

# ECOWEEK

No. 18-45, 07 December 2018

## The decline of commodity prices: A matter of concern?

- Oil and metals prices are down significantly this year
- For oil this seems to be predominantly driven by supply factors
- The decline of metal prices probably reflects the softening of global growth
- There is a clear negative relationship between oil price changes and subsequent US real GDP growth
- US growth is expected to face a number of headwinds in 2019 but the decline of the price of oil should act as a tailwind

From their highs earlier this year industrial metals are on average down about 20% and Brent oil about 30%. Looking at commodities as inputs in production processes, this type of decline provides ample reason for concern. This is the signalling role of commodity prices. However, they can also be considered as a driver of demand: big commodity price drops represent a favourable supply shock which should end up boosting final demand in the economy and hence economic growth.

This is the interpretation that president Trump seems to be favouring. His pressure on Saudi Arabia and OPEC in general, not to cut production would, if successful, make the decline in oil prices permanent. Generally speaking this should support growth although oil producers would suffer from declining margins. Unsurprisingly the spread of the US high yield bond index, which has a high percentage (close to 16%) of energy producers, has widened significantly, mirroring the drop in oil prices (*chart 1*). Does the tug of war between US shale oil producers and oil exporting countries fully explain the behaviour of the oil market in recent months or does it also signal weaker demand? Based on econometric techniques, the weekly Oil Price Dynamics report of the Federal Reserve of New York provides a decomposition of the change in oil prices in demand and supply-related factors<sup>1</sup>. This analysis suggests that the 27.3% drop in the price of Brent oil between 6 July and 30 November, reflects a softening of demand effect of 5.5%, a supply effect of 15.6% and an unexplained residual of 6.2%. This result provides some relief to those who would interpret recent oil price developments as an additional sign of weakening global growth, in conjunction with weaker survey data.

.../...

<sup>1</sup> This decomposition is based on regression analysis of a large number of variables which are correlated with oil demand and supply. For more details see: Groen, J., K. McNeil, and M. Middeldorp, *A New Approach for Identifying Demand and Supply Shocks in the Oil Market*. Liberty Street Economics, 25 March 2013.

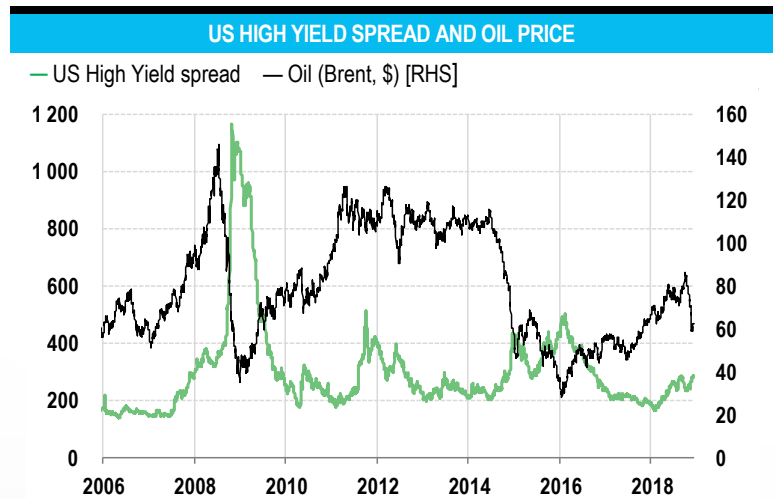


Chart 1

Source : Thomson Reuters, BNP Paribas

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ECONOMIC RESEARCH DEPARTMENT



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Caution is nevertheless warranted. In a recent blogpost, an economist at the Bank of England has demonstrated that “metals prices are timely, highly correlated with world economic activity and perform well at predicting short-term movements in GDP.”<sup>2</sup> This is confirmed in table 1 which shows a statistically significant positive correlation between the quarterly change in metal prices (LMEX) and real GDP growth in the current and following quarter, so lower metal prices point to slower growth. For Brent oil however the relationship is negative and not statistically significant.

The role of commodity prices as a driver of subsequent growth was analysed on the basis of model-based simulations. Using the NiGEM model, a permanent decline in the price of oil of 25% has a positive impact on the level of US real GDP after two years of about 1%. In the eurozone the impact is about 0.7% (chart 2). A drop in metal prices on the other hand has a negligible and short-lived impact (chart 3). Metal prices may be useful when producing a real-time estimate of economic growth, but in the short to medium term, it is the price of oil that matters.

William De Vijlder

<sup>2</sup>Source: Pumping iron: how can metals prices help predict global growth?, Tom Wise, Bank Underground (Bank of England), 17 July 2018

QUARTER CHANGE IN COMMODITY PRICES AND GDP GROWTH				
	United States		Eurozone	
	GDP(t+2)	GDP(t+2)	GDP(t+2)	GDP(t+2)
LMEX	0.013548 [3.7635]***		0.016451 [3.5927]***	
Brent		-0.00091 [-0.5011]		0.005283 [1.8053]*
C	0.633978 [16.1000]***	0.696045 [14.7118]***	0.371452 [7.3112]***	0.375353 [6.9656]***
Obs:	135	193	93	93
R2	0.0962	0.0013	0.1242	0.0346
F-stat	14.1642	0.2511	12.9078	3.2591
Prob(F-stat):	0.0003	0.6169	0.0005	0.0743

Note: Figures in parentheses are robust t-statistics. \*\*\*, \*\*, \* indicate 1%, 5%, 10% significance level.  
GDP(t+2) means average growth over the current and following quarter.

Table1

Source: Thomson Reuters, BNP Paribas calculations

**CUMULATIVE EFFECT ON US REAL GDP OF A DECLINE IN THE OIL PRICE**      **CUMULATIVE EFFECT ON US REAL GDP OF A DECLINE IN METAL PRICES**

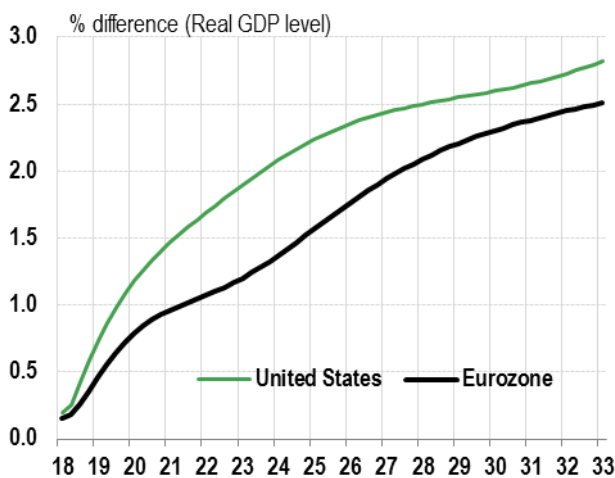


Chart 2

Source: NiGEM, BNP Paribas

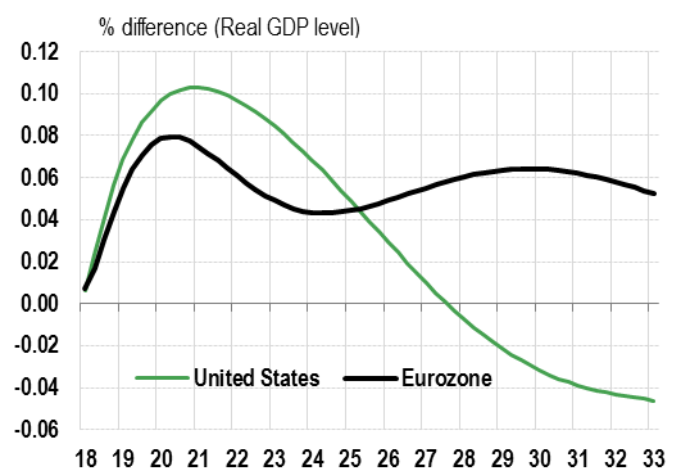


Chart 3

Source: NiGEM, BNP Paribas



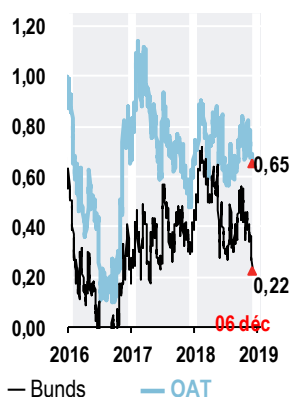
## Markets overview

### The essentials

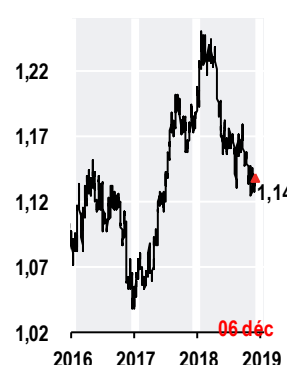
Week 30-11 18 > 6-12-18

↘ CAC 40	5 004	▶ 4 780	-4.5 %
↘ S&P 500	2 760	▶ 2 696	-2.3 %
↗ Volatility (VIX)	18.1	▶ 21.2	+3.1 pb
↗ Euribor 3M (%)	-0.32	▶ -0.32	+0.1 bp
↗ Libor \$ 3M (%)	2.74	▶ 2.77	+3.0 bp
↘ OAT 10y (%)	0.68	▶ 0.65	-2.5 bp
↘ Bund 10y (%)	0.31	▶ 0.22	-8.5 bp
↘ US Tr. 10y (%)	3.02	▶ 2.88	-13.9 bp
↗ Euro vs dollar	1.13	▶ 1.14	+0.5 %
↗ Gold (ounce, \$)	1 219	▶ 1 243	+2.0 %
↗ Oil (Brent, \$)	58.7	▶ 58.9	+0.2 %

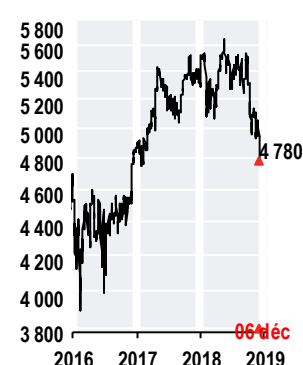
10 y bond yield, OAT vs Bund



Euro-dollar



CAC 40



### Money & Bond Markets

Interest Rates	highest' 18	lowest' 18
€ ECB	0.00 at 01/01	0.00 at 01/01
Eonia	-0.36 at 31/10	-0.37 at 18/05
Euribor 3M	-0.32 at 06/12	-0.33 at 01/01
Euribor 12M	-0.14 at 06/12	-0.19 at 19/02
\$ FED	2.25 at 27/09	1.50 at 01/01
Libor 3M	2.77 at 05/12	1.69 at 01/01
Libor 12M	3.13 at 09/11	2.11 at 01/01
£ BoE	0.75 at 02/08	0.50 at 01/01
Libor 3M	0.90 at 29/11	0.52 at 04/01
Libor 12M	1.16 at 14/11	0.76 at 03/01

At 6-12-18

Yield (%)	highest' 18	lowest' 18
€ AVG 5-7y	1.06 at 19/10	0.41 at 18/04
Bund 2y	-0.63 at 25/09	-0.79 at 29/05
Bund 10y	0.22 at 15/02	0.22 at 06/12
OAT 10y	0.65 at 08/02	0.57 at 13/07
Corp. BBB	2.09 at 05/12	1.17 at 08/01
\$ Treas. 2y	2.76 at 08/11	1.89 at 01/01
Treas. 10y	2.88 at 08/11	2.41 at 01/01
Corp. BBB	4.75 at 29/11	3.59 at 01/01
£ Treas. 2y	0.70 at 05/10	0.40 at 01/01
Treas. 10y	1.23 at 10/10	1.23 at 01/01

At 6-12-18

10y bond yield & spreads

5.01%	Greece	478 pb
3.21%	Italy	298 pb
1.81%	Portugal	158 pb
1.47%	Spain	124 pb
0.73%	Belgium	50 pb
0.65%	France	42 pb
0.56%	Ireland	33 pb
0.52%	Finland	29 pb
0.49%	Austria	27 pb
0.37%	Netherland	14 pb
0.22%	Germany	

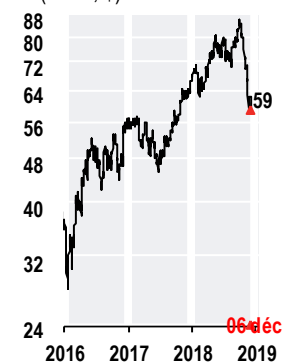
### Commodities

Spot price in dollars	lowest' 18	2018(€)
Oil, Brent	58,9 at 30/11	-6.7%
Gold (ounce)	1 243 at 17/08	+0.6%
Metals, LME	2 921 at 15/08	-9.9%
Copper (ton)	6 080 at 15/08	-11.0%
CRB Foods	333 at 30/08	+4.5%
wheat (ton)	198 at 16/01	+31.4%
Corn (ton)	137 at 18/09	+14.0%

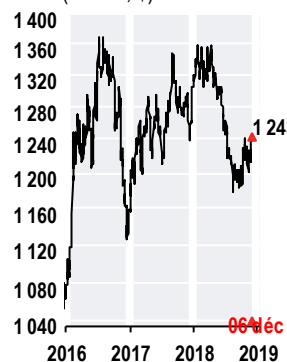
At 6-12-18

Variations

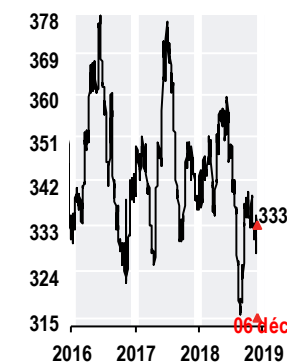
Oil (Brent, \$)



Gold (Ounce, \$)



CRB Foods



### Exchange Rates

€ =	highest' 18	lowest' 18	2018
USD	1.14 at 25/01	1.13 at 12/11	-5.2%
GBP	0.89 at 28/08	0.86 at 17/04	+0.3%
CHF	1.13 at 19/04	1.12 at 07/09	-3.5%
JPY	127.89 at 02/02	124.96 at 15/08	-5.5%
AUD	1.58 at 11/09	1.53 at 09/01	+2.8%
CNY	7.84 at 25/09	7.42 at 29/05	+0.2%
BRL	4.46 at 14/09	3.87 at 08/01	+12.0%
RUB	76.27 at 10/09	68.06 at 09/01	+10.3%
INR	80.64 at 11/10	75.92 at 08/01	+5.2%

At 6-12-18

Variations

### Equity indices

Index	highest' 18	lowest' 18	2018	2018(€)
CAC 40	5 640 at 22/05	4 780 at 06/12	-10.0%	-10.0%
S&P500	2 931 at 20/09	2 581 at 08/02	+0.8%	+6.4%
DAX	13 560 at 23/01	10 811 at 06/12	-16.3%	-16.3%
Nikkei	24 271 at 02/10	20 618 at 23/03	-5.5%	-0.1%
China*	74 at 26/01	68 at 30/10	-16.7%	-12.2%
India*	535 at 29/01	487 at 26/10	-2.8%	-7.6%
Brazil*	1 957 at 26/01	1 561 at 11/09	+14.3%	+2.0%
Russia*	602 at 26/02	551 at 23/08	+13.6%	+5.0%

At 6-12-18

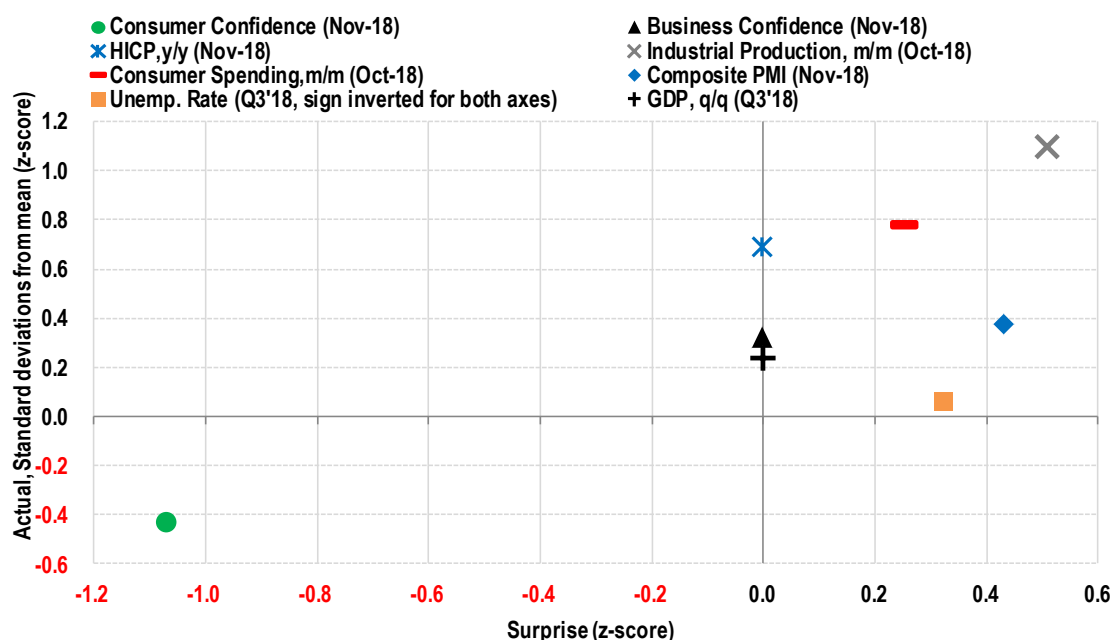
Variations

\* MSCI index

## Pulse

## France: Good economic performance in October

Except consumer confidence, which dropped off sharply in November, surprising again on the downside and still standing well below its average, the other economic indicators available to date are positive. In particular, the big rise in October of household expenditure on goods (+0.8 % m/m, real terms), industrial output (+1.2 % m/m, real terms) and goods exports (+6.2 % m/m, nominal terms) helps start the fourth quarter on a positive note. However, growth that quarter (+0.6 % q/q according to our forecasts made a couple of weeks ago) may end up being weaker depending on the impact on activity of the ongoing social protests.



Source: INSEE, Markit, Bloomberg, BNP Paribas calculations

## Indicators preview

The market focus next week will be on the parliamentary vote in the UK on 11 December on the Brexit deal. On the economic front, the highlight of the week is the ECB Governing Council meeting. In terms of data attention will go to the Banque de France industrial sentiment index, the payroll numbers in France, employment numbers for the eurozone, inflation in the US (PPI and CPI), inflation in France and Germany, the Markit PMI numbers in several countries, US retail sales and, in Japan, the Tankan survey.

Date	Country/Region	Event	Period	Survey	Prior
12/10/18	Japan	GDP SA QoQ	3Q	-0.5%	-0.3%
12/10/18	France	Bank of France Ind. Sentiment	Nov	--	103
12/10/18	United Kingdom	Industrial Production MoM	Oct	--	0.0%
12/10/18	Japan	Eco Watchers Survey Current SA	Nov	--	49.5
12/11/18	France	Total Payrolls	3Q	--	0.0%
12/11/18	United Kingdom	ILO Unemployment Rate 3Mths	Oct	4.1%	4.1%
12/11/18	United States	NFIB Small Business Optimism	Nov	--	107.4
12/11/18	United States	PPI Ex Food and Energy MoM	Nov	0.1%	0.5%
12/12/18	Eurozone	Industrial Production SA MoM	Oct	--	-0.3%
12/12/18	Eurozone	Employment QoQ	3Q	--	0.2%
12/12/18	United States	CPI MoM	Nov	0.0%	0.3%
12/13/18	Germany	CPI MoM	Nov	--	0.1%
12/13/18	France	CPI MoM	Nov	--	-0.2%
12/13/18	Eurozone	ECB Main Refinancing Rate	Dec 13	0.000%	0.000%
12/14/18	Japan	Tankan Large Mfg Index	4Q	18	19
12/14/18	France	Markit France Composite PMI	Dec	--	54.2
12/14/18	Eurozone	Markit Eurozone Composite PMI	Dec	--	52.7
12/14/18	United States	Retail Sales Advance MoM	Nov	0.2%	0.8%
12/14/18	United States	Industrial Production MoM	Nov	0.4%	0.1%

Source: Markit, BNP Paribas



## Economic scenario

### UNITED STATES

- Economy is expected to expand at approximately 2.8% this year on the back of tax cuts, booming profits and credit. However, weaker international trade as well as tighter monetary and financial conditions promise a slowdown.
- Inflation has passed its peak, as oil prices are now falling.
- The monetary tightening is coming closer to its end. We forecast the Fed funds target rate to reach 3% in Q2 2019, the stalling.

### CHINA

- Economic growth will decelerate in 2018-2019 due to both structural and cyclical reasons. The export outlook is significantly darkened by US tariff hikes. Private domestic demand should be affected by the worsening performance of the export manufacturing sector and the continued moderation in the property market.
- In order to contain the slowdown, the central bank is easing liquidity and credit conditions. At the same time, the reduction in financial instability risks via regulatory tightening should remain a top policy priority. Fiscal policy is also turning expansionary (tax cuts, increased infrastructure spending).

### EUROZONE

- The slowdown is becoming increasingly evident, especially in the German economy, which encounters capacity constraint and suffers from reduce demand coming from the EMEs.
- Inflation is now expected to decelerate with falling oil price, while core CPI trend remains subdued. We do not expect the ECB to move rates before 19Q4 (see below)

### FRANCE

- Growth slows down but remains above potential. Households' consumption should get a boost from the tax cuts and the jobs recovery but inflation reduces purchasing power gains. Business investment dynamics remain favourable. The global backdrop is less supportive. A slight rise in core inflation is appearing but remains to be confirmed.

### INTEREST RATES AND FX RATES

- In the US, ongoing strong growth and a very low unemployment rate pave the way for more rate hikes. We expect 1 more this year and 2 in the first half of 2019 after which the Fed will want to see how the economy reacts. As a consequence, US treasury yields should increase, although to a limited degree: the market expects that the tightening cycle is already well advanced. The ECB has announced it intends to stop its net asset purchases at the end of 2018. A first hike of the deposit rate is expected after the summer of 2019. As a consequence, bond yields should increase. No change expected in Japan.
- The narrowing bond yield differential between the US and the eurozone should cause a strengthening of the euro, all the more so considering it is still below its long-term fair value (around 1.34).

### SUMMARY

%	GDP Growth			Inflation		
	2018 e	2019 e	2020 e	2018 e	2019 e	2020 e
<b>Advanced</b>	<b>2.2</b>	<b>1.7</b>	<b>1.3</b>	<b>2.0</b>	<b>1.7</b>	<b>1.8</b>
United-States	2.9	2.1	1.5	2.4	1.8	2.0
Japan	0.9	0.7	0.3	1.0	0.6	1.4
United-Kingdom	1.3	1.8	1.6	2.4	2.0	2.0
<b>Euro Area</b>	<b>1.9</b>	<b>1.4</b>	<b>1.2</b>	<b>1.8</b>	<b>1.8</b>	<b>1.5</b>
Germany	1.6	1.5	1.3	1.9	2.2	1.6
France	1.7	1.6	1.3	2.1	1.7	1.6
Italy	1.0	0.6	0.5	1.3	1.5	1.2
Spain	2.5	2.2	2.0	1.8	1.7	1.3
<b>Emerging</b>	<b>5.9</b>	<b>5.9</b>	<b>5.7</b>	<b>2.8</b>	<b>2.7</b>	<b>3.1</b>
China	6.6	6.2	6.0	2.2	1.9	2.5
India	7.4	7.6	7.8	3.8	4.0	4.1
Brazil	1.3	3.0	2.5	3.7	3.8	3.6
Russia	1.8	1.7	1.6	2.8	3.6	4.2

Source : BNP Paribas Group Economic Research (e: Estimates & forecasts)

### INTEREST RATES & FX RATES

Interest rates, %		2018					2019		
End of period		Q4e	Q1e	Q2e	Q3e	Q4e	2018e	2019e	2020e
<b>US</b>	Fed Funds	2.50	2.75	3.00	3.00	3.00	2.50	3.00	3.00
	Labor 3m \$	2.65	2.90	3.05	3.05	3.05	2.65	3.05	2.80
	T-Notes 10y	3.20	3.30	3.40	3.45	3.50	3.20	3.50	3.25
<b>Ezone</b>	ECB Refi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	Euribor 3m	-0.30	-0.30	-0.25	-0.20	-0.15	-0.30	-0.15	0.00
	Bund 10y	0.55	0.55	0.60	0.80	1.00	0.55	1.00	0.90
	OAT 10y	0.90	0.95	1.00	1.10	1.25	0.90	1.25	1.15
<b>UK</b>	Base rate	0.75	0.75	1.00	1.00	1.25	0.75	1.25	1.50
	Gilts 10y	1.20	1.70	1.85	2.00	2.10	1.20	2.10	2.10
<b>Japan</b>	BoJ Rate	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
	JGB 10y	0.14	0.15	0.15	0.15	0.14	0.14	0.14	0.08

Source : BNP Paribas GlobalMarkets (e: Estimates & forecasts)

Exchange Rates		2019					2018		
End of period		Q4e	Q1e	Q2e	Q3e	Q4e	2018e	2019e	2020e
<b>USD</b>	EUR / USD	1.14	1.15	1.17	1.21	1.25	1.14	1.25	1.34
	USD / JPY	111	110	108	105	100	111	100	90
	GBP / USD	1.27	1.32	1.36	1.41	1.47	1.27	1.47	1.58
	USD / CHF	0.99	1.01	1.00	0.98	0.96	0.99	0.96	0.93
<b>EUR</b>	EUR / GBP	0.90	0.87	0.86	0.86	0.85	0.90	0.85	0.85
	EUR / CHF	1.13	1.16	1.17	1.18	1.20	1.13	1.20	1.25
	EUR / JPY	127	127	126	127	125	127	125	121

Source : BNP Paribas GlobalMarkets (e: Estimates & forecasts)





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