The bank for a changing world

ECONOMIC RESEARCH DEPARTMENT

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Rich, deep, serious

The FOMC has something for everybody: a bit of status quo, a bit of dovishness, a bit of hawkishness. That surprising mix was cheered by financial markets.

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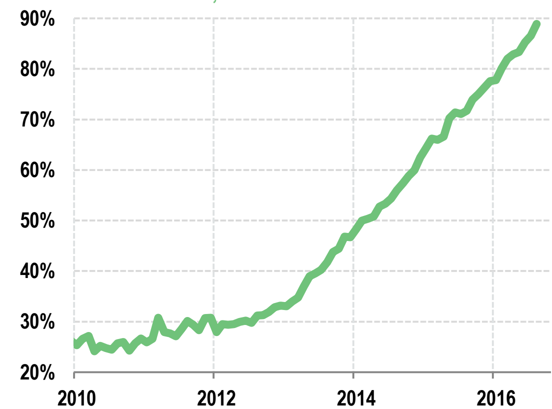
Also in :

Keeping its word

■ BoJ adopts new method ■ Credibility is crucial ■ This is (probably) the reason behind the co-existence of two redundant targets

At its previous meeting at the end of July, the Bank of Japan (BoJ) announced a comprehensive assessment of the developments in economic activity and prices under QQE and QQE with negative rates, in order to "achieve its 2% price stability target as soon as possible". The title of the document posted on its website was even more explicit in announcing the measures that were bound to follow: "Enhancement of monetary easing". This week, the BoJ kept its word by introducing a yield curve control, notably with a target on 10-year JGB yields, and above all, by committing to overshoot its 2% inflation target by increasing the monetary base by as much and as long as necessary. Some will call this irresponsible. Others will welcome this commitment to irresponsibility, which for so many years has been the battle cry of Paul Krugman, 2008 Nobel prize laureate in Economics. More precisely, Mr. Krugman called for "the credible promise to be irresponsible". This raises the question of the credibility of the BoJ's commitment. Former Fed Chair Ben Bernanke, who happened to have been called irresponsible in his time, raises questions of the pertinence of the BoJ's decision to maintain its securities purchasing target unchanged, since it is redundant with the rate target. Unless, of course, one considers that by maintaining the former, it increases the credibility of the latter.

ANOTHER ACCELERATION FROM THE BOJ



Source: BoJ

THE WEEK ON THE MARKETS

Week 16-9 16 > 22-9-16

↗ **CAC 40**	4 332	►	**4 510**	**+4.1**	%
↗ **S&P 500**	2 139	►	**2 177**	**+1.8**	%
↘ Volatility (VIX)	15.4	►	12.0	-3.4	%
↗ **Euribor 3M** (%)	-0.30	►	**-0.30**	**+0.0**	bp
↗ Libor $ 3M (%)	0.86	►	0.86	+0.6	bp
↘ OAT 10y (%)	0.24	►	0.14	-9.8	bp
↘ Bund 10y (%)	-0.06	►	-0.16	-9.6	bp
↘ US Tr. 10y (%)	1.70	►	1.63	-7.0	bp
↗ **Euro vs dollar**	1.12	►	**1.12**	**+0.7**	%
↗ Gold (ounce, $)	1 311	►	1 340	+2.2	%
↗ **Oil (Brent, $)**	46.3	►	**47.9**	**+3.5**	%

Source: Thomson Reuters

BNP PARIBAS

The bank for a changing world

United States

Rich, deep, serious

- **The Fed decided to leave monetary policy unchanged. It however clearly announced a hike is more than likely before year-end.**
- **At the same time, FOMC members lowered the likely path and magnitude of the current tightening cycle.**
- **To sum-up, this week FOMC was a hawkish status quo full of dovish nuances.**
- **That might sound quite complicate but in the end, the Fed managed to have financial markets cheer up a monetary tightening in the making…**

The FOMC meeting ended on a status quo, but policy was tweaked: a hawkish status quo full of dovish nuances, a mastery if such thing does exist in monetary policy. Hawkish because the Fed almost pre-committed to a hike by the end of the year, stressing that "near-term risks to the economic outlook appear roughly balanced". That feeling of hawkishness was accentuated by the dissent from three different regional Fed presidents that would have preferred to increase rates on Wednesday. As for two of them, we can be sure that their vote was motivated by concerns about financial stability. Esther L. George, from Kansas City, was always a likely dissenter: from March (with the exception of the June meeting), she voiced her preference for a rate hike, after having been a constant hawkish dissenter in 2013 (until the Fed finally decided to taper QE3 in December). The second one is Eric S. Rosengren (Boston). For a long-time, he was a "centrist dove", often seen as broadly in line with Janet L. Yellen. But over the recent months, he became concerned by the commercial real estate market, and we assume his decision to dissent is related. The third one, Loretta J. Mester (Cleveland), in her most recent comments, in July, pointed to the three usually mentioned risks: acting too late might prompt to acting too bluntly afterwards, too-low rates might jeopardise the ability of monetary policy to respond to a slowdown and… risks on financial stability. We may know more about what mainly worry her when she speaks in New York on October the 7th.

There are also several dovish elements, especially when it comes to the medium to long-term outlook. Updated projections from FOMC members included a new point-year: 2019. Downward everything came, from growth to inflation and to the projected path for the Fed Fund Target. The message is that growth is stuck in the current slow-mode of 2%. Such a low rate of growth, even if sufficient to keep the unemployment rate close to the estimated level of the NAIRU (Non-Accelerating Inflation Rate of Unemployment), would not be enough to pull inflation back towards the Fed's 2% target before 2018. Even the most hawkish member(s) does not see inflation over-shooting the target (at 2.1%) before 2019.

The projected path for the Fed Fund Target (the famous "dots") once more got shortened (the projected final level of rates is down from 4.2% as of January 2012 to 2.6% currently) and lengthened (by 2019, the Fed Fund Target is projected to remain below the long-term equilibrium level, at 2.6% vs 2.9%). That revision goes beyond what is directly related to a downgraded economic growth. Long-term projections for GDP, from the highest to the most recent, have been cut by 70 percentage points. For the long-term level of interest rates, that downgrade is 130 pp.

In the long-term, we are all doves

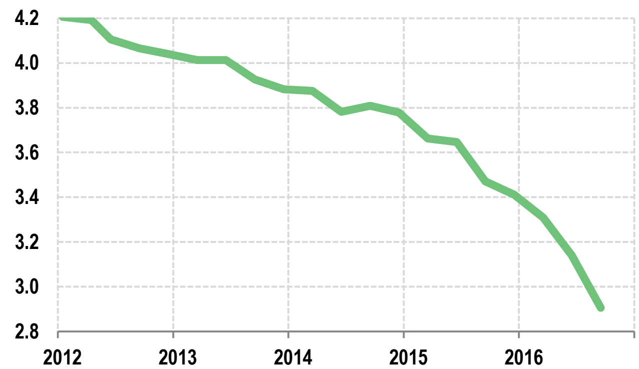


Chart Source: FOMC

FOMC members have told that the natural rate of interest had come down for some time now, usually adding that its current level was probably close to zero. During her press brief, Janet Yellen reiterated such remarks, adding that "the federal funds rate [being] modestly below the neutral rate, the current stance of monetary policy should be viewed as **modestly** accommodative". This reinforces the message of the dots: the Fed is serious when claiming the normalisation of monetary policy will be very gradual and now expects it to be even more measured than previously thought. FOMC members project, following the 25 basis points hike this year (December is more likely than October-November), to tighten by 50 bp in 2017, 75 bp during each of the following two years. This puts the cumulative tightening at 225 bp. In 2015 and 2014, this 3-year projected path was 325 bp.

Telling the public that the tightening cycle will be less steep, will take longer to be completed at a lower final point is a clear dovish message. Answering questions during the press brief, Janet Yellen sent another highly dovish message, declaring that the FOMC does not "want the economy to overheat and **significantly** overshoot [their] 2% inflation objective". That sounds like overshooting is not excluded…

In the end, the strategy of the Fed, in signalling the next hike was coming soon while stressing that over the medium-term they were planning an easier policy stance, was successful when it comes to managing financial markets: the stock markets closed up, as well as the bond market and the dollar was broadly unchanged. If the Fed had chosen to increase rates this week, the story would have been way different…

Eurozone

ECB: The PSPP parameters

■ **At the ECB's September monetary policy meeting, M. Draghi announced the creation of committees "to evaluate the options that ensure a smooth implementation of [the] purchase programme."**

■ **In the current configuration, the public sector purchase programme (PSPP) parameters hinder the smooth implementation of the quantitative easing (QE), especially if, as we forecast, it is extended at least through September 2017.**

■ **There are three possible options, which could potentially be used in combination. Yet each presents its own problems.**

At the ECB's September monetary policy meeting, Mr. Draghi announced the creation of committees "to evaluate the options that ensure a smooth implementation of our purchase programme." Concretely, this means determining which parameters of the public sector purchase programme (PSPP) should be modified to face up to the potential shortage of public securities (notably German).

The four constituent programmes of QE

The ECB's quantitative easing programme actually comprises four distinct programmes:

- Asset Backed Securities Purchase Programme (ABSPP)
- Covered Bonds Purchase Programme (CBPP)
- Corporate Sector Purchase Programme (CSPP)
- Public Sector Purchase Programme (PSPP)

Since April 2016, the ECB, in association with the national central banks, has been making average monthly securities purchases of EUR 80bn. These purchases are subject to highly seasonal fluctuations that affect both their composition and actual purchase volumes, but since March[1] the average breakdown has been as follows:

- EUR 0.5bn for ABSPP
- EUR 3bn for CBPP
- EUR 6.5bn for CSPP
- EUR 70bn for PSPP

PSPP accounts for the lion's share of quantitative easing. Special rules apply. This notably concern risk sharing. For the other three constituent programmes, the ECB purchases the securities, and the risks are fully shared. For PSPP, the ECB conducts 20% of purchases – which corresponds to the risk-shared part – and the remaining 80% of purchases are made by the national central banks, without risk sharing.

Of the PSPP purchases conducted by the ECB (20% of the total), half is comprised of the bonds of supranational issuers (EFSF, EIB, ESM, etc.). This corresponds to 10% of PSPP. If the monthly

[1] For CSPP, our reference date is June since that is the month the programme began.

PSPP

In Green, purchases made by the ECB

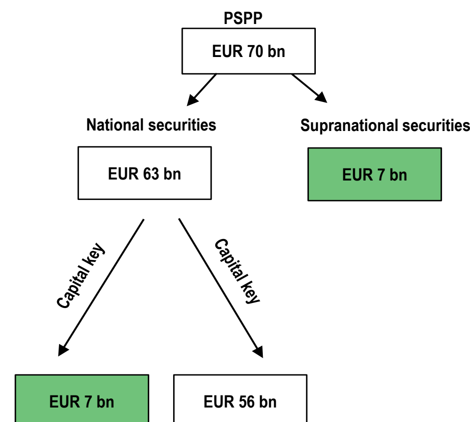


Chart Sources: ECB, BNP Paribas

purchase volume of the PSPP is considered to be EUR 70bn, then EUR 7bn corresponds to supranational bonds purchased by the ECB. The remaining EUR 63bn corresponds to purchases of debt instruments issued by public administrations (sovereign, regional and local entities) and agencies[2] (EUR 7bn purchased by the ECB and EUR 56bn by the national central banks) (see chart).

In addition to the minimum credit rating requirement, PSPP purchases are subject to specific eligibility criteria. There are three criteria:

- Eligible securities must have a residual maturity of between 2 and 30 years
- The yield on eligible securities must be higher than the deposit facility rate (currently -0.40%)
- The Eurosystem (i.e. the ECB and the national central banks) cannot hold more than 33% of a bond issued by a national authority and 50% of a bond issued by a supranational authority.

A fourth rule applies for the portion of PSPP concerning the acquisition of national public debt:

- Purchases must be divided geographically between member countries on the basis of the ECB's capital key.

Excluding Greece, which is not (yet) part of the quantitative easing programme, the capital key rule implies that Germany's share should reach 26.3%, France, 20.7% and Italy 18%, etc. (see table).

[2] *The ECB establishes the list of national and supranational agencies eligible for QE. See: https://www.ecb.europa.eu/mopo/implement/omt/html/pspp.en.html*

Modifying the parameters to enable QE to continue

The parameters of the PSPP (which the ECB itself imposed for political reasons) will hamper the implementation of the asset purchase programme, especially if, as we forecast, the programme is extended at least through September 2017. Germany's case poses the biggest problem, although it is not the only one.

Assuming that the monthly purchase volume of PSPP is EUR 70bn, the Bundesbank and the ECB must jointly purchase EUR 16.6bn in bonds issued by German public sector issuers each month. Through March 2017, this would amount to EUR 116bn from now (now is August). If the programme is extended to September 2017, then EUR 216bn would be needed. It is also hard to imagine that the ECB would suddenly stop its net purchases overnight. The programme is more likely to taper off with a gradual reduction in purchases. If tapering began in October 2017 with purchases reduced at a pace of EUR 10bn a month, then the programme would continue to run through April 2018. Assuming there is a proportional reduction in the four contingent programmes of QE, the total amount of German public sector and agency debt to purchase would total EUR 273bn from now.

Given the current level of German yields, about EUR 175bn in government bonds are now eligible for PSPP[3]. To this, we must add regional and local government bonds, which amount to about EUR 250bn in Germany, or EUR 83bn in potential securities purchases. Lastly, German public agencies account for about EUR 45bn in eligible bonds. All in all, the universe of eligible German securities is roughly EUR 300bn, from which we must remove EUR 238bn in German public debt already held by the Eurosystem at the end of August. In the end, only EUR 62bn is still available, the equivalent to less than four months of purchases[4]. Lastly, it is also worth noting that the net supply of German government bonds is negative, which tends to further narrow the purchasing horizon.

Some flexibility already exists with respect to the PSPP parameters: the ECB allows national central banks that are having trouble purchasing sufficient bonds in their jurisdiction to buy supranational securities in substitute. But this is within a limit of 10% of PSPP purchases devoted to the acquisition of supranational bonds each month. That will not suffice.

The options

Clearly, the parameters of the PSPP need to be changed, which is why the ECB created the relevant committees. There are three possible options[5], all of which could be used in combination.

The ECB could increase the issuer limit from 33% to 50%. A priori this would increase the universe of eligible German bonds by about EUR 150bn. Yet a higher issue limit could not be applied to sovereign bonds issued after 1 January 2013, because they incorporate collective action clause (CAC): if the ECB held more than 33%, it would be in a position to block any restructuring in case of default, which it would probably do in the light of the prohibition of monetary financing. This would create market distortion.

Capital Key distribution (EUR bn)

	Paid-up capital	(%)	Theoretical monthly purchases for a EUR 70bn PSPP
Germany	1 948	26,3%	16,6
France	1 535	20,7%	13,1
Italy	1 333	18,0%	11,3
Spain	957	12,9%	8,1
Netherlands	433	5,9%	3,7
Belgium	268	3,6%	2,3
Austria	213	2,9%	1,8
Portugal	189	2,6%	1,6
Finland	136	1,8%	1,2
Ireland	126	1,7%	1,1
Slovakia	84	1,1%	0,7
Lituania	45	0,6%	0,4
Slovenia	37	0,5%	0,3
Latvia	31	0,4%	0,3
Luxembourg	22	0,3%	0,2
Estonia	21	0,3%	0,2
Cyprus	16	0,2%	0,1
Maltea	7	0,1%	0,1
Total	**7 400**	**100%**	**63,0**

Table Sources: ECB, BNP Paribas

The ECB could abandon the deposit rate floor. This would make numerous German government bonds eligible again, but, to calculate the exact amount, we would have to take into account the share of these securities already held by the ECB (purchased before the decline in yields made them ineligible). To circumvent this problem, let us consider the total amount of German government bonds with a maturity of between 2 and 30 years, regardless of yield: they amount to about EUR 940bn. If we apply the 33% limit, the universe of eligible sovereign securities is EUR 310 bn. This has to be compared with a total of EUR 511bn of German debt (sovereign, sub-sovereign and agency) that needs to be purchased from the beginning (March 2015) to the end (assuming QE is extended until September 2017 and tapered off thereafter). Clearly, this option would have to be combined with an increase in the purchase limits to 50% to ensure the smooth implementation of QE through the end of the programme.

The main problem with abandoning the deposit rate floor is the losses incurred on some operations for the ECB. Indeed, purchasing securities with a lower yield than the deposit facility rate would mean the ECB is paying for liquidity.

The ECB could change the current capital key rule. A major deviation from, or even the elimination of the capital key, would surely be the most effective option for ensuring the smooth implementation of QE. It would also enable better transmission of monetary policy by targeting the countries most in need of accommodating financing conditions. Yet, it is also the most politically sensitive option, which *a priori* means that any modifications would be reduced to the smallest possible deviations. For example, once one country reaches its limit, the ECB could distribute the remainder to be purchased among the other member countries, but still taking into account their weight within the ECB's capital key.

[3] *In early July, just after the Brexit victory, barely EUR 110 bn in German sovereign bonds were still eligible.*

[4] *Note, however, that part of the Eurosystem's holdings are comprised of securities that now yield less than -0.4%: available eligible securities are thus more numerous…*

[5] *We do not discuss dropping the maturities limit as it won't be much helpful: Germany has no bonds beyond 30y maturity. Bonds below 2 years have yields below the depo rate. Besides, even though the ECB were to drop the deposit rate floor, buying bonds below 2 years would mean more redemption to roll.*

Japan

Monetary policy: let's give it another try

- **In order to boost inflation expectations and inflation, the Bank of Japan has made two changes to its monetary policy.**
- **By introducing yield targeting, it creates more flexibility than would a QE policy.**
- **Importantly, it has committed to overshoot its inflation target. However, judging by the reaction of the USDJPY exchange rate, the market was not impressed.**

Central bank credibility is a necessary condition for monetary policy to be successful in achieving its objectives. It refers to the authority (independence) of the central bank to act when circumstances require and to its willingness and ability to take the appropriate measures. A credible central bank will succeed in influencing behaviour of households and companies in such a way that its inflation goal (along with other goals, if any, as well) is met and is expected to be met also in the future: inflation expectations are well anchored. If progress towards reaching the objective(s) is too slow, doubts about the effectiveness may creep in, inflation expectations may become unanchored and the central bank might lose some of its credibility, rendering its monetary policy less effective. This risk is all the more real if financial markets are under the impression that time is running out, i.e., that there is a risk of running out of ammunition.

Bank of Japan introduces yield targeting

The decisions taken by the Bank of Japan (BoJ) last Wednesday need to be seen against this background. The introduction of "yield curve control", including targeting the 10-year yield on Japanese government bonds (JGBs), reflects multiple concerns: 1. inflation is still too low compared with the objective, and inflation expectations have declined, 2. a volume-based monetary policy (buying a certain amount of JGBs or other instruments per month) would become increasingly difficult to maintain as the remaining stock of JGBs declines, 3. in a traditional QE policy, the market determines the shape of the yield curve, and an excessively flat curve would end up having a detrimental impact on banks and insurers, 4. related to this, should the BoJ eventually decide to lower the negative rate further on policy-rate balances in current accounts held by financial institutions at the BoJ, a policy of targeting the 10-year yield would make it possible to soften the impact on the financial sector by maintaining a sufficiently steep curve and 5. finally, creating more flexibility with respect to the volume target (although surprisingly the BoJ refrained from dropping this target altogether) could increase the market impact of its operations by exploiting the surprise factor.

This is reminiscent of foreign exchange market interventions where a surprise move can also have a considerable impact. The real question is of course how lasting this impact will be. Is bond yield targeting the equivalent of "drawing a line in the sand", the metaphor often used in currency markets, in which case the decisiveness will be tested? How can foreign (US) influences that could push up JGB yields beyond the target level set by the BoJ be dealt with? On what

Japan's rate curve

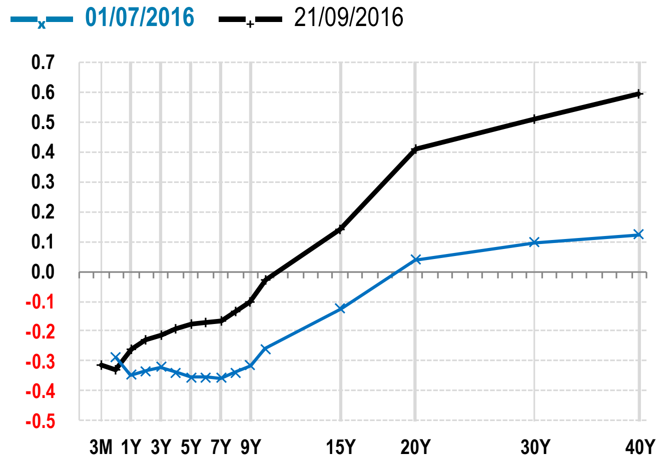


Chart 1 Sources: Bloomberg, BNP Paribas

Exchange rate-intraday*

Chart 2 Sources: Bloomberg, BNP Paribas

basis will the target be changed? Lack of clarity on these matters and on the successful stabilisation of yields could increase bond yield volatility and have detrimental effects on the real economy. In this respect, chart 1 illustrates the extreme steepening of the yield curve during the summer months when the market started to anticipate that a change in policy was coming. In an economy where the central bank is running QE, the steepening was sharp to say the least.

Committing to overshoot the inflation target

The second decision raises even more questions. The BoJ "will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds the price stability target of 2 percent and stays above the target in a

stable manner"[1]. The rationale goes as follows: if one seeks to hit the 2% inflation objective without accepting an overshoot, markets will anticipate an early policy tightening. This would cause a tightening of financial conditions (appreciation of the currency, higher bond yields, rising corporate bond spreads and a weaker equity market) and make it very difficult to hit the inflation target. This argument is made in a recent research paper by Fernando Duarte, a Federal Reserve Bank of New York economist (see box). In addition, the BoJ defines its inflation objective as an average over the business cycle so in consideration of the fact that inflation is currently running below target, policy should seek to bring inflation above target. In so doing, the BoJ also tries to change the mechanism of inflation expectation formation of households and companies. It is of the view that at present expectations are formed in an adaptive way by "looking in the rear-view mirror": recent and historical inflation experience drives the expectations for the future. This implies that expected real interest rates are too high (because the adaptive inflation expectations are too low and adjust very slowly), which weighs on the transmission of monetary policy. In order to push the private sector to adopt a more forward-looking process of inflation expectation formation, the BoJ has now committed to overshoot its inflation target, thereby insisting it wants to engineer an increase in inflation at the earliest possible time.

On paper, a policy to accept a prolonged overshooting of the inflation target is very aggressive. Expected real interest rates drop (at least if inflation expectations are formed in a forward looking way), and this should support debt-financed spending provided that households and/or companies are confident about their future ability to pay back the debt and are convinced that inflation will indeed overshoot. The currency should also weaken, thereby boosting growth and inflation. However, if the central bank is not credible, nothing will work. Chart 2 reminds us that the BoJ has some work to do. The intraday evolution of the USDJPY exchange rate before and after the announcement of the new monetary policy clearly shows that the currency market is not yet convinced that this new policy will work. If the announcement had been credible, the yen would have seen a step-change weakening rather than a jump followed by a downward drift.

The BoJ seems to be aware of the credibility challenge because its policy announcement includes reference to "possible options for additional easing": cut the short-term interest rate policy and the target level of the long-term interest rate, expand asset purchases and accelerate the expansion of the monetary base. One would hope that mentioning these tools would enhance the credibility of the central bank and help it to achieve its new objective of inflation overshooting. However, it would also bring us closer to a new and even greater challenge: how to normalize monetary policy without causing market disruption (bonds, equities, the yen) when the influence of the central bank on asset prices has been huge (via QE and yield targeting) and the inflation target has at long last been overshot.

Box: ***How to escape a liquidity trap with interest rate rules, Fernando Duarte, Federal Reserve Bank of New York***

Staff Report 776, May 2016

This paper offers the theoretical underpinning for the BoJ decision[2]*. It uses a three-equation model with an output gap equation driven by the difference between the real interest rate and the real natural rate of interest, an inflation expectations equation (which depends on the output) and a nominal interest rate equation (nominal rate with a zero lower bound (ZLB)). This theoretical model is used to run simulations to assess whether stable solutions can be reached. A key conclusion is that by stimulating future output and inflation, a longer span of interest rates pegged at zero guarantees that by the time the central bank reverts to a Taylor rule, the economy will no longer be constrained by the ZLB. However, "promising to be tough on inflation outside the ZLB prevents the future boom in inflation and output that is necessary to arrest the deflationary expectations while at the ZLB." Committing to overshoot the inflation target would kill any expectations of a pre-mature tightening.*

However, the model does not have equations explaining the dynamics of financial markets. It remains to be seen to what extent this influences the policy recommendations. When inflation is picking up and ready to overshoot the central bank target, bond yields may very well increase significantly, which could weigh on the stock market and cause volatility in the real economy, making it more difficult to keep inflation high enough.

[1] Source: New Framework for Strengthening Monetary Easing: "Quantitative and Qualitative Monetary Easing with Yield Curve Control", Bank of Japan press release, 21 September 2016

[2] Of course we don't know whether this paper has influenced the BoJ decision.

France

Growth prospects and confidence

■ **The government maintained its growth forecast of 1.5% for both 2016 and 2017.**

■ **This seems like an optimistic outlook given the expected dissipation of certain growth support factors while new headwinds will also emerge.**

■ **The September INSEE business confidence surveys were rather upbeat. But they are still not on a distinctly upward trend, testifying the lack of momentum of the recovery.**

At the 20 September presentation of the broad outlines of its 2017 draft budget bill, the French government confirmed that it is maintaining its growth forecasts for France at an average annual rate of 1.5% for both this year and the next. However, we are of the view that the lack of acceleration from one year to the next reflects only partly the several less favourable growth factors, and even some negative ones, in 2017 (higher inflation; the abating of the positive impact of low oil prices and the euro's depreciation; the consequences of Brexit). Maintaining such a relatively high growth rate seems to be excessively optimistic[1].

The government's estimates are, indeed, in the upper range of the consensus forecasts and of those of the international institutions (see table). The OECD has just revised downwards its forecasts as part of its September interim scenario, by 0.1 points to 1.3% in 2016 and by 0.2 points to 1.3% in 2017. In its July update, the IMF also revised its forecasts with respect to its April outlook: up 0.4 points to 1.5% for 2016 and down 0.1 points to 1.2% for 2017.

The European Commission's forecasts are higher (1.3% in 2016 and 1.7% in 2017), but they date back to May, prior to the Brexit vote. In its first assessment of the impact of Brexit[2], the European Commission estimated the negative impact on eurozone growth at 0.25 points in 2017, based on a "mild" scenario. We think the impact on France would be roughly the same, considering that the country's economic performances are representative of the eurozone average. We will have to wait until November for the Commission's next official outlook, which in addition to the expected negative effects of Brexit, will also integrate all of the new measures taken in the 2017 draft budget bill. Although its full scope is not known yet, the fiscal impulse is expected to be negative and will thus curb growth.

The government bases its growth forecasts on the rebound in domestic growth engines (household consumption and corporate investment), which are deemed to have been more vigorous than expected since the beginning of the year. Indeed, the upturn in the purchasing power gains of gross disposable income (+2.2% year-on-year in Q2 2016, see chart 1) has been providing substantial support

Growth forecasts for France

Average annual growth rate

	2016	2017
BNP Paribas (August 2016)	1.3	1.0
Government (Finance bill Sept. 2016)	1.5	1.5
IMF (July 2016)	1.5	1.2
OECD (Sept. 2016)	1.3	1.3
European commission (May 2016)	1.3	1.7
Banque de France (June 2016)	1.4	1.5
INSEE (June 2016)	1.6	
Consensus (Sept. 2016)	1.4	1.2
highest estimate	*1.6*	*1.8*
lowest estimate	*1.2*	*0.8*

Table Source: BNP Paribas

to household consumption. Similarly, corporate investment has been benefiting from the significant rebound in profit margins (see chart 2), which comes on top of the positive effects of the over-amortization scheme.

Although we also see signs of a more solid, positive feedback loop[3], we do not think the recovery has enough momentum to reach 1.5% growth in 2016 or 2017. Granted, non-farm payroll employment is picking up, but these improvements in the labour market are still mild and hampered by lacklustre GDP growth. In 2017, according to our scenario, employment will not be dynamic enough to offset the negative impact of the expected increase in inflation on the purchasing power of gross disposable income (GDI). The net slowdown in GDI will drag down household consumption (from an average annual rate of 1.5% in 2016 to 1% in 2017, compared to 1.5% in 2015), barely offset by a decline in the personal saving rate (which is expected to be rather small because of the also limited expected decline in the unemployment rate). The government is more optimistic and expects household consumption to remain quite buoyant in 2017 (+1.6%).

The momentum of corporate investment is also likely to be tempered by the rather lacklustre and uncertain outlook for demand. In 2016, we expect corporate investment to grow at an average annual rate of 3.7% (after 2.7% in 2015), which is close to the government's estimate of 3.8%. In 2017, in contrast, we expect it to weaken to +1.7%, unlike the government's forecast of +3.5%.

In fact, it will be hard to meet the government's growth forecast even this year. Q1 was certainly dynamic (+0.7% q/q), but it was followed by a sharp payback. As a result, GDP has declined slightly according to the detailed national accounts (-0.1% q/q instead of the previously published figure of no growth). To reach the government's forecast of

[1] The opinion of the High Council of Public Finances would have been instructive, but it was not available yet at the time we went to press.

[2] "The Economic outlook after the UK Referendum: A First Assessment for the Euro Area and the EU", *European Economy Institutional Papers* n°032, July 2016.

[3] Ecoweek 16-31, "France – Labour market: a mild, but virtuous improvement", 16 September 2016.

an annual average growth rate of 1.5% in 2016, it would take quarterly growth rates of about 0.6% in Q3 and Q4. We do not believe the conditions have come together yet for growth to return to such high levels in the short term. In Q3, a technical rebound is basically assured since the temporary negative factors in Q2 will no longer be at work[4]. But the monthly economic data available so far still point to another decline. Granted we only have the figures for July, but they do not bode well for now for Q3 growth: indeed, the decline in household spending on goods and in production leaves them with a strongly negative carry-over (-1% q/q and -1.3% q/q, respectively).

The INSEE business confidence survey paints a more upbeat picture, particularly the September improvement (the composite index rose 1 point to 102). This bolsters our forecast of a moderate rebound in Q3 growth, to 0.3% q/q. In particular, the industry survey unexpectedly regained 2 points to 103. The breakdown of the balance of opinions also reinforces the positive headline result, particularly the sharp improvement in business leaders' assessments of their own production prospects. In terms of sub-sectors, however, the improvement only relied on the agro-food industry and transport equipment. In the retail trade sector, the business confidence index shed another point to 102, but it regained a point in services (to 102 as well). Lastly, in the construction sector, the indicator remained flat at 95 for the fifth consecutive month. Yet the balance of opinions on expectations continues to trend up, despite some volatility from one month to the next. The sector is therefore continuing to show signs of a recovery, which is good news for growth in general.

Yet, although the global trend of the INSEE business confidence surveys is not unfavourable, it is still not distinctly favourable either (see chart 3). The composite index's turnaround indicator remains mired in the area of economic uncertainty. All of this testifies the recovery's lack of momentum that we pointed out above.

Household consumption and purchasing power

Year-on-year change

— Purchasing power gains, gross disposable income

— Household consumption

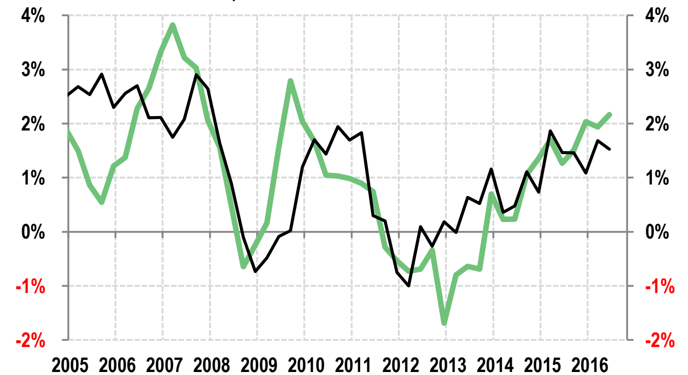


Chart 1 Source: INSEE

Corporate investment and profit margins

— Corporate profit margins, % of gross value added (LHS)

— Corporate investment (year-on-year, RHS)

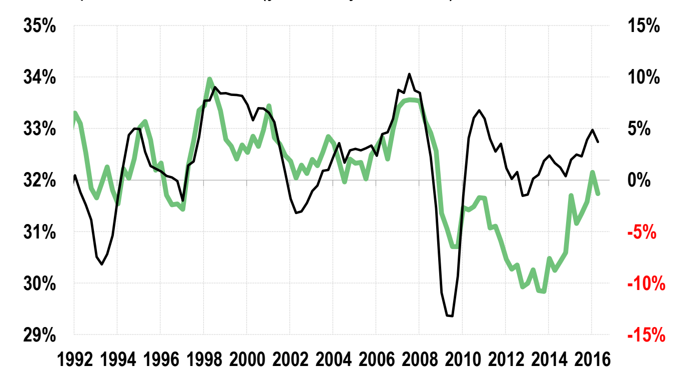


Chart 2 Source : INSEE

Business climate

— Industry — Retail trade — Construction - - - Services

— Composite index

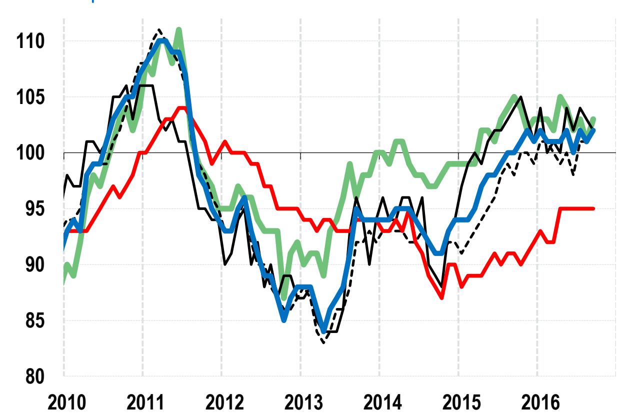


Chart 3 Source: INSEE

4 Ecoweek 16-29, "France – Growth hits another snag", 2 September 2016.

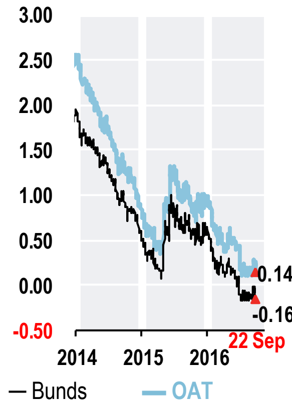
Markets overview

The essentials

Week 16-9 16 > 22-9-16

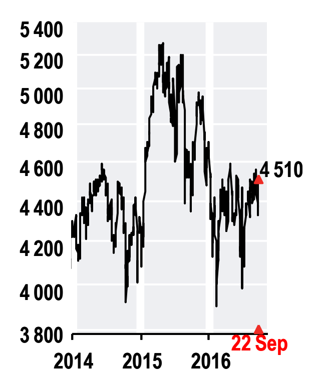
		16-9		22-9	Change	
↗	**CAC 40**	4 332	▸	**4 510**	**+4.1**	%
↗	**S&P 500**	2 139	▸	**2 177**	**+1.8**	%
↘	Volatility (VIX)	15.4	▸	12.0	-3.4	%
↗	**Euribor 3M (%)**	-0.30	▸	**-0.30**	**+0.0**	bp
↗	Libor $ 3M (%)	0.86	▸	0.86	+0.6	bp
↘	OAT 10y (%)	0.24	▸	0.14	-9.8	bp
↘	Bund 10y (%)	-0.06	▸	-0.16	-9.6	bp
↘	US Tr. 10y (%)	1.70	▸	1.63	-7.0	bp
↗	**Euro vs dollar**	1.12	▸	**1.12**	**+0.7**	%
↗	Gold (ounce, $)	1 311	▸	1 340	+2.2	%
↗	**Oil (Brent, $)**	46.3	▸	**47.9**	**+3.5**	%

10 y bond yield, OAT vs Bund



Euro-dollar

CAC 40



Money & Bond Markets

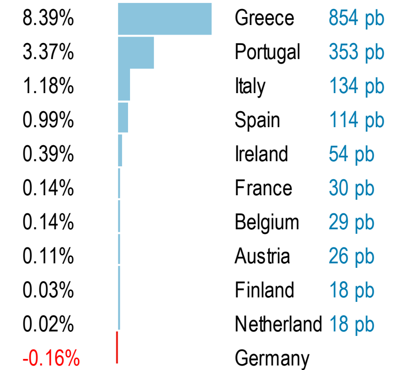
Interest Rates		highest' 16		lowest' 16	
€ ECB	**0.00**	0.05	at 01/01	0.00	at 16/03
Eonia	**-0.34**	-0.13	at 01/01	-0.36	at 26/05
Euribor 3M	**-0.30**	-0.13	at 01/01	-0.30	at 08/09
Euribor 12M	**-0.06**	0.06	at 01/01	-0.06	at 07/07
$ FED	**0.50**	0.50	at 01/01	0.50	at 01/01
Libor 3M	**0.86**	0.87	at 20/09	0.61	at 04/01
Libor 12M	**1.57**	1.57	at 21/09	1.12	at 12/02
£ BoE	**0.25**	0.50	at 01/01	0.25	at 04/08
Libor 3M	**0.38**	0.59	at 15/02	0.38	at 08/09
Libor 12M	**0.75**	1.07	at 01/01	0.72	at 10/08

At 22-9-16

Yield (%)		highest' 16		lowest' 16	
€ AVG 5-7y	**-0.08**	0.49	at 12/01	-0.13	at 08/09
Bund 2y	**-0.67**	-0.34	at 01/01	-0.70	at 11/07
Bund 10y	**-0.16**	0.63	at 01/01	-0.19	at 07/09
OAT 10y	**0.14**	0.98	at 01/01	0.10	at 07/09
Corp. BBB	**1.23**	2.50	at 20/01	1.14	at 07/09
$ Treas. 2y	**0.78**	1.06	at 01/01	0.56	at 05/07
Treas. 10y	**1.63**	2.27	at 01/01	1.36	at 08/07
Corp. BBB	**3.31**	4.50	at 12/02	3.24	at 18/08
£ Treas. 2y	**0.09**	0.65	at 01/01	0.09	at 22/09
Treas. 10y	**0.72**	1.96	at 01/01	0.61	at 12/08

At 22-9-16

10y bond yield & spreads



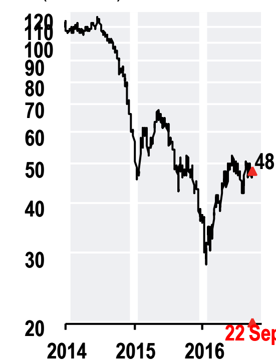
Yield	Country	Spread
8.39%	Greece	854 pb
3.37%	Portugal	353 pb
1.18%	Italy	134 pb
0.99%	Spain	114 pb
0.39%	Ireland	54 pb
0.14%	France	30 pb
0.14%	Belgium	29 pb
0.11%	Austria	26 pb
0.03%	Finland	18 pb
0.02%	Netherland	18 pb
-0.16%	Germany	

Commodities

Spot price in dollars		lowest' 16			2016(€)
Oil, Brent	48	28	at	20/01	**+29.6%**
Gold (ounce)	1 340	1 062	at	01/01	**+21.8%**
Metals, LMEX	2 385	2 049	at	12/01	**+4.6%**
Copper (ton)	4 835	4 328	at	15/01	**-0.7%**
CRB Foods	337	329	at	11/01	**-2.9%**
wheat (ton)	144	126	at	16/08	**-9.8%**
Corn (ton)	122	113	at	31/08	**-14.1%**

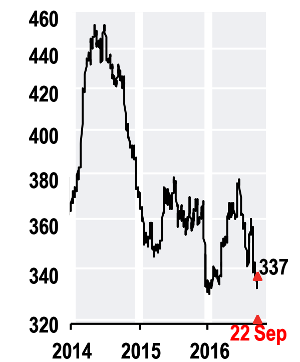
At 22-9-16 *Variations*

Oil (Brent, $)



Gold (Ounce, $)

CRB Foods



Exchange Rates

1€ =		highest' 16			lowest' 16			2016
USD	**1.12**	1.15	at	03/05	1.07	at	05/01	**+3.5%**
GBP	**0.86**	0.87	at	15/08	0.73	at	05/01	+16.4%
CHF	**1.09**	1.11	at	04/02	1.08	at	24/06	-0.0%
JPY	**113.30**	131.84	at	01/02	110.95	at	08/07	-13.3%
AUD	**1.47**	1.60	at	11/02	1.45	at	10/08	-1.6%
CNY	**7.50**	7.54	at	22/08	6.99	at	05/01	+6.3%
BRL	**3.60**	4.53	at	16/02	3.49	at	09/08	-16.2%
RUB	**71.55**	91.22	at	11/02	69.76	at	19/07	-9.8%
INR	**74.99**	77.50	at	11/02	71.42	at	05/01	+4.4%

At 22-9-16 *Variations*

Equity indices

	Index	highest' 16			lowest' 16			2016	2016(€)
CAC 40	**4 510**	4 637	at	01/01	3 897	at	11/02	-2.7%	**-2.7%**
S&P500	**2 177**	2 190	at	15/08	1 829	at	11/02	+6.5%	**+2.9%**
DAX	**10 674**	10 753	at	07/09	8 753	at	11/02	-0.6%	**-0.6%**
Nikkei	**16 808**	19 034	at	01/01	14 952	at	24/06	-11.7%	**+1.8%**
China*	**65**	65	at	22/09	48	at	12/02	+9.4%	**+5.6%**
India*	**497**	504	at	08/09	393	at	11/02	+9.0%	**+4.4%**
Brazil*	**1 698**	1 746	at	08/09	860	at	21/01	+32.7%	**+58.4%**
Russia*	**520**	526	at	08/09	331	at	20/01	+15.2%	**+24.2%**

At 22-9-16 *Variations*

* MSCI index

Economic forecasts

En %	GDP Growth			Inflation			Curr. account / GDP			Fiscal balances / GDP		
	2015	2016 e	2017 e	2015	2016 e	2017 e	2015	2016 e	2017 e	2015	2016 e	2017 e
Advanced	**1.9**	**1.4**	**1.3**	**0.3**	**0.7**	**1.5**						
United States	**2.6**	**1.5**	**1.6**	**0.1**	**1.2**	**2.1**	**-2.5**	**-2.6**	**-2.7**	**-2.5**	**-3.1**	**-3.1**
Japan	0.5	0.4	0.1	0.8	-0.2	0.5	3.3	3.6	3.2	-4.5	-4.3	-3.9
United Kingdom	2.2	1.6	0.7	0.0	0.5	2.2	-5.4	-5.9	-4.4	-4.1	-3.6	-4.4
Euro Area	**1.6**	**1.5**	**1.0**	**0.0**	**0.2**	**1.1**	**3.2**	**2.9**	**2.7**	**-2.1**	**-2.1**	**-1.9**
Germany	1.4	1.5	1.1	0.1	0.3	1.4	8.6	8.2	7.5	0.7	0.3	0.1
France	1.2	1.3	1.0	0.1	0.4	1.1	-0.2	-0.2	-0.4	-3.6	-3.4	-3.1
Italy	0.6	0.9	0.3	0.1	-0.1	0.8	2.2	2.2	2.1	-2.6	-2.8	-2.8
Spain	3.2	2.9	1.6	-0.6	-0.4	1.2	1.4	1.2	1.0	-5.1	-4.6	-3.5
Netherlands	2.0	1.8	1.6	0.2	0.4	0.9	9.4	9.5	9.2	-1.8	-1.8	-1.6
Belgium	1.4	1.2	1.5	0.6	1.5	1.5	0.8	1.3	1.5	-2.5	-2.7	-2.3
Portugal	1.5	1.1	1.1	0.5	0.6	1.4	0.8	0.6	0.4	-4.4	-2.9	-2.7
Emerging	**4.1**	**4.2**	**4.9**	**5.9**	**6.5**	**5.5**						
China	6.9	6.6	6.3	1.4	2.0	2.2	3.1	2.6	1.9	-2.4	-3.0	-3.2
India	7.2	7.9	8.3	4.9	5.4	5.0	-1.3	-1.1	-1.3	-4.1	-3.9	-3.5
Brazil	-3.8	-3.0	2.0	9.0	8.8	5.0	-3.3	-1.0	-1.5	-10.3	-10.1	-9.4
Russia	-3.7	0.0	2.2	15.6	7.1	5.4	5.2	2.8	3.5	-2.1	-2.8	-1.6
World	**3.1**	**3.0**	**3.3**	**3.5**	**4.0**	**3.8**						

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

Financial forecasts

Interest rates		2016				2017						
End period		Q1	Q2	Q3e	Q4e	Q1e	Q2e	Q3e	Q4e	2015	2016e	2017e
US	Fed Funds	0.50	0.50	0.50-0.75	0.50-0.75	0.50-0.75	0.50-0.75	0.50-0.75	0.50-0.75	0.01	0.50-0.75	0.50-0.75
	3-month Libor $	0.63	0.65	0.65	0.85	0.90	0.90	0.95	0.95	0.61	0.85	0.95
	10-year T-notes	1.79	1.49	1.60	1.60	1.60	1.55	1.55	1.50	2.27	1.60	1.50
EMU	Refinancing rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
	3-month Euribor	-0.24	-0.29	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.13	-0.30	-0.30
	10-year Bund	0.16	-0.13	0.00	-0.20	-0.20	-0.20	-0.20	-0.20	0.63	-0.20	-0.20
	10-year OAT	0.41	0.20	0.30	0.10	0.20	0.10	0.10	0.10	0.98	0.10	0.10
	10-year BTP	1.23	1.35	1.40	0.90	0.90	0.90	0.80	0.80	1.60	0.90	0.80
UK	Base rate	0.50	0.50	0.25	0.10	0.10	0.10	0.10	0.10	0.50	0.10	0.10
	3-month Libor £	0.59	0.56	0.35	0.20	0.30	0.35	0.35	0.35	0.59	0.20	0.35
	10-year Gilt	1.42	1.02	0.65	0.65	0.65	0.65	0.70	0.80	1.96	0.65	0.80
Japan	Overnight call rate	-0.00	-0.06	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	0.04	-0.10	-0.10
	3-month JPY Libor	0.10	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.17	0.05	0.05
	10-year JGB	-0.04	-0.23	-0.15	-0.10	-0.15	-0.15	-0.15	-0.15	0.25	-0.10	-0.15

Exchange rates		2016				2017						
End period		Q1	Q2	Q3e	Q4e	Q1e	Q2e	Q3e	Q4e	2015	2016e	2017e
USD	EUR / USD	1.14	1.11	1.07	1.08	1.12	1.10	1.07	1.05	1.09	1.08	1.05
	USD / JPY	112	103	111	108	106	108	115	120	120	108	120
EUR	EUR / GBP	0.79	0.83	0.86	0.84	0.86	0.84	0.79	0.77	0.74	0.84	0.77
	EUR / CHF	1.09	1.08	1.14	1.12	1.13	1.14	1.15	1.16	1.09	1.12	1.16
	EUR/JPY	128	114	119	117	119	119	123	126	131	117	126

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

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Group Economic Research

- **William DE VIJLDER** — +33(0)1 55 77 47 31 — william.devijlder@bnpparibas.com
  Chief Economist

ADVANCED ECONOMIES AND STATISTICS

- **Jean-Luc PROUTAT** — +33.(0)1.58.16.73.32 — jean-luc.proutat@bnpparibas.com
  Head
- **Alexandra ESTIOT** — +33.(0)1.58.16.81.69 — alexandra.estiot@bnpparibas.com
  Works coordination - United States - United Kingdom - Globalisation
- **Hélène BAUDCHON** — +33.(0)1.58.16.03.63 — helene.baudchon@bnpparibas.com
  France (short-term outlook and forecasts) - Labour markets
- **Frédérique CERISIER** — +33.(0)1.43.16.95.52 — frederique.cerisier@bnpparibas.com
  Euro Area - European institutions and governance - Public finances
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  France (structural reforms) - European central bank
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  Spain, Portugal - World trade - Education, health, social conditions
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  Germany, Netherlands, Austria, Switzerland - Energy, climate - Long-term projections
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BANKING ECONOMICS

- **Laurent QUIGNON** — +33.(0)1.42.98.56.54 — laurent.quignon@bnpparibas.com
  Head
- **Céline CHOULET** — +33.(0)1.43.16.95.54 — celine.choulet@bnpparibas.com
- **Laurent NAHMIAS** — +33.(0)1.42.98.44.24 — laurent.nahmias@bnpparibas.com
- **Thomas HUMBLOT** — +33.(0)1.40.14.30.77 — thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

- **François FAURE** — +33.(0)1 42 98 79 82 — francois.faure@bnpparibas.com
  Head
- **Christine PELTIER** — +33.(0)1.42.98.56.27 — christine.peltier@bnpparibas.com
  Deputy Head - Greater China, Vietnam - Methodology
- **Stéphane ALBY** — +33.(0)1.42.98.02.04 — stephane.alby@bnpparibas.com
  Africa (French-speaking countries)
- **Sylvain BELLEFONTAINE** — +33.(0)1.42.98.26.77 — sylvain.bellefontaine@bnpparibas.com
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- **Sara CONFALONIERI** — +33.(0)1.42.98.74.26 — sara.confalonieri@bnpparibas.com
  Africa (English and Portuguese speaking countries)
- **Pascal DEVAUX** — +33.(0)1.43.16.95.51 — pascal.devaux@bnpparibas.com
  Middle East, Balkan countries - Scoring
- **Anna DORBEC** — +33.(0)1.42.98.48.45 — anna.dorbec@bnpparibas.com
  CIS, Central European countries
- **Hélène DROUOT** — +33.(0)1.42.98.33.00 — helene.drouot@bnpparibas.com
  Asia
- **Johanna MELKA** — +33.(0)1.58.16.05.84 — johanna.melka@bnpparibas.com
  Asia, Russia
- **Alexandra WENTZINGER** — +33.(0)1.42 98 74 26 — alexandra.wentzinger@bnpparibas.com
  South America, Caribbean countries

- **Michel BERNARDINI** — +33.(0)1.42.98.05.71 — michel.bernardini@bnpparibas.com
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Registered Office: 16 boulevard des Italiens – 75009 PARIS
Tel : +33 (0) 1.42.98.12.34
Internet : www.group.bnpparibas.com - www.economic-research.bnpparibas.com

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