

# ECOWEEK

No. 19-24, 14 June 2019

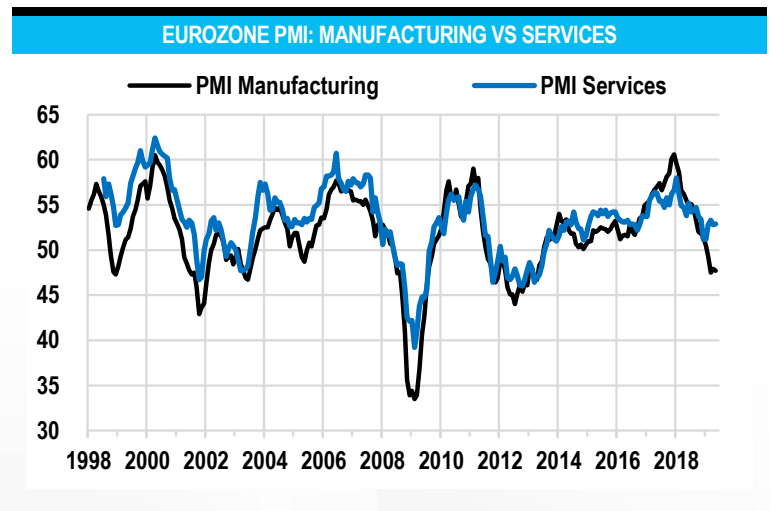
## Eurozone: when manufacturing sneezes, do services catch a cold?

■ According to Mario Draghi, a key question is how long the rest of the economy can remain insulated from the weakness in the manufacturing sector ■ Historically, the purchasing manager indices for manufacturing and services have been highly correlated, which can be partly attributed to the important role of services in the value chain of the manufacturing sector ■ The future resilience of the services sector in the eurozone will very much depend on what happens in Germany where the gap between the PMIs of the two sectors is abnormally high

*"The key issue is: how long can the rest of the economy be insulated from a manufacturing sector that keeps on being weak?"* The answer to the question asked by Mario Draghi during his recent press conference is important for future Governing Council decisions but also for business and household spending behaviour going forward. Judging by the purchasing manager indices, historically, manufacturing and services have tended to move in lockstep. The first half of 2005 was an exception and in recent months a gap has opened up between the two sectors. It is this observation which has triggered the comment of the ECB President.

What drives this, generally speaking, high correlation? One factor is the cause of the slowdown. If the shock is global, like in 2008-2009, or economy-wide, like the eurozone sovereign debt crisis in 2011-2012, one would expect that manufacturing and services suffer simultaneously from a drop in confidence, income, access to financing, etc. If the shock is sector specific, which to a large degree has been the case since early 2018, the extent of the spillover effect from manufacturing to services will depend on the degree in which both sectors are intertwined. In a study in 2014, the ECSIP Consortium<sup>ii</sup> noted that "as services are used in the production processes of a manufactured product, the value of a final manufacturing product embodies directly and indirectly value added created in services to a large extent." Based on data for 2011, in the EU-27, "services account for slightly less than 40% in the value of a final manufacturing product".<sup>iii</sup> This implies that a drop in the demand for manufactured goods has a considerable impact throughout the value chain and hence on services.<sup>iv</sup> Confidence effects may also play a role: companies in the services sector may end up becoming concerned about their business prospects when they observe that the manufacturing sector is in a dire situation with no end in sight. This may weigh on their recruitment and investment plans.

.../...



Source: IHS Markit, BNP Paribas

p. 3

Markets Overview

p. 4

Pulse & Calendar

p. 5

Economic scenario

ECONOMIC RESEARCH DEPARTMENT



BNP PARIBAS

The bank  
for a changing  
world

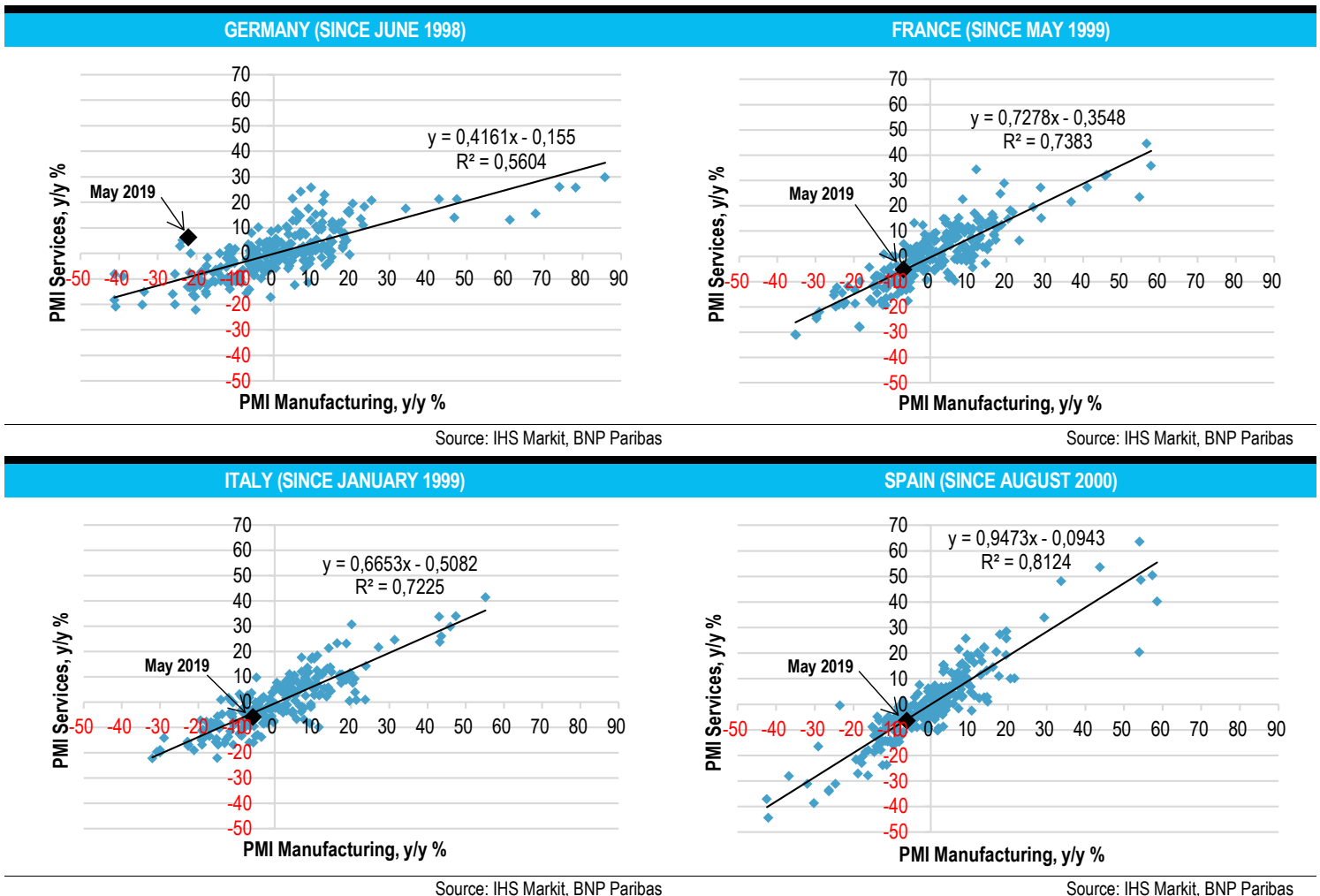
**Eco**  
**WEEK**

To explore these relationships, the charts below show, on the horizontal axis, the 12-month change in the manufacturing PMI and on the vertical axis, the equivalent for services. In France, Italy and Spain, the correlations are very high but this is less the case in Germany. In that country, the slope of the regression line is also less steep, which suggests that services are more insulated from what's happening in manufacturing or depend on other factors. What is striking however is the degree in which the latest observation of the 12-month change of the German services PMI diverges from the expectation based on the historical relationship between the two sectors and given the huge drop in the manufacturing PMI. One would

expect that, eventually, this outlier would correct itself, either because manufacturing rebounds, or because services weaken significantly or a mixture of these two. Considering that for the other countries both indices are well in line, when gauging the resilience of services in the eurozone to the worsening international business climate hitting manufacturing, the analysis has to focus on Germany. Clearly, absence of a pick-up in manufacturing sentiment would end up weighing on confidence, not only in Germany, but, given its weight, also in the rest of the eurozone.

William De Vijlder

<sup>i</sup> ECB, Introductory statement to the press conference of Mario Draghi, President of the ECB and Luis de Guindos, Vice-President of the ECB, Vilnius, 6 June 2019  
<sup>ii</sup> Study on the relation between industry and services in terms of productivity and value creation, 2014. The report was written for the DG Enterprise and Industry of the European Commission by the partners of the ECSIP Consortium: WIIW (The Vienna Institute for International Economic Studies), Ifo and Ecorys  
<sup>iii</sup> In France this percentage was even higher (48.5%) and the opposite holds for Germany (35.9%). Italy (40%) and Spain (39.4%) are in line with the EU average.  
<sup>iv</sup> The authors make a distinction between upstream (development) services (R&D, design), core (production) services (supply management, production and process engineering, other technical services) and downstream (market) services.



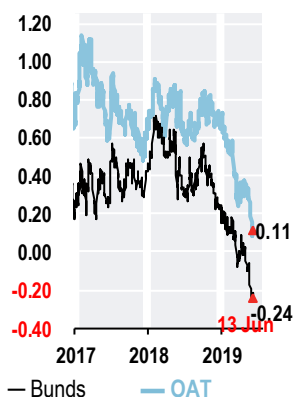
## Markets overview

### The essentials

Week 7-6 19 > 13-6-19

↗ CAC 40	5 364	▶ 5 376	+0.2 %
↗ S&P 500	2 873	▶ 2 892	+0.6 %
↘ Volatility (VIX)	16.3	▶ 15.8	-0.5 pb
↗ Euribor 3M (%)	-0.32	▶ -0.32	+0.1 bp
↘ Libor \$ 3M (%)	2.45	▶ 2.43	-2.3 bp
↗ OAT 10y (%)	0.08	▶ 0.11	+3.2 bp
↗ Bund 10y (%)	-0.26	▶ -0.24	+1.3 bp
↗ US Tr. 10y (%)	2.08	▶ 2.09	+0.6 bp
↘ Euro vs dollar	1.13	▶ 1.13	-0.6 %
↘ Gold (ounce, \$)	1 346	▶ 1 338	-0.6 %
↘ Oil (Brent, \$)	62.9	▶ 61.8	-1.8 %

10 y bond yield, OAT vs Bund



Euro-dollar



CAC 40



### Money & Bond Markets

Interest Rates	highest' 19	lowest' 19
€ ECB	0.00 at 01/01	0.00 at 01/01
Eonia	-0.36 at 07/06	-0.37 at 26/02
Euribor 3M	-0.32 at 24/01	-0.32 at 03/06
Euribor 12M	-0.17 at 06/02	-0.18 at 06/06
\$ FED	2.50 at 01/01	2.50 at 01/01
Libor 3M	2.43 at 01/01	2.43 at 12/06
Libor 12M	2.33 at 21/01	2.33 at 12/06
£ BoE	0.75 at 01/01	0.75 at 01/01
Libor 3M	0.79 at 29/01	0.78 at 07/06
Libor 12M	0.99 at 11/01	0.97 at 10/06

At 13-6-19

Yield (%)	highest' 19	lowest' 19
€ AVG 5-7y	0.23 at 09/01	0.22 at 11/06
Bund 2y	-0.68 at 05/03	-0.68 at 12/06
Bund 10y	-0.24 at 01/01	-0.26 at 07/06
OAT 10y	0.11 at 08/01	0.08 at 07/06
Corp. BBB	1.25 at 08/01	1.25 at 13/06
\$ Treas. 2y	1.83 at 18/01	1.83 at 13/06
Treas. 10y	2.09 at 18/01	2.08 at 03/06
Corp. BBB	3.73 at 01/01	3.73 at 13/06
£ Treas. 2y	0.59 at 27/02	0.52 at 07/06
Treas. 10y	0.84 at 18/01	0.81 at 07/06

At 13-6-19

10y bond yield & spreads

3.46%	Greece	370 pb
2.37%	Italy	260 pb
0.64%	Portugal	88 pb
0.55%	Spain	78 pb
0.18%	Belgium	42 pb
0.11%	France	35 pb
0.05%	Austria	28 pb
-0.02%	Finland	21 pb
-0.05%	Ireland	18 pb
-0.06%	Netherlands	18 pb
-0.24%	Germany	

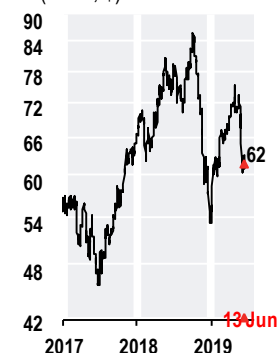
### Commodities

Spot price in dollars	lowest' 19	2019(€)
Oil, Brent	53.1 at 01/01	+17.9%
Gold (ounce)	1 268 at 02/05	+5.9%
Metals, LME	2 769 at 03/01	+0.3%
Copper (ton)	5 831 at 03/01	-0.6%
CRB Foods	324 at 07/03	+9.3%
w heat (ton)	167 at 10/05	+8.0%
Corn (ton)	128 at 24/04	+24.6%

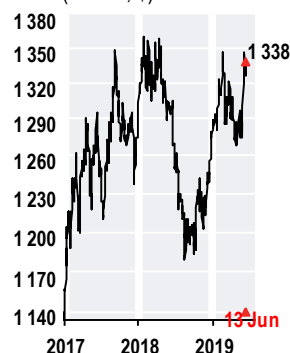
At 13-6-19

Variations

Oil (Brent, \$)



Gold (Ounce, \$)



CRB Foods



### Exchange Rates

1€ =	highest' 19	lowest' 19	2019
USD	1.15 at 10/01	1.11 at 30/05	-1.4%
GBP	0.90 at 03/01	0.85 at 14/03	-1.0%
CHF	1.12 at 23/04	1.11 at 05/06	-0.5%
JPY	122.32 at 01/03	120.99 at 31/05	-2.5%
AUD	1.63 at 13/06	1.57 at 18/04	+0.4%
CNY	7.80 at 09/01	7.51 at 25/04	-0.6%
BRL	4.34 at 20/05	4.18 at 31/01	-2.1%
RUB	72.80 at 01/01	71.51 at 23/04	-8.2%
INR	78.36 at 04/02	76.84 at 03/04	-1.8%

At 13-6-19

Variations

### Equity indices

Index	highest' 19	lowest' 19	2019	2019(€)
CAC 40	5 376 at 23/04	4 611 at 03/01	+13.6%	+13.6%
S&P500	2 892 at 30/04	2 448 at 03/01	+15.3%	+17.0%
DAX	12 169 at 03/05	10 417 at 03/01	+15.2%	+15.2%
Nikkei	21 032 at 25/04	19 562 at 04/01	+5.1%	+7.7%
China*	75 at 09/04	68 at 03/01	+6.8%	+8.2%
India*	601 at 03/06	530 at 19/02	+7.3%	+9.3%
Brazil*	2 162 at 04/02	1 862 at 17/05	+10.4%	+12.8%
Russia*	712 at 13/06	572 at 01/01	+17.0%	+26.3%

At 13-6-19

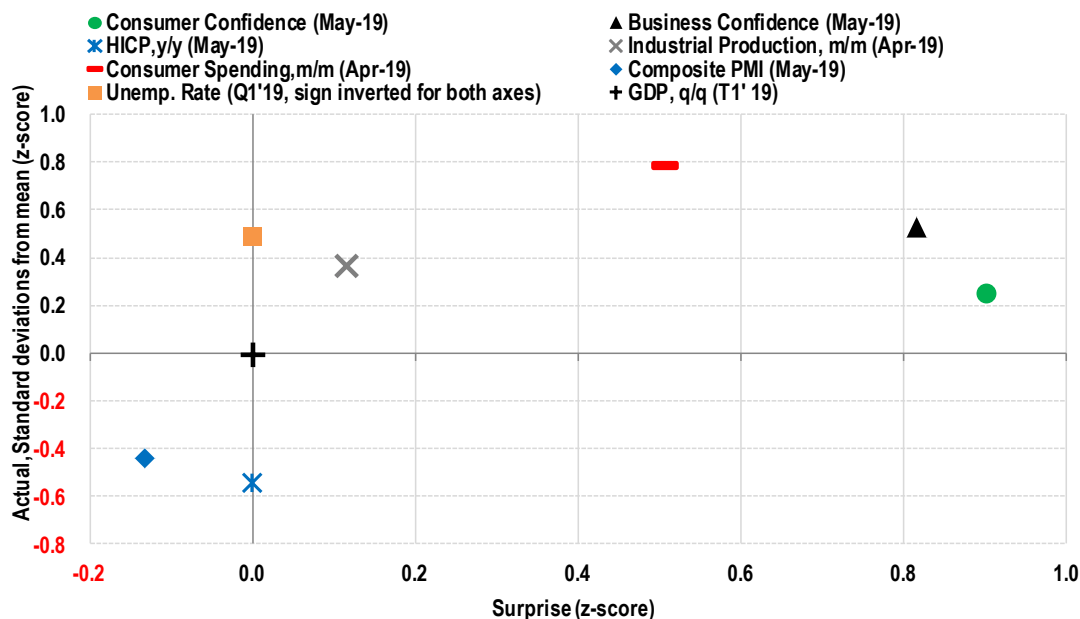
Variations \* MSCI index



## Pulse

## France: the economy is doing rather well

Our pulse indicators are sending a clear positive signal. Only the composite PMI surprised on the downside (51.2) and is below trend. Inflation (1.1% y/y), GDP growth (0.3% q/q) and the unemployment rate (8.7%) were in line with expectations, with inflation and the unemployment rate being below their trend and growth on par with it. Industrial production (+0.4% m/m), households' consumption of goods (+0.8% m/m), business and consumer confidence (106 et 99, respectively) surprised positively and are above trend. Strong payroll gains in Q1 (+94k) come in addition to these favourable results. The whole set of data augurs well for Q2 growth, which we expect to be stable at 0.3% q/q.



Source: Bloomberg, Markit, BNP Paribas

## Indicators preview

It's central bank week next week with meetings of the Federal Reserve, the Bank of England and the Bank of Japan. In the US several housing market data will be released: the NAHB index, housing starts, building permits and existing home sales. The June Philadelphia Fed business outlook will be closely watched in view of its correlation with the manufacturing sector. Other important data are the flash PMIs in several countries and, for the eurozone, consumer confidence, the trade balance and inflation. The ECB will publish its new bulletin.

Date	Country/Region	Event	Date	Survey	Prior
06/17/2019	United States	NAHB Housing Market Index	June	67	66
06/18/2019	Eurozone	EU27 New Car Registrations	May	--	-0.4%
06/18/2019	Eurozone	Trade Balance SA	April	--	1.79e+10
06/18/2019	Eurozone	CPI MoM	May	--	0.7%
06/18/2019	United States	Housing Starts MoM	May	0.4%	5.7%
06/18/2019	United States	Building Permits MoM	May	0.8%	0.6%
06/19/2019	Japan	Trade Balance	May	--	6.04e+10
06/19/2019	United Kingdom	CPI MoM	May	--	0.6%
06/19/2019	United Kingdom	CBI Trends Total Orders	June	--	-10
06/19/2019	United States	FOMC Rate Decision (Upper Bound)	June19	2.50%	2.50%
06/20/2019	Eurozone	ECB publishes its Economic Bulletin			
06/20/2019	United Kingdom	Retail Sales Ex Auto Fuel MoM	May	--	-0.2%
06/20/2019	United Kingdom	Bank of England Bank Rate	June 20	--	0.750%
06/20/2019	United States	Philadelphia Fed Business Outlook	June	10.0	16.6
06/20/2019	Eurozone	Consumer Confidence	June	--	-6.5
06/20/2019	Japan	Bank of Japan Policy Balance Rate	June 20	--	-0.100%
06/21/2019	France	Markit France Composite PMI	June	--	51.2
06/21/2019	Eurozone	Markit Eurozone Composite PMI	June	--	51.8
06/21/2019	United States	Existing Home Sales MoM	May	1.7%	-0.4%

Source: Bloomberg, BNP Paribas



## Economic scenario

### UNITED STATES

- Growth picked-up by early 19 but this was partly due to one-off factors (inventories). The trend in private domestic demand is more subdued. The housing market is softening, corporate investment should slow, as well as exports. Core inflation remains well under control and has eased a bit.
- Regarding the more cautious message delivered by the Fed's president. J. Powell (about trade tensions), we believe the Fed Funds target rate will be cut by 2 quarter points in Q3, coming back to 1.75-2%

### CHINA

- Economic growth continues to slow. Activity rebounded in March 2019 but weakened again afterwards. The recent flare-up in trade tensions with the US has again darkened export prospects.
- 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, exports and private domestic investment should continue to decelerate. Tax measures should support consumer spending.

### EUROZONE

- Despite a stronger than expected growth in the 1<sup>st</sup> quarter of 2019, the economic slowdown is continuing in the eurozone, especially in Germany, due to international environment uncertainties and a slowdown of exports to China. Capacity constraints also play a role and activity in the manufacturing sector continues to decline.
- Inflation is now expected to decrease 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.
- Monetary policy remains cautious and proactive, the ECB announcing the launch of another round of longer-term refinancing operations (TLTRO) for eurozone banks.

### 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, we expect the Fed to cut rates twice in the second semester in reaction to a slowing economy, subdued inflation and heightened uncertainty. Bond markets are already pricing in rate cuts, which is why we expect that the decline of the 10 year treasury yield will only be moderate.
- The combination of slower growth and subdued core inflation leads us to expect that ECB official rates will remain unchanged this year and next. 10 year Bund yields are expected to rise only marginally to 0.00% by the end of this year. We forecast a yield of 0.15% by the end of 2020.
- No change expected in Japan.
- We expect the euro to strengthen versus the dollar considering that the latter is expensive on valuation grounds and that the Fed will ease its policy

%	GDP Growth			Inflation		
	2018	2019 e	2020 e	2018	2019 e	2020 e
<b>Advanced</b>	<b>2.2</b>	<b>1.8</b>	<b>1.3</b>	<b>2.0</b>	<b>1.6</b>	<b>1.6</b>
United-States	2.9	2.7	1.8	2.4	2.1	2.0
Japan	0.8	0.6	0.2	1.0	0.6	0.5
United-Kingdom	1.4	1.3	1.4	2.5	1.9	1.9
<b>Euro Area</b>	<b>1.9</b>	<b>1.1</b>	<b>1.0</b>	<b>1.8</b>	<b>1.3</b>	<b>1.3</b>
Germany	1.4	0.6	1.0	1.9	1.5	1.5
France	1.7	1.3	1.2	2.1	1.4	1.5
Italy	0.7	0.3	0.2	1.3	0.9	0.9
Spain	2.6	2.2	1.9	1.7	1.0	1.2
<b>Emerging</b>	<b>4.5</b>	<b>4.2</b>	<b>4.7</b>	<b>4.7</b>	<b>4.8</b>	<b>4.3</b>
China	6.6	6.2	6.0	2.1	2.2	2.6
India*	7.0	7.4	7.6	3.4	3.5	4.2
Brazil	1.1	0.8	2.5	3.7	3.9	3.9
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				2018	2019e	2020e
End of period		Q1	Q2e	Q3e	Q4e			
<b>US</b>	Fed Funds	2.50	2.50	2.00	2.00	2.50	2.00	1.75
	Libor 3m \$	2.60	2.45	2.00	2.00	2.81	2.00	1.80
	T-Notes 10y	2.42	2.10	1.95	1.90	2.69	1.90	2.25
<b>Ezone</b>	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	-0.05	-0.05	0.00	0.25	0.00	0.15
	OAT 10y	0.26	0.30	0.30	0.30	0.71	0.30	0.45
<b>UK</b>	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
<b>Japan</b>	BoJ Rate	-0.06	-0.10	-0.10	-0.10	-0.07	-0.10	-0.10
	JGB 10y	-0.09	-0.03	-0.02	-0.02	0.00	-0.02	-0.05

Source : BNP Paribas GlobalMarkets (e: Forecasts)

Exchange Rates		2019				2018	2019e	2020e
End of period		Q1	Q2e	Q3e	Q4e			
<b>USD</b>	EUR / USD	1.12	1.13	1.16	1.20	1.14	1.20	1.25
	USD / JPY	111.0	108.0	105.0	102.0	110.0	102.0	95.0
	GBP / USD	1.30	1.27	1.32	1.38	1.27	1.38	1.49
	USD / CHF	1.00	1.01	0.99	0.97	0.99	0.97	0.94
<b>EUR</b>	EUR / GBP	0.85	0.89	0.88	0.87	0.90	0.87	0.84
	EUR / CHF	1.12	1.14	1.15	1.16	1.13	1.16	1.18
	EUR / JPY	124.0	122.0	122.0	122.0	125.0	122.0	119.0

Source : BNP Paribas GlobalMarkets (e: Forecasts)



# GROUP ECONOMIC RESEARCH

**William De Vijlder**  
Chief Economist

+33 1 55 77 47 31 [william.devijlder@bnpparibas.com](mailto:william.devijlder@bnpparibas.com)

## ADVANCED ECONOMIES AND STATISTICS

**Jean-Luc Proutat**

Head – United States, United Kingdom

+33 1 58 16 73 32 [jeanluc.proutat@bnpparibas.com](mailto:jeanluc.proutat@bnpparibas.com)

**Hélène Baudchon**

France – Labour markets

+33 1 58 16 03 63 [helene.baudchon@bnpparibas.com](mailto:helene.baudchon@bnpparibas.com)

**Louis Boisset**

European Central Bank watch, Euro area global view, Japan

+33 1 57 43 02 91 [louis.boisset@bnpparibas.com](mailto:louis.boisset@bnpparibas.com)

**Frédérique Cerisier**

Euro area (European governance and public finances), Spain, Portugal

+33 1 43 16 95 52 [frederique.cerisier@bnpparibas.com](mailto:frederique.cerisier@bnpparibas.com)

**Catherine Stephan**

Nordic countries – World trade – Education, health, social conditions

+33 1 55 77 71 89 [catherine.stephan@bnpparibas.com](mailto:catherine.stephan@bnpparibas.com)

**Raymond Van Der Putten**

Germany, Netherlands, Austria, Switzerland – Energy, climate – Long-term projections

+33 1 42 98 53 99 [raymond.vanderputten@bnpparibas.com](mailto:raymond.vanderputten@bnpparibas.com)

**Tarik Rharrab**

Statistics

+33 1 43 16 95 56 [tarik.rharrab@bnpparibas.com](mailto:tarik.rharrab@bnpparibas.com)

## BANKING ECONOMICS

**Laurent Quignon**

Head

+33 1 42 98 56 54 [laurent.quignon@bnpparibas.com](mailto:laurent.quignon@bnpparibas.com)

**Laure Baquero**

+ 33 1 43 16 95 50 [laure.baquero@bnpparibas.com](mailto:laure.baquero@bnpparibas.com)

**Céline Choulet**

+33 1 43 16 95 54 [celine.choulet@bnpparibas.com](mailto:celine.choulet@bnpparibas.com)

**Thomas Humblot**

+ 33 1 40 14 30 77 [thomas.humblot@bnpparibas.com](mailto:thomas.humblot@bnpparibas.com)

## EMERGING ECONOMIES AND COUNTRY RISK

**François Faure**

Head

+33 1 42 98 79 82 [francois.faure@bnpparibas.com](mailto:francois.faure@bnpparibas.com)

**Christine Peltier**

Deputy Head – Greater China, Vietnam, South Africa

+33 1 42 98 56 27 [christine.peltier@bnpparibas.com](mailto:christine.peltier@bnpparibas.com)

**Stéphane Alby**

Africa (French-speaking countries)

+33 1 42 98 02 04 [stephane.alby@bnpparibas.com](mailto:stephane.alby@bnpparibas.com)

**Sylvain Bellefontaine**

Turkey, Ukraine, Central European countries

+33 1 42 98 26 77 [sylvain.bellefontaine@bnpparibas.com](mailto:sylvain.bellefontaine@bnpparibas.com)

**Sara Confalonieri**

Africa (Portuguese & English-speaking countries)

+33 1 42 98 43 86 [sara.confalonieri@bnpparibas.com](mailto:sara.confalonieri@bnpparibas.com)

**Pascal Devaux**

Middle East, Balkan countries

+33 1 43 16 95 51 [pascal.devaux@bnpparibas.com](mailto:pascal.devaux@bnpparibas.com)

**Hélène Drouot**

Korea, Thailand, Philippines, Mexico, Andean countries

+33 1 42 98 33 00 [helene.drouot@bnpparibas.com](mailto:helene.drouot@bnpparibas.com)

**Salim Hammad**

Latin America

+33 1 42 98 74 26 [salim.hammad@bnpparibas.com](mailto:salim.hammad@bnpparibas.com)

**Johanna Melka**

India, South Asia, Russia, Kazakhstan, CIS

+33 1 58 16 05 84 [johanna.melka@bnpparibas.com](mailto:johanna.melka@bnpparibas.com)

## CONTACT MEDIA

**Michel Bernardini**

+33 1 42 98 05 71 [michel.bernardini@bnpparibas.com](mailto:michel.bernardini@bnpparibas.com)



**BNP PARIBAS**

The bank  
for a changing  
world

# OUR PUBLICATIONS



## CONJONCTURE

Structural or in news flow, two issues analysed in depth



## EMERGING

Analyses and forecasts for a selection of emerging economies



## PERSPECTIVES

Analyses and forecasts for the main countries, emerging or developed



## ECOFASH

Data releases, major economic events. Our detailed views...



## ECOWEEK

Weekly economic news and much more...



## ECOTV

In this monthly web TV, our economists make sense of economic news



## ECOTV WEEK

What is the main event this week? The answer is in your two minutes of economy

The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice, nor financial research or analysis. Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information purposes. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this report. BNP Paribas may, from time to time, solicit, perform or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this report. BNP Paribas may be a party to an agreement with any person relating to the production of this report. BNP Paribas, may to the extent permitted by law, have acted upon or used the information contained herein, or the research or analysis on which it was based, before its publication. BNP Paribas may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this report. Any person mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNP Paribas. By accepting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area:

This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autorité de Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA. BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Paris, France. BNP Paribas S.A. – Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Autorité de Contrôle Prudentiel and it is authorised and subject to limited regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

**United States:** This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

**Japan:** This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, item 1 of the Financial Instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instruments firm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affiliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan.

**Hong Kong:** This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

Some or all the information reported in this document may already have been published on <https://globalmarkets.bnpparibas.com>

© BNP Paribas (2015). All rights reserved.

POUR RECEVOIR NOS PUBLICATIONS

VOUS POUVEZ VOUS ABONNER SUR NOTRE SITE ONGLET ABONNEMENT <http://economic-research.bnpparibas.com>

ET

NOUS SUIVRE SUR LINKEDIN <https://www.linkedin.com/showcase/bnp-paribas-economic-research/> OU TWITTER [https://twitter.com/EtudesEco\\_BNPP](https://twitter.com/EtudesEco_BNPP)

© BNP Paribas (2015). All rights reserved.  
 Prepared by Economic Research – BNP PARIBAS  
 Registered Office: 16 boulevard des Italiens – 75009 PARIS  
 Tel: +33 (0) 1.42.98.12.34 – Internet : [www.group.bnpparibas.com](http://www.group.bnpparibas.com)  
 Publisher: Jean Lemierre. Editor: William De Vijlder



BNP PARIBAS

The bank  
for a changing  
world