

ECOWEEK

No. 19-43, 22 November 2019

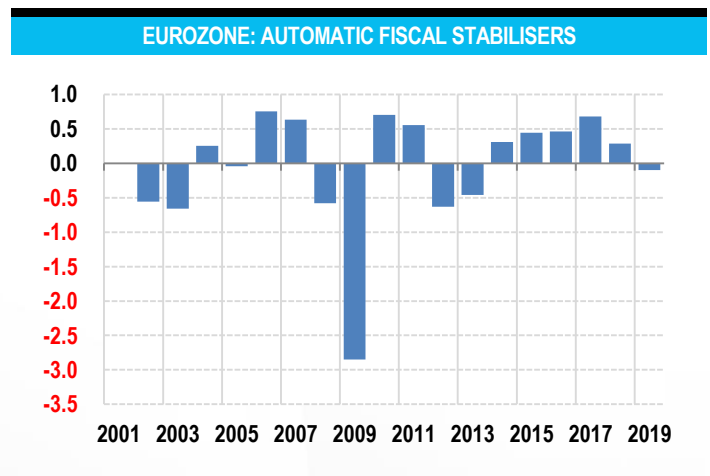
Eurozone: which role for automatic fiscal stabilisers?

■ Automatic fiscal stabilisers help cushion the impact of economic shocks on GDP via changes in government revenues (because of progressive taxes) and expenditures (unemployment insurance) ■ The limited remaining monetary policy leeway in the eurozone is fueling interest in the effectiveness of the automatic stabilisers ■ European Commission research confirms that, to some degree, automatic stabilisers iron out the impact of negative shocks on GDP ■ Whether that is enough is another matter. It warrants a debate on the role of discretionary fiscal policy in case of a recession.

The feeling of panic when sitting in front of a car which is about to get off the road is less overwhelming when you know it is fitted with airbags. Likewise, the presence of automatic fiscal stabilisers should underpin confidence of economic agents when the economy enters a recession. In the presence of progressive taxation, a drop in household income will lead to a smaller decline in after-tax income whereas public expenditures (unemployment insurance) will increase as unemployment picks up. This in turn will limit the drag of unemployment on household income and spending. The theory sounds familiar but to what extent is it the case in practice? Is the cushioning effect sufficient? These questions have gained importance in the context of the latest easing move of the ECB and the feeling that monetary policy leeway to support growth is now very limited. In addition, Mario Draghi has made a plea on the occasion of his September press conference that fiscal policy steps in to boost growth so as to help the central bank in achieving its inflation objective. A third reason for the renewed interest is the debate about a European budget, either to support growth in the long run or as a central cyclical stabilisation tool.

The size of automatic fiscal stabilisers can be assessed based on the change of the cyclical component of the government budget balance. This corresponds to the difference between the overall budget balance and the cyclically adjusted deficit (or surplus). In a recent paper¹, the European Commission shows that following a positive 1% shock to GDP, about half is absorbed by the automatic stabilisers, essentially because government expenditures change less than GDP. However, a more fundamental question is what difference this makes to the development of spending and GDP when second round effects are taken into account.

.../...



Source: Ameco, BNP Paribas

p. 3

Markets Overview

p. 4

Pulse & Calendar

p. 5

Economic scenario

ECONOMIC RESEARCH DEPARTMENT



BNP PARIBAS

Eco
WEEK

The bank
for a changing
world

A counterfactual analysis in an earlier European Commission paperⁱ sheds light on this. The authors simulate a shock of an equivalent size, in terms of GDP contraction, as the Great Recession and compare the medium-term consequences in the presence of automatic stabilisers and in case they are switched offⁱⁱ. They conclude that the degree of stabilisation is fairly significant: “*Our results indicate that automatic stabilisers could have ironed out 13 per cent of the drop of GDP in the euro area compared to a benchmark budget with fixed levels of revenues and expenditure*”. The effect is even bigger (27%) compared to a situation where tax revenues and government expenditures are kept constant as a share of GDP.

Although it is far from negligible, whether this cushioning effect is sufficient is debatable. The reaction of households and companies to shocks in income and earnings depends, amongst other things, on whether the impact is considered to be short-lived or longer-lasting. The more overwhelming the policy reaction, the bigger the feeling that the income or earnings drop will be very temporary. This ‘shock and awe’ approach has been used by the ECB in its comprehensive set of easing measures announced in September: several decisions of limited scope, announced jointly, are supposed to generate a bigger impact than if they were introduced sequentially. Turning to fiscal policy, this raises several questions. Are households sufficiently aware of the existence and potential impact of fiscal stabilisers? Given the automatic nature of the stabilisers, does the absence of an announcement effect, which is present in case of a discretionary fiscal impulse, reduce its effectiveness in supporting confidence? Will economic agents incorporate in their decisions today the expected cumulative impact of the automatic stabilisers? These questions warrant a debate in the eurozone on the role of discretionary fiscal policy, as a complement to automatic stabilisers, in case of a recession: who does what, how much and how quickly?

William De Vijlder

ⁱ Automatic fiscal stabilisers in the EU: size & effectiveness, European Commission, European Economy, Economic Brief 045, May 2019

ⁱⁱ Automatic fiscal stabilisers: What they are and what they do, European Commission, European Economy, Economic Papers 452, April 2012

ⁱⁱⁱ The ‘switching off’ is simulated in two different ways. In one case, the ‘automatic’ decline in tax revenues and increase in government spending is neutralised by fiscal measures which keep revenues and expenditures at their pre-recession level. In a second scenario, taxes to GDP and government expenditures are kept constant as a share of GDP at their pre-recession level.



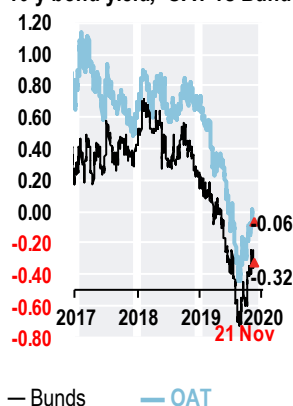
Markets overview

The essentials

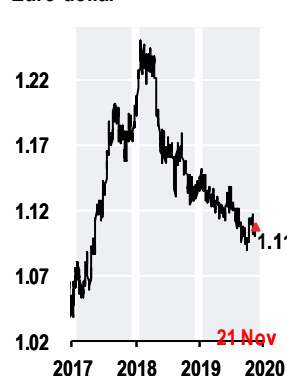
Week 15-11 19 > 21-11-19

↘ CAC 40	5 939	▶ 5 881	-1.0 %
↘ S&P 500	3 120	▶ 3 104	-0.5 %
↗ Volatility (VIX)	12.1	▶ 13.1	+1.1 pb
↘ Euribor 3M (%)	-0.40	▶ -0.41	-0.4 bp
↘ Libor \$ 3M (%)	1.90	▶ 1.90	-0.4 bp
↘ OAT 10y (%)	-0.06	▶ -0.06	+0.0 bp
↗ Bund 10y (%)	-0.33	▶ -0.32	+1.0 bp
↘ US Tr. 10y (%)	1.84	▶ 1.78	-6.0 bp
↗ Euro vs dollar	1.11	▶ 1.11	+0.2 %
↗ Gold (ounce, \$)	1 467	▶ 1 468	+0.1 %
↗ Oil (Brent, \$)	63.4	▶ 63.4	+0.1 %

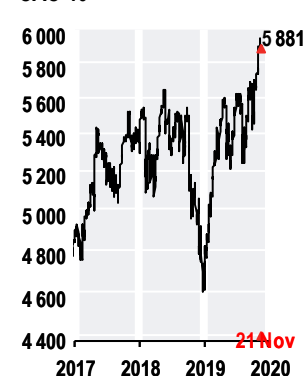
10 y bond yield, OAT vs Bund



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	-0.43 at 07/06	-0.47 at 03/10
Euribor 3M	-0.41 at 24/01	-0.45 at 03/09
Euribor 12M	-0.28 at 06/02	-0.40 at 21/08
\$ FED	1.75 at 01/01	1.75 at 31/10
Libor 3M	1.90 at 01/01	1.89 at 01/11
Libor 12M	1.91 at 21/01	1.85 at 04/10
£ BoE	0.75 at 01/01	0.75 at 01/01
Libor 3M	0.80 at 29/01	0.75 at 29/08
Libor 12M	0.96 at 11/01	0.81 at 03/09

At 21-11-19

Yield (%)	highest' 19	lowest' 19
€ AVG 5-7y	0.68 at 09/01	-0.36 at 03/09
Bund 2y	-0.62 at 05/03	-0.92 at 02/09
Bund 10y	-0.32 at 01/01	-0.72 at 28/08
OAT 10y	0.73 at 08/01	-0.44 at 28/08
Corp. BBB	0.96 at 08/01	0.64 at 30/08
\$ Treas. 2y	1.61 at 18/01	1.39 at 03/10
Treas. 10y	1.78 at 18/01	1.46 at 04/09
Corp. BBB	3.27 at 01/01	3.15 at 04/09
£ Treas. 2y	0.56 at 27/02	0.31 at 08/10
Treas. 10y	0.76 at 18/01	0.33 at 03/09

At 21-11-19

10y bond yield & spreads

1.97%	Greece	228 pb
1.18%	Italy	150 pb
0.46%	Spain	78 pb
0.43%	Portugal	75 pb
-0.04%	Belgium	28 pb
-0.06%	France	26 pb
-0.07%	Finland	25 pb
-0.09%	Austria	23 pb
-0.10%	Ireland	22 pb
-0.19%	Netherlands	13 pb
-0.32%	Germany	

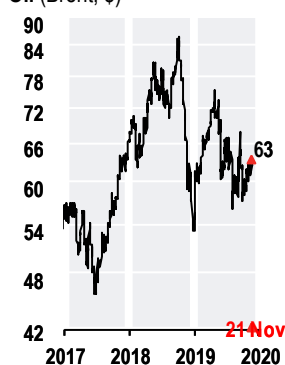
Commodities

Spot price in dollars	lowest' 19	2019(€)
Oil, Brent	53.1 at 01/01	+23.2%
Gold (ounce)	1 268 at 02/05	+18.3%
Metals, LME	2 745 at 07/08	+1.1%
Copper (ton)	5 810 at 03/09	+0.8%
CRB Foods	327 at 11/09	+4.1%
wheat (ton)	166 at 30/08	+6.7%
Corn (ton)	142 at 24/04	+7.7%

At 21-11-19

Variations

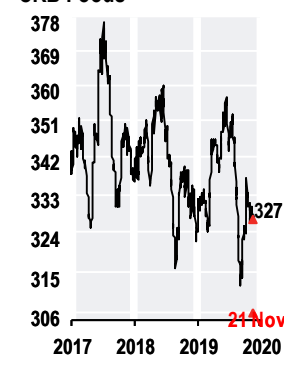
Oil (Brent, \$)



Gold (Ounce, \$)



CRB Foods



Exchange Rates

€ =	highest' 19	lowest' 19	2019
USD	1.15 at 10/01	1.09 at 30/09	-3.1%
GBP	0.93 at 12/08	0.85 at 14/03	-4.5%
CHF	1.14 at 23/04	1.08 at 04/09	-2.6%
JPY	127.43 at 01/03	116.08 at 03/09	-4.2%
AUD	1.66 at 07/08	1.57 at 18/04	+0.4%
CNY	7.96 at 27/08	7.51 at 25/04	-0.7%
BRL	4.67 at 19/11	4.18 at 31/01	+5.3%
RUB	79.30 at 01/01	70.22 at 24/09	-11.0%
INR	82.00 at 04/02	76.37 at 01/08	-0.4%

At 21-11-19

Variations

Equity indices

Index	highest' 19	lowest' 19	2019	2019(€)
CAC 40	5 939 at 15/11	4 611 at 03/01	+24.3%	+24.3%
S&P500	3 122 at 18/11	2 448 at 03/01	+23.8%	+27.8%
DAX	13 138 at 07/11	10 417 at 03/01	+24.4%	+24.4%
Nikkei	23 039 at 12/11	19 562 at 04/01	+15.1%	+20.1%
China*	78 at 09/04	68 at 03/01	+10.6%	+14.1%
India*	578 at 03/06	526 at 22/08	+6.6%	+7.0%
Brazil*	2 127 at 10/07	1 862 at 17/05	+18.9%	+12.9%
Russia*	764 at 07/11	572 at 01/01	+24.1%	+37.9%

At 21-11-19

Variations

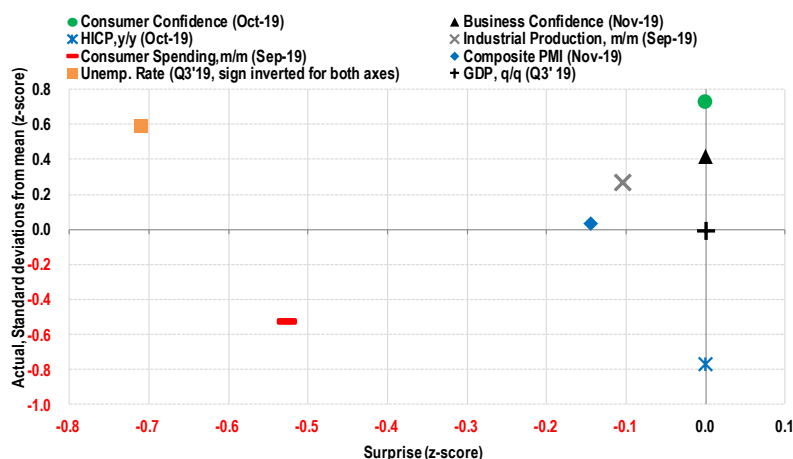
* MSCI index



Pulse

France: business confidence holding up well in November

Our Pulse indicators leave a misleading negative impression. Indeed, with a 0.3% q/q print in Q3 2019 (first estimate), French growth continues to prove remarkably resilient and stable. And Q4 prospects look similarly positive judging by the October and November results of INSEE business confidence surveys and Markit PMIs. Admittedly, the composite indices were almost unchanged in November but they stand at a relatively high level (105 and 53, respectively). Besides, the headline figures mask more positive details, like, for instance, the improvement in the industry sector (whose confidence index, it is worth emphasizing, stands in the expansion zone contrary to Germany where it is in recession) and the rise in the employment and new export orders components.



Note: z-score is a score which indicates how many standard deviations an observation is from the mean: $z=(x-\mu)/\sigma$ where x : observation, μ : mean, σ : standard deviation. On the X-axis, x corresponds at the last known surprise for each indicator represented on the graph, μ and σ corresponds respectively to the mean and the standard deviation of the last 24 value for monthly data and the last 8 quarters for quarterly data. On the Y-axis, x corresponds at the last known value of indicator, μ and σ corresponds respectively to the mean and the standard deviation for this indicator since 2000 (for China since 2011).

Indicators preview

Highlights of next week are the ifo business climate in Germany, consumer confidence in several countries and, for the eurozone, economic confidence, business climate, inflation and the unemployment rate. In the US we will see the publication of several regional activity surveys, as well as the trade balance and durable goods orders. The Federal Reserve will publish its beige book, which provides a description of the economic situation in different parts of the US.

Date	Country/Region	Event	Period	Survey	Prior
11/25/2019	Germany	ifo Business Climate	Nov	--	94.6
11/25/2019	United States	Chicago Fed Nat Activity Index	Oct	--	-0.45
11/25/2019	United States	Dallas Fed Manf. Activity	Nov	-2.0	-5.1
11/26/2019	Germany	GfK Consumer Confidence	Dec	--	9.6
11/26/2019	United States	Advance Goods Trade Balance	Oct	7.1e+10	7.04e+10
11/26/2019	United States	Richmond Fed Manufact. Index	Nov	--	--
11/26/2019	United States	Conf. Board Consumer Confidence	Nov	126.1	125.9
11/26/2019	United States	New Home Sales MoM	Oct	0.6%	-0.7%
11/26/2019	United States	Conf. Board Present Situation	Nov	--	172.3
11/27/2019	France	Consumer Confidence	Nov	--	104
11/27/2019	United States	MBA Mortgage Applications	Nov	--	--
11/27/2019	United States	GDP Annualized QoQ	3Q	1.9%	1.9%
11/27/2019	United States	Durable Goods Orders	Oct	-0.7%	-1.2%
11/27/2019	United States	Personal Income	Oct	0.3%	0.3%
11/27/2019	United States	Personal Spending	Oct	0.3%	0.2%
11/27/2019	United States	U.S. Federal Reserve Releases Beige Book			
11/28/2019	Eurozone	M3 Money Supply YoY	Oct	--	5.5%
11/28/2019	Eurozone	Economic Confidence	Nov	--	100.8
11/28/2019	Eurozone	Business Climate Indicator	Nov	--	-0.19
11/28/2019	Eurozone	Consumer Confidence	Nov	--	--
11/28/2019	Germany	CPI EU Harmonized YoY	Nov	--	0.9%
11/29/2019	United Kingdom	GfK Consumer Confidence	Nov	--	-14
11/29/2019	France	CPI EU Harmonized YoY	Nov	--	0.9%
11/29/2019	France	GDP QoQ	3Q	--	0.3%
11/29/2019	Germany	Unemployment Change (000's)	Nov	--	6000
11/29/2019	Eurozone	Unemployment Rate	Oct	--	7.5%
11/29/2019	Eurozone	CPI MoM	Nov	--	0.1%

Source: Bloomberg, BNP Paribas



Economic scenario

UNITED STATES

- Growth is slowing and this trend is expected to continue under the influence of corporate investment (slower profits growth, uncertainty) and housing (declining trend of affordability). Consumer spending should be more resilient. The trade dispute with China acts as an additional drag but recent progress might imply this effect would wane.
- We expect one more Fed Funds target rate cut this year and two additional cuts in 2020.

CHINA

- Economic growth continues to slow and our GDP forecasts have been revised down since June. Industrial activity and exports have been hard hit by US tariff hikes. Domestic demand has also decelerated.
- The central bank is easing liquidity and credit conditions, though the reduction in financial-instability risks should remain a priority and banks seem to remain prudent. Fiscal policy is 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 have some success in supporting consumer spending.

EUROZONE

- The economic slowdown is continuing in the eurozone, especially in Germany, due to the international environment and elevated uncertainty. The recent stabilization of business surveys provides some hope but needs to be confirmed.
- 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.
- Faced with an outlook of subdued inflation, the very accommodative monetary policy will be maintained as long as inflation hasn't converged sufficiently, in a convincing and lasting way, towards the ECB's objective.

FRANCE

- Growth is slowing although the economy shows resilience. Households' consumption should get a boost from the tax cuts and the jobs recovery. 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 its official rate again in December in reaction to a slowing economy, moderate inflation and high uncertainty. 2020 should see two more cuts. Treasury yields are to decline further in the coming months. Eventually, in the course of 2020 they should move up again in anticipation of a pick-up in growth.
- In the eurozone, the ECB's state-dependent forward guidance and the sluggishness of the inflation process imply that the very accommodative environment will remain in place for a long time. This will exert downward pressure on bond yields, although these will also be influenced by yield movements in the US.
- No policy rate change expected in Japan.
- We expect little change in EUR/USD even though euro's fair value is quite higher than current pricing. The yen should strengthen on the back of stable BoJ policy and high market volatility.

%	GDP Growth			Inflation		
	2018	2019 e	2020 e	2018	2019 e	2020 e
Advanced	2.2	1.6	1.0	2.1	1.4	1.3
United-States	2.9	2.2	1.5	2.4	1.8	1.8
Japan	0.8	1.2	0.2	1.0	0.6	0.3
United-Kingdom	1.4	1.1	0.6	2.5	1.9	1.8
Euro Area	1.9	1.1	0.7	1.8	1.1	0.8
Germany	1.4	0.4	0.2	1.9	1.4	1.0
France	1.7	1.2	1.0	2.1	1.2	1.0
Italy	0.7	0.1	0.0	1.2	0.6	0.5
Spain	2.6	2.2	1.6	1.7	0.8	0.7
Emerging	4.4	3.8	4.2	4.7	4.8	4.5
China	6.6	5.9	5.6	2.1	2.4	2.8
India*	6.8	6.5	6.3	2.9	3.0	3.3
Brazil	1.1	0.5	2.0	3.7	3.7	3.5
Russia	2.3	1.2	2.0	2.9	4.8	3.8

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
	Q1	Q2	Q3	Q4e			
End of period							
US							
Fed Funds	2.50	2.50	2.00	1.50	2.50	1.50	1.00
Libor 3m \$	2.60	2.32	2.09	1.70	2.81	1.70	1.25
T-Notes 10y	2.42	2.00	1.67	1.00	2.69	1.00	1.50
Ezone							
deposit rate	-0.40	-0.40	-0.50	-0.60	-0.40	-0.60	-0.60
Euribor 3m	-0.31	-0.35	-0.42	-0.60	-0.31	-0.60	-0.60
Bund 10y	-0.07	-0.32	-0.57	-0.80	0.25	-0.80	-0.50
OAT 10y	0.26	-0.01	-0.28	-0.55	0.71	-0.55	-0.30
UK							
Base rate	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Gilts 10y	1.00	0.84	0.40	0.55	1.27	0.55	0.75
Japan							
BoJ Rate	-0.06	-0.08	-0.06	-0.10	-0.07	-0.10	-0.10
JGB 10y	-0.09	-0.16	-0.22	-0.40	0.00	-0.40	-0.25

Source : BNP Paribas GlobalMarkets (e: Forecasts)

Exchange Rates	2019				2018	2019e	2020e
	Q1	Q2	Q3	Q4e			
End of period							
USD							
EUR / USD	1.12	1.14	1.09	1.11	1.14	1.11	1.14
USD / JPY	111	108	108	102	110	102	96
GBP / USD	1.30	1.27	1.23	1.23	1.27	1.23	1.36
USD / CHF	1.00	0.98	1.00	0.99	0.99	0.99	1.00
EUR							
EUR / GBP	0.85	0.89	0.89	0.90	0.90	0.90	0.84
EUR / CHF	1.12	1.11	1.09	1.10	1.13	1.10	1.14
EUR / JPY	124	123	118	113	125	113	109

Source : BNP Paribas GlobalMarkets (e: Forecasts)



GROUP ECONOMIC RESEARCH

William De Vijlder
Chief Economist

+33 1 55 77 47 31 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

Hélène Baudchon

France – Labour markets

+33 1 58 16 03 63 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

Frédérique Cerisier

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

+33 1 43 16 95 52 frederique.cerisier@bnpparibas.com

Catherine Stephan

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

+33 1 55 77 71 89 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

Tarik Rharrab

Statistics

+33 1 43 16 95 56 tarik.rharrab@bnpparibas.com

BANKING ECONOMICS

Laurent Quignon

Head

+33 1 42 98 56 54 laurent.quignon@bnpparibas.com

Laure Baquero

+ 33 1 43 16 95 50 laure.baquero@bnpparibas.com

Céline Choulet

+33 1 43 16 95 54 celine.choulet@bnpparibas.com

Thomas Humblot

+ 33 1 40 14 30 77 thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

François Faure

Head

+33 1 42 98 79 82 francois.faure@bnpparibas.com

Christine Peltier

Deputy Head – Greater China, Vietnam, South Africa

+33 1 42 98 56 27 christine.peltier@bnpparibas.com

Stéphane Alby

Africa (French-speaking countries)

+33 1 42 98 02 04 stephane.alby@bnpparibas.com

Sylvain Bellefontaine

Turkey, Ukraine, Central European countries

+33 1 42 98 26 77 sylvain.bellefontaine@bnpparibas.com

Sara Confalonieri

Africa (Portuguese & English-speaking countries)

+33 1 42 98 43 86 sara.confalonieri@bnpparibas.com

Pascal Devaux

Middle East, Balkan countries

+33 1 43 16 95 51 pascal.devaux@bnpparibas.com

Hélène Drouot

Korea, Thailand, Philippines, Mexico, Andean countries

+33 1 42 98 33 00 helene.drouot@bnpparibas.com

Salim Hammad

Latin America

+33 1 42 98 74 26 salim.hammad@bnpparibas.com

Johanna Melka

India, South Asia, Russia, Kazakhstan, CIS

+33 1 58 16 05 84 johanna.melka@bnpparibas.com

CONTACT MEDIA

Michel Bernardini

+33 1 42 98 05 71 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

© 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
 Publisher: Jean Lemierre. Editor: William De Vijlder



BNP PARIBAS

The bank
for a changing
world