ECO FLASH

21 December 2018

United Kingdom: Large UK banks could withstand a major shock under certain conditions

Laure Baquero

- **In 2018, the Bank of England (BoE) brought forward the publication of its stress test results so that MPs could have enough time to consider them before voting on the draft Brexit deal, which was initially scheduled to happen on 11 December 2018[1].**
- **Evaluated banks started the 2018 BoE's stress test with an aggregate Common Equity Tier 1 (CET1) 3.5 times higher than the level seen before the 2008 crisis according, to BoE estimates. It has been rising constantly since 2014, which means that UK banks have been strengthening their capital positions.**
- **The BoE is satisfied with the 2018 results since each of the seven banks assessed would keep its CET1 capital above the minimum requirement even in the event of a shock deemed to be more severe than the 2008/09 crisis, and sufficiently severe to cover a disorderly Brexit scenario.**
- **Based on these results, along with other data, the BoE's Financial Policy Committee maintained the level of its countercyclical capital buffer for the whole banking system – on top of regulatory prudential requirements – at 1%.**

In 2013, the Bank of England decided to stress-test large UK banks every year, in addition to the stress tests carried out every two years by the European Banking Authority (EBA). The two tests are complementary, if only because they use different methodological approaches. In practice, the BoE's tests are carried out by its Prudential Regulation Authority (PRA) and analysed by its Financial Policy Committee (FPC), which decides whether or not to adjust prudential requirements as a result.

UK banks increasingly resilient according to the Bank of England

Every year since 2014, the PRA has stress-tested large UK banks[2] with three objectives: i) to carry out a quantitative and prospective analysis of capital levels in the UK banking system, ii) to make the BoE accountable for financial stability before Parliament and the general public and iii) to restore the public's confidence in financial stability.

The stress tests are a way for the BoE to check that bank capital levels are sufficient to deal with a stress scenario and to adjust capital requirements – in addition to Basel regulatory requirements – in the form of a buffer if it deems it necessary (see figure 1), either for an individual bank or for the whole banking system. The BoE emphasises that these are not tests that banks simply pass or fail, but reserves the right to require banks to take action to adjust their capital levels or address inadequacies in their capital management as the case may be.

In the light of tests carried out in 2014 and 2015, the BoE made some methodological adjustments for tests in the following three years (introducing countercyclical tests, gradually increasing minimum CET1 thresholds, setting individual thresholds for each bank, increasing requirements for systemically important banks etc.). The capital buffer

[1] BoE (20/11/2018), Change of publication date for Financial Stability Report and Bank of England stress testing results.

[2] Of which there were initially eight: Barclays, Co-Operative Bank, HSBC, Lloyds, Nationwide, RBS, Santander UK and Standard Chartered, but Co-Operative Bank left the group in 2015 following major restructuring.

Eco FLASH

ECONOMIC RESEARCH DEPARTMENT

required by the BoE consists of 4-6 elements, both bank-specific and general, and some may change depending on stress-test results (see figure 1). In addition to the annual stress tests, the PRA has introduced tests every two years to gauge the banking system's resilience to other risks that are not closely connected with the financial cycle. The first took place in 2017. It tested banks' ability to adjust to an environment of consistently low growth and interest rates. After that exercise, the PRA's view was that the banks assessed would manage to adjust without any major strategic changes or risk-taking, although they would have to cut costs to offset lower margins[3].

Since 2014, the BoE has declared itself to be satisfied overall with the stress test results, because the aggregate stressed CET1 level[4] is higher than the minimum requirement, bearing in mind that it has risen each year since 2015 and is now 7.8%, and that the macro-financial scenario imposed on banks can vary from one year to the next, except in 2018 (see figure 2). Looking at the details, several banks failed the test in the first few years because their CET1 capital was lower than the minimum requirement or because the PRA thought that their equity should be strengthened even though they complied with the regulatory thresholds.

Breakdown of CET1 regulatory requirements imposed by the BoE on UK banks

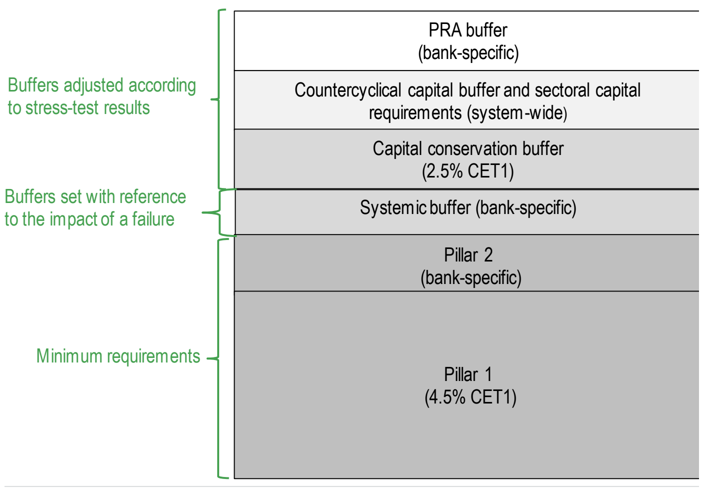


Chart 1 Source: BoE, BNP Paribas

UK CET1 ratio before and after the BoE stress tests

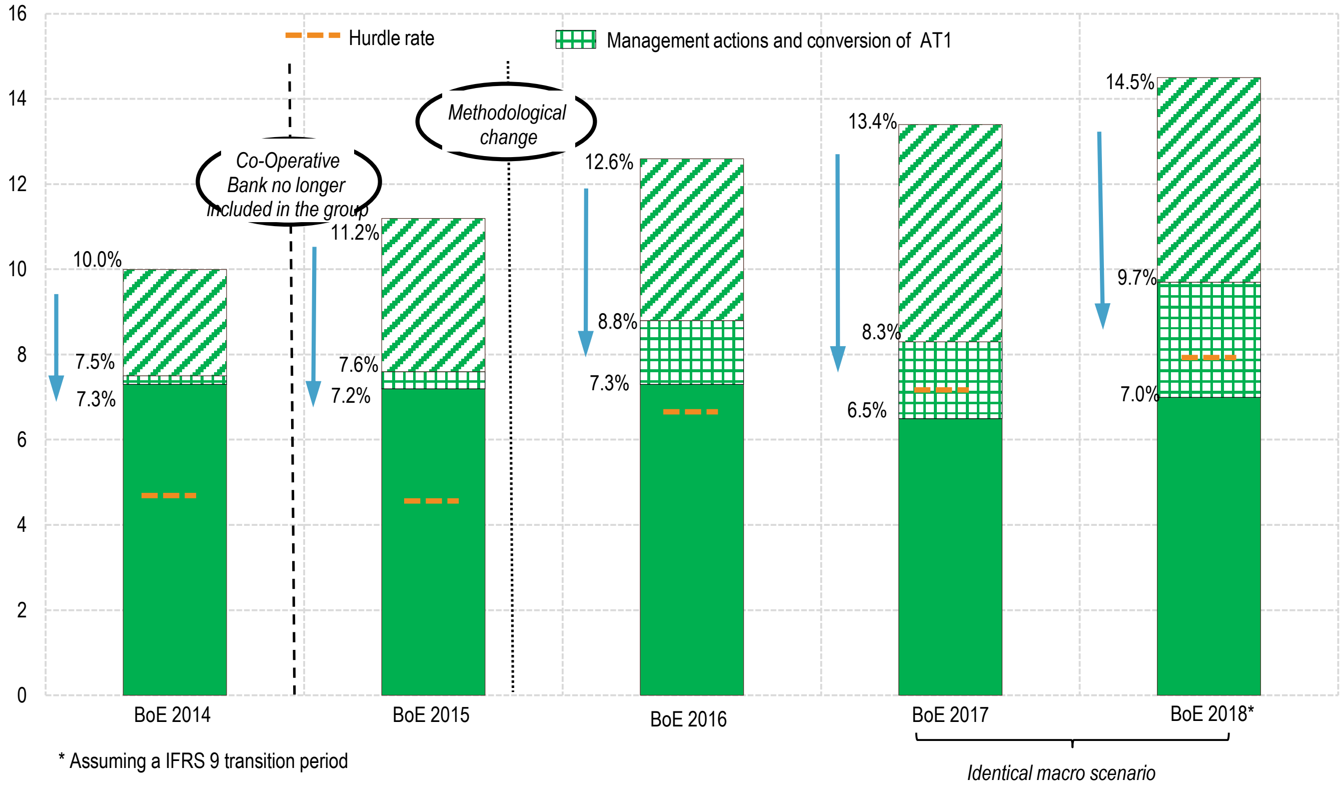


Chart 2 Source: BoE, BNP Paribas

3 Bank of England (2017), Stress testing the UK banking system: 2017 results.

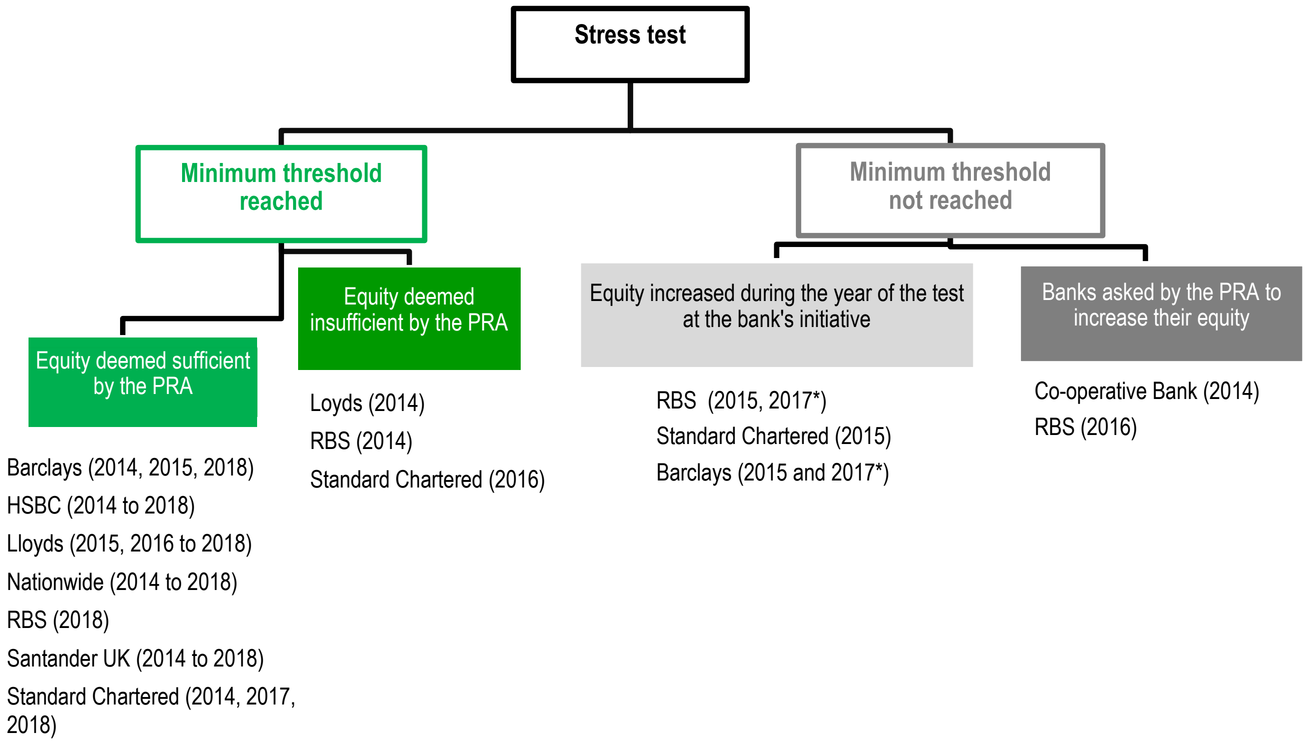
4 The minimum threshold in aggregate terms corresponds to the average minimum threshold required of banks.

The PRA looked closely at changes in those banks' CET1 levels and their Tier 1 leverage ratios throughout the year before unveiling the stress-test results, and before urging certain banks to increase their equity if necessary. In 72% of cases, the PRA took the view that banks reached the minimum thresholds and had sufficient equity. That has been the case every year since 2014 for HSBC, Nationwide and Santander UK (see diagram 1). From 2017 onwards, the seven banks assessed have had enough equity to withstand the stress scenario devised by the BoE. However, that success relies on certain assumptions made by the BoE: i) that balance sheets are not dynamic, i.e. banks are authorised to take action to reorganise their activities to absorb the shock[5] and ii) that "alternative Tier 1" (AT1) instruments can be converted in order to shore up equity if it is excessively affected by major stress.

Success almost across the board for UK banks in the BoE's 2018 stress test

In 2018[6], the BoE tested the seven large UK banks using a stress scenario it regarded as more severe than the 2008 crisis[7]. It was more severe in terms of global GDP, jobs and residential real-estate prices in the UK, but not in terms of UK GDP. The BoE also regarded the scenario as sufficiently severe to cover a "disorderly" Brexit and the resulting 4 percentage-point (pp) fall in the CET1 ratio. The stressed CET1 ratio remains higher than the PRA's minimum threshold for each of the seven banks, even without any conversion of AT1 capital.

Summary of the BoE's stress-test results between 2014 and 2018 in terms of CET1*



* In 2017, Barclays and RBS had enough equity to pass the test in the sense of reaching their basic hurdle rate, but not taking into account their systemically important status.

Diagram

Source: BoE, BNP Paribas

5 Depending on the year, this action could include reducing dividend payments, cutting staff levels and reducing the lending supply.

6 Bank of England (2018), Financial Stability Report, Issue No. 44.

7 GDP falling by 2.4% globally, 1.2% in China and 4.7% in the UK; the unemployment rate rising to 9.5%; real-estate prices falling 33% in the residential sector and 40% in the commercial sector; sterling falling 27% and the BoE's base rate rising to 4%.

The BoE sets a minimum threshold specific to each bank, depending on whether it is regarded as systemically important or not, and also now taking into account its domestic exposure. In 2018, the minimum thresholds ranged between 6.7% and 8.5% (see figure 4), compared with the 7% required by Basel III, excluding transitional provisions on the same date[8]. The PRA and the PFC concluded from these results that these seven banks, which together grant 80% of loans in the UK, are resilient enough to withstand a major shock while continuing to fulfil their role of financing the real economy.

Based on these results, along with other information on the UK's financial stability[9], the PRA did not required any increase in equity and the FPC kept its countercyclical buffer at 1%. Conversely, it was increased from 0% to 0.5% in June 2017 and then from 0.5% to 1% in November 2017.

It is important to note that these results are only valid assuming that the IFRS 9 transition period is used. The adoption of IFRS 9 and its forward-looking impairment model increases banks' cost of risk, both at inception and during economic downturns. The transition period allows banks to smooth out the cost of this change in accounting standards[10]. If the transition period is not used, UK banks still pass the test but less convincingly and one of them (Barclays) would have to convert AT1 capital. However, the PRA states that the minimum thresholds based on the adoption of IFRS 9 with no transition period are hypothetical and need to be reworked. The full integration of IFRS 9 adoption is one of the methodological changes that is likely to take place from 2019 onwards. The other major change is likely to relate to the framework imposed by the Vickers legislation on the UK banking sector (banks will have to ring-fence their UK retail banking activities, including setting up autonomous governance in the management of prudential ratios).

■ **Factors behind movements in the aggregate CET1 ratio following the BoE's 2018 test (pp)**

Chart 3 Source: BoE, BNP Paribas

In 2018, most of the fall in CET1 capital caused by the BoE stress test was down to loan impairment charges (see figure 3). They were the result of lower loan production, lower asset prices and higher interest rates, bearing in mind that half of the increase in the cost of risk is connected to banks' exposure to the UK economy. Impairment charges were already the main factor depressing CET1 capital in previous stress tests, with an increasingly negative effect each year. Compared with 2017, the trend was made worse in 2018 by the adoption of IFRS 9 and its forward looking impairment model, although the effect was partly offset by the transition period designed for that purpose. Another factor pushing up loan impairment charges and of concern to the FPC is the rapid growth in leveraged loans, reflecting the deteriorating quality of loans granted in the broad market.

The tricky comparison between the stress tests of BoE and those of the EBA

Unlike the BoE, the EBA carries out stress tests every two years. The results of its 2018 tests appeared in early November and concern 48 European banks, including four of the seven UK banks assessed by the BoE: Barclays, HSBC, Lloyds and RBS. It is therefore tempting to compare the results of the two tests, assuming that, according to the EBA's stress test, the UK is bottom of the table in terms of stressed CET1 and its ratio is lower than the average of the 15 European countries tested. The same is true of the four UK banks tested by the EBA, which rank between 27th and 48th depending on the assumption made regarding the IFRS 9 transition period. However, any comparison between the BoE and EBA's stress tests is made more difficult by several major methodological differences.

Firstly, the EBA's 2018 test did not involve any minimum threshold to be attained, unlike the BoE's method.

Secondly, while the BoE and EBA both reported results with and without an IFRS 9 transition period, the BoE's communication is focused on results with a transition period, since it promised to give banks the full benefit of the transitional period, including in its stress tests. Although their assessments of the cost of adopting IFRS 9 are fairly close in aggregate terms (0.10% for the EBA vs. 13 pp for the BoE), they sometime vary more widely for individual banks.

In addition, the EBA assumes static balance sheets, while the BoE makes the opposite assumption. The EBA's approach has the advantage of being simpler but the disadvantage of being somehow unrealistic. For its part, the BoE admits that banks can take strategic management actions to deal with a major stress episode. If it is likely that banks would not take the measures assumed in the BoE's stress tests when truly faced with significant macro-financial turbulence, this room for manoeuvring remains more acceptable than to abstract from it.

The EBA also does not assume the conversion of AT1 instruments to shore up equity if necessary, unlike the BoE. In that respect, the BoE has noted that UK banks used AT1 instruments to increase their absorption capacity, and insists that the investors concerned should be well aware that those instruments could be converted if necessary.

Finally, the macro-financial scenarios imposed by the EBA and BoE differ markedly, which strictly speaking means that the results of their stress tests cannot be compared.

8 Officially, Basel III provides for a seven-year transition period to give banks time to meet its capital requirements. The 7% threshold must be met by 2019, whereas the minimum requirement in 2018 is 6.4%.
9 Bank of England (2018), Financial Stability Report, Issue No. 44
10 T. Humblot (2018), IFRS 9 first time adoption: Significant cost differentials amongst banks, BNP Paribas.

At most, it is possible to compare the EBA and BoE stress tests by looking at the BoE's results using its macro-financial scenario, and the following two sets of assumptions, both put forward by the BoE:

A. with an IFRS 9 transition period, non-dynamic balance sheets and use of AT1 conversion. This set of assumptions is the one on which the BoE's communication is usually based.
B. without an IFRS 9 transition period, static balance sheets and no use of AT1 conversion. This set of assumptions is one of the two put forward by the EBA.

The first set of assumptions (A) gives better results than the second (B). Using the second set, Barclays, HSBC and Lloyds would fail the test because their CET1 ratios would be below the BoE's minimum requirement (see figure 4).

It would be risky to conclude that the BoE retains more favorable assumptions for the success of its stress tests. Above all, the more realistic nature of its assumptions makes them more operational.

Laure Baquero
laure.baquero@bnpparibas.com

CET1 ratios before and after the BoE's 2018 stress test in the UK (aggregate) and for each bank according to the two sets of assumptions A and B (%)

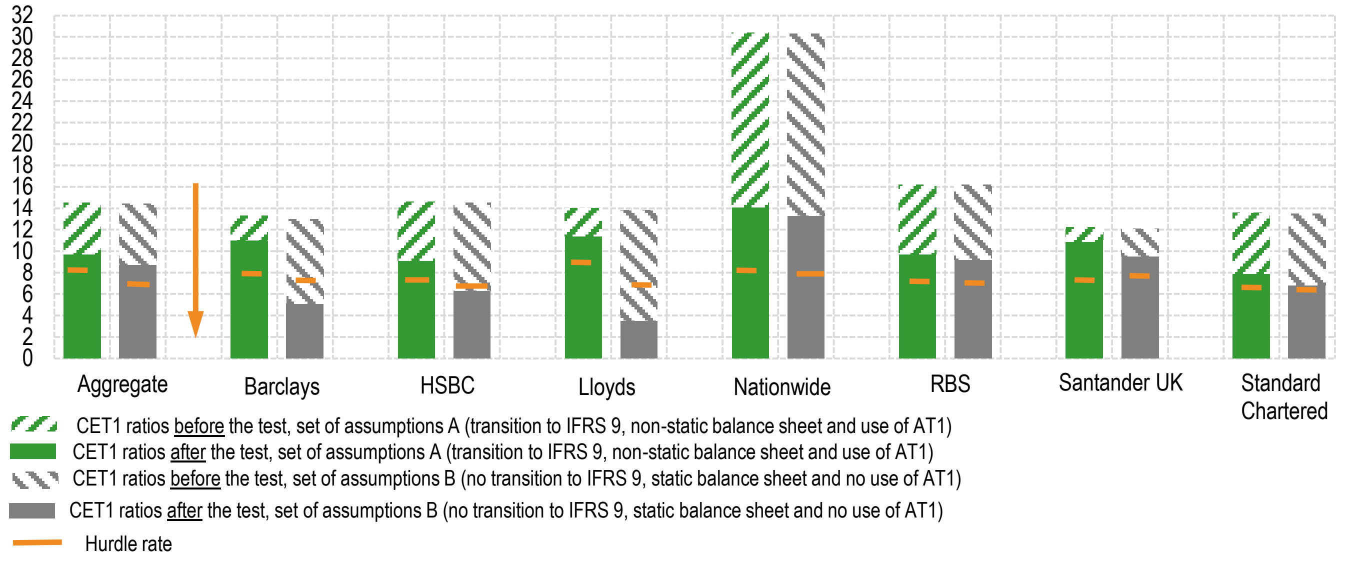


Chart 4

Source: BoE, BNP Paribas .

GROUP ECONOMIC RESEARCH

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

ADVANCED ECONOMIES AND STATISTICS

Jean-Luc PROUTAT Head	+33.(0)1.58.16.73.32	jean-luc.proutat@bnpparibas.com
Alexandra ESTIOT Works coordination - United States - United Kingdom - Globalisation	+33.(0)1.58.16.81.69	alexandra.estiot@bnpparibas.com
Hélène BAUDCHON France (short-term outlook and forecasts) - Labour markets	+33.(0)1.58.16.03.63	helene.baudchon@bnpparibas.com
Louis BOISSET European central bank watch, Euro area global view, Japan	+33.(0)1.57.43.02.91	louis.boisset@bnpparibas.com
Frédérique CERISIER Euro Area (European governance and public finances),Spain, Portugal	+33.(0)1.43.16.95.52	frederique.cerisier@bnpparibas.com
Catherine STEPHAN Nordic countries - World trade - Education, health, social conditions	+33.(0)1.55.77.71.89	catherine.stephan@bnpparibas.com
Raymond VAN DER PUTTEN Germany, Netherlands, Austria, Switzerland - Energy, climate - Long-term projections	+33.(0)1.42.98.53.99	raymond.vanderputten@bnpparibas.com
Tarik RHARRAB Statistics and Modelling	+33.(0)1.43.16.95.56	tarik.rharrab@bnpparibas.com

BANKING ECONOMICS

Laurent QUIGNON Head	+33.(0)1.42.98.56.54	laurent.quignon@bnpparibas.com
Laure BAQUERO	+33.(0)1.43.16.95.50	laure.baquero@bnpparibas.com
Céline CHOULET	+33.(0)1.43.16.95.54	celine.choulet@bnpparibas.com
Thomas HUMBLOT	+33.(0)1.40.14.30.77	thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

François FAURE Head	+33.(0)1 42 98 79 82	francois.faure@bnpparibas.com
Christine PELTIER Deputy Head - Greater China, Vietnam, other North Asian countries, South Africa	+33.(0)1.42.98.56.27	christine.peltier@bnpparibas.com
Stéphane ALBY Africa (French-speaking countries)	+33.(0)1.42.98.02.04	stephane.alby@bnpparibas.com
Sylvain BELLEFONTAINE Turkey, Ukraine, Central European countries	+33.(0)1.42.98.26.77	sylvain.bellefontaine@bnpparibas.com
Sara CONFALONIERI Africa (Portuguese & English-speaking countries)	+33.(0)1.42.98.43.86	sara.confalonieri@bnpparibas.com
Pascal DEVAUX Middle East, Balkan countries	+33.(0)1.43.16.95.51	pascal.devaux@bnpparibas.com
Hélène DROUOT Korea, Thailand, Philippines, Mexico, Andean countries	+33.(0)1.42.98.33.00	helene.drouot@bnpparibas.com
Salim HAMMAD Latin America	+33.(0)1.42.98.74.26	salim.hammad@bnpparibas.com
Johanna MELKA India, South Asia, Russia, Kazakhstan, CIS	+33.(0)1.58.16.05.84	johanna.melka@bnpparibas.com

Michel BERNARDINI Contact Média	+33.(0)1.42.98.05.71	michel.bernardini@bnpparibas.com

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

ECOFLASH

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

YOU WANT TO RECEIVE OUR PUBLICATIONS?

SUBSCRIBE ON OUR WEBSITE
http://economic-research.bnpparibas.com

AND

FOLLOW US ON LINKEDIN
https://www.linkedin.com/showcase/bnp--paribas-economic-research/
OR TWITTER
https://twitter.com/EtudesEco_BNPP

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