BNP Paribas response to the FSB consultation

May 10th 2017

Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms

Main elements of the framework

1. Do you have any comments or suggestions on the main elements of the evaluation framework (e.g. are there other elements that should be considered for inclusion in the framework)?

1.1 Across regulations and types of players

In order to identify possible duplications and inconsistencies between regulations, impact analysis must be global, across regulations and across types of players. From this perspective, the analysis should check that regulations are based on the general principle that same functions or same activities must call for equivalent regulations whatever the nature of the performer of the activities, in order to address the same objectives and have the same effects and consequences.

1.2 By product/activity

Impact analyses should be organized by product/activity, taking into account all regulations impacting the considered product. Given that impact studies by individual piece of regulation are usually performed by the Standard Setting Bodies (SSBs), the FSB's added value is in studying the **combined** impact of all regulations applicable to a product/asset class. The FSB is the only entity that is legitimate to have a transversal approach of the financial system. Actually, the BCBS established a Task Force on Coherence and Calibration (in 2015) but since then there is no evidence of any outcome.

1.3 Distributional impact

Impact analyses must not be based on global averages only but also look at the distribution of impacts among geographies, jurisdictions, business models, types of market participants, clients… so as to identify potential bias for some subsets of the financial sector. As a reminder, regulation is supposed to be business-model neutral. Situations where "overall neutrality" would hide significant positive and negative impact would create major unleveled playing field.
One example of impact analyses which quickly appeared useless is the MAG analyses (2010/2016) which assessed an impact worldwide, without any geographical (regional or national) differentiation.

1.4 Ex-ante, not only ex-post

Impact analysis should compulsory be conducted ex-ante, which of course does not reduce the interest to elaborate also detailed ex-post analysis.
The current FSB mandate given by the G20 being exclusively post-implementation, we should ask the G20 to enlarge the mandate. In any case, the FSB methodology should work both ex-ante and ex-post. The ex-ante assessment of the impact of a new regulation could be based on the analysis of the marginal impact of this regulation when added to the existing set of regulations.

1.5 Independent from SSBs

As regards governance, the FSB must take over all impact analyses i.e. not delegate them to SSBs which are both judges and parties. SSBs have a natural bias toward justifying their own regulatory initiatives. The MAG approach and the successive, and evolving, FRTB impact analyses conducted by the BCBS are examples of self-justifying analyses. This stresses the need for an independent body such as the FSB to ensure the consistency between regulatory initiatives and the G20 goals which are by nature more global.

We understand that the FSB will report on unintended consequences but will not make policy recommendations. It will be up to the SSB in charge to address the identified issues. In this context, we strongly believe that the FSB must be mandated to monitor and follow up regulators (SSBs) to ensure they have taken appropriate measures to address the issue identified by the FSB.

2. Are the objectives and scope of the framework appropriately set out?

2.1 Financial stability requires profitable banks

In their impact assessment, regulators must keep in mind profitability concerns. Indeed financial regulatory objectives that would be achieved at the expense of banks profitability would weaken the actual results of the regulatory program. Low profitability can create financial stability issues. Hence this unintended effect necessitates assessing the impact of new regulations on banks profitability.
We note in this regard that most regulatory assessment studies, performed notably by academics so far, consider that the decrease in bank profitability is a necessary consequence with no negative impact on financial stability.
However in its last *Global Financial Stability Report* (April 2017), the IMF emphasizes that "*persistently weak profitability is a systemic stability concern. Low profits can prevent banks from organically building cushions against unexpected losses and thereby make them more vulnerable to adverse shocks. Sustained returns below the cost of equity can also inhibit banks' access to private capital, because investors are generally more willing to recapitalize banks if their profitability will sustain valuations above book value and so avoid future dilution. At the same time, banks facing profitability pressures may look to drive up returns by taking greater risks, for example by seeking higher yields, lending to less creditworthy borrowers at higher spreads, or increasing the maturity mismatch between loans and funding. Weak returns also limit banks' ability to expand balance sheets and lend without depleting their capital base, and therefore place a drag on recovery*."

2.2. Cost of equity should adjust, but why is it not happening?

The text book answer to a reduction in RoE due to de-risking, should be a reduction in Cost of Equity, as risk premium should adjust to the lower level of balance-sheet risk.
On the one hand, increase in required equity and downward pressure on earnings can be easily measured. Further capital requirements increase the targeted level of equity. On the other hand, liquidity ratios constraints (reduction in maturity transformation, HQLA opportunity cost) tend to aggravate the effects of subdued economic growth and low interest environment on banks' profitability and on their capacity to organically generate capital. Furthermore, since the financial crisis, banks have undertaken a steady process of deleveraging that has resulted in a reduction of their market risk. In this respect, the return of equity is a key variable which is perfectly observable.

However, the decrease in the cost of bank equity to levels close to those prevailing before the crisis is resulting only from lower risk free rates and not from a decrease in the equity premium which has remained a few percentage points higher than before the crisis. This seems to conflict with expectations of the regulator that increased capital requirements will reduce banks' cost of equity. This question deserves careful consideration from the regulator. It should also be noted that given significant differences in "risk free rates" and in inflation, the cost of Equity cannot be considered as a flat 10% across all geographies and business mixes. The analysis of profitability must take into account differentiated Costs of Equity, even if the market does not necessarily price such differentiation. Market information can be used as a relevant fact but the FSB should aim at educating the market on differentiation, rather than apply parameters that are not necessarily justified.

3. Would you suggest any refinements or additions to the concepts and terms?

3.1 The starting point for the impact analyses: initial goals

We fully support the idea that the starting point of the studies should be the G20 initial objectives regarding financial stability issues to be addressed by regulation, keeping in mind the necessary balance between growth and financial stability.
We remind that the four core areas of the G20 financial regulatory reform program are:
- Building resilient financial institutions,
- Ending too-big-too-fail,
- Making derivatives markets safer,
- Transforming shadow banking into resilient market-based finance.

It should be noted that progress are uneven among these four objectives and among players. So far the main focus has been banks (especially the large ones) while insurance have been left out: significant progress have been achieved in Europe when the international level is still in a discussion process. For its part, shadow banking remains largely untouched (with the exception of repos and to a lesser extent securitization).

Therefore, while it is important that the framework assesses the impact of regulations across all players, it should be noted that the degree of unintended consequences may vary according to the level of advancement of regulatory programs. For instance, when banks are forced to deleverage their balance-sheets while the economy needs finding alternative source of funding, as was recently the case, assets and activities shift from banks to non-banks and risks that have been transferred, as well as new risks created, can lead to vulnerabilities in the shadow-banking. All the more when non-banking financial institutions are not yet governed by the same objectives/regulatory constraints as banks. It seems that the risk of the entire financial system has not disappeared; actually the risk has been largely transferred and might have been even increased.

3.2 Converting global objectives into operational goals

We support an approach whereby these G20 broad policy objectives are then broken down in more specific and operational goals defined by the SSBs. For example, 'ending too big to fail' is a G20 goal, 'reduce unwarranted RW variability´ is a BCBS goal.
This matrix will provide evidence that the same initial G20 goal may have been translated into multiple initiatives, sometimes potentially duplicative. For instance, among the four core areas of the G20 financial regulatory reform program, an objective such as "making derivatives markets safer" led to redundant initiatives, carried out in parallel, and to a lack of proportionality of the regulatory responses to the initial objectives (every SSB has the objective of solving the issue on its own).

3.3 Converting operational goals into Key Performance Indicators

The next step is to convert the ´sub-objectives' into specific measurable KPIs. This is an essential step and will represent a major progress, as today there is no structured way to assess whether regulatory goals have been achieved or not, leading to opposite views between the industry (and a growing part of policy makers), considering that regulation has gone far enough, and some academics, considering that issues have not yet been solved, and that more capital and liquidity (more "risk reduction") is still needed. It is essential to design a rational framework to allow constructive dialogue.

And, of course, the question of whether a similar crisis as the 2007/2008 could be better absorbed is impossible to answer as history does not repeat itself and we cannot wait until the next crisis to assess whether regulation is working as expected.

The question of whether an "aspirational goal" is met or not, is not specific to financial regulation.

A source of inspiration could be the bank control processes, where internal audit, and supervisors, regularly issue recommendations to reduce risks. Those recommendations are strictly monitored through time, with the view of being "closed" when the internal audit group or the supervisor considers that the issue has been solved. For this process to be efficient, the supervised entity must know upfront what will be the criteria used by the supervisor to recognize that the issue is solved. This is called a "point for closure".

As an example, when a control framework is missing, the "point for closure" is a detailed control plan with appropriate KPIs and the evidence of its adequate implementation. The identification of "point for closure" is now an intrinsic part of any recommendation. A reporting of the metric is put in place and when the target is reached, the recommendation is closed. We suggest that when drafting a new regulation, the SSB should define precisely the objective it wants to reach and the KPI's on which the new regulation will be evaluated. Defining too vague objectives with no quantitative target let the body in charge of the evaluation with little tool to assess whether (i) the target has been reached or whether (ii) it has faced a negative combined effect with another regulation or unintended specific event.

3.4. The example of an operational goal: "ensure risk sensitivity"

One can cite as an example the ´ensure risk sensitivity' BCBS objective. Set in the Basel 3 context, this objective raises the question as to whether and how the degree of risk sensitivity of a given regulatory package is assessed, and what would be a satisfactory degree of risk sensitivity. In our view, risk sensitivity is the capacity of a regulatory framework to capture and differentiate the "economic" risk in a relevant way, avoiding biases. Such operational objective might be translated into a KPI which would measure the difference between regulatory risk weights and implied risk weights derived from actual loss statistics (over time and among banks), for various asset classes. Even if regulatory risk weights are intended to cover losses at a high confidence interval, regulatory RW% by products/country should be benchmarked ex-ante and back-tested ex-post to check the accuracy of the calibration. A too conservative or too low RW% could not be considered as risk sensitive.

The key elements are the accuracy but also the hierarchy of risks. Therefore another metric could be the Cost of Risk (CoR) with an associated KPI based on the CoR and RW distributions consistency.

It should be noted that internal model validation files submitted to supervisors already include a lot of back testing/benchmarking data and could be used in the FSB framework subject to appropriate non-disclosure agreements.

3.5. The example of stress tests

Results of stress test exercises could also be used as KPIs to assess the relevance and proportionality of capital requirements. At firm level, the capital and TLAC requirement, which are calibrated in order to ensure that the institution would be able to withstand an extreme shock, should be compared with the actual results of stress-tests.

We understand that commenting on the content and calibration of the stress-tests may not be in the mandate of the FSB, given that this is the responsibility of supervisors. However, we would strongly recommend that the way that stress-tests results are incorporated into the capital framework should be analyzed by the FSB, with the view of harmonizing the framework.

Fundamental questions are interpreted differently in different jurisdictions such as:

- What is the "minimum exit point" of a stress test?
- Are the capital buffers "usable" or not?
- Should the stressed losses be compared to the whole capital base, or should they be covered by an additional layer of Pillar 2 capital?

Those questions are fundamental to the definition of the capital framework, and the lack of common understanding may render the rest of the impact analysis questionable, as the capital impact of a given regulation will also depend on how stress-tests will be applied, generating additional capital buffers on top of Pillar 1, which also increase the costs for banks and for the economy.

Challenges of evaluations

4. Do you have comments or suggestions on how to address the challenges of identifying and measuring interactions between reforms and how to isolate the effects of reforms and their interactions from other factors?

4.1 Statistical modelling

It could be advantageous to use quantitative models (regressions and DSGE) as a baseline and add more qualitative analysis based on a consensus between banks, regulators and practitioners to mitigate the mechanical estimated effects and provide a broader perspective. This could allow for a more forward looking approach focused on the identification of unintended effects, taking into account the evolutions of bank business models among other things.

A three step approach could help to identify, measure and isolate the effects of the reforms. Firstly, identify and measure interactions between each reform two by two in isolation of the effects of other factors. Secondly, build a global model with all the reforms aggregated into one variable and other factors. Thirdly, study differences between the global model and the effects identified at step one. This might allow measuring unobservable effects of the interactions between reforms and their interactions with other factors.

Due to these difficulties, statistical results will not be the absolute reference and search for causality demonstration would be an illusion: it will not be possible to statistically establish causal links.

Causality demonstration should not be an objective per se. Failing to statistically establish causal links, unintended consequences identification should be considered enough as a practical guideline.

4.2 Other considerations

It is important to be forward looking.

Some effects of regulation may be masked by current accommodative monetary policy (liquidity issues notably). However such policy does not last forever. Failure to consider in the impact assessment the future normalization of the monetary policy (i.e assuming unchanged monetary policy till the horizon of the impact analysis), with its subsequent correction, would be detrimental. Conversely regulation can be an obstacle to the transmission of monetary policy (liquidity buffers for instance).

The scope of banking regulations needs also to be gauged from a macro-prudential point of view. An assessment of whether capital requirements are more or less conservative should not be reduced to a simple observation or comparison of individual capital requirements. The macroprudential effectiveness of a capital constraint depends as least as much on the role of banks in financial intermediation as on the minimum requirement itself.

For instance, while, at a microeconomic level, the ability of an individual bank to absorb given losses increases with the level of its own funds, at the macroeconomic level, the global amount of capital intended to cover risks, across the whole economy, is more dependent to the scope of assets to which the requirement applies, namely the weight of the banking sector in the financial system.

Given the huge differences between the US and the European financing models, the cost to the US economy of a given banking regulation is much lower than in Europe (and other parts of the world), since a substantial part of the US financial system is subject to little or no capital regulation. Therefore, it is important that impact analysis are focused on the outcomes, contrary to the existing RCAP process which is based on compliance.

More generally, we note that the analyses and assessments of supranational bodies, notably the IMF, often analyze the European banking sector while making implicit reference to the US financial system. When these analyses highlight differences between the US financial system and any other national or regional financial system, it seems to be taken for granted that these differences raise issues of concern. It should not necessarily be the case, and it is fundamental that the FSB adopts a broader and more neutral view.

5. Do you have views on how to think about intended versus unintended (and possibly undesirable) consequences or how to frame the trade-off between different (and possibly competing) objectives?

Duplication of regulations toward the same goals results in overshooting. For instance, on too big to fail, with TLAC do we still need the G-Sib buffer?

The fact that several buffers on solvency ratios are added-up under various Authorities' responsibility without any coordination is clearly also a risk of overshooting

6. Do you have comments or suggestions on how to address the challenges of defining and measuring social benefits and costs, especially when they do not follow directly from private benefits and costs?

The methodology of the BIS which compares macroeconomic costs and benefits of the regulatory changes forms an acceptable framework. However, the generic nature of its results constitutes its principal limit. Based as they are on median hypotheses for "all regions taken together", they are not applicable to any one specific economic area. From this observation it follows that it is necessary to revisit the BIS approach in order to calculate the optimal capital ratio relevant for each main economic area. Indeed, the higher the role played by banks in financing, the higher the economic cost of new regulatory requirements and the lower the optimal bank capital ratio, above which the economic cost exceeds the estimated benefit of tighter regulation. For instance, according to our calculation based on the BIS methodology (see Quignon (2017), "The economic impact of Basel III: applying the BIS analysis to the eurozone", Conjoncture BNP PARIBAS, February 2017, http://economic-research.bnpparibas.com/Views/DisplayPublication.aspx?type=document&IdPdf=29606), the optimal capital ratio would be 8.4% for the eurozone in the central assumption while that calculated by the BIS (which is not focused on a particular geographical region) would be 9.9%.

Optimal Basel III CET1 ratio ranges from 9.7% to 10.7% according to BIS report

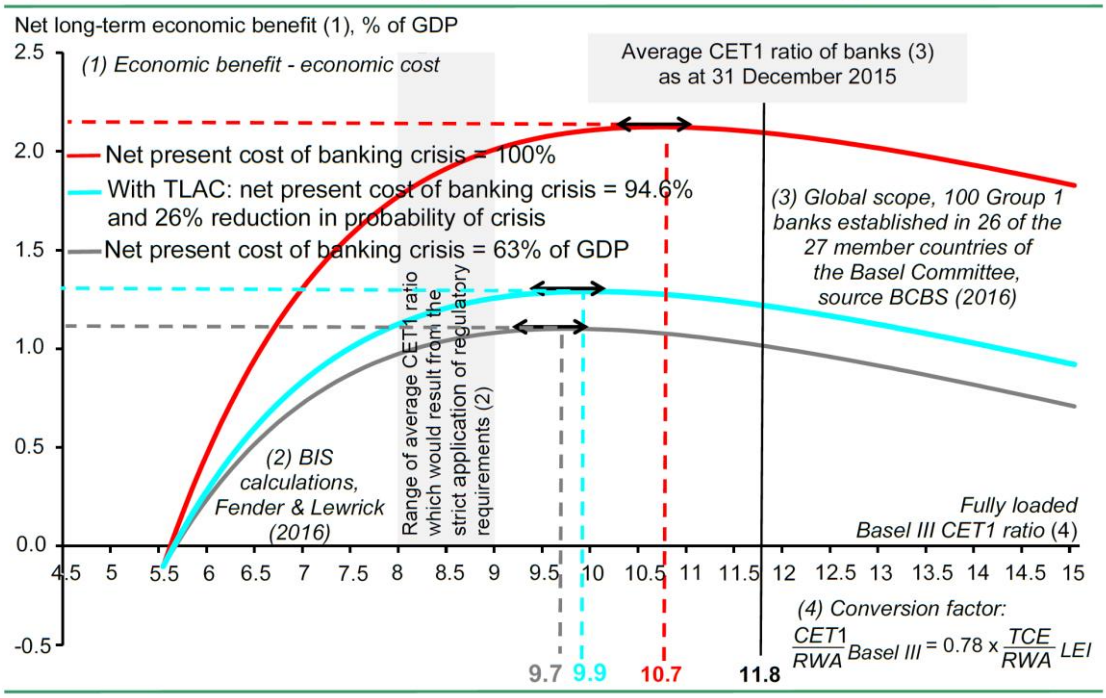

Chart 1 Sources: Fender & Lewrick (2016), BCBS (2016)

Optimal Basel III CET1 ratio in the eurozone ranges from 8.2% to 9%

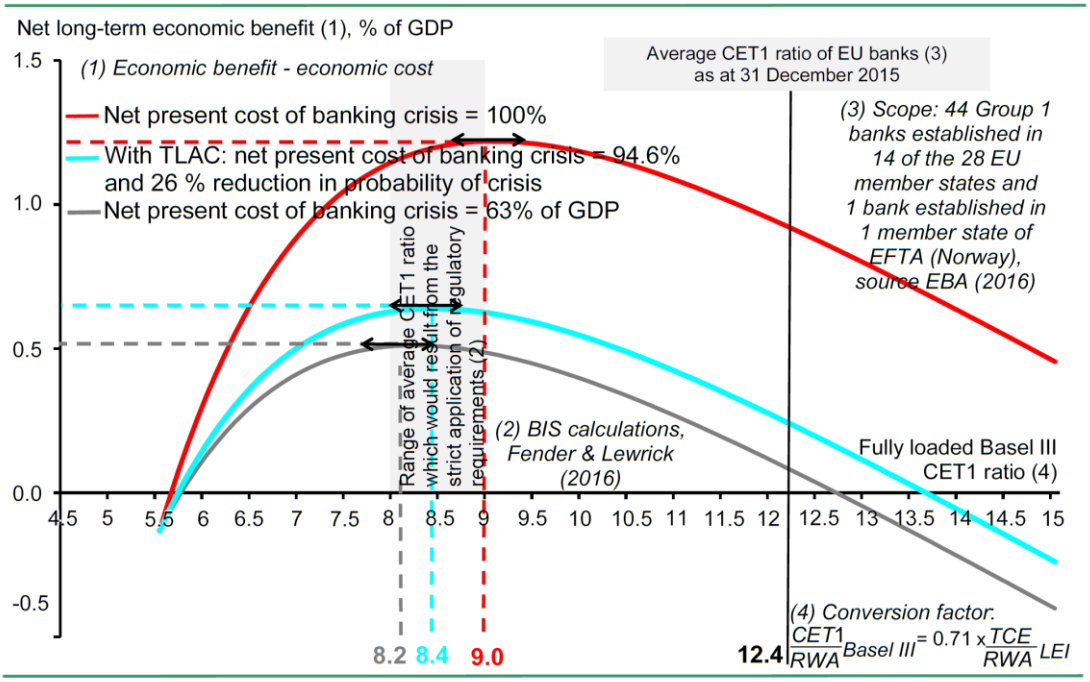

Chart 4 Sources: BNP Paribas calculations based on Fender & Lewrick (2016), EBA (2014 & 2016)

- Social benefits

Assessing the impact of regulation implies that a given outcome is compared with a theoretical baseline, as if this regulation had not been implemented. This dynamic approach is key to measure the social benefit of avoiding a crisis notably.
However such an approach raises specific issues as, for instance, a direct comparison of current liquidity with pre-crisis liquidity, which was too abundant.
The choice of the reference is crucial.
This raises another issue: what would have been the GDP trajectory if there had been no crisis for instance? (In a dynamic approach, the baseline could be the IMF growth projections).

- Costs analysis

Cost analysis should include the cost of developing the regulatory tools, maintaining them, and the financial cost, of running the bank with a higher level of capital and liquidity. This has a permanent impact on the earnings of the institutions, through:

- Higher running costs, unproductive
- Higher funding costs (need to issue and renew debt in the market to meet TLAC and other liquidity targets)
- Opportunity costs of having to invest excess liquidity in low (or negative) rate assets, rather than in income producing lending assets
- Need to remunerate a higher capital base through dividends on a yearly basis through time (note that shareholder are assessing the yield on their investments on a total return basis : change in market value + dividends. The more the valuation is depressed due to earnings pressure, the more dividends must be maintained to preserve shareholder base)

The assessment of an average overall impact on the financial sector is not sufficient. For each reform, the FSB must select the relevant sample of banks. For instance, on FRTB the sample of banks should

include a dozen of banks who represent the bulk of the investment banking market. Otherwise impact is diluted.

Impact must be analyzed at a granular level: product, geography, client type. Overall group level impact is not sufficient. Indeed capital and liquidity constraints are allocated down by business and client.
In the example of NSFR, the fact that at a banking group level there is no shortfall hides major imbalanced within Capital Markets activities for instance when the global constraint is reallocated internally to the banking group business lines. This may indirectly impact the clients of these business lines.
The same applies to the leverage ratio.

Evaluation approaches

7. Do you have comments or suggestions on the proposed evaluation approaches (i.e. on the empirical models and methods to analyse effects)?

7.1 Transitional vs permanent effects

When assessing the impact of regulation a difference is often made between transitional and permanent effects, and there are often inconsistencies between these two approaches. Some economists are focusing on transitional effects, considering that there would be no further negative impact in the steady state. Effects would be transitory only (and hence, phase-in would help, which is an illusion because of the market's anticipation). But in reality, the cost is permanent, as extra equity and funding instruments must be remunerated every year. Moreover the bank needs to get access to the financial market on a regular basis to rollover its debt. These constraints must not be neglected; they have a strong impact on the bank's strategy, return on equity and distribution rate.

7.2 Elements of the cost-benefit analysis

The cost of implementing regulations (for banks as well as regulators and supervisors) should be taken into account in the cost/benefit analysis.

The evaluation of the economic impact of the Basel 3 recommendations over the long term as well as during the phase-in period is welcome. A criticism that can be made on certain of these impact studies relates to the assumption that the costs associated with the new regulatory framework (compliance costs, reporting and disclosure obligations, increase in the quality and the quantity of own funds, constitution of liquid assets buffer ...) are one-off costs while, in reality, they are recurring costs. Banks have made huge efforts in order to comply with new capital and liquidity requirements. Now, they have to maintain (or improve for some of them) their regulatory ratios while supporting economic growth. Regulation has not only transitional effects (and here, the phase-in can help) but also permanent effects. In the steady state, these costs (and their impact on bank lending rates and volumes) do not evaporate: extra equity and funding instruments must be remunerated every year; the opportunity cost of holding high-quality liquid assets is true every quarter...

Moreover, the costs associated with the new regulatory and supervisory framework (such as regular stress tests) for banks but also for regulators and supervisors should be taken into account in the cost/benefit analysis.

The most frequently used approach in empirical literature are logit-type equations linking the frequency of financial crises with a selection of countries over a given time period. A criticism that

can be made towards these impact studies relates to the diversity of crises taken into consideration, regardless of their primary cause. For foreign exchange crises or crises arising from inappropriate monetary policy that degenerate into banking crises, it seems highly unlikely that strengthening prudential regulations would reduce the probability of their occurrence. As we mentioned above, another criticism relates to the fact that, generally, the results of the impact studies are assumed to reflect the "universal" median impact while the groups of experts use a mixture of models with heterogeneous geographic perimeters, specifications and variables. Specific features of countries or economic zones considered (as the level of bank intermediation for example) should be taken into account.

8. Do you have suggestions on approaches to ensure the quality and replicability of results?

Analyses must be conducted across sectors i.e. not only banks but also non-banking financial intermediaries, sovereign funds, corporates… It is the FSB's global approach added value.

9. Do you have views on lessons – in terms of methods and approaches – that can be learned from evaluations in other policy areas, or from existing national or regional evaluation frameworks?

No comment

Data issues

10. Do you have suggestions on information sharing arrangements (publication of results, repository of evaluations, and data availability, particularly as it pertains to replicability)?

Access to data is a basic but fundamental issue.
However the FSB which has no access to confidential supervisory data, nor QIS data, should not create an additional burden of data collection for banks.

A lot of information is already available notably through the banks' internal models validation process. If the FSB relies on industry data, data should be provided under confidentiality agreement.

However the FSB is not about banks only. Therefore they should have access to third party data providers (such as, for instance, ICC loss data on Trade Finance or Rating agencies default studies).

Engagement with stakeholders

11. How can the FSB and SSBs best engage with external stakeholders (e.g. financial services providers, various kinds of end-users, and academics) in their evaluation work (going beyond public consultations)?

In this context where data is scarce, the approach needs to be pragmatic and should notably be based on understanding market player behaviors. Dialogue with the industry will be crucial. However this requires from the FSB trust in the private sector answers. Credibility of QIS results requires transparency, coordination and trust between banks and regulators.

Close cooperation with industry is a key success factor. To this end we recommend the creation of a ´stakeholder group' which should also include end users, including pension funds, corporates, rating agencies and sovereign debt agencies.

Prioritisation of topics

12. Do you have comments or suggestions on which individual reforms or interacting set(s) of reforms should be initially considered for evaluation as a matter of priority?

12.1 Short term actions

Prioritize concrete and rapid actions on low hanging fruits, concerning one aspect of one regulation. For instance, the LCR and the leverage ratio: LCR regulation requires banks to build large liquidity buffers (HQLA) thereby increasing their leverage and therefore reducing the possible leverage of their other activities when constrained by the leverage ratio (LR). The LR calibration should have taken this LCR requirement into account. Indeed by reducing the possible leverage of banking activities using banks' balance sheet, such a combination of regulation incentivizes banks to take on more risks elsewhere to compensate for the yield (Return on Asset) loss. Good regulations are regulations which create good incentives.

12.2 More ambitious objectives

Regarding more ambitious objectives, issues that need to be addressed as a matter of priority in our view are:

- Impact on market liquidity and repos,

- Impact on emerging markets (reforms designed with a US mindset, not appropriate for EMs),

- Fragmentation of the global financial system as a consequence of regulation (lack of confidence among regulators as demonstrated by prepositioning of TLAC for instance),

- Banks' capital buffers usability.

The first three issues have already been identified by the FSB (see "Implementation and Effects of the G20 Financial Regulatory Reforms" - 31 August 2016 2nd Annual Report).

The last one relates to the way stress tests are progressively incorporated in the regulatory capital framework to decide on total capital requirements (see for instance CCAR in the US or the way the Bank of England use its own stress tests). This new practice raises consistency issues, notably regarding the exit point and the positioning with regard to Pillar 2, the FSB is legitimate to take on.