the relatively strong (7-percentage point) adjustment. In addition to this we noticed changes in the econiomic actor's behavioral patterns.

Chart 6-2
Average annual change in the terms of foreign trade for countries in the region before and after the crisis

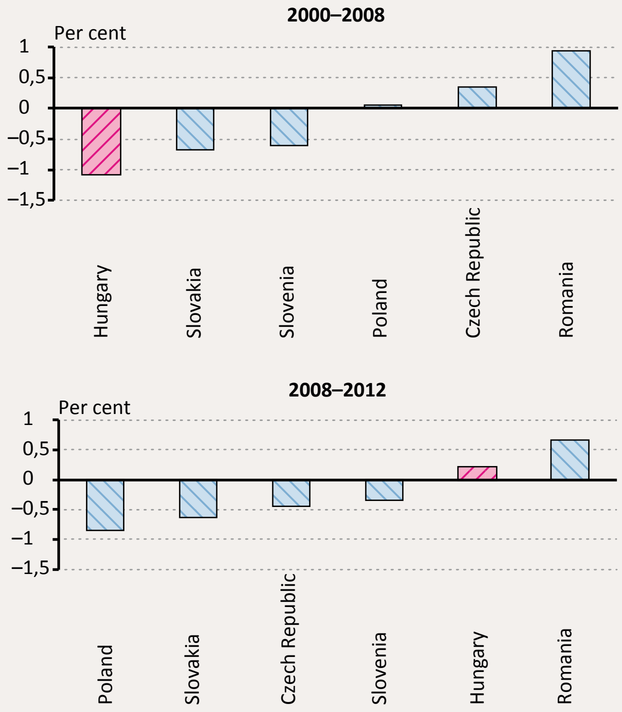
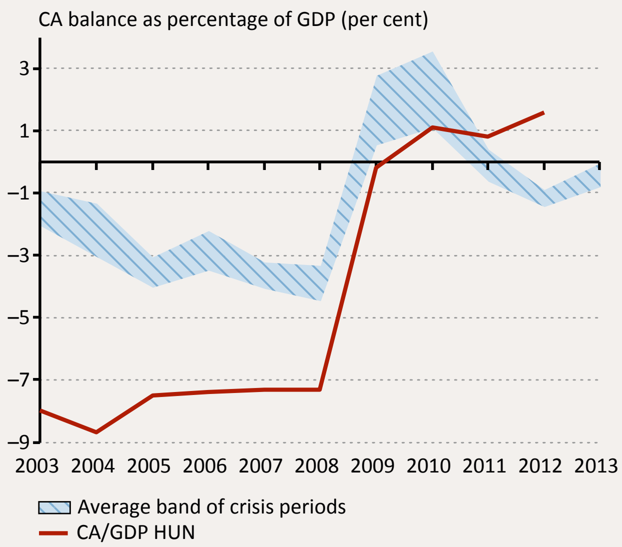


Chart 6-3
Current account balance during past crisis periods and in Hungary



[20] Laeven, L. and F. Valencia (2008), "Systemic Banking Crises: A New Database", *IMF Working Paper,* 08/224. The database identified 42 financial (debt, bank or foreign currency) crises in developed and developing countries during the 1970–2007 period.

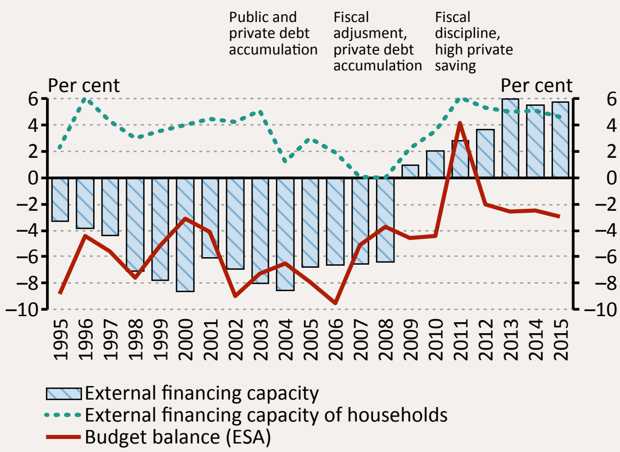
6.1.3 SUSTAINED IMPACTS BEHIND OF THE EXTERNAL FINANCING SUFFICIT

On the medium term, there are different processes by sectors behind the external financing position. Savings by the corporate sector should decrease naturally, but the government and the household sector's combined saving capacity may stay high.

Being the small, open and converging economy domestic savings could prove insufficient to fuel the investments that could serve as a springboard for real economic convergence. In these countries, part of the financing sources of investments derive from abroad. In the years of the crisis, the decreasing of investments contributed to the improvement of the external financing capacity. **In our forecast we expect a gradual pick up in investment activity, which eventuate the decreasing of savings by the corporate sector.**

Chart 6-4

External balance, public and private financing positions



However the behavioural patterns prevailing among economic agents before the crisis may have changed. So the high external financing capacity should subsist on the medium term. Partly the Hungarian government appears to be committed to a disciplined fiscal policy, as confirmed by the lifting of the excessive deficit procedure (EDP). The tighter European Union economic policy framework is also geared towards maintaining fiscal discipline. Therefore we doesn't expect that the twin deficit (combined deficit in the current account and in the government budget), that we saw before the crisis will repeat. **On the other hand households' financing capacity may also remain elevated.** Households may beware of dept accumulation for a long time because of the negative experiences of the over deleveraging in the pre-crisis period. In addition the higher level of unemployment compared to the pre-crisis levels, may encourage the precautionary savings. On the other hand household credit supply conditions remain tight and will be slow to ease up based on our forecast. Thus, demand and supply factors point to subdued household net borrowing, with households focusing instead on unwinding their existing debt.

6.2 What does survey evidence on inflation expectations reveal?

Inflation expectations contain valuable information for inflation targeting central banks. Inflation expectations are crucial not only for macroeconomic forecasts, but also for central bank credibility.[21] Expectations around the inflation target indicate the credibility of the target. Inflation expectations anchored to the target can contribute to a more effective and flexible monetary policy, as agents are more prone to believe that monetary policy is capable and willing to offset the inflationary effect of economic shocks, which fade out faster. Thus, anchored expectations allow monetary policy to disregard certain price level increasing shocks (such as indirect tax hikes) without jeopardising the medium-term inflation target, and demand shocks require smaller monetary policy reaction to achieve medium-term inflation targets.

Inflation expectations had remained elevated in Hungary in recent years, and **then a steady decline can be observed from the end of 2012. In our forecast, we expect that persistently below target inflation may interrupt the nominal inertia characterising the Hungarian economy, which stems from the sustained elevated price and wage expectations.** Lower inflation expectations could lead to lower price changes through price-setting and wage negotiation mechanisms in the future, thereby helping to sustain low inflation over the medium term.

6.2.1 DEVELOPMENTS IN HUNGARIAN INFLATION EXPECTATIONS

Our data on inflation expectations are derived from qualitative and quantitative question-based surveys. Various economic agents can provide different information. Professional forecasters are the most well-informed group, their information base being similar to the one used by central banks. Firms provide valuable information from the perspective of price-setting. Households can be considered as the least well-informed group, but their inflation expectations may significantly influence their consumption and savings decisions, and the outcome of wage negotiations. A study by Coibion and Gorodnichenko (2013) states that firms' inflation expectations are quite similar to those of households. Internationally, surveys of households and professional forecasters are common, as opposed to rarer surveys of firms. The relevant literature does not offer a clear conclusion as to which group's expectations are decisive, and certain expectations cannot be observed directly, therefore the concurrent monitoring of various expectations can allow robust conclusions to be drawn.

Analysis of expectations often focuses on their value compared to the inflation target. However, expectations, mainly household expectations, are biased and irrational, and the inflation perceived and expected by households often significantly exceeds the price changes actually measured. Thus, **instead of the level of expectations, the direction of change and their difference compared to their own historical values may provide more valuable information.** In the following sections, we review the developments in the expectations of the three main groups of economic agents over the past period.

Households

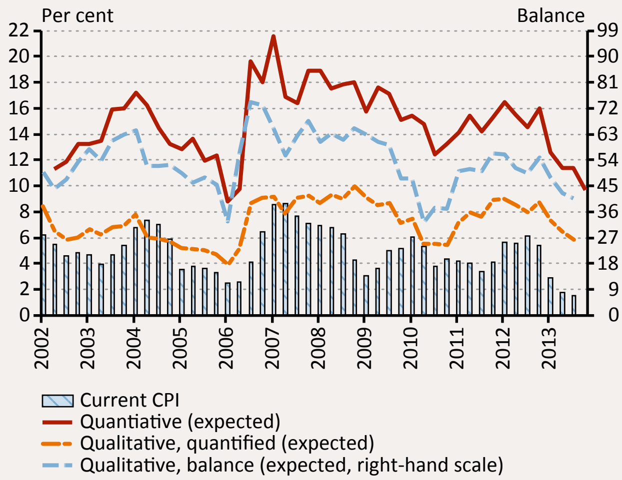
Interpreting households' inflation expectations is more difficult due to their heterogeneity: many of them have biased or incomplete information on macroeconomic processes. Households' expectations can influence the outcome of wage negotiations and consumption -savings decisions. If households expect high inflation, they will try to negotiate higher nominal wages which may finally cause an increase in prices. In addition, rising inflation expectations result in bringing

[21] In addition, their role in monetary policy is reflected by the fact that one of the knockouts of Bank of England forward guidance relates to expectations: if medium-term inflation expectations do not remain sufficiently anchored, the forward guidance will cease.

consumption forward which in turn exacerbates inflationary pressure through the demand channel. Finally, sustained high inflation expectations can lead to consumers becoming more tolerant of price increases, which, acts as a self-fulfilling prophecy resulting in inflation.

The literature reveals that households' expectations are an inaccurate predictor of inflation (irrational). One possible explanation could be that households form their expectations based on price changes observed in the past (backward looking inflation expectations) and often tend to attribute excessive importance to frequently purchased goods or considerable, transparent price changes. In addition, media coverage may also influence their expectations. The rise in the intensity of news reports could lead to more accurate expectations, but in some cases they may result in biased expectations (Lamla and Lein, 2008). Overall, **households' inflation expectations may diverge sharply and in a sustained manner from actual inflation, so it is recommended to compare them to their historical values instead of the inflation target. Instead of the level of expectations, the changes in such level may contain more valuable information on short-term inflationary pressure (Ranchhod, 2003).**

Chart 6-5
Households' inflation expectations and actual inflation



Note: The balance is the difference between the proportion of households expecting a price increase and expecting a price decrease.
Source: MNB calculation based on data from the European Commission, and the MNB.

The expectations of households are derived from quantitative and qualitative surveys. The former have the advantage of directly asking the numerical value of expected inflation in the future. Qualitative surveys focus on directions only and are thus easier to answer for households, while defining a quantified value requires various assumptions. Quantitative survey are more difficult to interpret because they tend to largely exceed the central bank's inflation target, which is not a purely Hungarian characteristic as shown by international examples (Ferucci et al., 2010). The answers of the qualitative survey can be quantified using the Carlson-Parkin procedure [see Gábriel, 2010 for Hungary]. Although the level of the expectations derived from the two types of survey differs, they show very similar change in dynamics.

From late 2012 households' inflation expectations gradually declined as actual inflation decreased, implying the backward looking nature of expectations. If inflation remains permanently below the target, expectations could contribute to the sustainability of a low inflation environment due to their backward looking nature.

We examined international results using Hungarian data based on simple correlations. Perceived and expected inflation co-move with the CPI, and households tend to focus more on certain goods, expectations showing a closer correlation with food and administered prices. The findings of Gábriel (2010) confirm the backward-looking nature of expectations. Based on the SVAR model framework, the impact of supply shocks on expectations exceeds the impact of demand shocks. Changes in energy and food prices are examples of supply shocks, triggering sensitive responses from households. Based on the foregoing, **a reduction in expectations can be supported by a restrained increase in the price of items which consumers tends to focus on, e.g. food, fuel and public utilities.**

Table 6-1
Correlation of expectations with inflation perception and actual inflation

	Inflation perception	Inflation expectations	CPI
Inflation perception	1	0.88	0.57
Inflation expectations	0.88	1	0.62
CPI	0.57	0.62	1

Note: Calculated between 2001 and 2013 Q3.

Professional forecasters

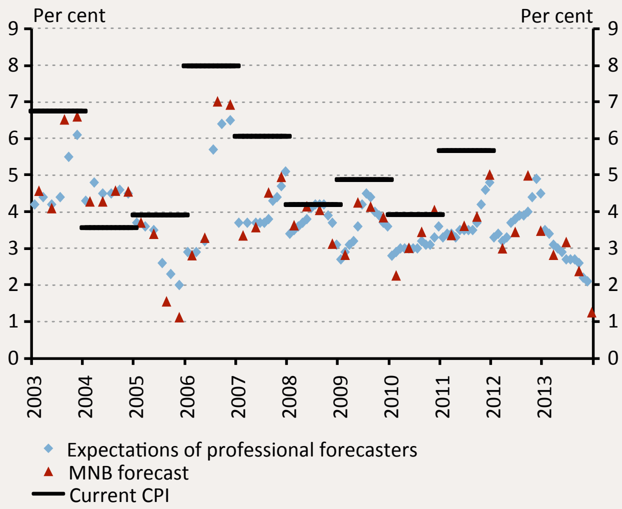
Professional forecasters have far more information than households and are able to use sophisticated models to form their expectations. Based on Hungarian data, the short-term expectations of analysts, which may influenced by inflationary shocks, are volatile. However, the long-term expectations hover around the inflation target. The long-term average of expectations for a two-year horizon is also around the 3 per cent target. **The level of long-term expectations close to the target, may indicate the credibility of the monetary policy.** As analysts can be considered as the most well-informed group, the question is what additional information they have compared to the central bank forecast. El-Shagi et al. (2012) analysed the relationship between analyst and central bank forecasts based on US data. Based on the results, central bank forecasts were more accurate than other analyst forecasts, but the difference has narrowed in recent years, presumably due to greater central bank transparency. **Analyst and central bank forecasts for the one-year horizon co-move in Hungary's case as well.**

Firms

Surveys of inflation expectations among firms are rare. **International experience shows that firms' expectations are less forward-looking.**

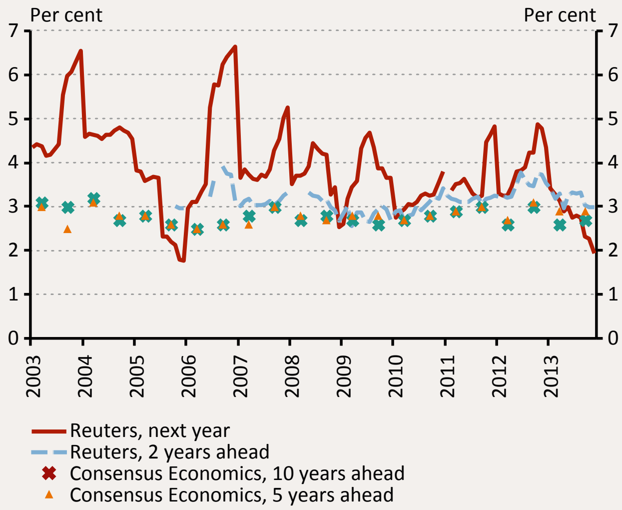
Short-term corporate expectations are available based on a survey coordinated by the European Commission (and compiled by GKI in Hungary) that we regularly take into account in our forecasts. These indicators reflect the price changes planned for the upcoming months rather than the expected inflation rate. These indicators thus mainly help assess the current state of the economy and the pass through of various shocks. **Price expectations in the retail sector co-move closely with short-term changes in actual inflation, while service sector expectations are linked to inflation among market services.**

Chart 6-6
One-year ahead inflation expectations of professional forecasters and central bank forecast in Hungary



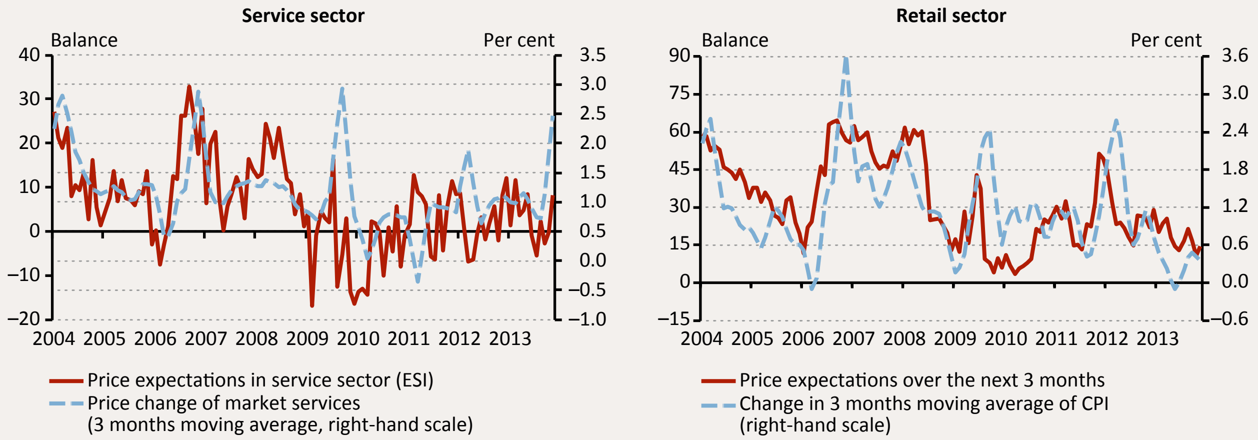
Source: Consensus Economics and MNB.

Chart 6-7
Developments in professional forecasters' expectations in Hungary



Source: Consensus Economics, Reuters.

Chart 6-8
Short-term inflation expectations



6.2.2 SUMMARY

The medium- and long-term expectations derived from surveys of professional forecasters in Hungary hover around the target, which may be indicative of a credible monetary policy. At the same time, households' inflation expectations for a one-year horizon followed the impact of one-off price level increasing shocks (such as tax hikes). **The past quarters have featured a substantial decline in expectations, in parallel with falling actual inflation. If inflation is sustained below the target value, falling expectations may help maintain price stability over the medium term.**

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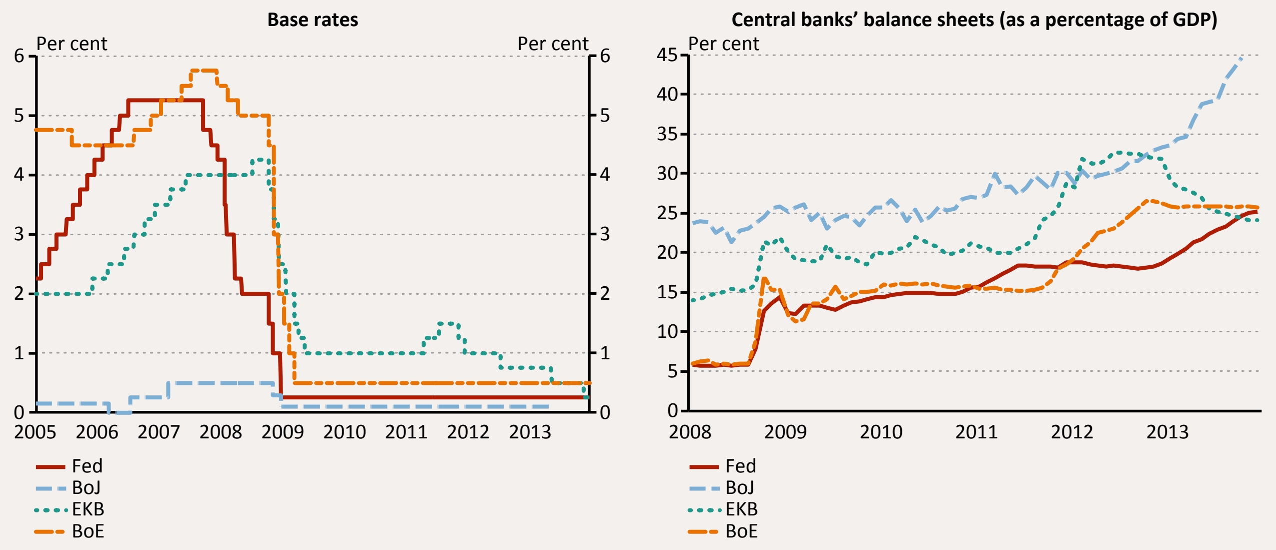
6.3 The age of low interest rates? Savings and investment in the developed economies

Even after five years, the crisis that developed gradually from 2007 and entered into an intensive phase from 2008 remains a heavy burden on the global economy. Slow growth that is significantly below its potential is typical in most countries and regions, while the leading central banks attempt to facilitate growth by applying an ever widening range of monetary policy instruments. According to the books on economics, a persistently low interest rate environment should be followed by an upswing in demand and/or a gradual increase in inflation. In view of the still fragile growth and the inflation rates that dropped below the central bank target, this mechanism has not materialised so far, while an increasing number of people ask the question: which factors can explain this period of slow recovery and low inflation despite an extremely loose monetary policy environment? We intend to respond to this question by analysing developments in savings and investment in the developed economies.

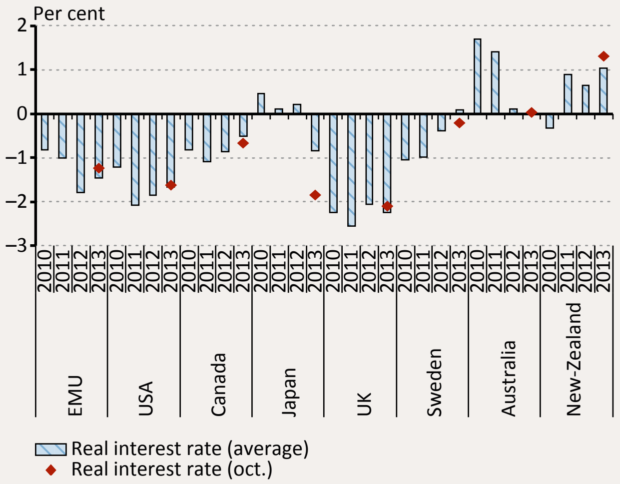
In response to the crisis, central banks reduced their interest rates quickly and consistently. Several larger central banks either reached the limits of this instrument already (Fed, BoE, BoJ) or approached it very closely (ECB). The key policy rates do not reflect the full extent of monetary easing, as central banks also applied unorthodox instruments. The significant differences between the central banks are in the application of these unorthodox instruments, which reflect the differences between the central banks' mandates and the structures of the financial system of individual countries. However, it is common in all countries that in the first phase of the crisis they stepped into the place of the nearly completely frozen interbank markets, thereby moderating banks' financing costs. After the stabilisation of the financial sector, which prevented banks from terminating the loans that they had previously granted to the agents of the real economy due to the scarcity of funds, the emphasis increasingly shifted to applying additional instruments for boosting banks' lending activity besides the lowering of base rates.

Chart 6-9
Monetary easing in the developed economies



As a result of the significant monetary easing performed by the larger central banks, real interest rates generally fell to the negative domain, and taking the current interest rate and inflation expectations into account, they may remain negative in years to come. Developments in real interest rates (the difference between nominal interest rate and inflation) play a special role in the impact mechanism of monetary policies. Basically, the value of this variable may modify the consumption and investment decisions of households. With lower real interest rates, the value of current consumption as opposed to future consumption will increase for households, thus they may decide to increase their current consumption level instead of saving money. Similarly, besides decreasing real interest rates, the recovery rate of investments will also improve, thus with the easing of lending conditions investment demand may also rise.

Chart 6-10
Real interest rates in developed economies



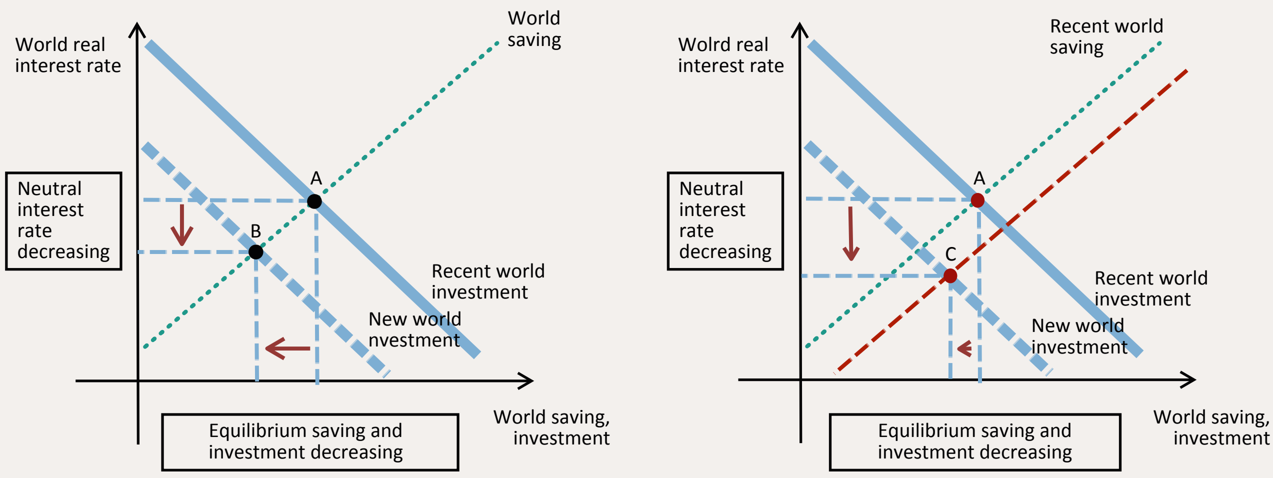
These expected impacts are less and less perceivable. While savers hardly realise any yield on their savings in many countries, their consumption rises moderately only. Households strive to reduce their accumulated debts and increased their current savings. In the meantime, corporate investments only grow moderately or don't grow at all. Meanwhile, lending to small and medium-sized enterprises is extremely restrained in most countries because banks consider investment risky due to the uncertainty about prospective growth in their markets. Therefore, loans are still expensive for them because of the high credit risk (e.g. ECB survey). However, even the companies themselves do not consider the creation of new capacities necessary until the growth of their markets renders it inevitable, and they are unwilling to assume the financial risks inherent in borrowing. In the meantime, with considerably large savings overall, international corporations do not rely on external funds. Their investment activity is rather subdued as well, and they often tend to be net savers rather than borrowers. Household sectors strive to reduce their accumulated debts and increased their current savings. Indebted states, in turn, attempt to return to sustainable debt levels and accordingly, they are also net savers.

All these elements point to a scenario where indebted economic units (households, governments, enterprises) would like to mitigate their debts with net savings, and there are not nearly as many economic agents who would be willing to accumulate even more debt in order to implement investment projects that could accelerate future growth.

How can this affect the economy-boosting impacts of monetary policy and thus, in general, monetary transmission? **The direction of monetary policy is not defined by the level of the aforementioned real interest rate in itself but by its deviation from the so-called neutral real interest rate level.** The neutral real interest rate is the interest rate level of the economy that can be considered the medium-term equilibrium level, which enables the inflation environment to develop according to the goals of the central bank, while the demand of the economy changes in line with supply capacities (i.e. the output gap is zero). The direction of the monetary policy can be interpreted in relation to this interest rate level: if the level of the current real interest rate is below (above) the equilibrium, the monetary policy is stimulatory (restrictive). The neutral real interest rate is a long-term concept but its level may change in time (similar to potential growth). It is mainly shaped by factors that determine economic development over the long term. Such factors may include demography, technological development or changes in saving preferences/propensity to invest. In a large, closed economy, the level of the equilibrium real interest is defined by the balance between savings and investment. For example, a permanent decrease in the propensity to invest may decrease the equilibrium real interest rate (we can get from A to B). In light of the developments in equilibrium real interest rates, we can get a more accurate view of the direction of the monetary policy and its effects on the real economy.

Savings and investment attitudes had gone through profound changes well before the crisis. Compared to the decades following the world war, there was a gradual turnaround in developed countries, although it did not take place in each individual country. For large companies, external financing played an ever decreasing role in financing; they can finance their investments from own funds (profits) to a greater extent. Indeed, they periodically became net savers and granted funds

Chart 6-11
Definition of the equilibrium real interest rate

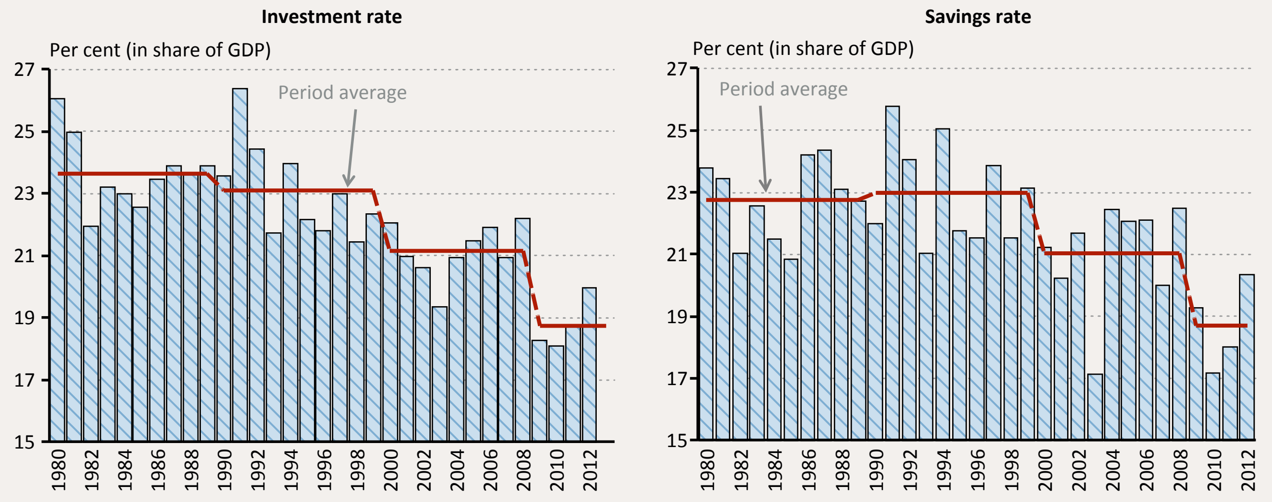


themselves, for example, to banks and other financial enterprises. The behaviour of the household sector was the opposite: after having been a net saver for decades, it gradually shifted toward borrowing, and by the 1990s it expressly became a net borrower. Parallel to this, the banking system could rely on the traditionally cheapest and most readily available household deposits less and less, and had to switch to the more liquid and therefore riskier and potentially more expensive funds available in the interbank markets. The financial sector found new markets among household customers in order to replace its diminishing clientele of large corporations. The household sector accumulated an ever increasing volume of debt compared to its income or financial savings, but its debt service did not increase in the context of continuously falling interest rates. The continuous decline in interest rates resulted from a decreasing level of inflation, a more stabile and balanced growth, and mild inflationary pressures imported from low-cost producers newly joining the world trade. The persistently stable environment increased the confidence of borrowers and banks alike, and encouraged them to take on further debts. However, these loans increased the economy's income generating capacities to a lesser extent: home constructions employ a large construction sector only until the homes are completed, but following the delivery this effect will taper off, while the debt service of households remains. During the period of an upswing, amid increasing prices the accelerated growth in demand can only be satisfied until the necessary capacities are built up, which fuels the price increase or home price bubble that is unsustainable over the long run. In the meantime, business investment dropped to historically low levels in developed countries where households are indebted despite the macroeconomic stability and low interest rates. Economic growth was driven by housing investment and household consumption financed from debts, but this driving force suddenly became more of a brake when it became apparent that further indebtedness is no longer an option.

After the outbreak of the crisis, interest rates increased dramatically for the indebted sectors because of the credit risks, while the value of homes serving as collateral and other assets depreciated. Suddenly, the household sector became a net saver, which decreased aggregate demand. Already indebted sectors and regions also became net savers, along with countries and regions with deficits (e.g. Southern Europe). The deceleration of the economy increased fiscal deficits through the automatic stabilisers and, in the context of higher interest rates, debt service suddenly multiplied in states with higher debt portfolios. Therefore, the governments passed new deficit-reducing measures, which further impeded the growth of demand; indeed, it led to recession in certain cases. In the absence of sectors or regions that increase net debts significantly, the balance sheet adjustment of those indebted will be more protracted, with growth decelerating or even stagnating.

On the whole, taking account of savings and investment developments in developed economies, besides the actual real interest rate, even the equilibrium real interest rate may have fallen to a permanently low level. The decline in the equilibrium real interest rate may have started in pre-crisis years with the falling propensity to invest, and this process may have accelerated further during the period of the crisis. This phenomenon may be attributed to several concurrently arising factors:

Chart 6-12
Investment and savings rate in G20 countries



- The companies' propensity to invest may have decreased substantially. On the one hand, the expansion of capacities is not justified in the context of uncertain and restrained demand prospects.

- On the other hand, banks' reduced risk appetite tightened the supply conditions of lending.

- Finally, according to certain theories, the pace of technological development may have decelerated during the past years, which reduces the number of investment projects promising a quick improvement in efficiency.

- After the rapid accumulation of debts preceding the crisis, indebted economic agents' (particularly the general government and households) propensity to save has increased in recent past years.

- Generally rising precautionary considerations during the period of the crisis may have singularly prompted an increased propensity to save.

- Demographic developments may have exerted an opposite impact on the propensity to save. Ageing societies in developed countries may decrease the amount of savings gradually.

Overall, besides the decline in the propensity to invest, propensity to save may have been shaped by opposite effects (depending on whether the propensity to save changed or not, on Chart 6-12 we could get from A either to B or C). In developed economies, in addition to the decline in actual real interest rates, the equilibrium real interest rates may have dropped significantly as well. Amid decreasing equilibrium real interest rates, the stimulating effect (the difference between the equilibrium and the current real interest rate) of the monetary policy may be more subdued, which can explain why the current process of recovery is more protracted than before. Central banks attempt to address this problem partly through a forward-looking communication strategy, which has been increasingly applied recently. The investment rate, which has been on a gradual decline for more than a decade, combined with demographic developments underpins the gradual deceleration of potential growth. Restrained potential growth and the decline in the equilibrium real interest rate may collectively explain the weaker economy-stimulating effects of the monetary policy and the slower recovery period.

What can facilitate the adjustment process?

The solution would require a permanent and significant decline in the income-to-debt ratio of indebted agents. International experiences show several potential examples for this.

- The partial write-off of debts could be the most direct solution. This effect was an important element in the solution of the Scandinavian crisis at the beginning of the nineties (Borio). The losses were borne by the banks; in many cases, bankruptcies and restructuring were required to keep them afloat. The write-off of debts may deteriorate confidence and internal demand in the short run. For this reason, it was important in the case of the Scandinavian countries that there was still growth in external markets, with the crisis only affecting some of the countries. It could push the upswing through the deadlock.

- Faster economic growth would also help to reduce debts to a sustainable level, but currently it is difficult for economic policy-makers to achieve this. At present, low interest rates do not provide sufficient incentives for of the acceleration of investment. If a sufficient number of companies were convinced of the necessity of investment at the same time, it could induce a self-justifying and self-reinforcing process. However, at this stage, there are scares signs of this and this is precisely what central banks wish to achieve with zero or close-to-zero base rates and other unorthodox instruments.

- Studies focusing on successful debt-reducing periods generally mention the role of the persistently easing interest rate policy of central banks. Lower interest rate levels may improve the debt repayment capacity of indebted economic agents, while also facilitating easier financing for new investment projects, which are required for the improvement of long-term growth.

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7 Technical annex: breakdown of the average consumer price index for 2013 and 2014

Table 7-1
Decomposition of the inflation to overlapping and incoming effect

	Effect on CPI in 2013			Effect on CPI in 2014		
	Overlapping effect	Incoming effect	Yearly index	Overlapping effect	Incoming effect	Yearly index
Administered prices	0.1	–0.8	–0.7	–1.0	0.1	–0.9
Market prices	0.4	0.9	1.3	0.1	1.6	1.7
Indirect taxes and government measures	0.3	0.9	1.2	0.6	–0.1	0.5
CPI	**0.7**	**1.0**	**1.7**	**–0.4**	**1.7**	**1.3**

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so called overlapping and incoming effects. The overlapping effect is the part of the yearly index, which can be explained by the preceding year's price changes (this value in 2014 is sensitive to the inflation data in December 2013), while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index; and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects).

Table 7-2
Detailed decomposition of our inflation forecast to overlapping and incoming effects

	2013					2014				
	Average overlapping effect	Overlapping indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index	Average overlapping effect	Overlapping indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	1.4	0.0	1.6	0.0	3.0	–1.4	0.0	3.4	0.0	1.9
non-processed	1.7	0.0	4.4	0.0	6.2	–4.8	0.0	6.3	0.0	1.1
processed	1.2	0.0	0.3	0.0	1.5	0.2	0.0	2.1	0.0	2.3
Traded goods	0.4	0.0	–0.1	0.0	0.4	0.6	0.0	0.7	0.0	1.3
durables	–0.9	0.0	–1.1	0.0	–1.9	–0.5	0.0	0.2	0.0	–0.3
non-durables	1.0	0.0	0.3	0.0	1.4	1.0	0.0	0.9	0.0	1.9
Market services	0.6	0.3	1.3	2.1	4.5	1.2	1.0	2.2	–0.8	3.6
Market energy	3.7	0.0	–1.4	0.0	2.3	–0.8	0.0	1.5	0.0	0.7
Alcohol and tobacco	1.9	1.9	1.4	5.4	10.8	0.2	4.1	2.2	1.4	8.1
Fuel	–4.4	0.0	2.6	0.0	–1.9	–1.4	0.0	3.8	0.0	2.4
Administered prices	0.6	0.1	–4.3	0.0	–3.7	–5.3	0.0	0.6	0.0	–4.8
Consumer price index	0.5	0.3	0.1	0.9	1.7	–0.9	0.6	1.7	–0.1	1.3
Core inflation	0.8	0.4	0.7	1.4	3.3	0.7	0.9	1.5	–0.1	3.0

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so called overlapping and incoming effects. The overlapping effect is the part of the yearly index, which can be explained by the preceding year's price changes (this value in 2014 is sensitive to the inflation data in December 2013), while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index; and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects).

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