

Chief Operating Officer

Mr. Dietrich Domanski, Secretary General Financial Stability Board Bank for International Settlements Centralbahnplatz,2 CH-4002 Basel Switzerland

Paris, July 4th, 2019

Re: Response to FSB "Too-Big-To-Fail" evaluation call for feedback

Dear Mr Domanski,

BNP Paribas welcomes the FSB initiative to analyze the impact of too-big-to-fail reforms, as part of its broader program to evaluate effects of financial reforms.

Ten years after the financial crisis, it is essential to assess (i) the extent to which too-big-to-fail (TBTF) reforms for systemically important banks (SIBs) are achieving their intended objectives, and (ii) to identify any material unintended consequences that may need to be addressed.

On the first aspect, the question is to assess whether the reforms have been reducing the systemic and moral hazard risks associated with SIBs, and enhanced the ability of authorities to resolve them in an orderly manner and without exposing taxpayers to losses, while maintaining continuity of their vital economic functions.

On the second aspect, the issue is to understand whether the reforms and adaptation strategies implemented by G-SIBs to adapt to the new regulatory constraints, have had negative impacts on the financing of the economy, growth, and financial stability.

1. Have the reforms reduced systemic risk and moral hazard?

The clear answer is yes, the reforms have been reducing the systemic and moral hazard risks associated with SIBs. This answer can be evidenced from numerous angles:



- The quantity and quality of capital and liquidity in banks' balance-sheets have considerably increased, whether in the US or in the EU, with, in the case of European banks, average CET1 ratios now reaching 14%¹, and excess liquidity invested in HQLA assets close to €3trn.
- This level of capital largely covers, for large banks, the amount of losses incurred during the financial crisis (cf Table 1).
- Regular stress tests demonstrate that banks can absorb stressed losses while maintaining capital ratios well above minimum requirements (cf Table 2).
- The TLAC/MREL requirements provide an additional safety net in the balance sheet, reaching 18/25% of RWAs. To date, more than 320 bn€ of bail-inable debt instruments have been issued in Europe since the introduction of the revised creditor hierarchy (cf Table 3).
- The systemic footprint of EU G-SIBs has significantly reduced, as the underlying criteria selected by the FSB to measure G-SIB scores have been reduced significantly in absolute terms, for almost all criteria, and in particular: Trading and AFS securities, OTC derivatives, Intra-financial system assets and liabilities, and Level 3 assets (cf Table 4).
- The market recognizes this de-risking of European G-SIBs balance-sheets. Considering the CDS spreads as a proxy for market estimates of the risk of failure, this indicator is in the same range, if not better, for EU G-SIBs and US G-SIBs (cf Table 5).
- The high spread required by investors on TLAC/MREL instruments, and the widening of CDS spreads between junior and senior debt are a clear demonstration that market participants understand the risk associated with subordinated debt, and do not rely anymore on sovereign intervention (cf Table 6).
- Rating agencies have completely eliminated government support related uplift, in their credit ratings of large EU banks (cf Table 7).
- Derivatives clearing at CCPs, as well as initial and variation margins, have considerably reduced the interconnectedness between large financial institutions. The share of centrally cleared derivatives has significantly increased, reaching 62% of the total notional amount of outstanding derivatives at the end of 2018, up from 26% before the crisis, with most of interest rate derivatives and credit default swaps now being centrally cleared. This evolution has significantly reduced the share of bilateral OTC transactions, leading banks to become more resilient to the risk of individual failure of other institutions by reducing counterparty risk and increasing the efficiency of collateral management (cf Table 8).

As relates to the ability of authorities to resolve banks, the reforms, and notably in Europe the implementation of BRRD, the creation of the Single Resolution Board and the Single Resolution Fund, provides authorities with a broad range of tools to resolve systemic banks, notably:

- Bail-in powers that allow the write-off and conversion of debt in order to absorb losses and recapitalize banks in resolution.
- Powers to impose stays/moratoria to allow a 'breathing space' for the organization of resolution actions.

¹ EBA report on Basel III monitoring – data as of June 2018, covering a total of 133 banks



- Exceptional powers to override management powers and shareholder prerogatives in order to impose fast and effective resolution decisions.
- The creation of resolution funds entirely covered by the industry (ex-ante and/or ex-post) in order to alleviate any residual shortfall of loss-absorbing capacity in a bank in resolution, without exposing taxpayers.
- Resolution planning conducted by banks and authorities.
- Identification of critical economic functions and their supporting services.

2. What have been the unintended consequences?

2.1. Significant deleveraging plans to cope with regulatory pressure

The considerable increase of ratios required by the BCBS reforms has been achieved in Europe with massive deleveraging. Corporate loans in the Euroarea have been decreasing from 2012 until mid 2015, when the ECB entered in quantitative easing (cf Table 9). The deleveraging was even more pronounced on Capital Markets businesses, with a reduction in trading assets for large global banks of almost 40% (cf table 10). In the example of France, the 3 top banks have committed to deleveraging plans of about 200bn€ of RWAs in 2011, to cope with implementation of Basel 3 (cf Table 11). Impact of deleveraging was even more acute and prolonged in weaker EU countries.

Table 12 and 13 provide more insights on the specific case on BNP Paribas, based on public disclosure. In particular, it is notable that BNP Paribas' total assets, which amounted to €2.1trn in 2008, was at €2trn in 2010 even after the acquisition in 2009 of Fortis, representing an additional €0.6trn in total assets, and further reduced to €1.8trn in 2013.

2.2. Safer banks, but structurally vulnerable

Higher capital and liquidity buffers have undoubtedly made banks' balance-sheets considerably safer. However, the reforms have at the same time made the banks more vulnerable:

- Perception of resilience is achieved only through genuine spare capital in excess of regulatory minima. Higher minima can serve, perversely, to reduce this level of spare capital. Banks can be viewed by the market as being vulnerable, not because they have too little capital, but because they are close to more elevated regulatory capital minima. Under the new framework, banks can reach quite quickly the MDA trigger, which creates the risk of missing, for example, coupon payments on AT1 instruments. This also explains the low price-to-book ratio for EU G-SIBs and why cost of equity does not go down.
- This is the case specifically in the EU, as the capital buffers and Pillar 2 are not explicitly "usable". In the US, the minimum requirement (including minimum exit point of stress tests) remains at the same 4.5%, so US banks, with a similar CET1 ratio than EU banks, can now show a much larger "loss absorption capacity" than EU banks, as buffers and Pillar 2R have been implemented as "buffer requirements" in the CRD/CRR. A clarification at international level that buffers are



- designed to be available to absorb losses, during stress periods as well as in stress tests, would be very welcome to address this major unlevel playing field.
- Banks ROE's have been cut by a factor of 2, as a mechanical result of the doubling of the capital
 required for a given level of exposure. While this may have been an intended goal of the
 reforms, this translates into reduced earnings capacity, and therefore reduces capacity to absorb
 additional regulatory pressure, such as systemic taxes, contributions to Resolution Funds etc...
 which have specifically affected EU banks.
- As a side comment, observers often refer to the Price-to-Book ratio as a signal of market confidence. This is not relevant. Indeed, the Price to Book does not reflect risk in the sense of the probability of failure of a listed company, but the risk on future earnings associated with ownership of shares, seen from an equity investor's point of view. From the shareholder's point of view, risk arises where there is uncertainty on expected returns. It should be no surprise that given persisting regulatory uncertainty, persisting low rates impacting Net Interest Margin, and low growth affecting business development opportunities, EU banks exhibit a lower Price to Book compared to US G-SIBs.

2.3. Mitigating factors not materialized

As the negative impact of reforms on EU banks was clearly anticipated, policy makers were counting on some mitigating factors to soften the impact on the economy. Unfortunately, in the case of the EU, such factors did not materialize.

- Anticipations of progressive normalization of policy rates, which would have restored Net
 Interest Margins, have not materialized in Europe. This continued pressure on profitability,
 coupled with the requirement to keep massive liquidity buffers, has widened the profitability
 gap with US banks, which enjoy significantly higher policy rates.
- Capacity to off-load assets from banks' balance-sheets has not developed in Europe. Despite the launch of the Capital Market Union project, and the design of a "Simple, Transparent and Standard" securitization framework, the EU securitization market has not taken off, and remains below the already low pre-crisis level, although it performed much better through the crisis than the US one. This is due to the reluctance of EU policy makers to effectively encourage the development of this instrument, which led on one hand to an excessively burdensome STS framework, and on the other hand to a highly restrictive implementation by supervisors, which will persistently make securitization unviable at any significant scale.

2.4. New sources of systemic risks

While the contribution of the banking sector to systemic risk has considerably reduced, systemic risk has not disappeared and other types of systemic risk remain unaddressed.

2.4.1. Smaller banks in Europe may also generate systemic risk

In Europe, where there is no full fledge FDIC-like resolution/liquidation framework, failures of smaller banks can be difficult to handle under BRRD. Recent bank failures in Spain and Italy, issues



in German regional banks, and others have highlighted the fact that bankruptcy may be an undesirable option for any bank, not just large ones. Indeed, a set of failures at smaller banks could be equally, if not more damaging than the failure of a larger bank; in other words, repeated failures even on a small scale could be seen as more indicative of a genuinely systematic malaise. Due to these considerations, the concept of TBTF has spread to cover most of the banking system. Though Europe only has a dozen G-SIBs (Eurozone 8, UK 3, Switzerland 2), the EBA has been notified of 202 banks designated as O-SIIs. In a word, TBTF applies to, at a guess, some 95% of the aggregate industry volume in Europe.

Consequently, recovery and resolution tools and the associated institutional and governance framework may need to be revisited with the mindset that "all banks are systemic" for their local community. Otherwise, the much needed restructuring of the European banking sector may not materialize.

2.4.2. Non-banks and new entrants

While the rest of the memo addresses the extent to which the TBTF risk has been addressed in the EU banking sector, the risk itself has not disappeared, it has shifted toward other types of institutions. As banks' balance-sheets are more and more constrained by regulation, non-banks represent a growing source of systemic risk.

- While the asset management business model is very different, given the risk is borne by the endinvestor, the size of some players, growing in a type of "winner-takes-all" pattern, and the risk of herd behavior in upward as in downward cycles, combined with lower market making capabilities at investment banks, results in heightened episodes of volatility. While traditionally the regulation applied to those players has been focused on investor protection, little attention has been given to financial stability issues and to the risk of sudden loss of market access by issuers (sovereigns, corporates, banks) due to sudden shifts in risk appetite. This phenomenon is already at play in Emerging Markets. In addition, the capacity of financial stability authorities (and stakeholders at large) to understand "who owns the risk", which was at the core of the financial crisis through the loss in confidence and domino effects, has not progressed. On the contrary, despite considerable transparency now available in banks' disclosures, this understanding is decreasing as the proportion of risk held outside the banking sector grows. At a minimum, reporting/disclosure requirements allowing financial sector-wide analysis should be implemented urgently. An example of such "myopia" is the current concern on leverage loans, which currently translates into heightened scrutiny at banks, while banks own only a small fraction of those assets on their balance-sheet.
- New entrants/fintechs can also represent new sources of systemic risk. The fact that they may
 not take deposits is not a reason for complacency (the US subprime crisis was caused by nonbanks mortgage brokers). In addition, the bigtech/fintech may raise specific concerns in the field
 of AML/CFT and cyber security, especially in Europe where DSP2 will give them a right to
 penetrate into bank IT systems, in order to access, use, process and sell the client data.



2.4.3. CCPs as systemic players

The increased role of CCPs has put them at the center of the financial markets infrastructure. Yet, a few actors dominate this business leading to an increased concentration risk. In an August 2018 report, the BIS notes that the two largest CCPs (as measured by the amount of posted collateral) account for 40% of the total posted collateral to CCPs, and the next eight CCPs account for 50% of the total, hence a very significant concentration of risks on a few actors.

Although CCPs are intended to reduce the direct risk of contagion between market participants, they rather tend to concentrate the risks within a few actors, the CCPs themselves. This allows diversification and hence a reduction of the probability of failure, however the impact of a failure of one of the main CCPs would likely have major consequences across all market participants (other CCPs, investment banks, funds ...) given their size and centrality in the system.

Continuing to address the probability of failure and the resolvability of a CCP should continue to be high on the FSB agenda. Obviously, the options to manage this new risk should not be to send back this tail risk to the banking sector ...

2.4.4. Regulation and monetary policy: a new nexus?

TBTF reforms have been implemented in an environment characterized by highly accommodative interest policies which have weighed on banks' net interest margin. In turn, banks' capacity to generate capital internally has been curtailed. G-SIBs were especially affected by this dynamic as the implementation of TBTF reforms implies very significant additional capital requirements, notably on capital markets businesses.

Masked by the low interest rates environment so far, the unintended consequences of the reforms might become more perceptible in the coming years in a scenario of normalization of monetary policy:

- Long lasting low interest rates have fostered non-financial agent deposits as the opportunity
 cost of holding such asset has decreased. However, a significant rise in interest would result
 in a rebalancing of non-financial agents' portfolios from bank deposits towards higheryielding short term financial assets. This trade-off would add to upward pressure on the cost
 of banking resources.
- The rise in interest rates will probably be fully passed on to loans interest rates in order to
 preserve squeezed margins. TBTF reforms might encourage such a process since they put
 G-SIBs under additional pressure to maintain their internal capacity to generate capital
 through retained earnings.

But, in turn, a normalization scenario has become less likely, given the potential negative effect it may produce given already highly tightening effects of banking regulation, especially on economies relying mostly on bank lending. To a large extent, Central banks are trapped in maintaining too low levels of interest rates, in the hope of sustaining economic activity and inflation. However, those expansionary liquidity measures fail to reach their intended goal, as bank lending increases in



countries where banks are, despite some exceptions, relatively healthy (Germany, France), and still shows negative annual growth rates in Italy and Spain.

As per the LEI study² and our study adaptating the BIS methodology to the euro area³, we have clearly passed the point where any additional regulatory pressure would not improve financial stability, but where negative effects exceed potential benefits.

Conclusion

The TBTF reforms have succeeded in imposing a major de-risking of the European banking sector, even before the implementation of the Basel 4 framework. In this context, it is essential that the mandate given by the G20 and confirmed at European level by the ECOFIN, of a finalization of Basel 3 leading to "no significant capital increase" be respected in the transposition.

Unintended consequences of such reforms should be addressed as priorities in the FSB and other standard setting bodies' agendas. In addition, it should be well understood that many of the effects are currently hidden by the abundant liquidity provided by accommodative monetary policies.

Conversely, the vulnerability of the banking sector incentivizes central banks to maintain low rates for longer, in a negative feedback loop between regulation and monetary policy which must be resolved ahead of the next downturn. No further risk reduction measure should be imposed as long as this nexus has not been addressed.

In the meanwhile, significant work is needed to understand and address new sources of systemic risk outside the banking sector.

Our teams remain at your disposal to discuss this answer and look forward to be associated in FSB future work on this important topic.

Yours faithfully,

Philippe Bordenave

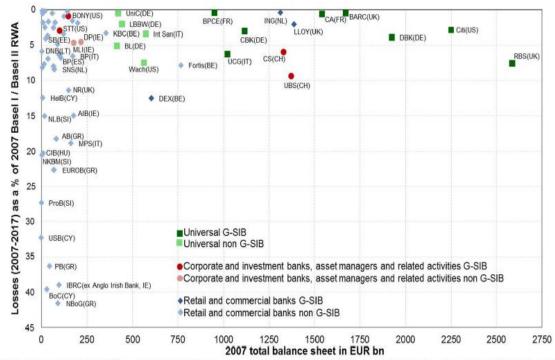
² LEI (2010), "An assessment of the long-term economic impact of stronger capital and liquidity requirements", Basel Committee on Banking Supervision, August 2010. http://www.bis.org/publ/bcbs173.pdf

³ Quignon (2013), "The economic impact of Basel III: applying the BIS analysis to the Eurozone", Conjoncture BNP PARIBAS, February, https://economic-research.bnpparibas.com/views/DisplayPublication.aspx?type=document&IdPdf=29606



Appendix

Table 1: Cumulative banking losses (2007-2017)* according to size and business model, as a % of RWA (only loss-making banks):



^{*} Restated before 2008 for BPCE Group, before 2009 for Commerzbank, Lloyds, before 2010 for Bankia, before 2013 for Alpha Bank, before 2016 for Banco BPM. For the sake of comparability, financial statements are not restated for banks that would otherwise be flagged as loss-making if such outcome can unequivocally be attributed to an acquired bank (ie. Santander and Banco Popular, Bank of America and Merrill Lynch and Wells Fargo and Wachovia).

Sources: Bankscope, SNL, FDIC, banks' financial reports, UK National Audit Office, Denison, Fleming and Sarkar (2019)

Table 2: Banks are now able to absorb stressed losses while maintaining a strong capital base

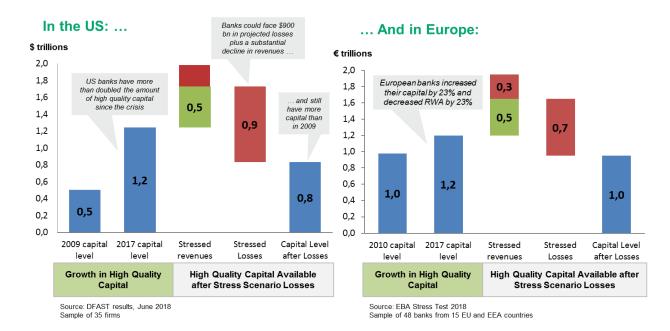




Table 3: \$320bn+ TLAC/MREL issuance in Europe since November 2016:

Source: Bondradar, BNP Paribas

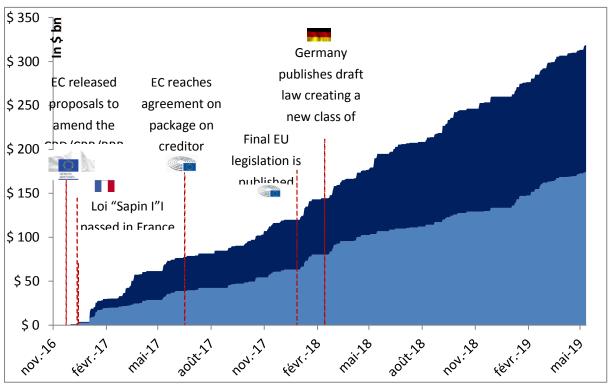


Table 4: Evolution of G-SIB score underlying indicators for EU G-SIBs:

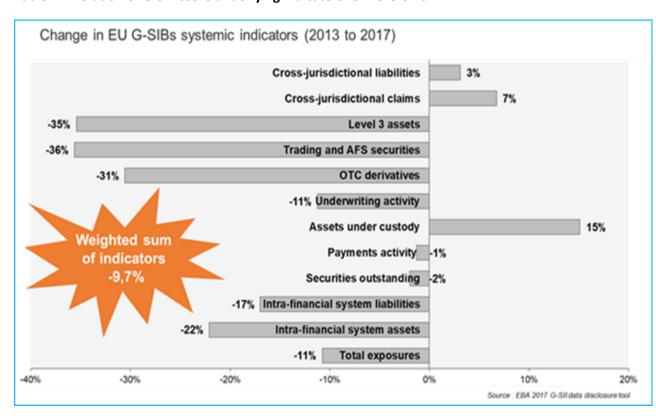




Table 5: Evolution of CDS spreads for European and US G-SIBs:



Table 6: Differentiation of spreads for EU banks across the credit spectrum:

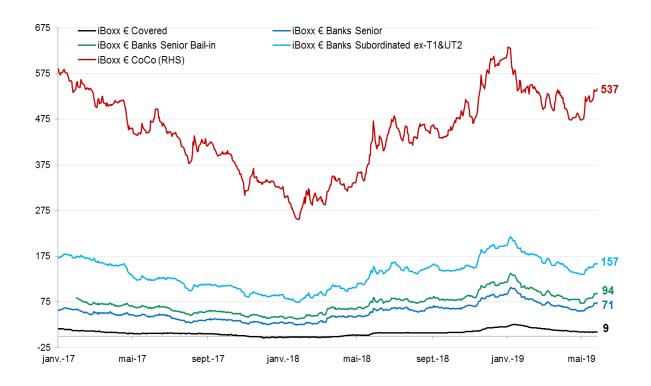
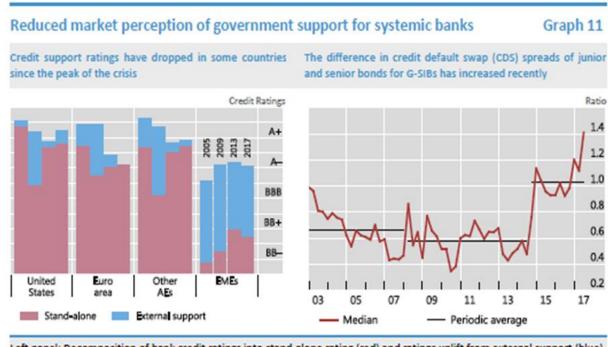




Table 7: Reduced market perception of government support for systemic banks: (source: FSB)



Left panel: Decomposition of bank credit ratings into stand-alone rating (red) and ratings uplift from external support (blue).

Asset-weighted averages. Based on a sample of about 50 large banks, using Fitch ratings. Source: 2018 BIS Annual Economic Report.

Right panel: CGFS Papers no. 60, Structural changes in banking after the crisis, 2018, Graph 19.

Table 8: Proportion of centrally-cleared derivatives: Interest rates derivatives (IRD) and Credit Default Swaps (CDS)

Source: "Clearing risks in OTC derivatives markets: the CCP-bank nexus" BIS Quarterly Review Dec 2018

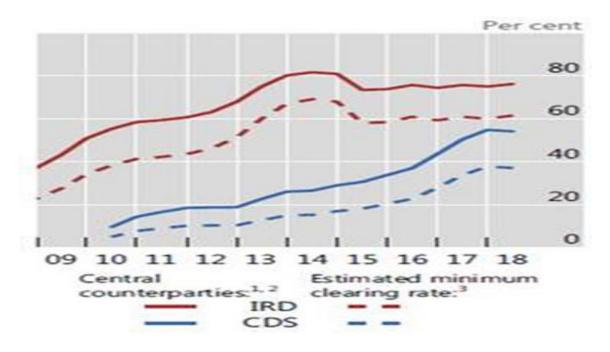
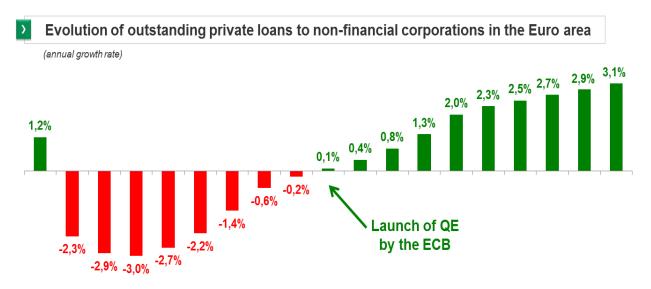




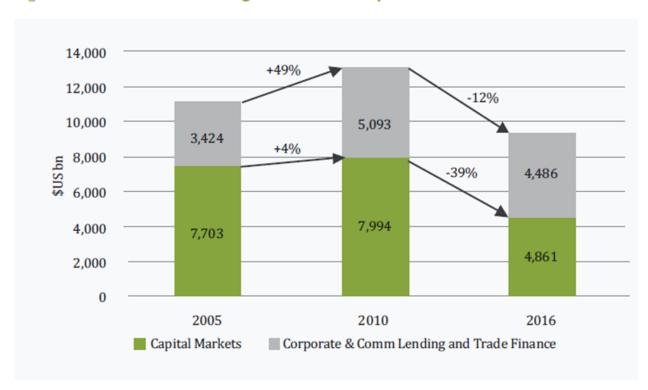
Table 9: Deleveraging impact on corporate lending:



2011 2012 2013 1Q14 2Q14 3Q14 4Q14 1Q15 2Q15 3Q15 4Q15 1Q16 2Q16 3Q16 4Q16 1Q17 2Q17 3Q17 4Q17

Table 10: Deleveraging even more pronounced in Capital Markets:

Figure 2: Total assets for 13 global bank sample



Source: PwC analysis of Tricumen data

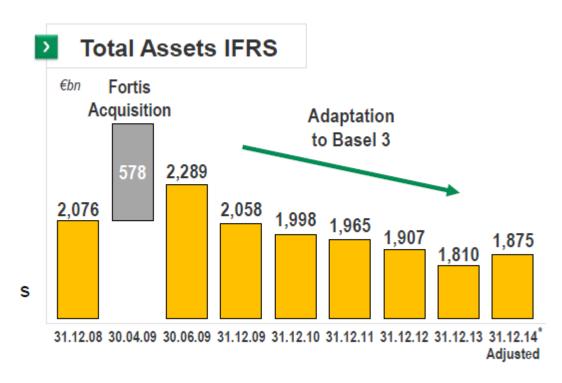


Table 11: French banks deleveraging targets:

Source Autonomous Research – Dec 11

Where	Target date	RWA reduction target
BNP		
CIB	2012 YE	€30bn
Retail	2012 YE	€5bn
Corporate Center	2012 YE	€28bn
Other		€7bn
TOTAL		€70bn
CaaCan		
SocGen		
CIB – Financing	2013 YE	€10bn
CIB – Markets	2013 YE	€20-30bn
Disposals – other	2013 YE	€30-40bn
TOTAL		€60-80bn
CASA		
CIB	2012 YE	€15-18bn
Specialised financial services	2012 YE	€9bn
Retail banking	2012 YE	€23bn
TOTAL	2012 YE	€50bn

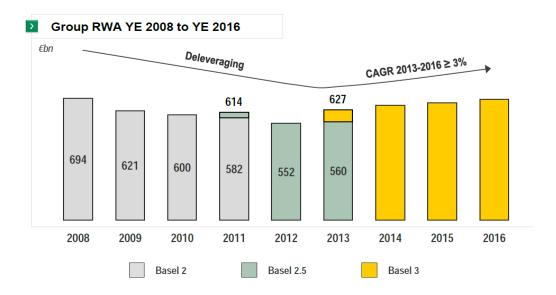
Table 12: BNP Paribas evolution of Total assets pre- and post- Fortis acquisition:



Source: Company disclosure



Table 13: BNP Paribas RWA evolution – Deleveraging plans vs Regulatory reforms



CET1 Capital requirement (Pillar 1 only)

