ECOWEEK

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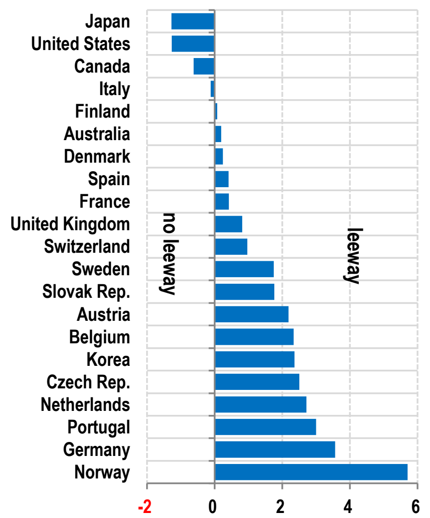
Growth, interest rates and government debt

■The relationships between government debt, economic growth and interest rates are complex and varied ■In general, a recession causes an increase in government debt and a decline in government borrowing costs ■A prolonged period of monetary accommodation during a cyclical upswing can cause the average nominal interest rate on government debt to drop below the rate of nominal GDP growth ■Depending on the level of the primary balance, such a situation can, under certain conditions, create leeway for fiscal expansion in order to support growth

The relationships between government debt, economic growth and interest rates are complex and varied. Recessions tend to cause a jump in government debt in absolute terms and as a percentage of GDP, but the ensuing monetary easing leads to a decline in government borrowing costs. Highly indebted countries however can suffer from investor distrust, which leads to a rise in the required risk premium and hence bond yields. A prolonged period of monetary accommodation during a cyclical upswing can cause the average nominal interest rate on government debt (r) to drop below the rate of nominal GDP growth (g). This is what has happened in recent years in a large number of countries. In a recent speech, former IMF chief economist Olivier Blanchard has elaborated on the policy leeway provided when r<g[1]. In that case, a country can afford to run a permanent primary deficit (which corresponds to the general government deficit excluding interest charges) and yet have a stable debt/GDP ratio. When r<g and the primary deficit is smaller than the critical level (i.e. the level at which the debt ratio is stable), it follows that the debt/GDP ratio will decline. In that case a country has leeway to conduct a fiscal expansion which would bring the primary balance to its critical level. Such a policy should boost growth in the short run. Faced with lacklustre private demand, this could make a considerable difference to growth: the fiscal multiplier could be big, although this also depends on the openness of the economy. It would also reduce the risk that low or negative growth has lasting adverse supply-side effects via a decline in capital formation. Fiscal expansion could also play a key role to complement monetary policy when it is constrained by very low interest rates.

Applying this thinking, a back of the envelope calculation[2] shows that in many countries, r is below g, which, taking into account the current primary balance, offers quite some leeway (chart). Of the bigger countries, Germany is in that position, whereas the UK and France only have limited leeway. Italy has none and, interestingly, the US primary deficit is already too high to stabilise the debt ratio. The argument can be made however that with r<g, the increase of the debt/GDP ratio would be very slow if the primary deficit would increase beyond its critical level. In addition, a low appetite for riskier assets (equities, corporate bonds, etc.) during a recession would mean that the borrowing requirement could be easily met without pushing yields higher. For countries which already have a high debt/GDP ratio, this argument may not hold and rising bond yields could limit the effectiveness of fiscal expansion[3].

FISCAL POLICY LEEWAY
PRIMARY BALANCE WHICH STABILISES DEBT/GDP VERSUS CURRENT PRIMARY BALANCE



Source: BNP Paribas calculations based on IMF data

[1] Olivier Blanchard, Peterson Institute for International Economics and MIT, Public debt and low interest rates, American Economic Association Presidential Lecture, Jan. 2019.
[2] The calculations were based on data from tables A2, A7 and A23 of the statistical appendix of the IMF's Fiscal Monitor (April 2019). The difference between r and g corresponds to the IMF's projection of the interest rate–growth differential for the period 2019-24. In order to simplify the calculation, the primary balance which, given r and g, generates a stable debt/GDP ratio has been calculated based on the requirement of instantaneous stabilisation of the debt ratio
[3] This would be an illustration of the Lucas critique which states that economic relationships change when economic policy changes.

William De Vijlder

p. 2 Markets Overview

p. 3 Pulse

p. 4 Economic scenario

Eco WEEK

ECONOMIC RESEARCH DEPARTMENT

BNP PARIBAS

The bank for a changing world

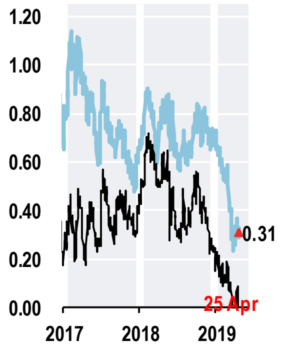
Markets overview

The essentials

Week 19-4 19 > 25-4-19

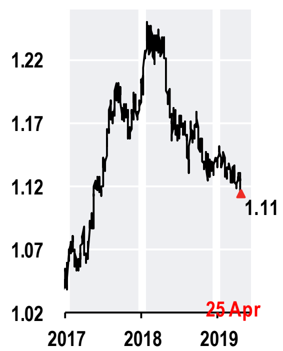
↘ **CAC 40**	5 580	▸	**5 558**	**-0.4**	%
↗ **S&P 500**	2 905	▸	**2 926**	**+0.7**	%
↗ Volatility (VIX)	12.1	▸	13.3	+1.2	pb
↘ **Euribor 3M** (%)	-0.31	▸	**-0.31**	**-0.1**	bp
↗ Libor $ 3M (%)	2.58	▸	2.59	+0.5	bp
↘ OAT 10y (%)	0.31	▸	0.31	-0.3	bp
↘ Bund 10y (%)	0.02	▸	-0.01	-3.3	bp
↘ US Tr. 10y (%)	2.56	▸	2.54	-2.4	bp
↘ **Euro vs dollar**	1.12	▸	**1.11**	**-0.9**	%
↗ Gold (ounce, $)	1 275	▸	1 280	+0.4	%
↗ **Oil (Brent, $)**	71.9	▸	**75.2**	**+4.5**	%

10 y bond yield, OAT vs Bund

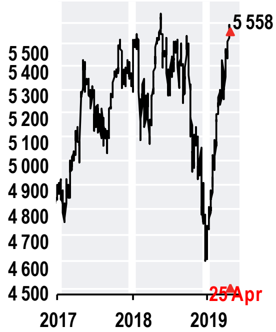


— Bunds — OAT

Euro-dollar



CAC 40



Money & Bond Markets

Interest Rates		highest' 19		lowest' 19	
€ ECB	**0.00**	0.00	at 01/01	0.00	at 01/01
Eonia	**-0.37**	-0.36	at 01/01	-0.37	at 26/02
Euribor 3M	**-0.31**	-0.31	at 24/01	-0.31	at 24/04
Euribor 12M	**-0.11**	-0.11	at 06/02	-0.12	at 02/01
$ FED	**2.50**	2.50	at 01/01	2.50	at 01/01
Libor 3M	**2.59**	2.81	at 01/01	2.58	at 23/04
Libor 12M	**2.73**	3.04	at 21/01	2.68	at 27/03
£ BoE	**0.75**	0.75	at 01/01	0.75	at 01/01
Libor 3M	**0.82**	0.93	at 29/01	0.82	at 08/04
Libor 12M	**1.09**	1.19	at 11/01	1.05	at 02/04

At 25-4-19

Yield (%)		highest' 19			lowest' 19		
€ AVG 5-7y	**0.41**	0.68	at	09/01	0.36	at	12/04
Bund 2y	**-0.59**	-0.53	at	05/03	-0.63	at	27/03
Bund 10y	**-0.01**	0.25	at	01/01	-0.08	at	27/03
OAT 10y	**0.31**	0.73	at	08/01	0.24	at	27/03
Corp. BBB	**1.29**	2.15	at	08/01	1.29	at	25/04
$ Treas. 2y	**2.35**	2.62	at	18/01	2.22	at	27/03
Treas. 10y	**2.54**	2.78	at	18/01	2.37	at	27/03
Corp. BBB	**4.00**	4.65	at	01/01	3.98	at	27/03
£ Treas. 2y	**0.74**	0.83	at	27/02	0.63	at	02/04
Treas. 10y	**1.15**	1.35	at	18/01	0.99	at	25/03

At 25-4-19

10y bond yield & spreads

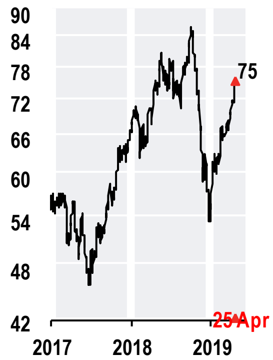
3.85%	Greece	386 pb
2.55%	Italy	255 pb
1.19%	Portugal	119 pb
1.10%	Spain	110 pb
0.47%	Belgium	48 pb
0.31%	France	31 pb
0.29%	Austria	30 pb
0.22%	Finland	23 pb
0.18%	Netherland	18 pb
0.16%	Ireland	17 pb
-0.01%	Germany	

Commodities

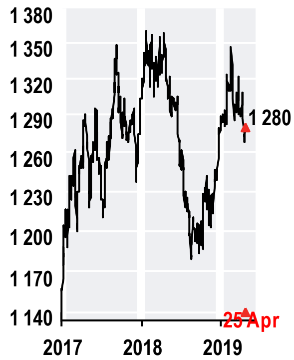
Spot price in dollars		lowest' 19			2019(€)
Oil, Brent	**75.2**	53.1	at	01/01	**+45.1%**
Gold (ounce)	**1 280**	1 269	at	23/04	**+2.5%**
Metals, LMEX	**2 973**	2 730	at	03/01	**+8.9%**
Copper (ton)	**6 359**	5 714	at	03/01	**+9.6%**
CRB Foods	**341**	324	at	07/03	**+7.8%**
wheat (ton)	**172**	168	at	11/03	**-10.2%**
Corn (ton)	**130**	128	at	24/04	**-2.5%**

At 25-4-19 *Variations*

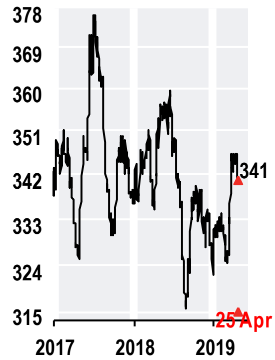
Oil (Brent, $)



Gold (Ounce, $)



CRB Foods



Exchange Rates

1€ =		highest' 19			lowest' 19			2019
USD	**1.11**	1.15	at	10/01	1.11	at	25/04	**-2.5%**
GBP	**0.86**	0.90	at	03/01	0.85	at	14/03	-3.8%
CHF	**1.14**	1.14	at	23/04	1.12	at	02/04	+0.9%
JPY	**124.20**	127.43	at	01/03	122.54	at	03/01	-1.0%
AUD	**1.59**	1.63	at	03/01	1.57	at	18/04	-2.1%
CNY	**7.51**	7.87	at	09/01	7.51	at	25/04	-4.3%
BRL	**4.41**	4.46	at	28/03	4.18	at	31/01	-0.5%
RUB	**72.10**	79.30	at	01/01	71.51	at	23/04	-9.1%
INR	**78.30**	82.00	at	04/02	76.84	at	03/04	-1.9%

At 25-4-19 *Variations*

Equity indices

	Index	highest' 19			lowest' 19			2019	2019(€)
CAC 40	**5 558**	5 592	at	23/04	4 611	at	03/01	+17.5%	**+17.5%**
S&P500	**2 926**	2 934	at	23/04	2 448	at	03/01	+16.7%	**+19.7%**
DAX	**12 283**	12 313	at	24/04	10 417	at	03/01	+16.3%	**+16.3%**
Nikkei	**22 308**	22 308	at	25/04	19 562	at	04/01	+11.5%	**+12.6%**
China*	**84**	86	at	09/04	68	at	03/01	+20.0%	**+22.9%**
India*	**589**	606	at	02/04	530	at	19/02	+6.2%	**+8.3%**
Brazil*	**2 064**	2 304	at	04/02	1 944	at	01/01	+8.4%	**+8.9%**
Russia*	**665**	682	at	23/04	572	at	01/01	+9.5%	**+19.2%**

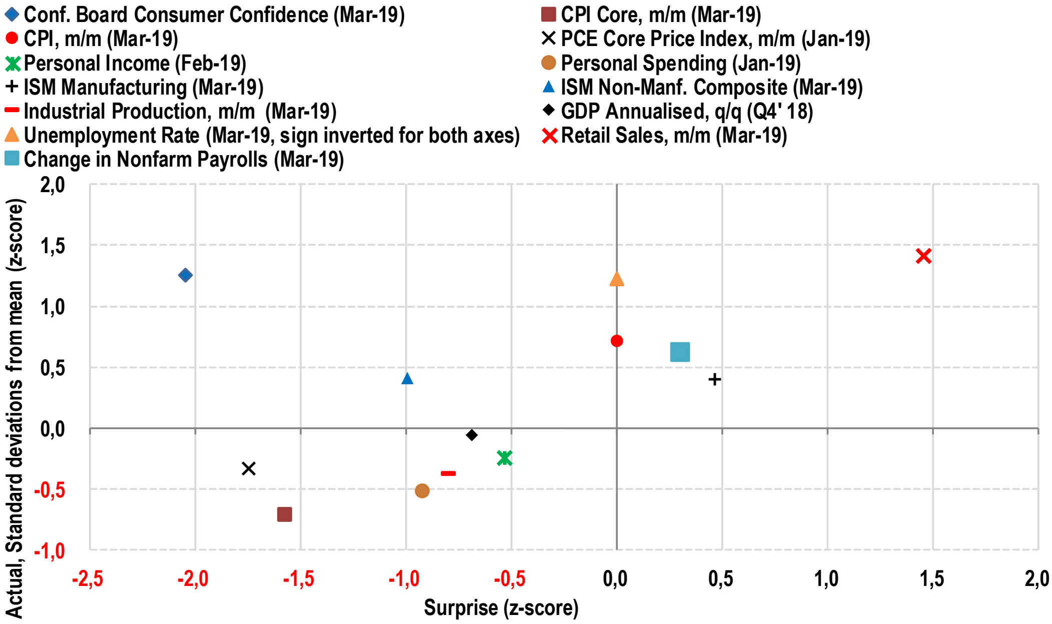
At 25-4-19 *Variations*

* MSCI index

Pulse

United States: Strong growth, low inflation

The first quarter turned out to be strong after all. The just released (not yet shown on the chart) first estimate for first quarter GDP showed an annualised quarter over quarter increase of 3.2%, ahead of the consensus number of +2.3% and better than the previous quarter (+2.2%). Data released earlier this month had suggested that March looked good though not great. Retail sales, job creation and the ISM index for the manufacturing sector were better than expected. On the other hand, the Consumer Board consumer confidence index, the non-manufacturing ISM index and industrial production came in below the consensus. This also applies to the two measures of core inflation, which are also below the long-term average. The first quarter core PCE was only 1.3% so these data allow the FOMC to be patient before contemplating any move in its policy rate.



Indicators preview

A busy week ahead of us with meetings of the FOMC and the Bank of England, the manufacturing purchasing managers index in several countries, and, in the US, the two ISM indicators (manufacturing and non-manufacturing) as well as the Conference Board consumer confidence index. In France and Germany we have inflation data and in France first quarter GDP. Finally on Friday the very important US labour market numbers are published.

Date	Country	Event	Period	Survey	Prior
04/29/2019	United States	Personal Income	March	0.4%	0.2%
04/29/2019	United States	Personal Spending	March	0.8%	--
04/30/2019	United Kingdom	GfK Consumer Confidence	April	--	-13
04/30/2019	France	GDP QoQ	1Q	--	0.3%
04/30/2019	Germany	GfK Consumer Confidence	May	--	10.4
04/30/2019	France	CPI EU Harmonized MoM	April	--	0.9%
04/30/2019	Germany	CPI EU Harmonized MoM	April	--	0.5%
04/30/2019	United States	Conf. Board Consumer Confidence	April	126.1	124.1
05/01/2019	United States	ISM Manufacturing	April	55.0	55.3
05/01/2019	United States	FOMC Rate Decision (Upper Bound)	May	2.50%	2.50%
05/02/2019	China	Caixin China PMI Mfg	April	51.0	50.8
05/02/2019	France	Markit France Manufacturing PMI	April	--	49.6
05/02/2019	Germany	Markit/BME Germany Manufacturing PMI	April	--	44.5
05/02/2019	United Kingdom	Bank of England Bank Rate	May 2	--	0.750%
05/02/2019	United States	Durable Goods Orders	March	--	--
05/03/2019	United States	Change in Nonfarm Payrolls	April	185 000	196 000
05/03/2019	United States	ISM Non-Manufacturing Index	April	57.3	56.1

Source: Bloomberg, BNP Paribas

Economic scenario

UNITED STATES

- Growth is expected to slow to 2.3% this year. Trade war uncertainty acts as a drag, the housing market is softening, corporate investment should slow, as well as exports in reaction to the past strengthening of the dollar against a broad range of currencies.
- Core inflation remains well under control and has eased a bit.
- Following the dovish message from the January FOMC meeting, markets are pricing in a policy easing in the course of 2020.

CHINA

- Economic growth continues to slow, with an export outlook severely darkened by US tariff hikes.
- The central bank is easing liquidity and credit conditions, though the reduction in financial-instability risks via regulatory tightening should remain a priority. Fiscal policy has also turned expansionary through increased infrastructure spending and a rising number of household/corporate tax cuts.
- In the short term, private domestic demand should be affected by the knock-on effect of weakening exports and the continued moderation in the property market. Fiscal measures should support consumer spending.

EUROZONE

- The slowdown is becoming increasingly evident, especially in the German economy, which has suffered from one-off factors but also from a slowdown of exports to China. Capacity constraints also play a role. Business climate in the manufacturing sector continues to decline. Italy has now entered a technical recession with quarterly growth negative in the third and fourth quarter of 2018.
- Inflation is now expected to decrease following the past drop in the oil price, while core CPI is hardly moving. The activity slowdown also implies that the pick-up in core inflation should be slower than expected until recently. We do not expect the ECB to move rates this year (see below).

FRANCE

- Growth is slowing although the economy should show some resilience. 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, the Fed has announced to be patient before deciding on any change in its policy. We expect key rates to stay on hold. We have changed the forecast for 10 year treasury yields and now expect a yield of 2.80% by mid-year and 2.70% at the end of the year.
- As the ECB confirmed that key rates won't change this year, the forecast for 10 year Bund yields and now expect a yield of 0.30% by mid-year and 0.40% at the end of the year.
- No change expected in Japan.
- The prospect of a 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).

	GDP Growth			Inflation		
%	2018	2019 e	2020 e	2018	2019 e	2020 e
Advanced	**2.2**	**1.5**	**1.3**	**2.0**	**1.4**	**1.6**
United-States	2.9	2.3	1.8	2.4	1.7	2.0
Japan	0.8	0.2	0.3	1.0	0.5	0.5
United-Kingdom	1.4	1.1	1.5	2.5	2.0	1.9
Euro Area	**1.8**	**0.9**	**1.0**	**1.8**	**1.2**	**1.4**
Germany	1.4	0.7	0.9	1.9	1.4	1.7
France	1.6	1.2	1.2	2.1	1.2	1.7
Italy	0.8	0.0	0.5	1.3	0.9	1.2
Spain	2.6	2.1	1.7	1.7	1.0	1.4
Emerging	**4.5**	**4.4**	**4.7**	**4.8**	**4.6**	**4.2**
China	6.6	6.2	6.0	2.1	1.6	2.0
India*	7.4	7.6	7.8	3.4	3.3	4.1
Brazil	1.1	2.0	3.0	3.7	3.8	3.6
Russia	2.3	1.5	1.7	2.9	5.1	4.1

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

* Fiscal year from April 1st of year n to March 31st of year n+1

Interest rates, %		2019						
End of period		Q1	Q2e	Q3e	Q4e	**2018**	**2019e**	**2020e**
US	Fed Funds	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Libor 3m $	2.60	2.60	2.60	2.60	2.81	2.60	2.50
	T-Notes 10y	2.42	2.80	2.75	2.70	2.69	2.70	2.50
Ezone	ECB Refi	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Euribor 3m	-0.31	-0.30	-0.30	-0.30	-0.31	-0.30	-0.30
	Bund 10y	-0.07	0.30	0.30	0.30	0.25	0.30	0.40
	OAT 10y	0.26	0.65	0.65	0.60	0.71	0.60	0.70
UK	Base rate	0.75	1.00	1.00	1.25	0.75	1.25	1.25
	Gilts 10y	1.00	1.85	2.00	2.10	1.27	2.10	2.10
Japan	BoJ Rate	-0.06	-0.10	-0.10	-0.10	-0.07	-0.10	-0.20
	JGB 10y	-0.09	-0.03	-0.05	-0.05	0.00	-0.05	-0.20

Source : BNP Paribas GlobalMarkets (e: Forecasts)

Exchange Rates		2019						
End of period		Q1	Q2e	Q3e	Q4e	**2018**	**2019e**	**2020e**
USD	EUR / USD	1.12	1.17	1.18	1.20	1.14	1.20	1.25
	USD / JPY	111.0	108.0	105.0	100.0	110.0	100.0	90.0
	GBP / USD	1.30	1.38	1.40	1.45	1.27	1.45	1.51
	USD / CHF	1.00	0.97	0.97	0.97	0.99	0.97	0.93
EUR	EUR / GBP	0.85	0.85	0.84	0.83	0.90	0.83	0.83
	EUR / CHF	1.12	1.14	1.15	1.16	1.13	1.16	1.16
	EUR / JPY	124.0	126.0	124.0	120.0	125.0	120.0	113.0

Source : BNP Paribas GlobalMarkets (e: Forecasts)

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