

# GLOBAL ECONOMIC OUTLOOK – OCTOBER

Monetary and Statistics Department  
External Economic Relations Division

2013

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The October issue of Global Economic Outlook presents its regular overview of recent and expected developments in selected advanced and emerging economies, focusing on key economic variables such as GDP, inflation, leading indicators, interest rates, exchange rates and commodity prices. In this issue, we also focus on analysing unemployment in Europe in the “post-Lehman” period (see also the figure below). The analysis examines not only the traditional trends in unemployment (by age, gender and education), but also the relationship between unemployment and the income of economically active citizens.

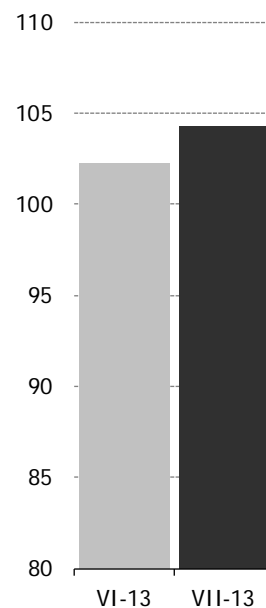
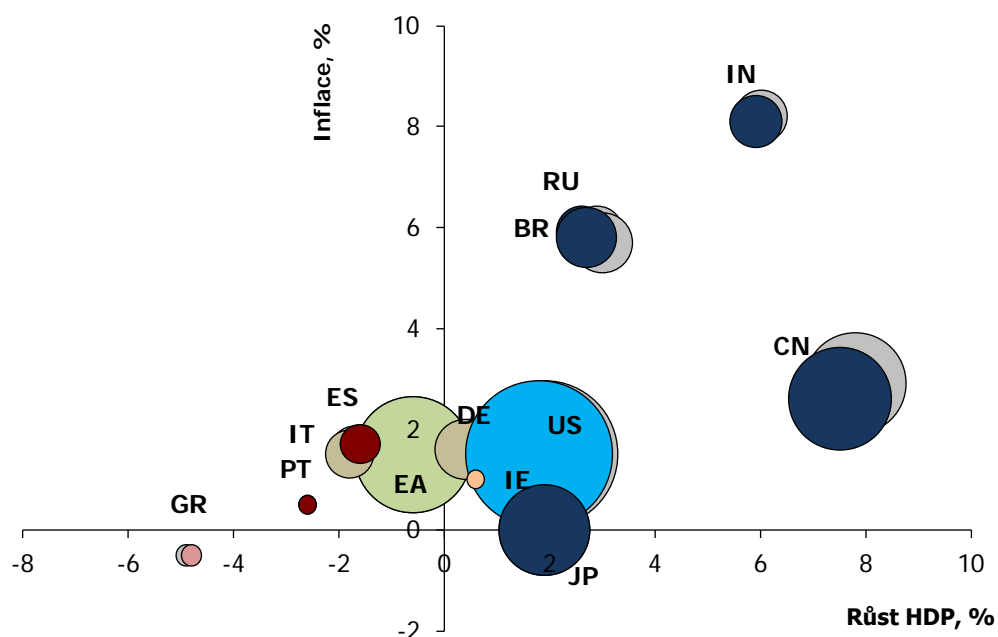
The updated growth outlooks for this year and the next have either improved slightly or stabilised in the advanced countries monitored, a fact confirmed by leading indicators. The only exception is a marginal downward revision of economic growth in the USA. Nevertheless, the outlooks for 2014 promise more visible economic growth, which in the advanced economies is expected to range from 1% in the euro area to around 2.5% in the USA. The lowered economic growth outlooks for the BRIC countries are showing the opposite trend, the exception being China, which should maintain growth of around 7.5%.

The inflation outlooks for advanced economies remain very low, except for a “desirable” inflation rate in Japan. Signs of a return to 2% are apparent for Germany – the strongest European economy. In the monitored emerging economies (except India) inflation is stable, broadly in line with the economic growth in these countries. The commodity markets are currently signalling no inflation risks either.

The interest rate outlooks for the USA and the euro area point to a gradual rise in rates across maturities. This rise should be more pronounced in 2015. The US dollar is expected to appreciate against the euro and other reserve currencies, as well as against the Brazilian and Russian currencies, over the one-year horizon. On the other hand, it is expected to depreciate moderately against the Indian currency over the same time scale. The outlooks for dollar prices of oil (despite their current increase) and natural gas remain gradually declining until the end of 2015. The outlooks for food commodities are stable overall, but mixed across the individual components. Industrial metals prices are expected to rise gradually over the same time frame.

Výhled globálního ekonomického vývoje v roce 2013

Výhled cen ropy Brent v prosinci 2013



Podíl příjmů z cestovního ruchu na HDP, %



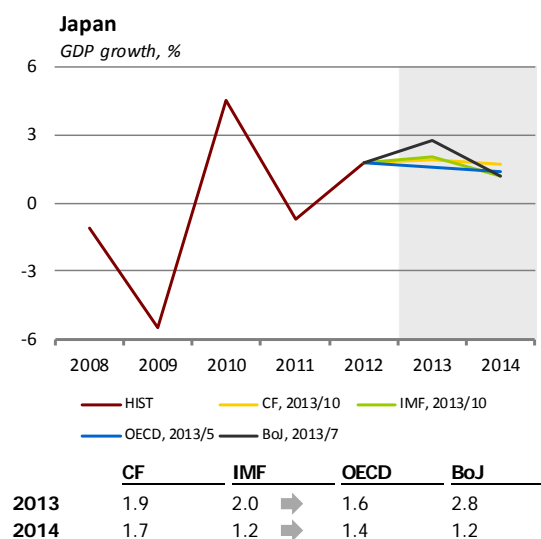
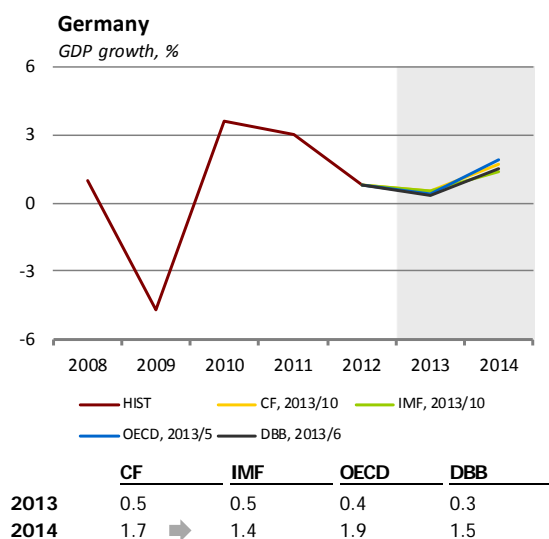
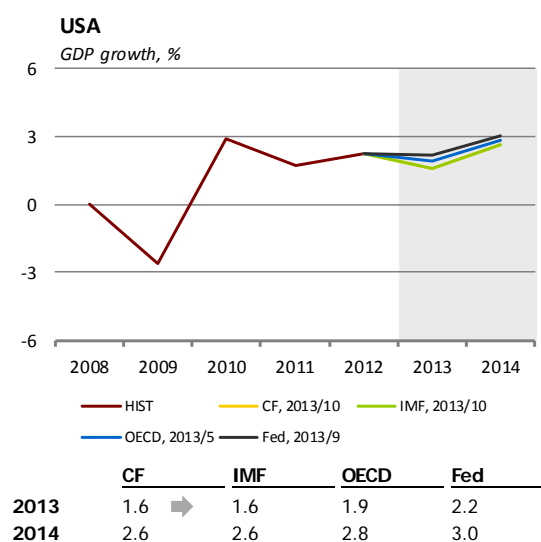
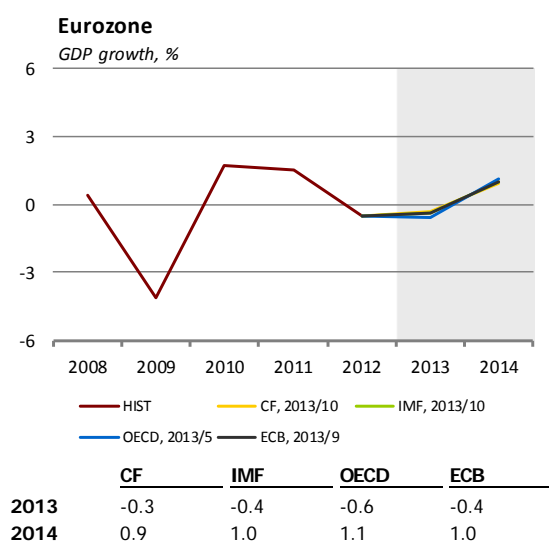
The size of each point represents the size of the country/region according to nominal GDP in US dollars in 2011. The colour of the points is assigned according to the unemployment rate expected in 2013. The grey colour is the CF forecast (GDP, inflation) or Bloomberg survey (oil price) for the previous month.

[Cut-off date for data: 17 October 2013]

Source: Bloomberg, Consensus Economics, EIU, CNB calculations.

### II.1 GDP outlook in advanced countries

The October World Economic Outlook (IMF) reduced its growth outlook for the global economy compared to the July forecast. The revision was due mainly to slowing growth in emerging economies and slow growth in advanced economies. The September preliminary OECD outlook also expects weaker growth in certain economies this year (due to limited data coverage this outlook is not included in the outlooks regularly monitored in GEO). The latest macroeconomic news from the euro area suggests a gradual recovery in the region's economy. This month, CF moderated its outlook for this year's contraction in euro area GDP to 0.3%. The IMF expects euro area GDP to decline by 0.4%. Economic activity will rise by 0.9–1.0% next year. The CF and IMF outlooks concur that Germany will grow by 0.5% this year. The region's largest economy is expected to grow by 1.4%–1.7% next year. The tense situation surrounding the negotiations on government finance and the debt ceiling increased the uncertainty regarding the US economy and its impact on the global economy going forward. However, the GDP outlook was revised downwards, mainly because of the current slow economic activity and the expected adverse impact of fiscal consolidation. According to CF, the Fed and the IMF, economic growth will be 1.6%–2.2% this year and 2.6%–3.0% next year. The Japanese economy is expected to grow by 1.7%–2.0% this year and slow to 1.2%–1.7% the next (CF and the IMF). Economic growth may be constrained by a sales tax hike in April 2014.



Note: Legend shows latest forecast data in format "Source, year/month" of forecast publication. HIST: historical values. ECB and Fed: midpoint of range. Arrow indicates direction of revision of newly published forecast. If no arrow is shown, no new forecast was available in previous month or by cut-off date in current month. Asterisk indicates first published forecast for given year.

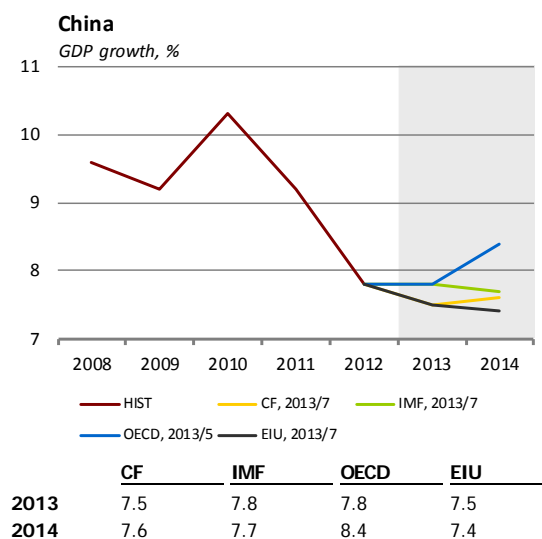
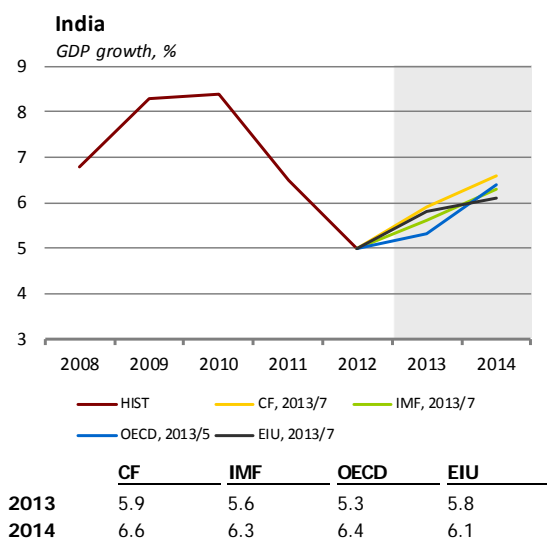
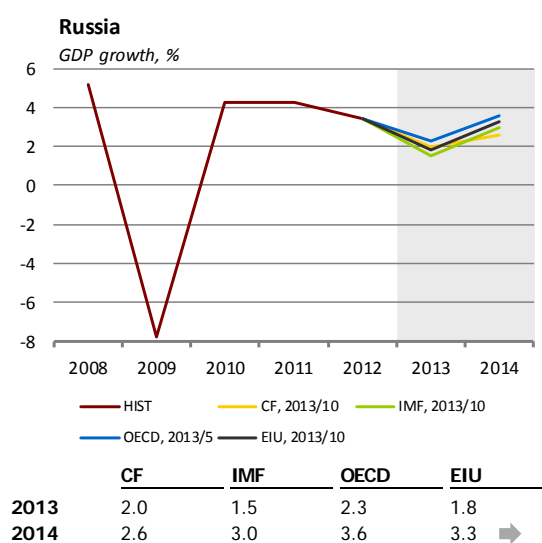
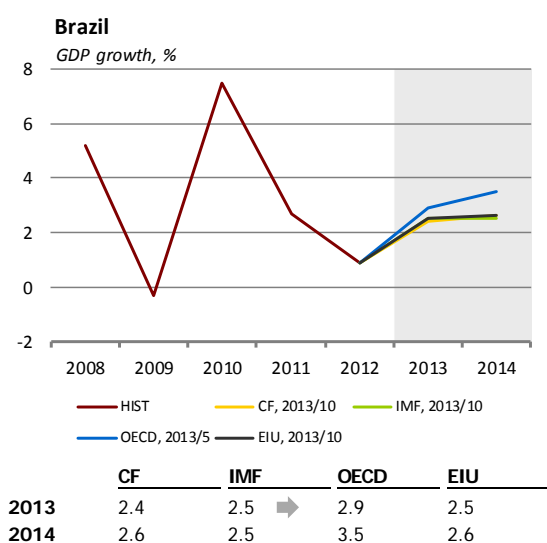
[Cut-off date for data: 17 October 2013]

Source: CF, IMF, OECD, ECB, Fed, DBB, BoJ, CNB calculations.

## II.2 GDP outlook in BRIC countries

According to the IMF's new WEO, the forecasts for real GDP in emerging countries in 2016 have gone down by 8%–14% over the last two years. Revisions to growth in China, Brazil and India account for three quarters of this decrease. The new IMF forecast revised growth most of all in India – by 1.8 pp this year and 1.2 pp for 2014. This reflects the fact that India is going through a financial crisis caused by a capital outflow linked with the expected tapering of quantitative easing in the USA. The forecast for Russia has also seen major changes, with Russian GDP expected to grow by only 1% this year (down by 1 pp from the previous forecast) and by 3% next year (down by 0.3 pp). This is in line with the estimates of the ministry of finance of the Russian Federation, which expects GDP growth of around zero in Q3 and weaker growth for the year as a whole. The estimate for output growth in Brazil next year worsened slightly, coming very near to the other monitored estimates at 2.5%.

China retains a special position among the BRIC countries. Prime Minister Li Keqiang stated that the authorities will take steps to fulfil the planned growth of 7.5% this year. According to new data, China grew by 7.8% in Q3, which implies growth of 7.7% in the first three months of this year, the worst figure in 23 years. At its congress in November, the Communist Party is expected to unveil new reform plans to reduce China's dependence on exports and boost domestic demand.



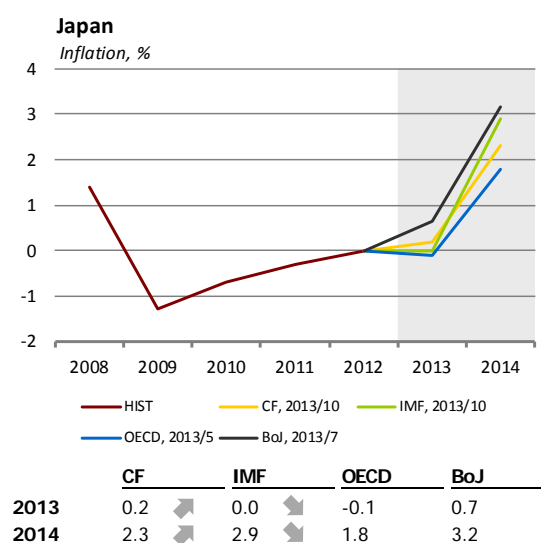
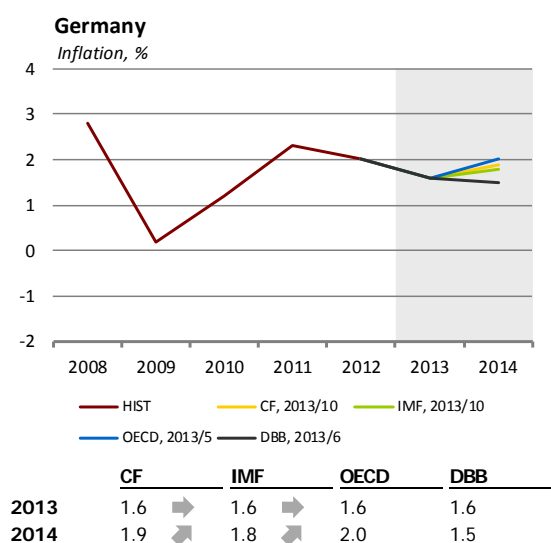
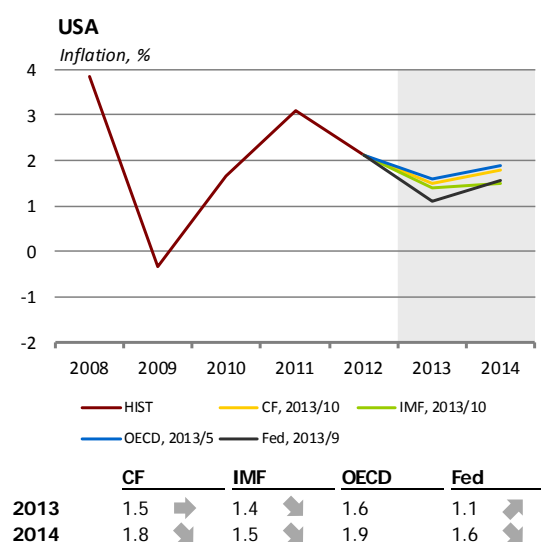
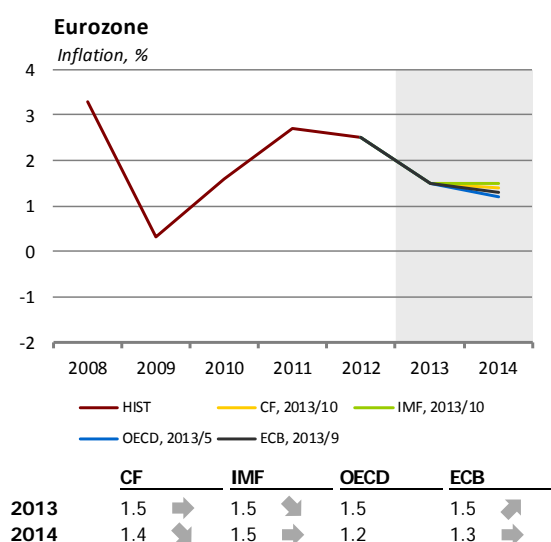
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[Cut-off date for data: 17 October 2013]

Source: CF, IMF, OECD, EIU, CNB calculations.

### II.3 Inflation outlook in advanced countries

Slow economic growth will continue to foster low inflation in the advanced countries under review. According to the new CF and IM outlooks, consumer price inflation will remain in the range of 1.5%–1.6% in the euro area, Germany and the USA this year. Although the Fed slightly increased its inflation outlook in the USA for this year, this outlook remains the lowest of all the forecasts under review for this country (1.1%). The new outlooks for Japan (CF and the IMF) predict that consumer prices this year will remain at the previous year’s level or increase slightly (by 0.2%). Inflation in the euro area next year will maintain the same pace as this year or slow slightly (1.4%–1.5%). In the other countries under review, inflation will pick up to 1.6%–1.9% (Germany and the USA) or 2.3%–2.9% (Japan).



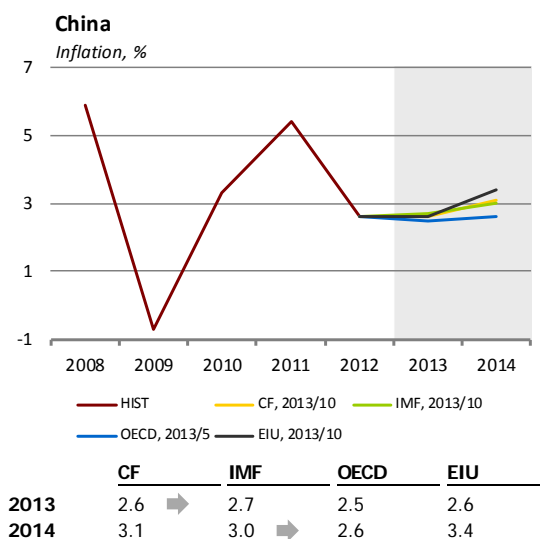
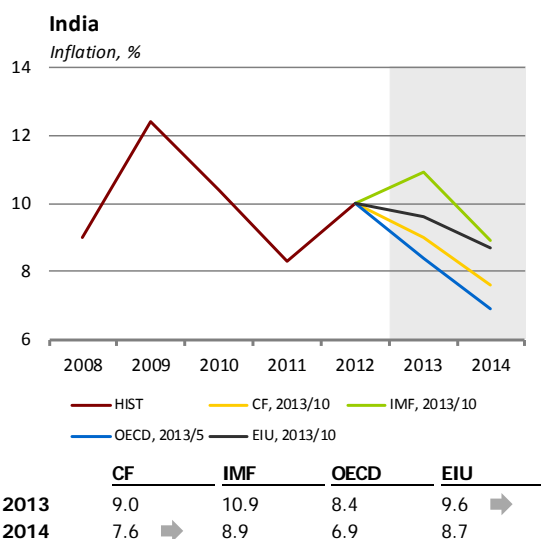
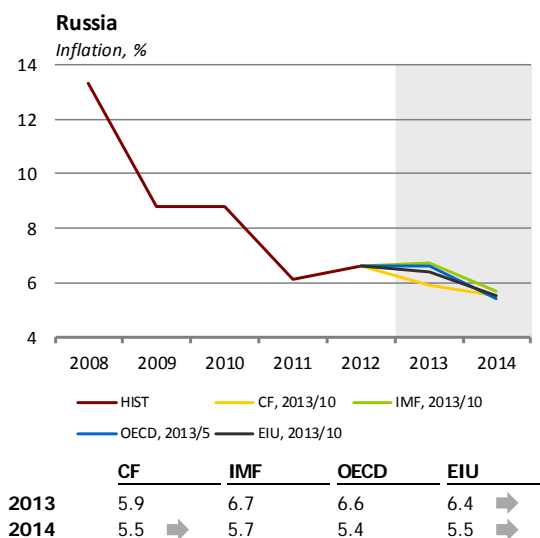
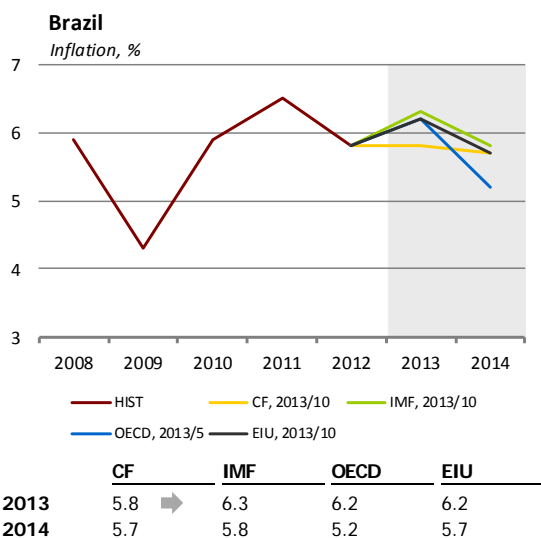
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[Cut-off date for data: 17 October 2013]

Source: CF, IMF, OECD, ECB, Fed, DBB, BoJ, CNB calculations.

### II.4 Inflation outlook in BRIC countries

Despite lower GDP growth forecasts in most of the countries under review, no major fall in inflation forecasts has been recorded since the start of the year. The situation is calming in Russia, which in September recorded its lowest rise in consumer prices in 13 months (6.1%, i.e. below the upper boundary of the tolerance band). According to a new IMF estimate, full-year inflation should be 6.7% (down by 2 pp from the previous forecast). Russia increased its inflation target for next year from 4.5% to 5% due to an expected rise in administered prices. Brazil, which has increased its interest rates by 175 bp since May, is also slowly succeeding in bringing down inflation, which is now below 6%. Nevertheless, the new IMF inflation forecasts were revised upwards, especially for next year. India has long been the least successful of the countries under review in combating inflation. Consumer prices in India rose by 9.8% in September, driven mainly by food prices, which went up by 11.1%. The IMF slightly increased its inflation forecast for this year and significantly reduced its forecast for next year (by 1.8 pp). Relatively stable and low inflation is being maintained in China, which should have no problem keeping consumer price inflation below its target of 3.5%, even next year.



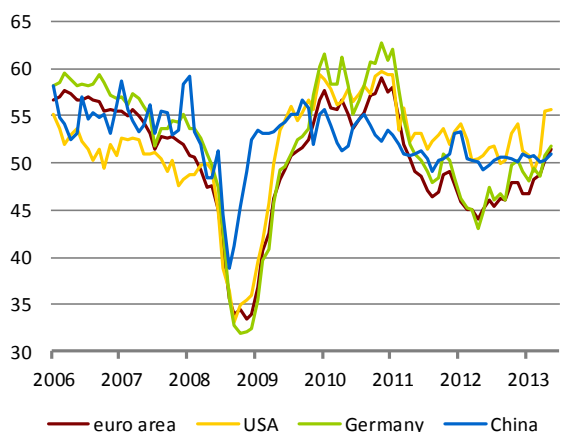
Note: Legend shows latest forecast data in format "Source, year/month" of forecast publication. HIST: historical values. Arrow indicates direction of revision of newly published forecast. If no arrow is shown, no new forecast was available in previous month or by cut-off date in current month. Asterisk indicates first published forecast for given year.

[Cut-off date for data: 17 October 2013]

Source: CF, IMF, OECD, EIU, CNB calculations.

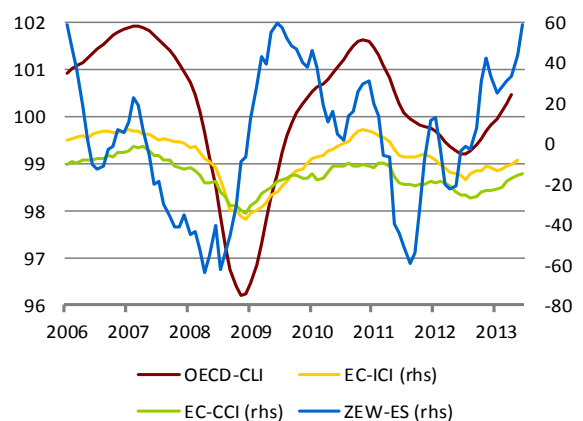
The global economic outlook remained broadly unchanged in the monitored countries and regions in September compared to the previous month. Based on leading indicators, the current pace of economic growth can be expected to be maintained or to pick up slightly in Q4 and early 2014, especially in the euro area. In the USA, the Purchasing Managers' Index (PMI) in industry rose slightly above 50 points (56.2 points), but consumer confidence fell further. In the euro area, the levels of all the leading indicators under review increased (apart from the PMI, which declined by 0.3 to 51.1 points), and we can expect economic growth to stay the same or rise slightly. The situation is similar in Germany, where, however, consumer confidence is falling and economic growth might be slightly lower than in 2013 Q2. The PMI in China remains flat above 50 points.

PMI in manufacturing



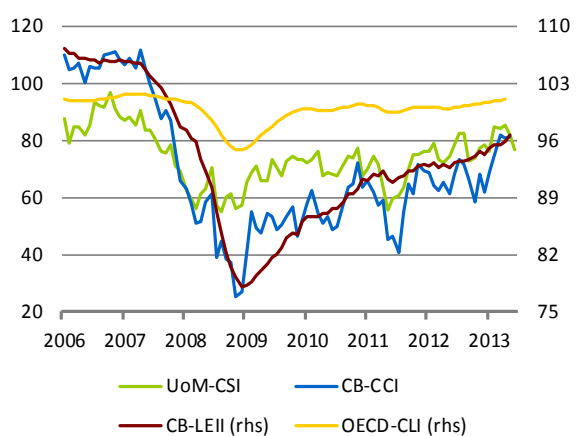
	EA	US	DE	CN
6/13	48.8	50.9	48.6	50.1
7/13	50.3	55.4	50.7	50.3
8/13	51.4	55.7	51.8	51.0

Euro area



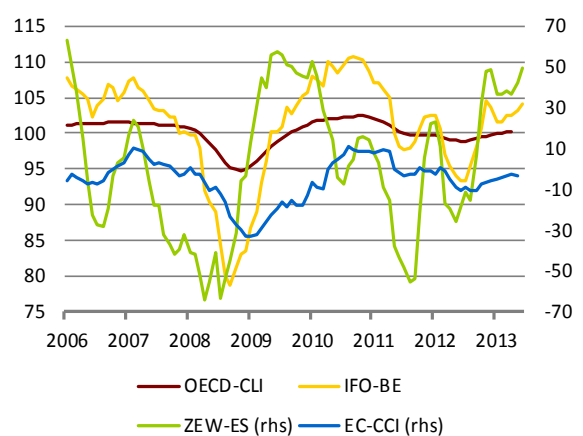
	OECD-CLI	EC-ICI	EC-CCI	ZEW-ES
6/13	100.3	-11.2	-18.8	30.6
7/13	100.4	-10.6	-17.4	32.80
8/13		-7.9	-15.6	44.00

USA



	CB-LEII	OECD-CLI	UoM-CSI	CB-CCI
6/13	95.4	100.9	84.1	82.1
7/13	95.9	101.0	85.1	81.0
8/13	96.6		82.1	81.5

Germany



	OECD-CLI	IFO-BE	ZEW-ES	EC-CCI
6/13	100.2	102.5	38.5	-3.2
7/13	100.3	102.4	36.3	-2.3
8/13		103.3	42.0	-3.4

Note: **PMI** = Purchasing Manager Index (50); **OECD-CLI** = OECD Composite Leading Indicator (100); **EC-ICI** = European Commission Industrial Confidence Indicator (0); **EC-CCI** = European Commission Consumer Confidence Indicator (0); **ZEW-ES** = ZEW Economic Sentiment (0); **CB-LEII** = Conference Board Leading Economic Indicator Index (2004 = 100); **UoM-CSI** = University of Michigan Consumer Sentiment Index (Dec 1966 = 100); **CB-CCI** = Conference Board Consumer Confidence Index (1985 = 100); **IFO-BE** = IFO Business Expectations (2005 = 100). Values in parentheses indicate the index threshold between expected economic expansion and decline or the period as of which the index was normalised. [Cut-off date for data: 17 October 2013]

Source: OECD, EC, IFO, Conference Board, University of Michigan, CNB calculations.

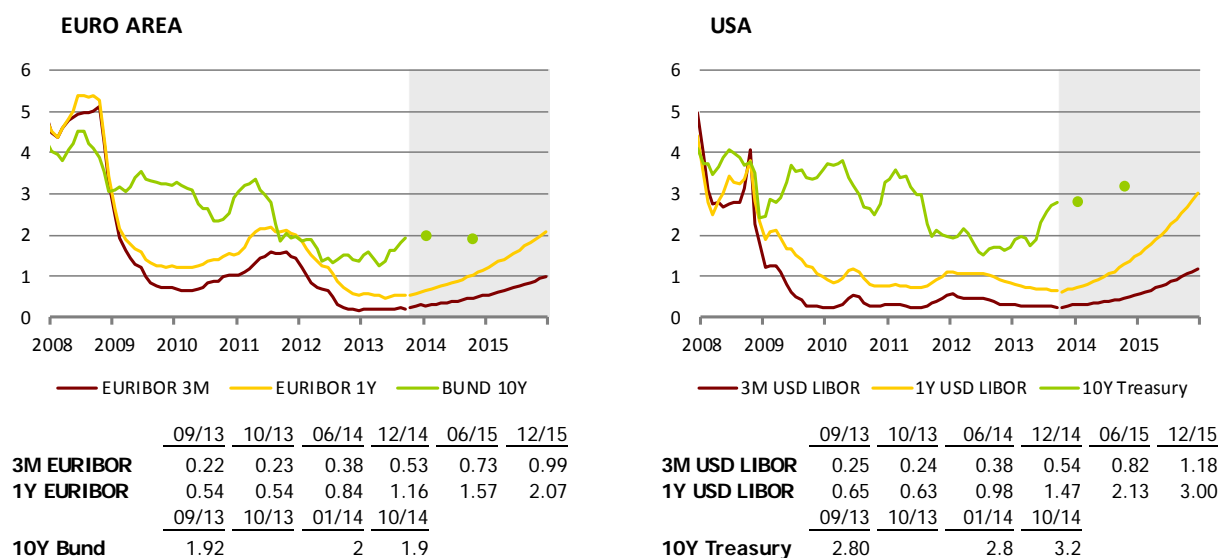


### IV.1 Interest rate outlook in the euro area and the USA

The flat trend in short-term euro interest rates continued during September. However, the outlook for rates up to the end of 2015 changed from the previous month. Rates are expected to rise much more slowly and the 1Y EURIBOR should exceed 2% only at the end of the period under review. The correction of expectations was due mainly the ECB President's statement that the bank is ready to use other instruments (including long-term refinancing operations) if rates threaten the fragile growth. Excess liquidity declined further to EUR 220 billion in September.

Given the future evolution of EURIBOR rates, we must mention the ECB's efforts to introduce new reference rates that better reflect market developments. These rates should reflect trades actually carried out and their full inclusion is limiting the generally small volume of trading on unsecured markets. The latter declined even further (by one-third) after the zero deposit rate was introduced in July.

LIBOR dollar rates have edged down at both maturities since the start of September, and the new outlooks were also revised downwards. The 3M LIBOR should be close to the euro rate with the same maturity until the end of 2015, while the expected increase in the 1Y LIBOR is almost 1 pp higher than that of the 1Y EURIBOR over the same horizon. CF10 increased its outlook for the yield on the ten-year German Bund over the entire horizon, while the ten-year Treasury was revised downwards by only 0.1 pp at the one-year horizon.



Note: Forecasts for EURIBOR and LIBOR rates are based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecasts for German and US government bond yields (10Y Bund and 10Y Treasury) are taken from CF. [Cut-off date for data: 14 October 2013]

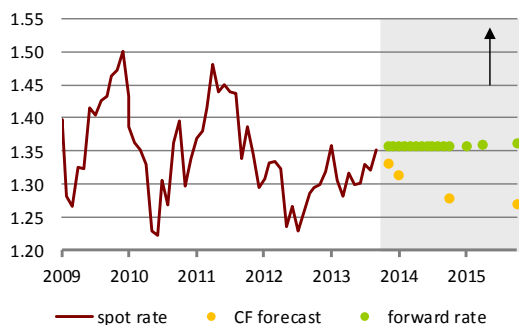
Source: Thomson Reuters (Datastream), Bloomberg, Consensus Forecasts, CNB calculations.

### IV.2 Outlook for selected exchange rates

The dollar has been weakening against major currencies since early September, but the new CF10 outlooks recorded no major changes. Contrary to expectations, the Fed left the size of the monetary stimulus unchanged, but may reassess its decision by the end of the year depending on the current situation. That situation, however, is indicating no significant recovery. Congress also failed to reach a consensus on the 2014 budget, and this led to a partial shutdown of public services. In the euro area, by contrast, political and economic sentiment improved and the dollar depreciated by more than 2.5% against the euro to USD 1.35 between the start of September and mid-October. The yen is being aided by the government's further steps to reduce public debt (higher taxes), while the pound is benefiting from an improved economic outlook. The Swiss franc has also firmed in recent weeks, but remains below the ceiling set by the central bank.

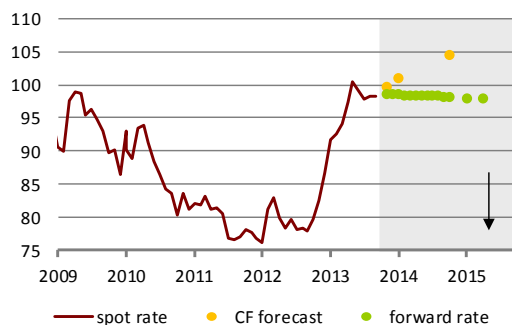
The developments in the USA also calmed the currency markets in the BRIC countries last month. This created more room for central banks' measures to combat inflation. The Indian central bank raised its key rate at the end of September and the Brazilian monetary authority took the same action in October. The Russian central bank even widened the fluctuation band of the rouble from 1% to 3.1% with the aim of gradually switching to a free float by 2015. The Chinese renminbi was broadly flat against the dollar from the end of August onwards, but appreciated further in early October. Moreover, the current developments suggest a possible widening of the RMB trading band, which was narrowed in response to liquidity problems in Chinese banks and short-term capital flows.

US\$ per Euro



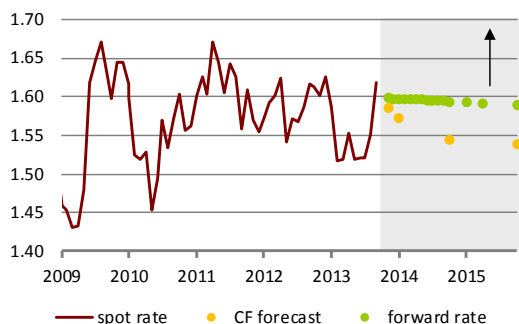
	14/10/13	11/13	01/14	10/14	10/15
spot rate	1.356				
CF forecast		1.331	1.314	1.279	1.269
forward rate		1.356	1.356	1.358	1.361

Yen per US\$



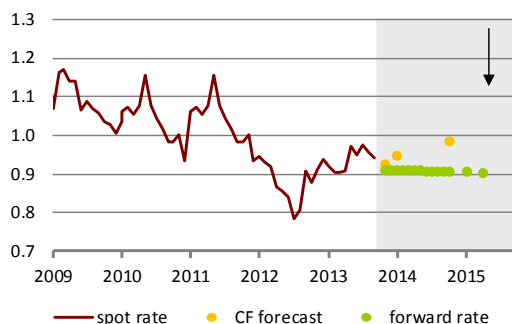
	14/10/13	11/13	01/14	10/14	10/15
spot rate	98.57				
CF forecast		99.69	101.10	104.53	106.80
forward rate		98.55	98.50	98.21	97.28

US\$ per UK£



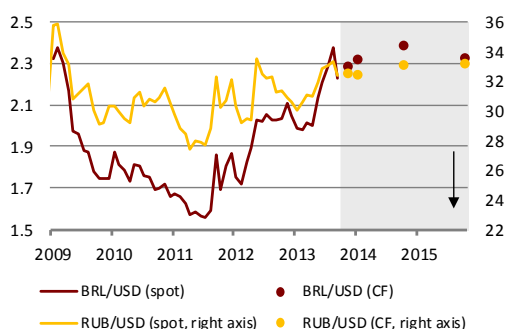
	14/10/13	11/13	01/14	10/14	10/15
spot rate	1.598				
CF forecast		1.585	1.572	1.544	1.539
forward rate		1.598	1.597	1.594	1.589

Swfr per US\$



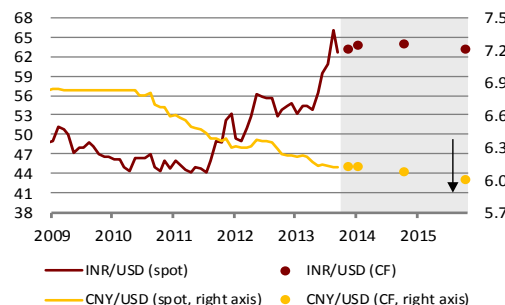
	14/10/13	11/13	01/14	10/14	10/15
spot rate	0.910				
CF forecast		0.923	0.948	0.984	0.987
forward rate		0.910	0.909	0.906	0.899

BRAZILIAN REAL, RUSSIAN ROUBLE



	14/10/13	11/13	01/14	10/14	10/15
BRL/USD (spot)	2.19				
BRL/USD (CF)		2.28	2.32	2.39	2.32
RUB/USD (spot)	32.29				
RUB/USD (CF)		32.47	32.44	33.12	33.16

INDIAN RUPEE, CHINESE RENMINBI



	14/10/13	11/13	01/14	10/14	10/15
INR/USD (spot)	61.48				
INR/USD (CF)		63.14	63.72	63.98	63.05
CNY/USD (spot)	6.11				
CNY/USD (CF)		6.12	6.12	6.08	6.00

Note: Arrow indicates currency appreciation against US dollar. Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate. [Cut-off date for data: 14 October 2013]

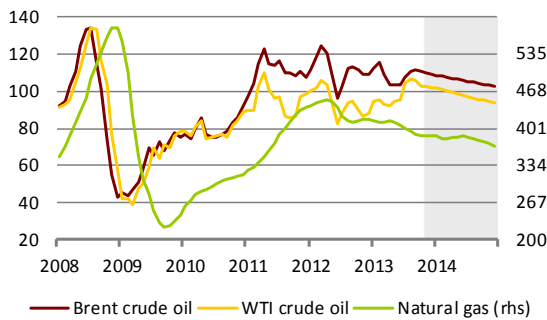
Source: Thomson Reuters (Datastream), Bloomberg, Consensus Forecasts, CNB calculations.

## V.1 Oil and natural gas

The Brent crude oil price rose for the fourth consecutive month. It fluctuated between USD 114–116 a barrel in the first week in September before falling to USD 108 a barrel over the course of the month. In the first half of October, the price of oil ranged between USD 107–111 a barrel. The high price of oil at the start of September was due mainly to geopolitical factors, especially the escalating situation in Syria. The rise in oil prices was fostered by some other factors as well. On the supply side, these included low supplies from Libya and Iraq, which even higher extraction in Saudi Arabia failed to offset. On the demand side, new macroeconomic data, especially from the USA and China, played a positive role, as did higher demand at refineries. Concerns about the situation in the Middle East and lower supplies of oil led to increased speculation. According to OPEC, a record-high number of net long positions in oil were open at the end of September. However, part of them were quickly closed at the end of the month and prices of one-month futures dropped by around USD 6 a barrel. This was due to comments made by energy agencies that the market was well stocked and also to concerns about the possible insolvency of the USA, exacerbated by the closure of some federal agencies in early October.

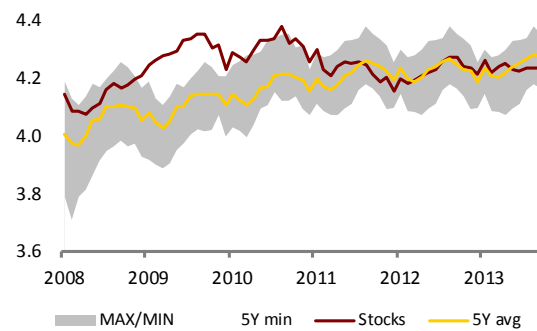
Based on higher-than-expected actual data, the IEA slightly increased its oil consumption forecast for 2013 to 91 million barrels per day (up by 1 million). The forecast for 2014 remains unchanged, with growth in oil consumption amounting to 1.1 mbpd. In addition, OPEC expects 0.8 and 1.1 mbpd in 2013 and 2014 respectively. The futures-based oil price outlook is declining and the Brent price should be below USD 103 a barrel at the end of 2014. By contrast, CF expects the price to be USD 108.1 a barrel in December 2014. Like the oil price outlook, the outlook for natural gas prices is falling.

**OUTLOOK FOR PRICES OF OIL AND NATURAL GAS**

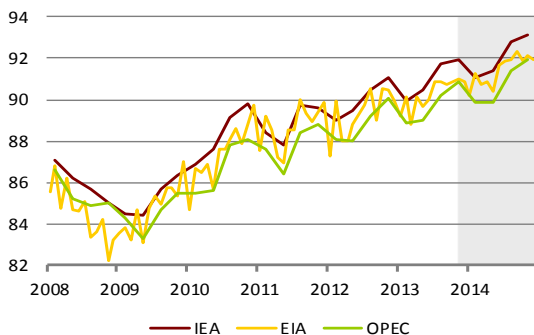


	Brent	WTI	Natural gas
2013	-2.48	5.31	-6.95
2014	-2.97	-1.50	-5.08

**TOTAL STOCKS OF OIL AND OIL PRODUCTS IN OECD**

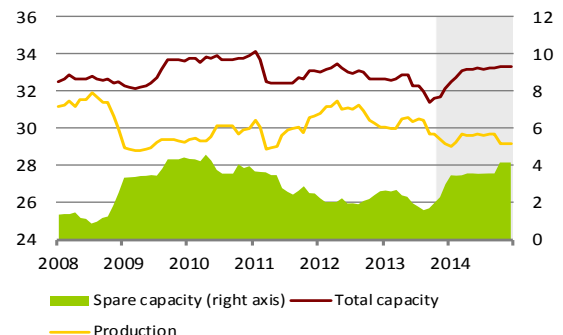


**GLOBAL CONSUMPTION OF OIL AND OIL PRODUCTS**



	IEA	EIA	OPEC
2013	1.10	1.09	1.01
2014	1.21	1.30	1.14

**PRODUCTION, TOTAL AND SPARE CAPACITY IN OPEC COUNTRIES**



	Production	Total capacity	Spare capacity
2013	-2.80	-2.30	4.93
2014	-1.93	2.69	64.70

Note: Oil price in USD/barrel, price of Russian natural gas at German border in USD/1,000 m<sup>3</sup> (IMF data, smoothed by the HP filter). Future oil prices (grey area) are derived from futures and future gas prices are derived from oil prices using model. Tables show annual percentage changes. Total oil stocks (commercial and strategic) in OECD countries including average, maximum and minimum in past five years in billions of barrels. Global consumption of oil and oil products in millions of barrels a day. Production and extraction capacity of OPEC in million barrels a day (EIA estimate). [Cut-off date for data: 16 October 2013]

Source: Bloomberg, IEA, EIA, OPEC, CNB calculations

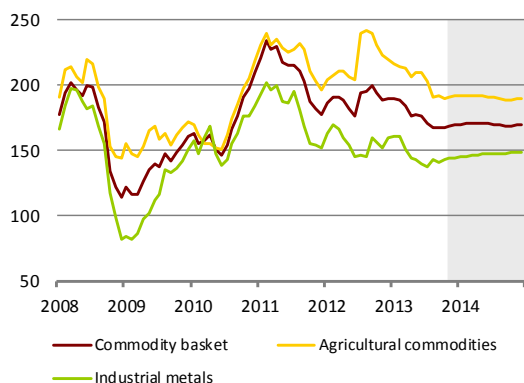
V.2 Other commodities

After a several-month decline, the overall non-energy commodity price index was broadly flat, with a modest rise in the food price index being offset by a slight decline in the metal price index. The overall index and its components saw no major movements during the first half of October. The overall index is expected to increase only slightly in the months ahead and be flat in 2014.

Turning to food commodity prices, wheat and corn prices increased, while rice and soy fell. On the basis of futures contracts, wheat and rice prices are expected to remain flat over the medium term, maize is expected to edge up and soy is expected to fall. Pork prices declined in September and the same trend is expected in the months ahead. By contrast, beef prices are expected to rise, as they did last month.

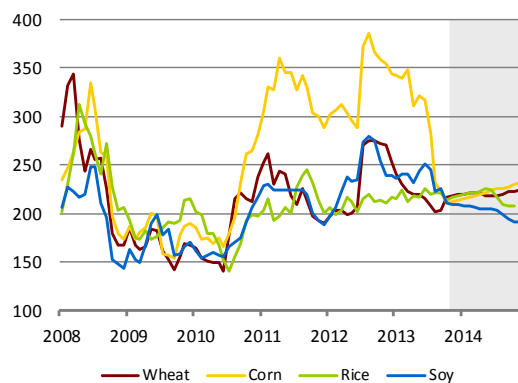
Last month, metal prices were affected by relatively solid macroeconomic data from the USA, although the latter were offset by the potential tapering of quantitative easing by the Fed, the uncertainty regarding the increase in the debt ceiling in the USA and, finally, by the possibility of a larger-than-expected slowdown in emerging economies. Industrial metal prices thus showed no major movements in September and the first half of October and their outlook is flat, except in the case of aluminium, the outlook for which is slightly rising at the one-year horizon. Cotton prices recorded no major change and a similar level is expected going forward. By contrast, rubber prices have started to rise from a several-year low in recent months and this trend should continue at the one-year horizon.

PRICES OF NON-ENERGY COMMODITIES



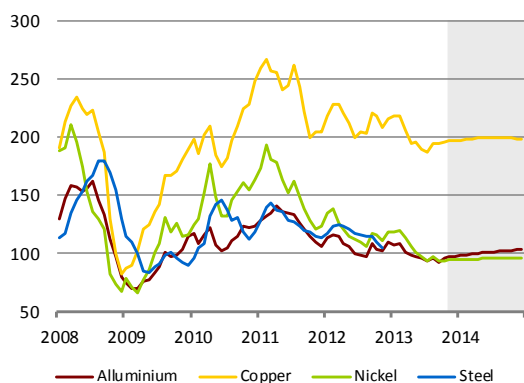
	Overall	Agricultural	Industrial
2013	-7.5	-8.0	-6.6
2014	-3.0	-5.8	0.9

FOOD COMMODITIES



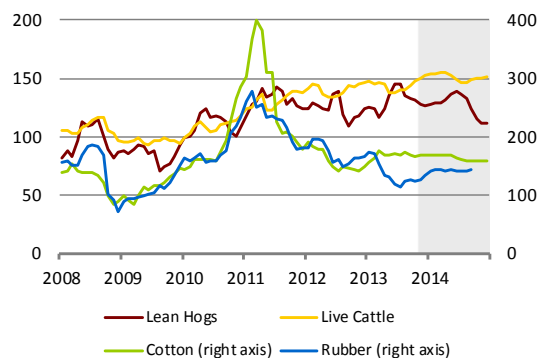
	Wheat	Corn	Rice	Soy
2013	-7.4	-16.0	3.8	-4.4
2014	1.4	-19.7	-0.4	-12.9

METALS



	Aluminium	Copper	Nickel
2013	-7.8	-7.3	-14.3
2014	3.1	-0.1	-6.1

MEAT, NON-FOOD AGRICULTURAL COMMODITIES



	Lean hogs	Live Cattle	Cotton	Rubber
2013	5.5	3.0	5.5	-20.8
2014	-2.9	4.4	-2.4	

Note: Structure of non-energy commodity price indices corresponds to composition of The Economist commodity indices. All prices are given as indices, 2005 = 100 (charts) and percentage changes (tables). [Cut-off date for data: 16 October 2013]

Source: Bloomberg, CNB calculations.

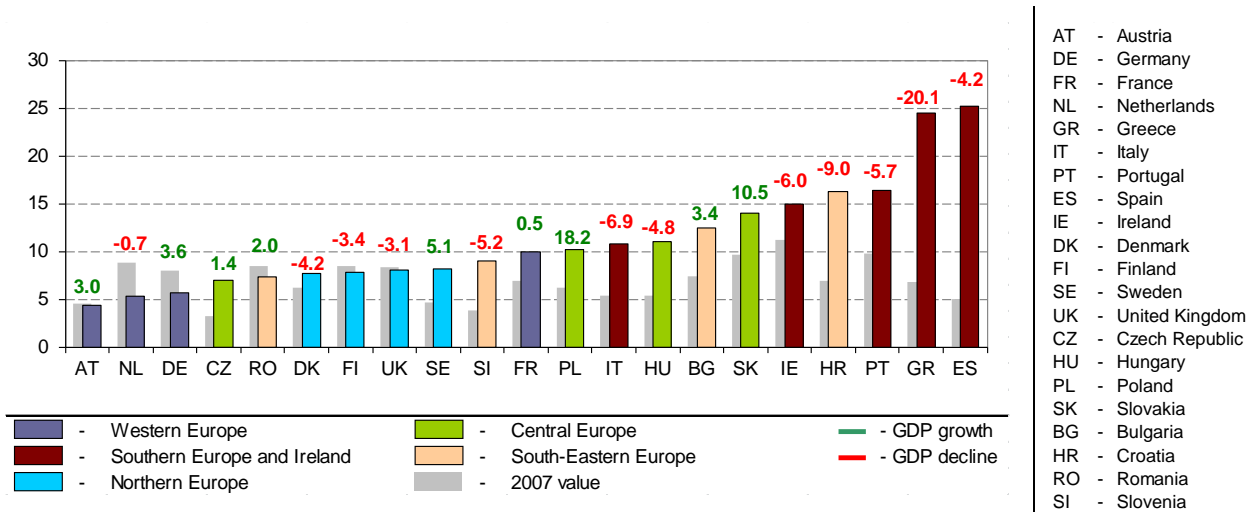
## UNEMPLOYMENT DURING THE CRISIS <sup>1</sup>

The differences between individual EU and euro area countries have generally been widening during the debt crisis in Europe, primarily because of the heterogeneity of their economies. This article examines the phenomenon of unemployment in Europe in the “post-Lehman” period not only from the traditional perspectives of age, gender and education, but also in relation to the income (wages and salaries) of economically active citizens.

### 1 Evolution of the unemployment rate

Unemployment has surged over the last few years in some regions of the EU,<sup>2</sup> especially the southern periphery (see Figure VI-1). However, in addition to the expected growth in unemployment rates due to lower economic performance, the post-Lehman period has seen growth in the differences in unemployment rates across euro area and EU countries.

**Figure VI-1: Unemployment rates and GDP growth in EU countries (%)<sup>3</sup>**



Note: Unemployment rates for the 15–64 age group. Growth or decline in GDP calculated for 2012 versus 2007. The data are sorted according to the unemployment rate in 2012.

Source: Eurostat.

The above trend has led to a surge in the average unemployment rate and a rise in the gaps between countries since the onset of the financial crisis (see Figure VI-2). The group of EU countries reporting unemployment rates of over 10% has therefore grown considerably. The developments in Greece and Spain are particularly alarming.

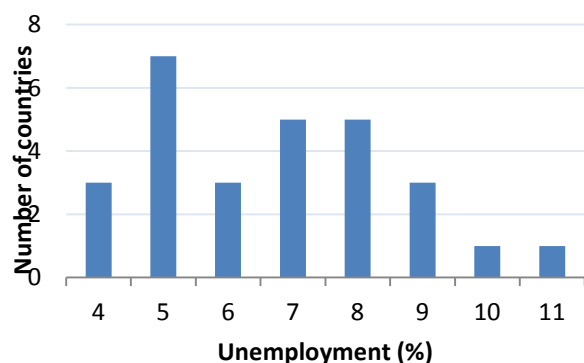
<sup>1</sup> Written by Oxana Babecká Kucharčuková (Oxana.Babecka-Kucharcukova@cnb.cz) and Luboš Komárek (Lubos.Komarek@cnb.cz). The views expressed in this contribution are those of the authors and do not necessarily reflect the official views of the CNB.

<sup>2</sup> The article covers data for 21 of the 28 EU countries, the exceptions being Belgium, the Baltic countries, Cyprus, Malta and Luxembourg. The list of countries and their abbreviations is given in Figure VI-1.

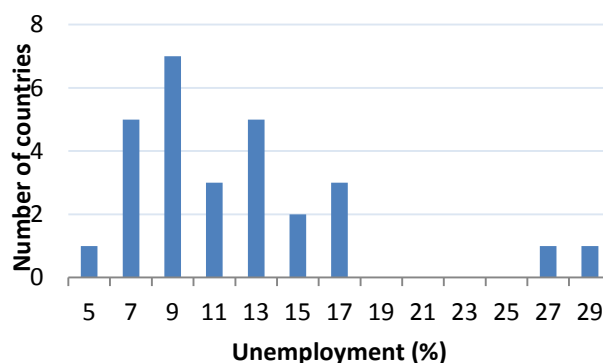
<sup>3</sup> For the sake of comparability, Austria, which is geographically located in Central Europe, is included in Western Europe in this article.

**Figure VI-2: Distribution of the unemployment rate in EU-28 countries (%)**

a) January 2008



b) May 2013

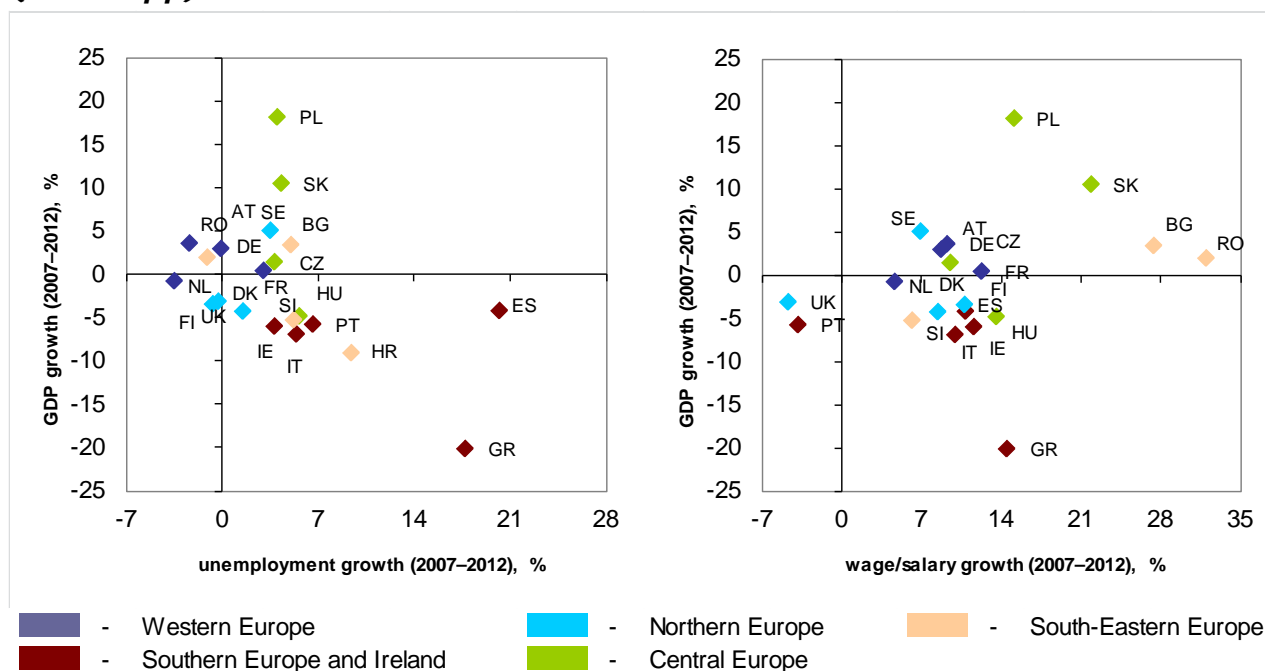


Source: Eurostat, CNB calculations.

## 2 Unemployment and the labour market

Although the southern countries are neither the richest nor the poorest in the EU/euro area in terms of household income as measured by the net wage/salary at purchasing power parity, they have seen the largest falls in economic activity (GDP) over the last five years. These countries have meanwhile recorded similar growth in wages and salaries as other Western European nations. The only exception in the southern periphery is Portugal, which has recorded a falling average net wage (salary) along with declining economic activity (see the right-hand side of Figure VI-3).<sup>4</sup> On the other hand, unemployment has fallen sharply in the Netherlands and Germany in the period under review. Slight falls in unemployment have also been observed in Romania and Finland.

**Figure VI-3: Impact of economic activity on the labour market over five years (% and pp)**



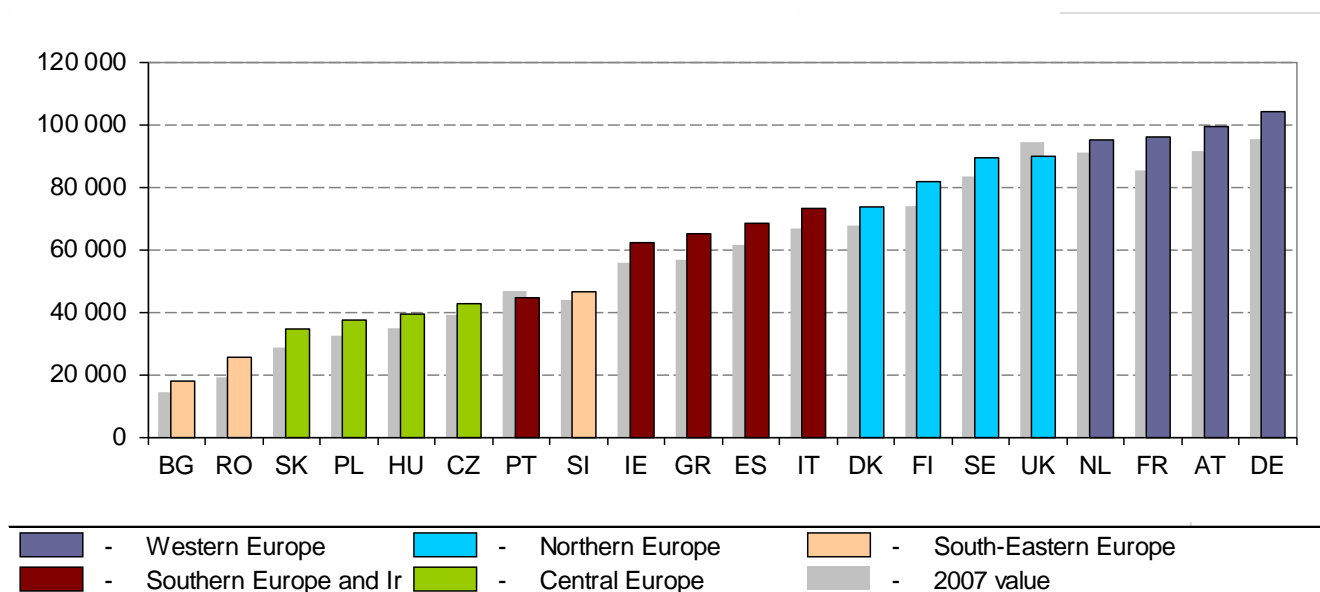
<sup>4</sup> When interpreting these results, however, one must take into account the natural lagged reaction of the unemployment rate to a decline in economic activity. Calculations using monthly data showed that the unemployment rate lags behind industrial production in the EU by two months.

Note: Growth calculated for 2012 versus 2007 (%). Evolution of the unemployment rate calculated as the difference between unemployment rates in 2012 and 2007. Wage (salary) is the net annual income of a family with two children where both spouses work full time. Net salary is not available for Croatia.

Source: Eurostat, CNB calculations.

The income situation of a typical household (a family with two children) is illustrated in Figure VI-4, which is in line with the data on the economic levels of the individual countries. Despite the continuing crisis it is clear that the net income of households in countries hit hardest by the crisis remains relatively high. Larger differences would be visible for households containing one or two unemployed persons. The above developments partly illustrate the degree of downward inflexibility of wages.

**Figure VI-4 Net wage/salary of a family with two children at purchasing power parity (EUR)**



Note: Both spouses working full time. The coloured bars are annual data for 2012 except for Bulgaria (2010) and Romania (2011). Data for Croatia are not available.

Source: Eurostat.

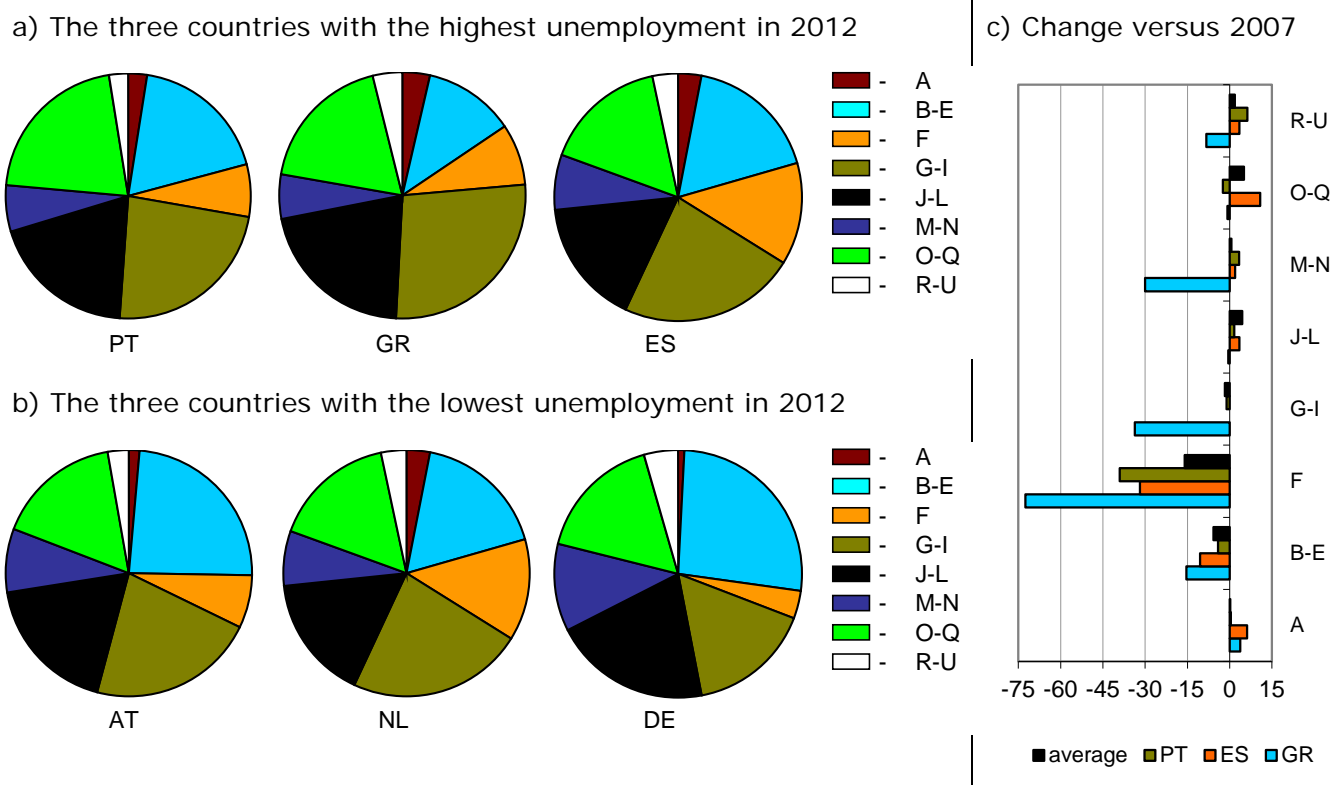
### 3 Unemployment and age, gender and education

The observed differences in the unemployment rate are due chiefly to differences in the structure of the economy and the uneven impact of the crisis on various sectors of European economies. One example is construction (section F in NACE Rev. 2), which saw the biggest decrease between 2007 and 2012. Value added in the countries under review fell by 16% on average. However, value added in construction declined by 73% in Greece, 39% in Portugal and 32% in Spain (see Figure VI-5). In contrast to other countries, Greece is also characterised by a sizeable drop in value added (30%) in sections M–N (professional, scientific, administrative and support activities).

In all EU countries, unemployment is highest among people with primary education only (see Figure VI-6). This confirms the hypothesis that the higher the level of education, the easier it is to find work. However, the sensitivity of unemployment to education level varies significantly across regions and countries in the EU. In the southern periphery, the differences between the classes of unemployed persons by education are the smallest. The trend even reverses for women in Portugal and Greece: a woman with secondary education has less chance (and/or incentive) of finding work than a woman with primary education only. The same holds true for Romania, which, however, reports relatively low unemployment. In Western European countries, the unemployment rate

falls gradually as the level of education increases, unlike in Central Europe, Sweden, Finland and Bulgaria, where this change is abrupt. The biggest jump in unemployment between the primary and secondary education categories is observed in Slovakia, where the unemployment rate is 48% for men with the lowest education level and 12.8% for those with secondary education. In the Czech Republic, unemployment among men in the same age groups falls from 31.7% to 5.2%. Unemployment of men with a university degree in the Czech Republic is, along with Germany, among the lowest in the countries under review (at 2.5% and 2.2% respectively).

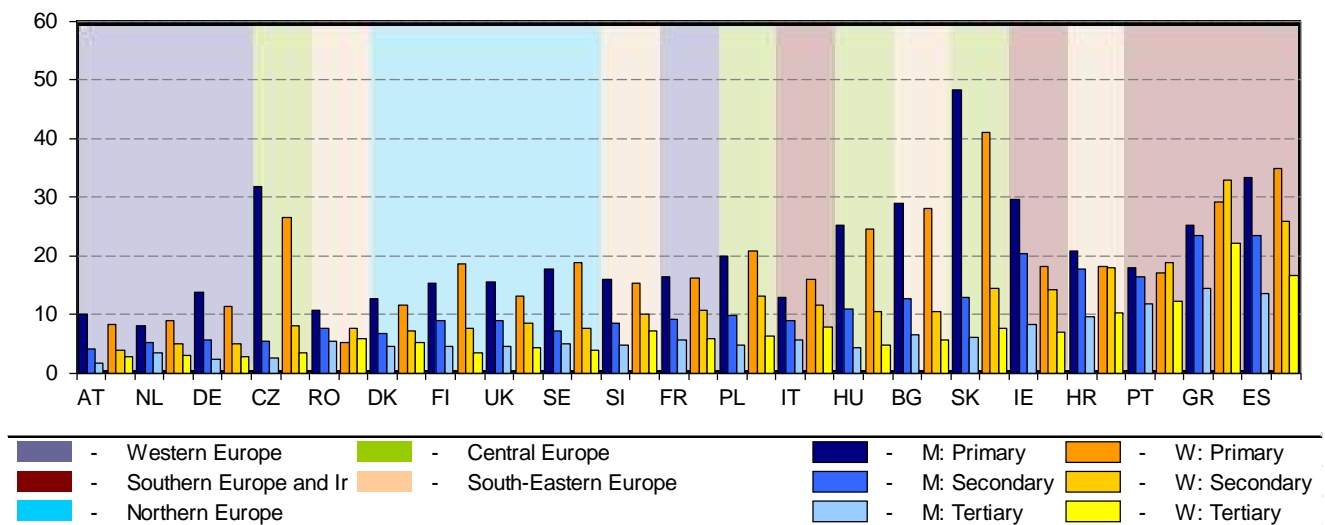
**Figure VI-5: The structure and evolution of value added (%)**



Note: Change refers to the change in 2012 versus 2007. Average refers to the weighted average for the countries under review. The three countries are selected from the 21 countries under review. Data on value added by group are not available for Ireland. NACE Rev. 2 classification: A – Agriculture, forestry and fishing, B–E – Industry (except construction), F – Construction, G–I – Wholesale and retail trade, transport, accommodation and food service activities, J–L – Information and communication, financial and insurance activities, real estate activities, M–N – Professional, scientific and technical activities; administrative and support service activities, O–Q – Public administration, defence, education, human health and social work activities, R–U – Arts, entertainment and recreation; other service activities; activities of households and extra-territorial organisations and bodies.

Source: Eurostat, CNB calculations.

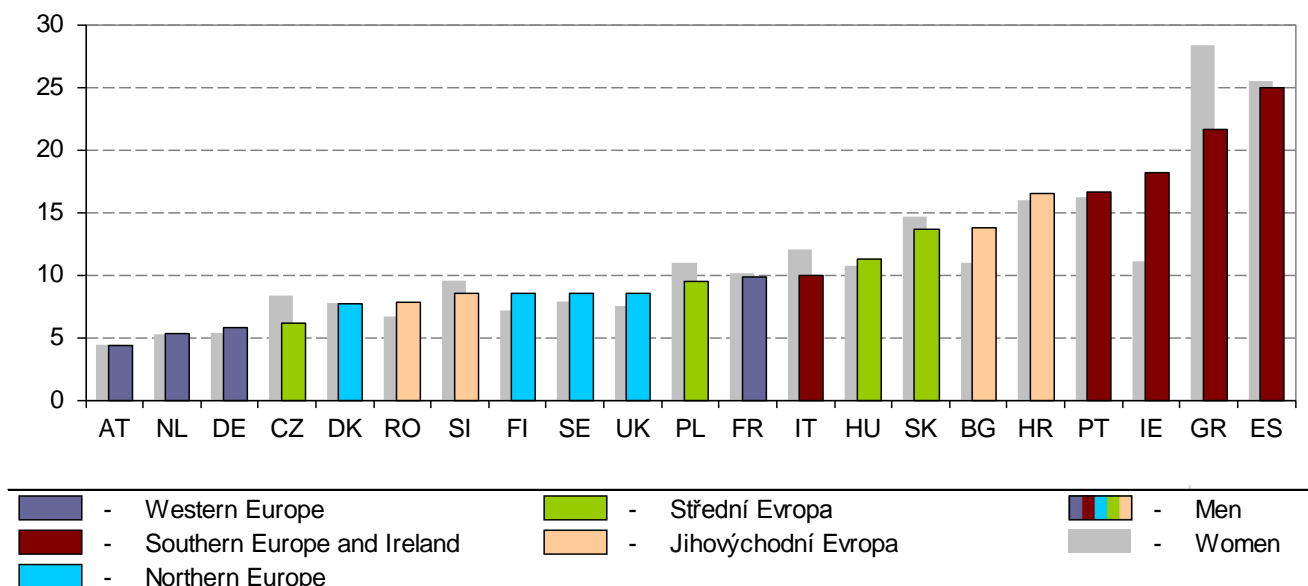


**Figure VI-6: Unemployment in 2012 by education level (%)**

Note: M – men, W – women. Primary is the first (lowest) level of education (categories 0 to 2), secondary is the second level of education (categories 3 and 4), tertiary is the third level of education (categories 5 and 6). Age group 15–64. The data are sorted according to the total unemployment rate in 2012.

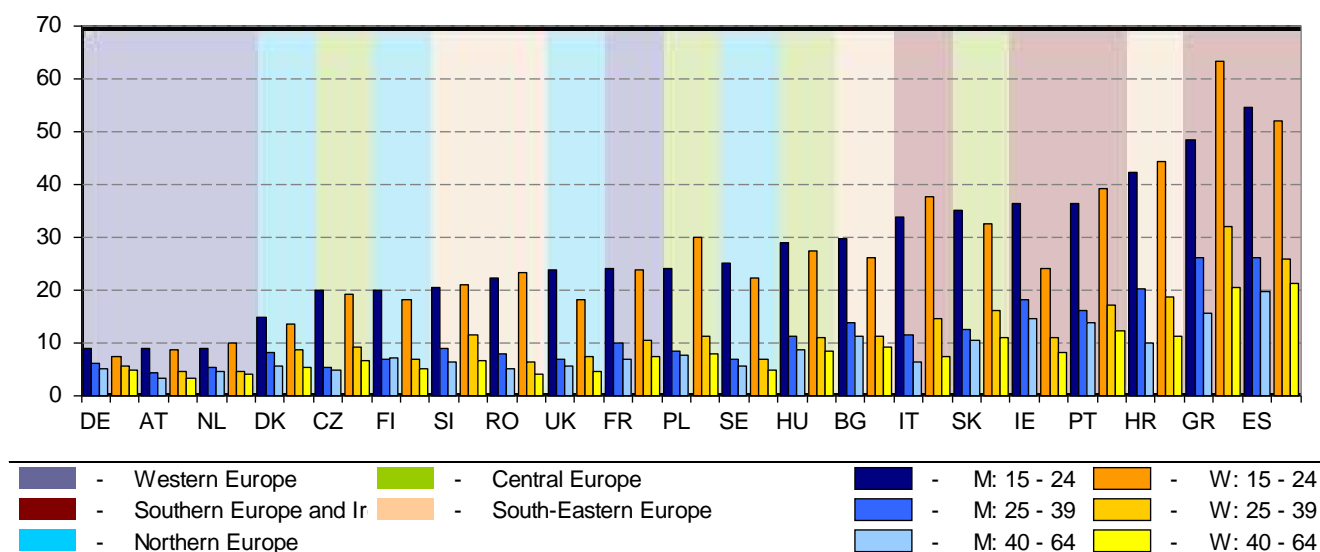
Source: Eurostat.

Unemployment of women does not differ significantly from that of men in most of the countries under review (see Figure VI-7). The exception is Greece, where female unemployment was considerably higher than male unemployment in 2012 (28.3% versus 21.6%). In Italy and the Czech Republic the difference is about 2 pp, although this is a significant figure given the overall unemployment level in these countries.

**Figure VI-7: Unemployment of men and women aged between 15 and 64 (%)**

Source: Eurostat.

Although the unemployment rate by age group declines with age in all the countries under review, the differences in Western Europe and Austria are negligible (see Figure VI-8). A somewhat larger gap between unemployment in the 15–24 age group and the rest can be observed in Northern Europe, followed by Central Europe and Southern Europe. The differences are largest in countries of the southern periphery, namely Portugal and Croatia, where youth unemployment is between 33% and 63%.

**Figure VI-8: Unemployment in 2012 by age group and gender (%)**

Note: M – men, W – women. The data are sorted according to the group of men aged 15–24.

Source: Eurostat.

To conclude, the financial crisis and its effects have led to rising unemployment and widening differences between EU and euro area countries. The causes lie in differences in labour market flexibility and in the policies and reforms implemented in this area. The fact that policy-makers are taking more account of labour market developments and households' income situation is in line with the message of the discussions at this year's annual symposium of central bankers in Jackson Hole.<sup>5</sup>

<sup>5</sup> See <http://www.kc.frb.org/publications/research/escp/escp-2013.cfm>.

## ANNEXES

## A1. Change in GDP predictions for 2013

	CF		IMF		OECD		CB / EIU	
<b>EA</b>	0.1	2013/10 2013/9	0.2	2013/10 2013/7	-0.5	2013/5 2012/11	0.2	2013/9 2013/6
<b>US</b>	0.0	2013/10 2013/9	-0.1	2013/10 2013/7	-0.1	2013/5 2012/11	-0.3	2013/9 2013/6
<b>DE</b>	0.0	2013/10 2013/9	0.2	2013/10 2013/7	-0.2	2013/5 2012/11	-0.1	2013/6 2012/12
<b>JP</b>	0.0	2013/10 2013/9	0.0	2013/10 2013/7	0.9	2013/5 2012/11	0.0	2013/7 2013/4
<b>BR</b>	0.2	2013/10 2013/9	0.0	2013/10 2013/7	-1.1	2013/5 2012/11	0.5	2013/10 2013/9
<b>RU</b>	-0.3	2013/10 2013/9	-1.0	2013/10 2013/7	-1.5	2013/5 2012/11	-0.4	2013/10 2013/9
<b>IN</b>	-0.3	2013/10 2013/9	-1.8	2013/10 2013/7	-1.2	2013/5 2012/11	-0.5	2013/10 2013/9
<b>CN</b>	0.1	2013/10 2013/9	-0.2	2013/10 2013/7	-0.7	2013/5 2012/11	0.0	2013/10 2013/9

## A2. Change in inflation predictions for 2013

	CF		IMF		OECD		CB/EIU	
<b>EA</b>	0.0	2013/10 2013/9	-0.2	2013/10 2013/4	-0.1	2013/5 2012/11	0.1	2013/9 2013/6
<b>US</b>	0.0	2013/10 2013/9	-0.4	2013/10 2013/4	-0.2	2013/5 2012/11	0.1	2013/9 2013/6
<b>DE</b>	0.0	2013/10 2013/9	0.0	2013/10 2013/4	-0.3	2013/5 2012/11	0.1	2013/6 2012/12
<b>JP</b>	0.1	2013/10 2013/9	-0.1	2013/10 2013/4	0.4	2013/5 2012/11	0.0	2013/7 2013/4
<b>BR</b>	0.0	2013/10 2013/9	0.2	2013/10 2013/4	0.9	2013/5 2012/11	-0.2	2013/10 2013/9
<b>RU</b>	-0.1	2013/10 2013/9	-0.2	2013/10 2013/4	0.2	2013/5 2012/11	0.0	2013/10 2013/9
<b>IN</b>	0.3	2013/10 2013/9	0.1	2013/10 2013/4	0.7	2013/5 2012/11	0.0	2013/10 2013/9
<b>CN</b>	0.0	2013/10 2013/9	-0.3	2013/10 2013/4	1.0	2013/5 2012/11	-0.1	2013/10 2013/9

## A3. List of abbreviations

<b>BoJ</b>	Bank of Japan	<b>CNB</b>	Czech National Bank
<b>BR</b>	Brazil	<b>DBB</b>	Deutsche Bundesbank
<b>BRIC</b>	Brazil, Russia, India and China	<b>DE</b>	Germany
<b>CB-CCI</b>	Conference Board Consumer Confidence Index	<b>EA</b>	euro area
<b>CB-LEII</b>	Conference Board Leading Economic Indicator Index	<b>EC</b>	European Commission
<b>CBOT</b>	Chicago Board of Trade	<b>ECB</b>	European Central Bank
<b>CF</b>	Consensus Forecasts	<b>EC-CCI</b>	European Commission Consumer Confidence Indicator
<b>CN</b>	China	<b>EC-ICI</b>	European Commission Industrial Confidence Indicator

<b>EIU</b>	The Economist Intelligence Unit database	<b>IN</b>	India
<b>EEA</b>	European Economic Area	<b>IRS</b>	interest rate swap
<b>ES</b>	Spain	<b>IT</b>	Italy
<b>EU</b>	European Union	<b>JP</b>	Japan
<b>EMI</b>	European Monetary Institute	<b>JPY</b>	Japanese yen
<b>EURIBOR</b>	Euro Interbank Offered Rate	<b>LIBOR</b>	London Interbank Offered Rate
<b>Fed</b>	Federal Reserve System (the US central bank)	<b>N/A</b>	not available
<b>FRA</b>	forward rate agreement	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>GBP</b>	pound sterling	<b>OECD-CLI</b>	OECD Composite Leading Indicator
<b>GDP</b>	gross domestic product	<b>PMI</b>	Purchasing Managers' Index
<b>GR</b>	Greece	<b>PT</b>	Portugal
<b>CHF</b>	Swiss franc	<b>RU</b>	Russia
<b>ICE</b>	Intercontinental Exchange	<b>UoM</b>	University of Michigan
<b>IE</b>	Ireland	<b>UoM-CSI</b>	University of Michigan Consumer Sentiment Index
<b>IFO</b>	Institute for Economic Research	<b>US</b>	United States
<b>IFO-BE</b>	IFO Business Expectations	<b>USD</b>	US dollar
<b>IMF</b>	International Monetary Fund	<b>ZEW-ES</b>	ZEW Economic Sentiment

#### A4. List of thematic articles published in GEO

##### 2013

	<b>Issue</b>
Unemployment during the crisis (Oxana Babecká a Luboš Komárek)	2013-10
Drought and its impact on food prices and headline inflation (Viktor Zeisel)	2013-9
The effect of globalisation on deviations between GDP and GNP in selected countries over the last two decades (Vladimír Žďárský)	2013-8
Competitiveness and determinants of travel and tourism (Oxana Babecká)	2013-7
Annual assessment of the forecasts included in GEO (Filip Novotný)	2013-6
Apartment price trends in selected CESEE countries and cities (Michal Hlaváček and Luboš Komárek)	2013-5
Selected leading indicators for the euro area, Germany and the United States (Filip Novotný)	2013-4
Financial stress in advanced economies (Tomáš Adam and Soňa Benecká)	2013-3
Natural gas market developments (Jan Hošek)	2013-2
Economic potential of the BRIC countries (Luboš Komárek and Viktor Zeisel)	2013-1

##### 2012

	<b>Issue</b>
Global trends in the services balance 2005–2011 (Ladislav Prokop)	2012-12
A look back at the 2012 IIF annual membership meeting (Luboš Komárek)	2012-11
The relationship between the oil price and key macroeconomic variables (Jan Hošek, Luboš Komárek and Martin Motl)	2012-10
US holdings of foreign securities versus foreign holdings of securities in the US: What	2012-9

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	<b>Issue</b>
is the trend? (Narcisa Kadlčáková)	
Changes in the Czech Republic's balance of payments caused by the global financial crisis (Vladimír Žďárský)	2012-8
Annual assessment of the forecasts included in the GEO (Filip Novotný)	2012-7
A look back at the IIF spring membership meeting (Filip Novotný)	2012-6
An overview of the world's most frequently used commodity indices (Jan Hošek)	2012-5
Property price misalignment around the world (Michal Hlaváček and Luboš Komárek)	2012-4
A macrofinancial view of asset price misalignment (Luboš Komárek)	2012-3
The euro area bond market during the debt crisis (Tomáš Adam and Soňa Benecká)	2012-2
Liquidity risk in the euro area money market and ECB operations (Soňa Benecká)	2012-1

**2011**

	<b>Issue</b>
An empirical analysis of monetary policy transmission in the Russian Federation (Oxana Babecká)	2011-12
The widening spread between prices of North Sea Brent crude oil and US WTI crude oil (Jan Hošek and Filip Novotný)	2011-11
A look back at the IIF annual membership meeting (Luboš Komárek)	2011-10
Where to look for a safe haven currency (Soňa Benecká)	2011-9
Monetary policy of the central bank of the Russian Federation (Oxana Babecká)	2011-9
Increased uncertainty in euro area financial markets (Tomáš Adam and Soňa Benecká)	2011-8
Eurodollar markets (Narcisa Kadlčáková)	2011-8
Assessment of the forecasts monitored in the GEO (Filip Novotný)	2011-7
How have global imbalances changed during the crisis? (Vladimír Žďárský)	2011-6
Winners and losers of the economic crisis in the eyes of European investors (Alexis Derviz)	2011-5
Monetary policy of the People's Bank of China (Soňa Benecká)	2011-4
A look back at the IIF spring membership meeting (Jan Hošek)	2011-3
The link between the Brent crude oil price and the US dollar exchange rate (Filip Novotný)	2011-2
International integration of the Chinese stock market (Jan Babecký, Luboš Komárek and Zlatuše Komárková)	2011-1