

GLOBAL ECONOMIC OUTLOOK – NOVEMBER

Monetary and Statistics Department
External Economic Relations Division

2011

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The November issue of the Global Economic Outlook presents recent and expected developments in selected countries from the point of view of standard indicators such as GDP, inflation, leading indicators, interest rates, exchange rates and commodity prices. The regular detailed analysis (section VII *Focus*) discusses the widening spread between prices of North Sea Brent crude oil and US WTI crude oil. The Brent price increased well above the WTI price in early 2011. This represents a reversal in trend, as WTI had long been roughly USD 1.4 a barrel higher than Brent. This reversal is due to the specific logistical situation in Cushing, Oklahoma, which is the delivery point for WTI. This conclusion is supported by the different paths followed by the price of oil on the Gulf Coast (Light Louisiana Sweet) and the price of petrol in the USA. The prices of these commodities have remained closely tied to the price of Brent oil. WTI is therefore ceasing to be a benchmark for the world price of oil.

Economic growth in advanced economies has been slowing this year. This is fuelling concerns of a new economic recession emerging on both sides of the Atlantic. Private consumption, dampened by households' concerns about the future, and fiscal restrictions, connected with the resolution of the excessive growth in government debt in some euro area countries and the USA, are the largest risks towards a slowdown in economic growth. In Europe, uncertainty prevails regarding the resolution of the government debt crisis triggered by the situation in Greece, which threatens to spill over to systemically more important euro area countries. The inability of EU representatives to agree on a clear solution is also giving rise to increased financial market volatility, growth in risk premia and postponement of long-term investment plans. This is naturally being reflected in a weakening of the euro against the US dollar. Despite accelerating consumer price inflation, central banks in advanced economies are attempting to stimulate economic growth through easy monetary conditions.

These developments lead to a further reduction of the outlook for economic growth in the euro area and Germany in 2012, while the GDP outlook for the USA has been revised slightly upwards by CF. The outlook for China is unchanged. In line with the expected economic downturn, consumer price inflation in the euro area and the USA should drop to 1.5–2.1% next year. Falling commodity prices should also foster lower inflation pressures. In China, inflation should decrease below the 4% target in response to restrictive domestic monetary policy. Compared to the previous month, most of the monitored leading indicators declined again, in line with the revised outlook for economic growth.

At its November meeting, the ECB lowered its main refinancing rate by 0.25 percentage point to 1.25%. According to the CF analysts, a further cut of 0.25 percentage point should take place in 2012 Q1. The decrease in the ECB's refinancing rate was reflected almost fully in the implied future 3M EURIBOR curve. The expected 1Y rate curve also responded with a more moderate decline over almost the entire forecast horizon. By contrast, USD LIBOR rates continued to rise in October and the first half of November.

As regards the exchange rate, November brought a new wave of bad news from the euro area. The new CF outlook expects the dollar-euro rate to stay within the range of USD 1.33–1.35 over the next two years.

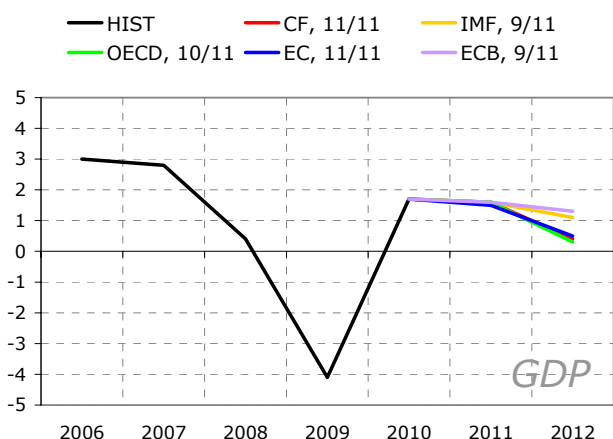
The futures-based forecast for the Brent crude oil price is still falling. The non-energy commodity price index also continued to decline during the past month, albeit at a slower pace.

II.1 GDP

Uncertainty regarding economic developments is increasing due to a slowdown in global growth and to the worrying events in the euro area connected with the debt crisis. Following the current decline in domestic and external demand, a further slowdown in economic activity is expected in the region at the end of this year. According to the new CF, EC and OECD outlooks, euro area GDP will grow by 1.5–1.6% in 2011, with Germany growing by 2.9–3.4%. Economic growth in the USA is being dampened by weak demand and a negative impact of fiscal policy. Despite the improvement in macroeconomic data recorded in Q3, therefore, US economic growth is estimated at only 1.6–1.8% this year. GDP growth in China will exceed 9% in 2011.

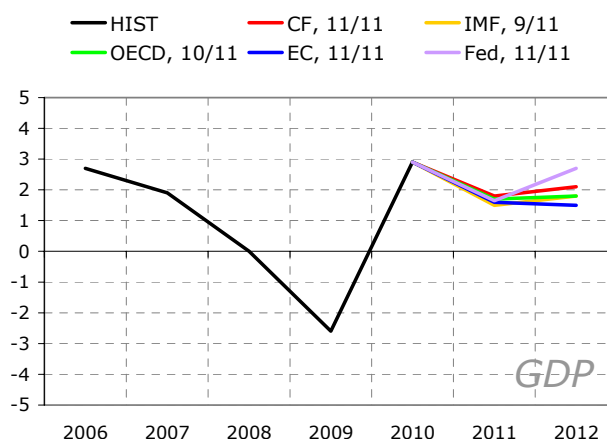
In 2012, growth in euro area economic activity could fall to 0.3–0.5%. Germany and the USA will record growth of 0.8–2.5%. Annual growth in Chinese GDP is expected to reach about 8.5%.

EURO AREA



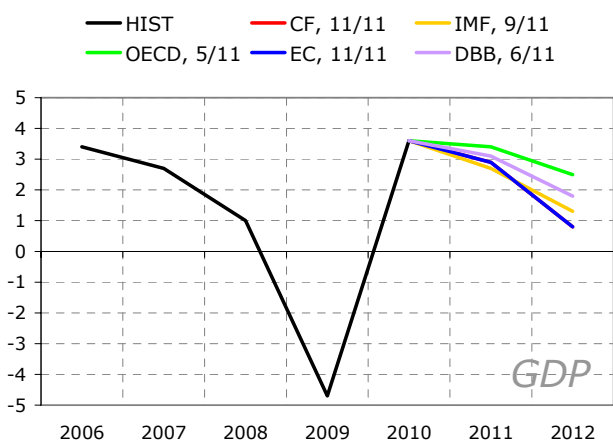
	HIST	CF	IMF	OECD	EC	ECB
2010	1.7					
2011		1.6	1.6	1.6	1.5	1.6
2012		0.4	1.1	0.3	0.5	1.3

USA



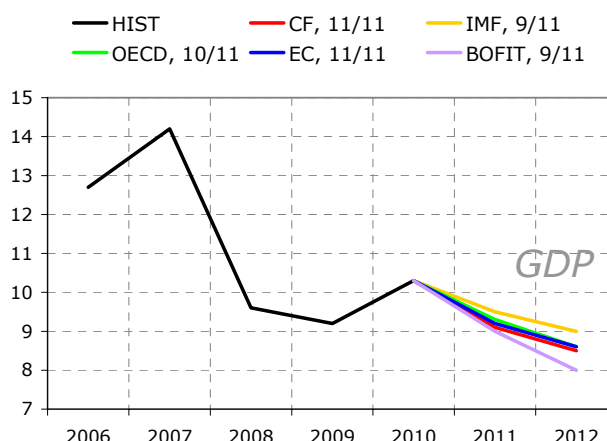
	HIST	CF	IMF	OECD	EC	Fed
2010	2.9					
2011		1.8	1.5	1.7	1.6	1.7
2012		2.1	1.8	1.8	1.5	2.7

GERMANY



	HIST	CF	IMF	OECD	EC	DBB
2010	3.6					
2011		2.9	2.7	3.4	2.9	3.1
2012		0.8	1.3	2.5	0.8	1.8

CHINA



	HIST	CF	IMF	OECD	EC	BOFIT
2010	10.3					
2011		9.1	9.5	9.3	9.2	9.0
2012		8.5	9.0	8.6	8.6	8.0

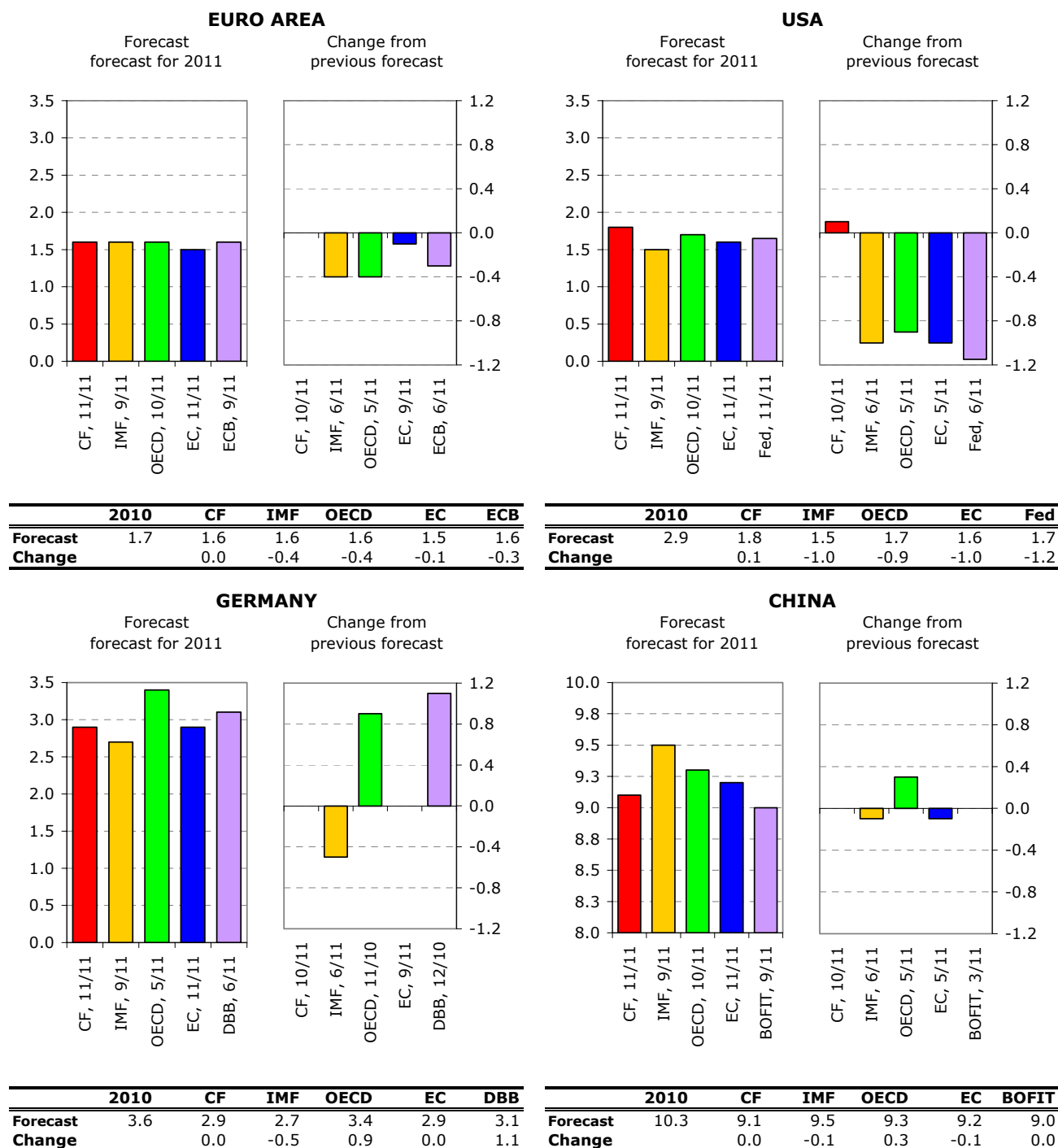
Note: Legend shows latest forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 18 November 2011]

Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

II.2 Current GDP forecast and change from the previous forecast

The November CF slightly increased the GDP growth estimate for the USA this year, while leaving the outlooks for the other monitored countries unchanged. The EC, the OECD and the Fed expect slower growth in economic activity compared to the previous forecast. The EC forecast for Germany, which remained unchanged, is the exception.

The GDP growth outlooks for next year have been decreased by most institutions. By contrast, the new CF upgraded its outlook for the USA. The OECD outlooks for Germany and the CF outlooks for China for 2012 were unchanged.

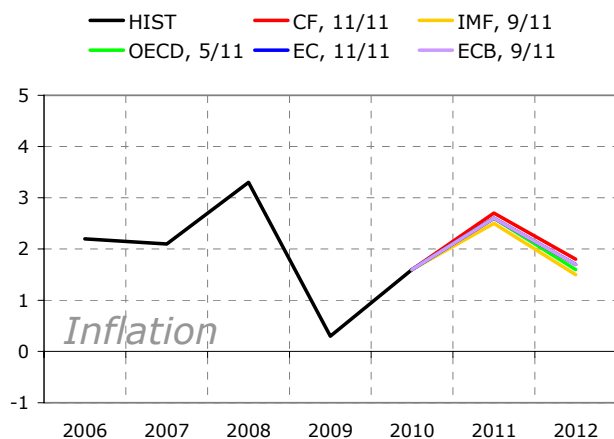


Note: Horizontal axis of left-hand (right-hand) chart shows latest (previous) forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 18 November 2011] Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

II.3 Inflation

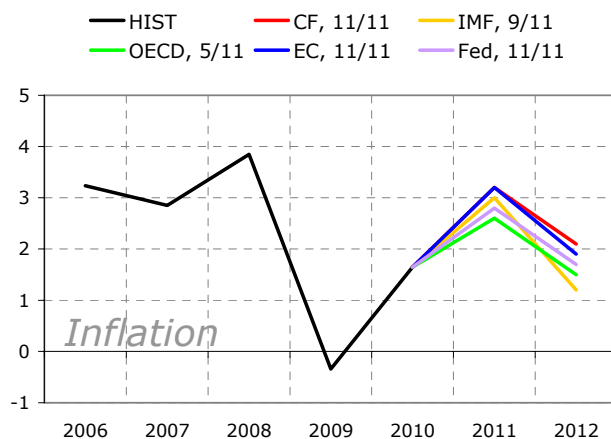
According to the new CF, EC, Fed and OECD outlooks, inflation in the monitored advanced countries will be between 2.3% and 3.2% this year. In China, consumer price inflation will be between 4.6% (OECD) and 5.4% (CF). Slowing economic growth next year and falling commodity prices will alleviate the inflation pressures in 2012. Annual inflation in the euro area and the USA will therefore fall to 1.5–2.1% next year. Inflation in China will fall below 4% owing to restrictive monetary policy.

EURO AREA



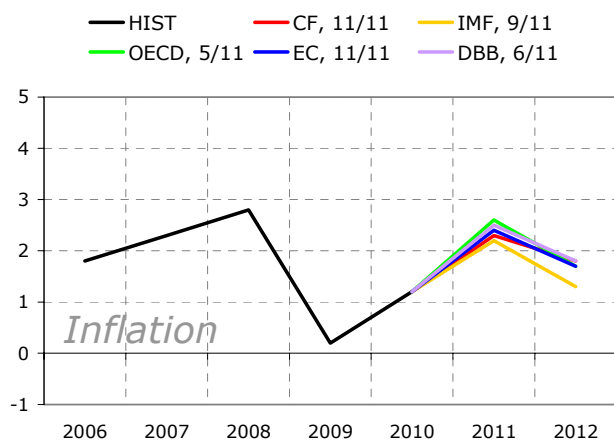
	HIST	CF	IMF	OECD	EC	ECB
2010	1.6					
2011		2.7	2.5	2.6	2.6	2.6
2012		1.8	1.5	1.6	1.7	1.7

USA



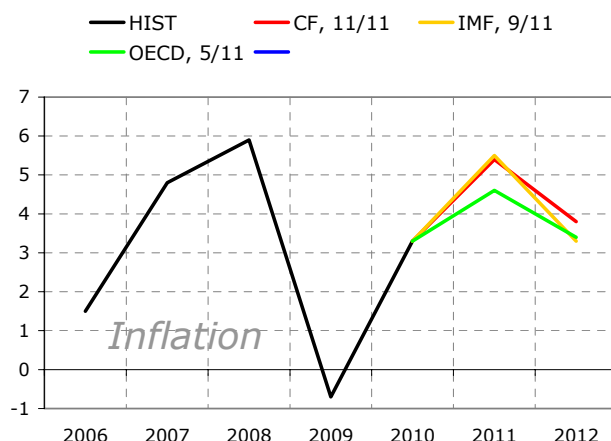
	HIST	CF	IMF	OECD	EC	Fed
2010	1.6					
2011		3.2	3.0	2.6	3.2	2.8
2012		2.1	1.2	1.5	1.9	1.7

GERMANY



	HIST	CF	IMF	OECD	EC	DBB
2010	1.2					
2011		2.3	2.2	2.6	2.4	2.5
2012		1.8	1.3	1.7	1.7	1.8

CHINA



	HIST	CF	IMF	OECD
2010	3.3			
2011		5.4	5.5	4.6
2012		3.8	3.3	3.4

Note: Legend shows latest forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 18 November 2011]

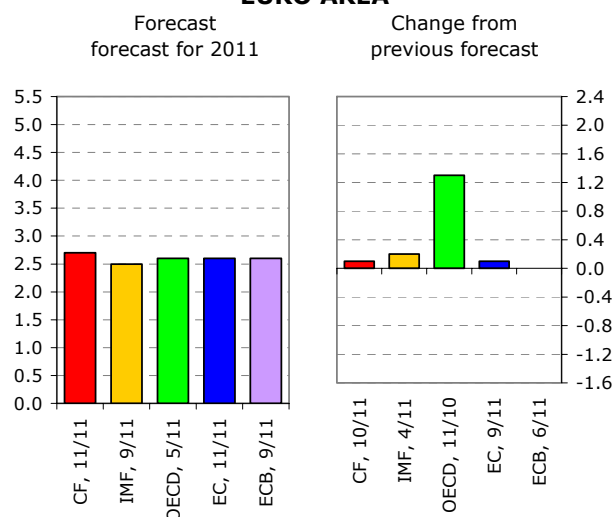
Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

II.4 Inflation forecast and change from the previous forecast

All the institutions are expecting higher inflation in 2011 than in their previous forecasts, with the exception of the new CF forecasts for Germany and China, which are unchanged from October. The largest upward revisions for 2011 (due to a low forecast frequency) were made by the OECD (from 1.3 percentage point to 1.7 percentage point).

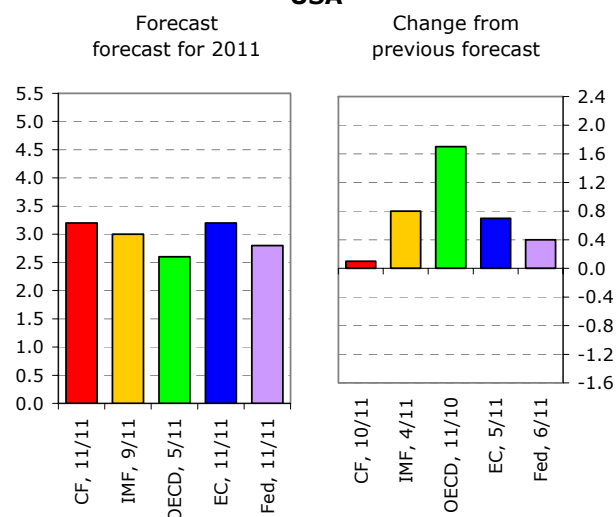
The OECD also increased its inflation outlook for all the monitored countries in 2012. The EC revised US inflation upwards but is expecting lower inflation in the euro area and Germany. The new CF either left its outlooks unchanged (Germany, China) or increased them slightly compared to the previous month (euro area, USA). The Fed revised its US inflation outlook for next year slightly downwards.

EURO AREA



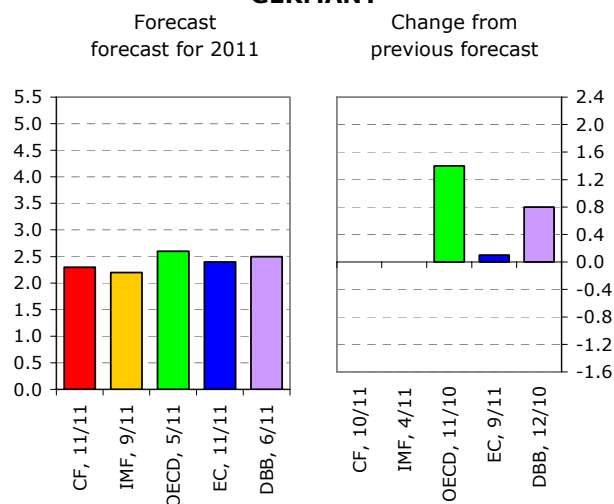
	2010	CF	IMF	OECD	EC	ECB
Forecast	1.6	2.7	2.5	2.6	2.6	2.6
Change		0.1	0.2	1.3	0.1	0.0

USA



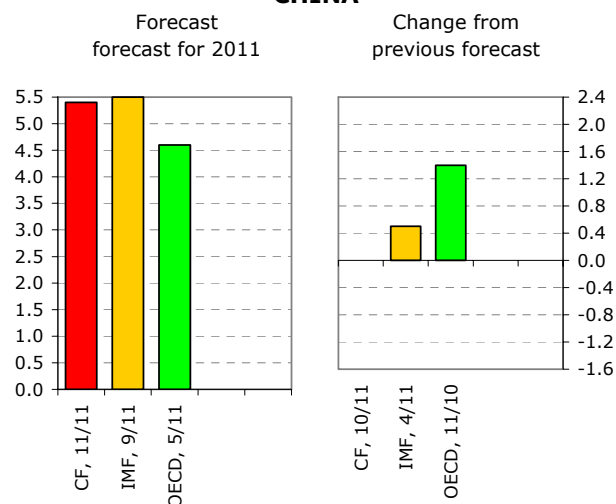
	2010	CF	IMF	OECD	EC	Fed
Forecast	1.6	3.2	3.0	2.6	3.2	2.8
Change		0.1	0.8	1.7	0.7	0.4

GERMANY



	2010	CF	IMF	OECD	EC	DBB
Forecast	1.2	2.3	2.2	2.6	2.4	2.5
Change		0.0	0.0	1.4	0.1	0.8

CHINA

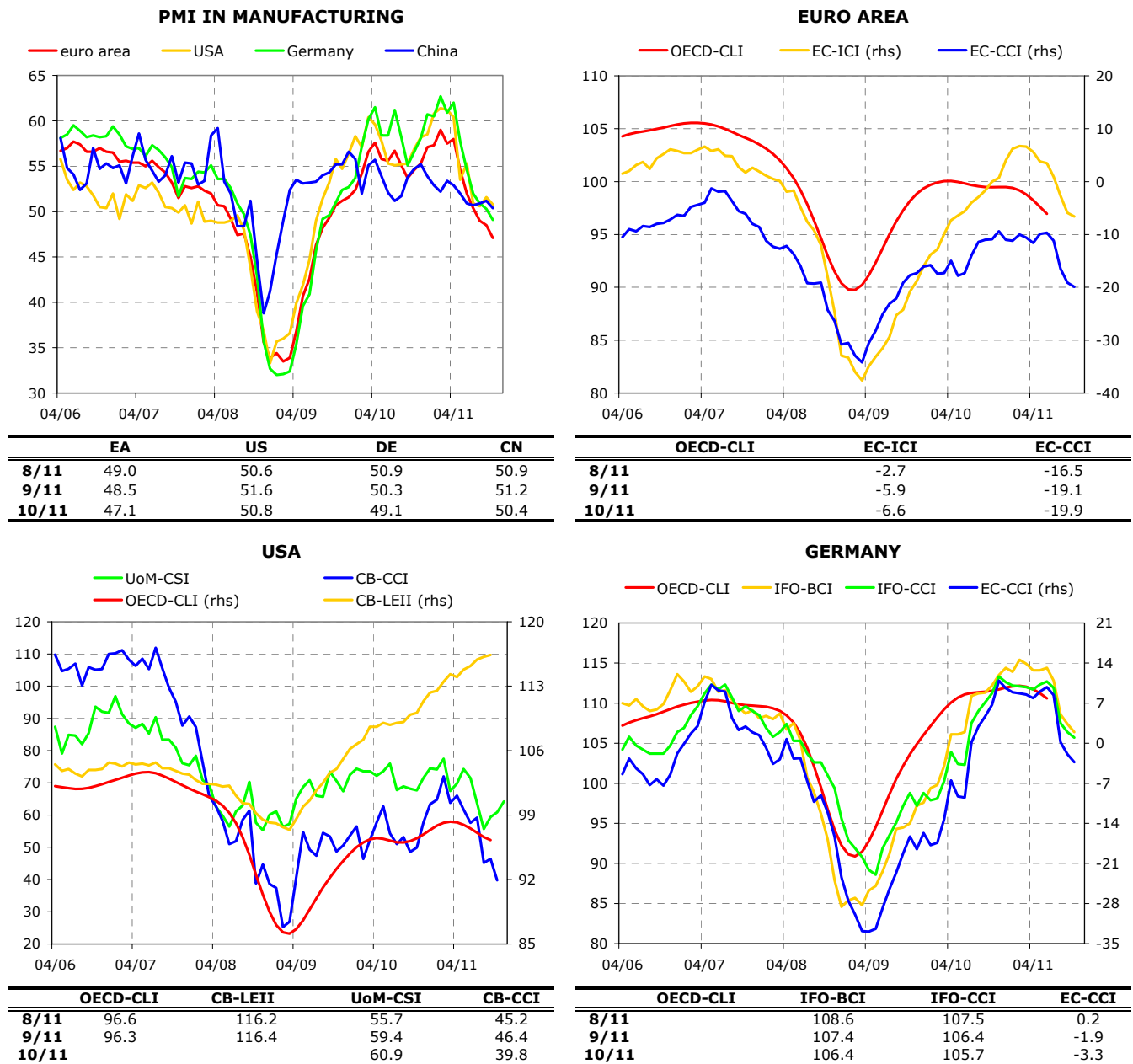


	2010	CF	IMF	OECD
Forecast	3.3	5.4	5.5	4.6
Change		0.0	0.5	1.4

Note: Horizontal axis of left-hand (right-hand) chart shows latest (previous) forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 18 November 2011]

Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

Most of the monitored leading indicators for the USA, the euro area, Germany and China declined from a month earlier; a slowdown in economic growth can be expected in late 2011 and early 2012, possibly switching into recession in the USA and the euro area. The outlook for the USA is rather more favourable than that for the euro area including Germany despite relatively robust growth in Germany in Q3 and a continuing decline in unemployment. As in all the other monitored countries, the PMI (Purchasing Managers' Index) in manufacturing decreased in the USA, but in contrast to the other countries it remained above the 50% threshold separating future growth from downturn. The University of Michigan consumer confidence index also increased (while the global index decreased).



Note: OECD-CLI stands for OECD Composite Leading Indicator, EC-ICI (right-hand scale) for European Commission Industrial Confidence Indicator, EC-CCI (right-hand scale) for EC Consumer Confidence Indicator, CB-LEII for Conference Board Leading Economic Indicator Index, CB-CCI for CB Consumer Confidence Index, UoM-CSI for University of Michigan Consumer Sentiment Index, IFO-BCI for Institute for Economic Research – Business Climate Index, and IFO-CCI for IFO Consumer Confidence Index. [Cut-off date for data: 18 November 2011]

Source: CNB calculation using OECD, EC, IFO and UoM databases.

IV.1 Outlook for short-term and long-term interest rates: Euro area

At its November meeting, the ECB lowered its main refinancing rate by 0.25 p.p. to 1.25%. It justified the decision by saying that it was already seeing the gradual materialisation of downside risks (especially in some segments of the financial market) to economic growth and inflation pressures in the medium term. According to the CF11 forecast, a further cut of 0.25 p.p. should take place in 2011 Q1.

The 3M EURIBOR rate reflected only about one-half of the decline in the ECB's main refinancing rate, the difference being due to a rise in the interbank market risk premium, which in mid-November was at its highest level since mid-March 2009. By contrast, the decrease in the ECB's refinancing rate was reflected almost fully in the implied future 3M EURIBOR curve. The expected 1Y rate curve also responded with a more moderate decline over almost the entire forecast horizon.

The ten-year German government bond yield fell suddenly by around 0.3 percentage point to 1.8% in late October and early November. CF11 made a slight downward revision to the one-year outlook compared to the previous month. For comparison, the average yield on ten-year government bonds of EMU countries rose further, reaching 4.1% in mid-November.

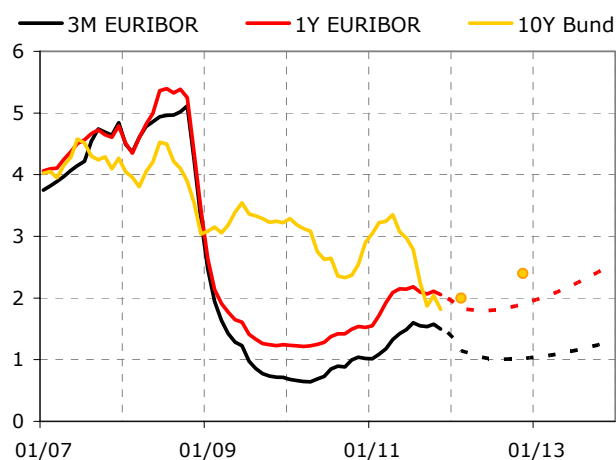
IV.2 Outlook for short-term and long-term interest rates: USA

Despite a moderate improvement in economic growth in Q3, the Fed still sees weakness in the labour and housing markets. Inflation pressures have eased and long-run inflation expectations are stable. However, there are significant risks to the economic outlook, related mainly to developments in global financial markets. Therefore, the FOMC decided at its meeting in early November to continue to extend the average maturity of its bond portfolio and reinvest the yields from repaid bonds.

USD LIBOR rates continued to rise in October and the first half of November. However, their growth should slow considerably in 2012 and further large increases will not occur until mid-2013, when the Fed might start to tighten its policy.

US ten-year government bond yields also fell suddenly by around 0.3 percentage point in late October and early November.

EURO AREA

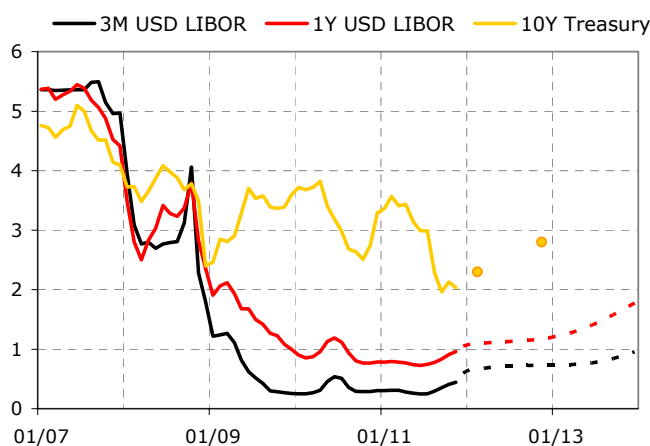


	10/11	11/11	06/12	12/12	06/13	12/13
3M EURIBOR	1.58	1.50	1.02	1.03	1.13	1.30
1Y EURIBOR	2.11	2.05	1.80	1.94	2.20	2.55
10Y Bund	2.04	1.81	2.00	2.40		

Note: Forecast for EURIBOR rates is based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecast for German government bond yield (10Y Bund) is taken from CF. Dashed lines and points represent outlook. [Cut-off date for data: 14 November 2011]

Sources: Thomson Reuters (Datastream), Bloomberg, CNB calculations.

USA

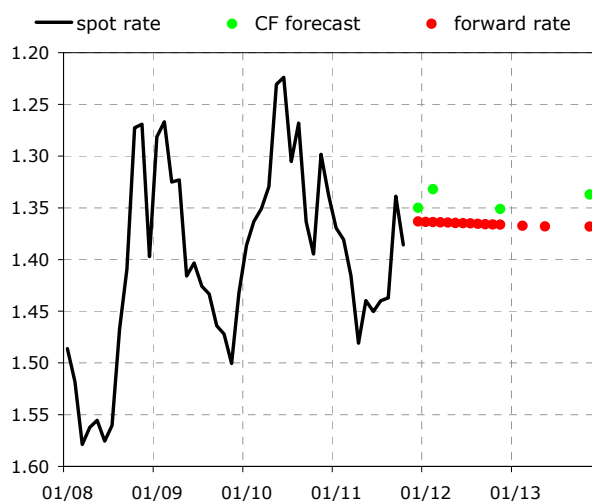


	10/11	11/11	06/12	12/12	06/13	12/13
3M USD LIBOR	0.41	0.45	0.72	0.74	0.77	0.95
1Y USD LIBOR	0.91	0.96	1.13	1.19	1.40	1.78
10Y Treasury	2.13	2.04	2.30	2.80		

Note: Implied LIBOR rates are derived from London interbank market yield curve. Forecast for 10Y Treasury yield is taken from CF. Dashed lines and points represent outlook. [Cut-off date for data: 14 November 2011] Sources: Thomson Reuters (Datastream), Bloomberg, CNB calculations.

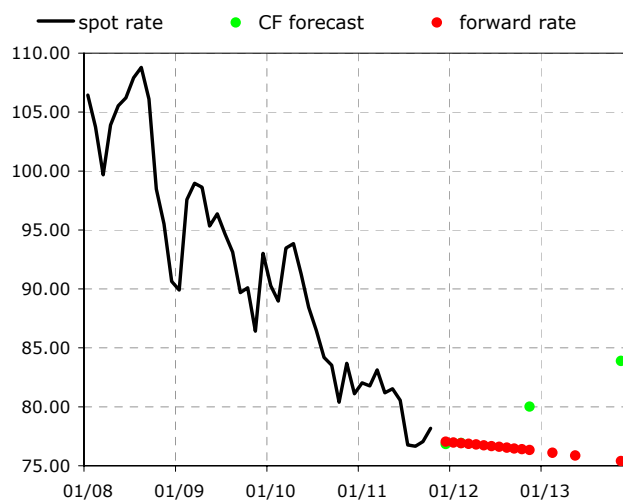
In October, the euro appreciated against the dollar amid rising investor confidence in the solution to the debt crisis (including the agreement on the write-down of 50% of Greece's debt by private creditors), but November brought a new wave of bad news from the euro area and concerns rose again. Therefore, the new CF outlook expects exchange rate stability within the range of USD 1.33–1.35/EUR over the next two years. Continued quantitative easing and a worse outlook for the UK economy also affected the exchange rate of the pound sterling, which will remain stable around USD 1.6/GBP. The introduction of a minimum CHF/EUR exchange rate led to renewed interest in the Japanese yen as a safe haven, to which the central bank responded with repeated non-sterilised forex market interventions. The long-term effect of such interventions is questionable, and the new CF does not expect the yen to weaken until 2012 Q2. CF expects the Swiss franc to weaken against the dollar only in a year's time. Until then it will be close to the official minimum, which may, however, be lowered even lower according to official statements.

US\$ per Euro



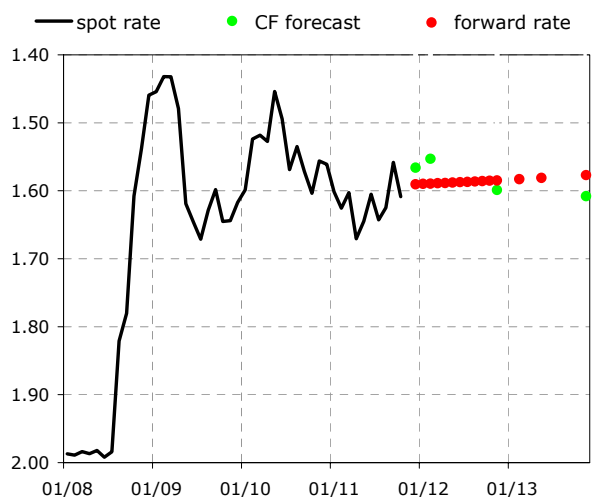
	14/11/11	12/11	02/12	11/12	11/13
spot rate	1.363				
CF forecast		1.350	1.332	1.351	1.337
forward rate		1.363	1.364	1.366	1.368

Yen per US\$



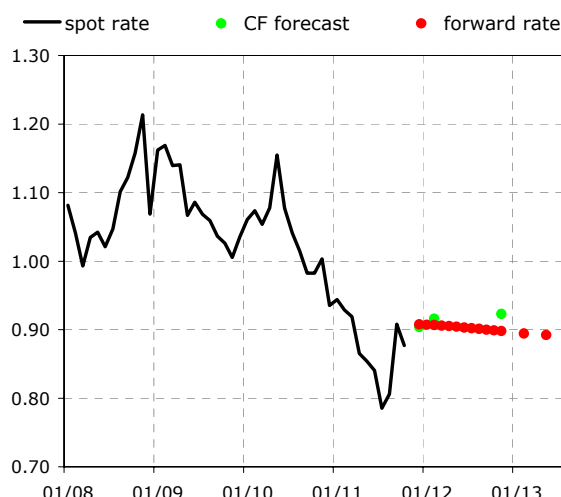
	14/11/11	12/11	02/12	11/12	11/13
spot rate	77.07				
CF forecast		76.84	76.93	80.02	83.89
forward rate		77.03	76.91	76.33	75.40

US\$ per UK£



	14/11/11	12/11	02/12	11/12	11/13
spot rate	1.591				
CF forecast		1.566	1.553	1.599	1.608
forward rate		1.591	1.590	1.585	1.577

Swfr per US\$



	14/11/11	12/11	02/12	11/12	11/13
spot rate	0.908				
CF forecast		0.904	0.916	0.923	0.988
forward rate		0.908	0.907	0.898	0.885

Note: Increase in currency pair represents appreciation of US dollar; data as of the last day of the 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) possibilities for securing future exchange rate. [Cut-off date for data: 18 November 2011] Source: CNB calculation using Bloomberg and Consensus Forecasts databases.

VI.1 Oil and natural gas

In mid-October, news of low oil imports to China ended the previous rise in the Brent crude oil price. In the rest of the month, the price stabilised around USD 110 a barrel, rising and falling slightly in response to European politicians' efforts to solve the Greek debt crisis. In the first week of November, when it seemed that changes in government in Greece and Italy would calm the markets, it rose sharply to USD 115 a barrel. Since then, however, optimism has been fading slowly and the Brent price is falling again. The futures-based forecast is still falling. As of the CF11 survey date, however, it started around USD 5 a barrel higher than the previous forecast and the slope of the current futures curve was up slightly. This means that traders do not foresee any problems with futures deliveries and instead expect higher supply thanks to Libyan oil gradually returning to the market.

The WTI price continued to diverge from the Brent price, rising strongly in early November as a result of falling US inventories and more favourable data on the US economy.

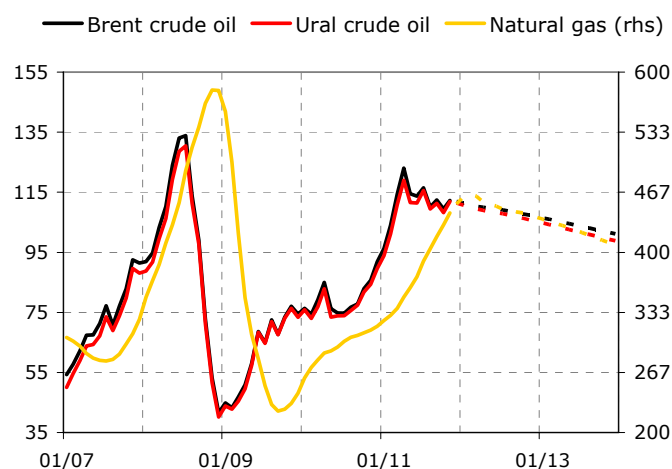
VI.2 Other commodities

In contrast to oil and gas prices, the index of non-energy commodity prices continued to decline during the past month, albeit at a slower pace. However, this decline was due solely to prices of some food commodities (and rubber), as prices of industrial metals were broadly flat, in line with the previous forecast.

Within food commodities, price declines were recorded for rice, soy, sugar, cocoa and pork. The outlook remains rising only for wheat and beef (which are still at historical highs). By contrast, maize prices are expected to fall. Within industrial metals, only aluminium prices are expected to rise.

Coal prices fell sharply by around 5% in late September and early October and then continued to edge down. The outlook is still rising, however.

OUTLOOK FOR PRICES OF OIL AND NATURAL GAS

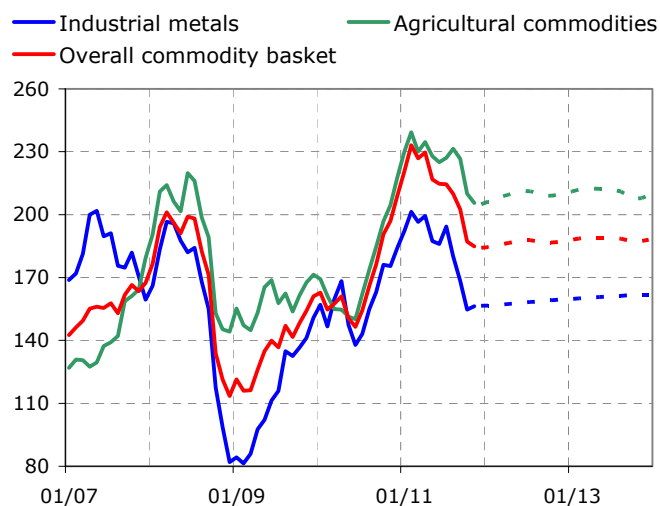


	11/11	06/12	12/12	06/13	12/13
Brent crude oil	112.3	109.4	106.9	104.1	101.2
Ural crude oil	111.9	108.2	105.3	102.1	98.9
Natural gas	443.6	451.2	439.1	424.5	407.8

Note: Brent oil price in USD/barrel (ICE quotation). Price of Russian natural gas at German border in USD/1,000 cubic m (IMF database). Future oil prices are derived from oil prices. Dashed line represents outlook. [Cut-off date for data: 14 November 2011].

Source: Bloomberg, IMF, CNB calculations.

OUTLOOK FOR OTHER COMMODITY PRICES



	11/11	06/12	12/12	06/13	12/13
Industrial metals	156.3	158.0	159.7	160.9	161.9
Agricultural commodities	205.6	211.4	210.2	212.1	209.0
Overall commodity basket	184.8	187.7	187.5	189.1	188.0

Note: Chart shows price indices, year 2005 = 100. Dashed line represents outlook based on futures. [Cut-off date for data: 14 November 2011].

Source: Bloomberg, outlooks based on futures.

THE WIDENING SPREAD BETWEEN PRICES OF NORTH SEA BRENT CRUDE OIL AND US WTI CRUDE OIL¹

European Brent and US WTI are regarded as the two main price benchmarks on the world oil market. Until recently the spread between them was relatively stable. Since the start of 2011, however, the Brent price has risen well above the WTI price. As the WTI price has thus deviated not only from the Brent price, but also from the alternative US Louisiana crude oil price for delivery to the Gulf Coast, as well as from petrol prices in the USA, we ascribe this trend to the specific logistical situation in Cushing, Oklahoma, which is the delivery point for WTI. Temporary oversupply of oil there, caused among other things by the opening of new pipelines from Canada, along with no easy option of shipping further south to the Gulf of Mexico, is keeping the WTI price well below the other benchmarks. In this situation, WTI has lost its status as a reliable indicator of the world price of oil.

Introduction

Hundreds of types of oil, often with very different properties, are traded on the crude oil market (see Box 1). Virtually every deposit yields oil with specific properties, and different refiners own different refining technologies specific to particular types of oil, each of which has a narrow range of properties. To enable efficient price-setting on such a market, benchmarks with narrowly defined properties and quality have been established in various regions of the world (see section 2). These benchmarks are traded on the main world commodity exchanges and are also used as underlying assets for futures, options and swaps. The prices of other oil types are then expressed as differences from the price of the relevant benchmark, with the difference depending on the quality of the given oil type relative to the quality of the benchmark. The price of North Sea Brent crude oil is used as the benchmark in Europe. The price of WTI (West Texas Intermediate) is used in the USA. On an efficient market, prices around the world should be roughly equal (once differences in quality and transport and storage costs have been taken into account) so that no opportunity for risk-free arbitrage arises.

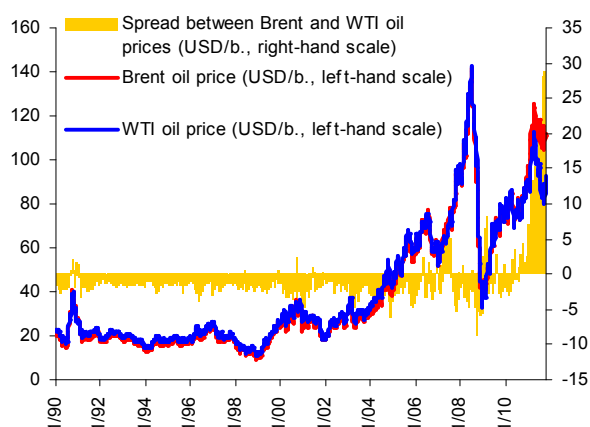
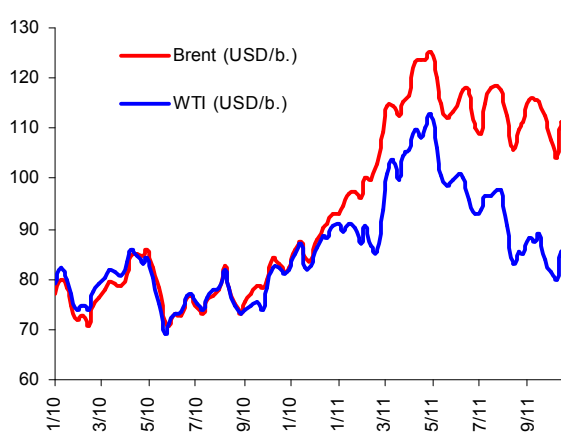
1. Evolution of the Brent-WTI spread

During the 1990s, the spread between the prices of WTI and Brent crude oil moved within a narrow range around an average of USD 1.4 a barrel (see Figure VII-1). In 2000 the volatility of the spread started to increase as the price of oil rose, and the price of Brent crude sometimes rose briefly above that of WTI.² However, the average for 2000–2010 remained around USD 1.4 a barrel.³ A fundamental turning point occurred in early 2011, when the two prices started to diverge (see Figure VII-2). The question is, what is the reason for such fundamentally different paths on the two markets, and which “benchmark” currently better reflects the “world oil price”?

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² In March 2007, for example, the Brent price rose above the WTI price and traded at a premium until July 2007. This anomaly was caused by temporary capacity restrictions in US refineries, which led to oversupply of WTI. Thus, WTI also temporarily lost its status as a reliable indicator of the world price of oil. However, as soon as above ground reserves of WTI in the USA declined, its price again increased above that of Brent crude.

³ According to the IEA (International Energy Agency), WTI traded at a price 5% higher than Brent in 1994–2010. The price difference, shown in Figure VII-1, was more stable than the price ratio.

Figure VII-1: Brent-WTI spread since 1990**Figure VII-2: Brent and WTI prices since 2010**

Source: Thomson Reuters

Box 1: Quality and types of oil

The quality of the different types of oil is assessed primarily according to their gravity and their sulphur content. By gravity, oil is divided into light, medium and heavy^a (see Table VII-1). Density is measured either in SI units or, more usually, in API (American Petroleum Institute) degrees. The API scale is the inverse of the SI, so the higher the density, the lower the API gravity and (from the refineries' perspective) the worse the quality of the oil. Oil is classified in terms of sulphur content into sweet (less than 0.5% sulphur) and sour (more than 1.0% sulphur). Sweeter oil is preferred for processing.

Table VII-1: Indicative classification of oil by gravity and sulphur content

by gravity	gravity		by sulphur content	sulphur
	kg/m ³	°API		%
light	< 870	> 31.1	sweet	< 0.5
medium	870–920	31.1 - 22.3	intermediate	0.5–1.0
heavy	920–1,000	22.3 - 10.0	sour	1.0–2.0
extra heavy	> 100	< 10.0	high	> 2.0

Note: The classification is only indicative, as different institutions and regions use different gradings. For example, the IEA and the EIA consider oil to be light only from 38° API upwards. However, most institutions agree on the threshold at which oil is regarded as heavy (around 20° API). Below this threshold, the density and viscosity of oil is so high that it cannot be piped out of the well without further treatment (heating or dilution).

Source: The Canadian Centre for Energy Information

^a The "extra heavy" category is sometimes also used. It includes, for example, bitumen from Canadian oil sands (around 8° API). Bitumen is "upgraded" at the extraction site (by cracking) or is blended with light crude to a gravity of around 31–33° API. This produces a product known as "synthetic crude", which can be shipped through pipelines for further processing in refineries.

2. The most important global benchmarks

WTI (West Texas Intermediate, also known as Texas Light Sweet) is a light (38–40° API) and sweet (about 0.3% sulphur) crude oil extracted and refined in the US Midwest. It is also processed partly on the Gulf Coast. It is used as a benchmark for pricing the oil transported through pipelines in North America. In the USA it is valued, among other things, for its high petrol (gasoline) yield. Its delivery point is the Cushing oil hub in Oklahoma. It is an underlying asset for futures traded on the CME (Chicago Mercantile Exchange), the NYMEX (New York Mercantile Exchange) and the ICE (Intercontinental Exchange).

Brent Blend is a mixture of 15 types of oil extracted from the North Sea. It is used as a benchmark for pricing about two-thirds of internationally traded oil (sourced chiefly from Europe, North Africa and the Middle East and shipped to the West). Its delivery point is Sullom Voe (on the Shetland Islands), to which oil is shipped by sea. It is refined mostly in Northwest Europe and is suitable for production of petrol and middle distillates (diesel). It is an underlying asset for futures traded on the ICE and the NYMEX.

Table VII-2: Indicative parameters of some common types of oil⁴

oil type	°API	sulphur %	delivery point
Brent Blend	37.9	0.45	Sullom Voe (Shetlands, Scotland)
West Texas Intermediate	38.7	0.45	Cushing (Oklahoma)
Light Louisiana Sweet	36.4	0.13	St. James (Louisiana)
Urals	31–32	0.8–1.8	Primorsk, Novorossiysk, Odessa
Middle East	34–35	1.7	-

Source: Energy Intelligence Group

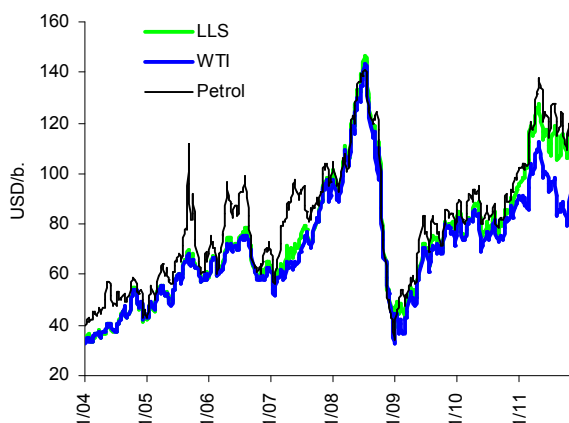
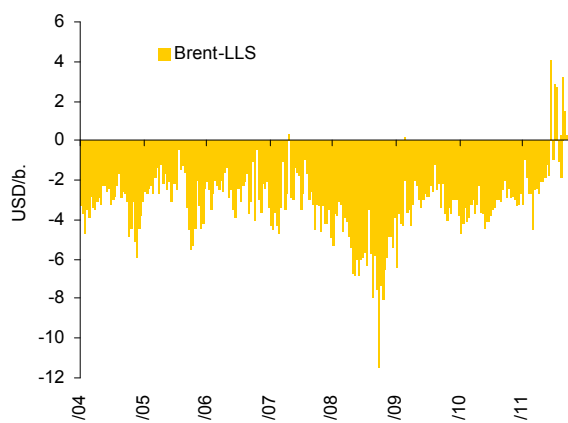
Although analysts often focus on the WTI-Brent spread, it should be said that the two crude oil types are not direct substitutes. The qualitative differences are insignificant from the perspective of refining technology, but direct arbitrage is difficult. Brent crude can be shipped without problem anywhere by sea, but transport of WTI is limited by the capabilities of US pipelines. The Brent price is therefore affected much more strongly by global supply and demand, whereas the WTI price tends to reflect supply and demand in the USA. So, from the point of view of substitution and arbitrage, the price gap between Brent and LLS (Light Louisiana Sweet) is more important, as LLS is also qualitatively comparable but is additionally available for sea transport.⁵

3. Which benchmark better reflects global oil prices?

This question is relatively easy to answer. The price of Brent crude oil is closer to the “global price of oil” for several reasons. First, prices of other traded types, including US Light Louisiana Sweet (LLS), traded on the Gulf Coast, move in parallel with the Brent crude price (see Figure VII-3). And second, the retail price of petrol in the USA correlates with the LLS price, not the WTI price.

⁴ The values may differ depending on the sources and also change over time.

⁵ The sweet-sour spread, for example, is mentioned in addition to the price differences between the individual types of oil. This spread tends to widen at times of increased demand for refinery products. The crack spread, i.e. the difference between the price of products and the price of crude oil, increases with increasing demand. Refineries try to boost production by using refining facilities that are able to process only the more expensive sweet oil, and its price therefore increases relative to sour oil.

Figure VII-3 Oil and petrol prices in the USA**Figure VII-4 Brent-LLS spread**

Source: Thomson, Reuters

4. Reasons for the different WTI price in 2011

Why is the WTI price so out of step with the other world benchmarks? At the start of the year this phenomenon was explained by rising inventories at the Cushing hub. However, these inventories peaked at 42 million barrels in March and have been falling ever since,⁶ while the price difference has continued on an upward trend. The stockpile status at Cushing, therefore, does not explain the situation. However, the probable explanation should be sought in the specific local infrastructure. The US Midwest is linked with the Gulf Coast by two main pipelines,⁷ both of which, however, bring oil from the coast to inland refineries. In addition, pipelines from Canada have recently been put into operation and are shipping ever more oil to the region from the north.⁸ Local production in North Dakota is rising as well. The region is thus being supplied with more oil than local refineries are able to process. This raises the logical question of why the excess WTI oil is not being transported from the inland to the Gulf Coast, where it could be sold at a much higher price. One of the owners of the Seaway Pipeline (Conoco Phillips) says that it is not in its interest to reverse the pipeline. The company justifies this by saying that it also owns inland refineries in Oklahoma, which would not be utilised at optimal capacity without deliveries from the Gulf of Mexico. In addition, it has a plant there producing "premium coke",⁹ which requires oil with specific properties from the coast. Finally, the company argues that reversing the pipeline's flow is not a short-term operation; it could take six months to a year and would involve further costs on top of the operational losses. Conoco Phillips is, of course, profiting from the low WTI price. The output of local refineries is lower than local consumption and so fuels are being imported from other parts of the USA. Local refineries can therefore sell their products at prices which are common elsewhere in the USA and are based on the price of the

⁶ By contrast, storage capacity at Cushing is rising gradually. According to the US Department of Energy, total shell capacity was 58 million barrels at the end of March, while the working capacity was 48 million barrels, which means that even at a time of peak replenishment there was at least 15% spare storage capacity.

⁷ The Seaway Pipeline, with a capacity of 430,000 barrels a day, links Cushing with the western part of the Gulf, while the Capline Pipeline, with a daily capacity of 1.2 million barrels, runs from Louisiana to Southern Illinois.

⁸ TransCanada's Keystone Pipeline, running from Steele City (Nebraska) to Cushing, opened on 8 February and should transport 155,000 barrels a day. Before that, another pipeline from Canada was put into operation in April 2010.

⁹ This is high-quality oil coke (virtually pure carbon) used, for example, to make graphite electrodes for electric arc furnaces used in the steel industry. Its production requires oil of specific composition.

more expensive LLS. Looking a few years ahead, the extension of the TransCanada pipeline to the Gulf is a potential solution. However, this project is currently facing problems with approval. At the current spreads, even the more costly transport from North Dakota to the Gulf by rail and road¹⁰ pays, but volumes are currently low (about 60,000 barrels a day) owing to a shortage of spare transport capacity and a lack of loading/offloading infrastructure. There is even speculation about using river transport.

5. Are oil prices in the USA and in Europe diverging?

A June study by Goldman-Sachs (Durden, 2011) offers a hypothesis that logistical problems in the US Midwest kept the Brent–WTI spread at a wide level between March and May, whereas the further sharp growth at the start of June was due to a fall in the LLS price relative to the Brent price (see Figure VII-4). The Brent crude oil price tends to be lower than LLS price, the difference being roughly equal to the costs of transport from Europe to the Gulf of Mexico (USD 3–4 a barrel). In June, however, the arbitrage flow of oil probably flipped away from the USA and towards Europe. At the time, GS analysts expected in their baseline scenario that this situation – linked with the loss of Libyan oil production and extraction problems in Nigeria – would be only temporary and would fade over time. This belief was confirmed at the start of October, when the LLS price moved back above the Brent price. The price gap between Brent and WTI continued widening, however, owing to the still unresolved situation at Cushing.

Conclusion

The current disparity between Brent and WTI prices is due primarily to oversupply of crude oil to the US Midwest (a logistical factor). This hypothesis is supported by the different paths followed by the price of oil on the Gulf Coast (Light Louisiana Sweet, which is available for arbitrage) and the price of petrol in the USA. The prices of these commodities have remained closely tied to the price of Brent oil and do not suggest that prices in the USA are diverging from those in the rest of the world. In the current situation, however, the price of WTI oil is ceasing to be a benchmark for prices in the USA, let alone world oil prices. In line with this fact, representatives of the Dow Jones-UBS commodity index announced in October 2011 that they are going to include Brent crude oil in their index as from 2012. Consensus Economics, which in its expectations surveys currently focuses only on the WTI price, may follow suit.

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¹⁰ Rail and road transport costs are US\$6 a barrel and US\$10 a barrel respectively, while the transport tariff of the Seaway pipeline is US\$1.5 a barrel.

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BOFIT	Bank of Finland Institute for Economies in Transition
CB-CCI	Conference Board Consumer Confidence Index
CB-LEII	Conference Board Leading Economic Indicator Index
CBOT	Chicago Board of Trade
CF	Consensus Forecasts
CN	China
CNB	Czech National Bank
DBB	Deutsche Bundesbank
DE	Germany
EA	euro area
EC	European Commission
ECB	European Central Bank
EC-CCI	European Commission Consumer Confidence Indicator
EC-ICI	European Commission Industrial Confidence Indicator
EIU	The Economist Intelligence Unit database
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
Fed	Federal Reserve System (the US central bank)
FRA	forward rate agreement
GBP	pound sterling
GDP	gross domestic product
CHF	Swiss franc
ICE	Intercontinental Exchange
IFO	Institute for Economic Research
IFO-BCI	IFO – Business Climate Index
IFO-CCI	IFO – Consumer Confidence Index
IMF	International Monetary Fund
IRS	Interest rate swap
JPY	Japanese yen
LIBOR	London Interbank Offered Rate
N/A	not available
OECD	Organisation for Economic Co-operation and Development
OECD-CLI	OECD Composite Leading Indicator
UoM	University of Michigan
UoM-CSI	University of Michigan Consumer Sentiment Index
US	United States
USD	US dollar

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