11 May 2017

Mr. Svein Andresen
Secretary General
Financial Stability Board
Bank for International Settlements
CH-4002 Basel
Switzerland
By email: fsb@fsb.org

Re: Response to the FSB’s Consultation on Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms

Dear Mr. Andresen:

The Global Financial Markets Association (GFMA), the International Swaps and Derivatives Association (ISDA) and the Japan Financial Markets Council (JFMC) (together “the industry”) appreciate the opportunity to comment on the Financial Stability Board’s (FSB) consultation on the Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms.

By way of background, GFMA (supported by the JFMC) and ISDA have both led and have been actively involved with the development of the post-crisis reform package by providing feedback on almost all consultations by the FSB and the Basel Committee on Banking Supervision (BCBS), either independently or jointly with other industry associations. We have also contributed to the coherence and calibration debate, with GFMA commissioning Oliver Wyman to produce an in-depth analysis\(^1\) on the impacts and interactions of the regulatory reform package. We very much look forward to continuing this productive dialogue and are committed to supporting the FSB in its evaluation process.

The industry understands that while this consultative paper focuses on the broad contours of the framework, it will be followed in the coming months by consultations on more detailed individual evaluation proposals. This response is our contribution to the scoping of the framework and we expect to have more detailed suggestions on the design and scope of the specific evaluation methodologies and data requirements in the near future.

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GFMA, ISDA and JFMC appreciate the opportunity to comment. The industry is very supportive of the FSB’s efforts to analyse the coherence and calibration of the post-crisis regulatory reform package. We stand ready to support the FSB as it undertakes this important work. If you have any questions or comments, please feel to contact the undersigned.

Sincerely,

David Strongin
Executive Director
Global Financial Markets Association

Mark Gheerbrant
Head of Risk and Capital
International Swaps and Derivatives Association, Inc. (ISDA)

Jonathan B. Kindred
Co-Chair
Japan Financial Markets Council

Yuji Nakata
Co-Chair
Japan Financial Markets Council

cc: Tara Rice
Executive Summary

The industry is very supportive of the FSB’s efforts to analyse the coherence and calibration of the post-crisis regulatory reform package. We also commend the FSB for committing to a continuous, iterative review and to engaging with the broader stakeholder groups that are affected by the changes resulting from the regulatory reform package. Our response provides feedback on how to improve the overall efficiency and coherence of the framework – not to completely overhaul it – by identifying areas where there may be unnecessary duplication or conflicts between specific regulatory requirements and broader policy goals, as well as unintended consequences on the overall financial system. Well-coordinated financial regulation will help to establish a level playing field, ensure a resilient financial system, and allow for future-oriented sustainable economic growth. Our recommendations complement the B20’s recommendations 2 to G20 in terms of building resilience, improving sustainability and assuming responsibility.

In summary, we recommend that the FSB’s framework should:

- Not only focus on ex post evaluation, but to also capture the long lead times before the rules are effected. The FSB’s mandate in terms of the evaluation process should be reviewed and broadened to ensure that the framework and its analytical tools support the frameworks’ objectives. It should consider any gold-plating in major financial centres that may have resulted in negative spill-over effects in other regions.
- Include a careful assessment of how the markets currently function, how the policy instruments have changed the international financial system and if there are negative impacts that should be mitigated. The evaluation should also have a qualitative element, assessing how markets are likely to evolve in future, considering the ongoing adjustment processes at individual bank level.
- Perform an overall assessment of the calibration and timing of the reforms in light of the cumulative impact of the full set of rules, including detailed empirical analysis to ensure that requirements are targeting activities at an appropriate level of risk tolerance consistent with broader economic growth, capital formation and lending objectives.
- With regards to the cost-benefit analysis, the evaluation should take into account the substantial evolution of bank liquidity, going concern and gone concern capital standards, which all together have significantly reduced the probability and cost of a bank failures. The threshold any new regulation must pass in terms of benefits to the overall regulatory framework against its potential costs has therefore been set much higher.
- Review the objectives of individual frameworks and whether the final calibration is consistent with the objectives. In some cases, the impacts on end-user pricing and product availability may have been far greater than intended.
- Focus on identifying cases at a product or business line level where there may be unnecessary duplication or conflicts between specific regulatory requirements that may lead to undesired effects on the overall financial system, and its ability to serve the economy efficiently and effectively. It is important that this assessment is not done just in relation to the impacts on regulated financial firms but on the impacts on companies and people they serve.
- Taking into consideration the literature and measures recommended in our response, develop a collection of usable metrics that should be considered both on a current and forward-looking basis in analysing broader impacts of the regulatory package. Particularly, we recommend rigorous analysis on the impact on capital markets including

impact on specific market segments, market liquidity and availability of specific instruments, impacts on emerging markets and where risks are accumulated.

- We note that the FSB’s sixth annual shadow banking report\(^3\) revealed that overall, shadow banking activities increased 3.2 percent in 2015, rising to $34 trillion. The report suggests that in some areas the sector is replacing bank financing that has been constrained by higher regulatory requirements. We agree that significant accumulation of risks outside the regulated sector has its own financial stability implications and the FSB should carefully weigh the interactions between regulation and increase in shadow banking.

- The FSB should set up a more formal mechanism for continuous and systematic crossborder dialogue between national regulators to improve coherence in the implementation and interpretation of international standards. The FSB and the Basel Committee have made progress on regulatory coherence, but the implementation of international financial standards varies at the regional and national level. Furthermore, the ongoing national and regional regulatory coherence assessments may lead to further regulatory fragmentation if rules are adjusted without considering the impacts in the context of the overall global financial system.

- Engage with industry and other stakeholders at an early stage to ensure that the methodologies and data gathering exercises are appropriately scoped and address the underlying objectives.

To achieve the objectives of the FSB framework, it is very important not to design a framework that is biased towards a pre-determined answer supporting the reform programme. The objective should be to assess the efficiency of the overall framework against social and private costs as well as the broader safety and soundness of the financial system. In this context, we firmly believe that the objective should be to assess the efficiency of the regulatory package and how the markets’ and banks’ behaviours are changing through the regulatory and economic cycles and what are the impacts on end-users and the capacity of the financial system. This means that incorporating national measures that go beyond the internationally agreed global minimums must be considered for the analysis to be credible. Stress-testing led capital increases, structural reforms and other measures introduced by jurisdictions may well improve resilience beyond internationally agreed standards, but they come at a cost, often with spill-over effects. They muddy the waters of what equivalence based on outcomes means in practice, long an FSB and G20 objective, and they have the potential to undermine trust by shifting goalposts.

Undermining trust leads to greater subsidiarisation, more and less efficient capital, and stranded assets which undermines allocative efficiency – the antithesis of “efficient resilience”, the vital goal articulated by the FSB Chair\(^4\). While the regulatory focus remains on completing the post-crisis framework, the FSB’s assessment should also be aligned with other G20 initiatives, most importantly with the growth agenda and openness in the global financial sector. If the framework is constructed correctly, it should be able to identify inefficiencies where parts of the package are mis-calibrated, duplicate or conflict with each others’ objectives – resulting in excessive amounts of funding and or unnecessary restrictions in banks’ operations. Addressing these inefficiencies could release the resources to be better deployed in financing the broader economy.

The approach should be dynamic and take into account the long regulatory lead times during which banks adjust their operations, business models and capital as well as funding structures. We doubt that a narrow ex post analysis of aggregated BCBS monitoring data – even if input into a macroeconomic model – would provide meaningful insight into the banking industry or broader

\(^3\)http://www.fsb.org/2017/05/fsb-publishes-global-shadow-banking-monitoring-report-2016/

market impacts of the regulatory reform package. Furthermore, causality will be difficult to establish, especially during current benign market conditions and the heightened and historically unusual level of central bank intervention. While we commend the FSB’s intention to assess whether both objectives were achieved, and also if there were unintended consequences, we believe the assessment should consider the cost of achieving the objectives. The analysis should include issues such as what are the trade-offs? Are the authorities content with the changes in market structure? What are the implications for market functioning?

In addition, the economic impacts may not be directly observable in terms of pricing of products and services and can instead manifest themselves via decreased availability of products and reduced dealer capacity, which both can have significant impacts on end-users’ access to financing and risk management services. This in turn may increase dependency on certain forms of financing and/or result in end-users assuming economic risks they would have – absent the changes in rules – hedged in the market. Identifying such changes in behaviour and market functioning requires product level data sets over long periods of time and focusing on the future direction rather than trying to capture all regulation, bank behaviour and end-user impacts in a macro-economic model between two points in time. We are concerned that – depending on how the framework is constructed – issues such as bifurcation of liquidity may not be captured by the assessment. For example, it may at first glance appear that the corporate bond market liquidity remains good, but a deeper, more granular level of analysis may reveal that this liquidity is concentrated in fewer large issuances by the largest companies and that smaller issuers are cut-off from accessing the market.

Table 1: US corporate debt: new issuance by size of issuer

<table>
<thead>
<tr>
<th>Firms with assets &gt;$50bn</th>
<th>Firms with assets $15bn-$50bn</th>
<th>Firms with assets $5bn-$15bn</th>
<th>Firms with assets $1bn-$5bn</th>
<th>Firms with assets $500m-$1bn</th>
<th>Firms with assets &lt;$500m</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>50</td>
<td>0</td>
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</table>

Source: Goldman Sachs Global Investment Research.

To overcome these challenges, we urge the FSB to supplement the macro-economic assessment with bottom-up analysis of key products whose liquidity and availability is key to the functioning of global markets and for growth. As an initial step, we recommend assessing the interactions of regulation, changes in dealer capacity, and market liquidity and end-user experiences for the following product sets:

- High quality government bonds;
- Repo markets;
- Securitisations;
- CDS market;
- Corporate bonds;
- Trade finance; and
Emerging markets (for example lack of central counterparties, non-rated/high-yield debt issuance and trading, FX market liquidity, commodities)

We also recommend that the FSB’s regulatory impact assessment focuses on banks that are active in those markets and products. If market share is not adequately captured by the assessment, it would be easy to conclude at the aggregate level that regulation has not had an impact (as overall bank capital levels have not increased). As an example, the BCBS’s QIS sample of a very broad set of banks led to a initial conclusion that the Fundamental Review of the Trading Book had very limited capital impacts. On a more granular level, based on an industry study, we believe that big capital increases for the most important dealer banks were masked in the BCBS sample by its much broader sample of banks that have very limited market risk exposures, resulting in underestimation of potential impacts. We note that the latest BCBS QIS studies and the break-out by types of banks indicate that the FRTB will result in more significant capital increases, particularly for systemically important banks.

In terms of regional frameworks, we note that there already are two significant initiatives that intend to review the impacts of regulation: in Europe, the “Call for evidence: EU regulatory framework for financial services” and in the United States the Executive Order on Dodd-Frank. These initiatives, while having different origins in terms of policy process, both have similar objectives and focus, to create a platform for stakeholders to provide their feedback on the implemented and pipeline regulatory initiatives and their impacts on availability and cost of financing, as well as on systemic safety and soundness. Secondly, they both aim to review and address any regulatory overshoots and help steer the forward looking regulatory agenda. We also note that the EU process aims to evaluate its own efficiency and evolve over time to better capture and understand regulatory externalities.

One of the major benefits of the FSB’s exercise – while not stated as a key objective – should be enhanced global consistency and achieving a regulatory level playing field. A problem with miscalibrated global standards is that they result in divergent regional implementation as policymakers need to adjust the rules to fit with the best interests of the local financial systems and economies. For example, the Basel III CVA framework was implemented very differently in the US and EU. Additionally, we note that the European Commission’s call for evidence has already led to concrete proposed adjustments to the way the global rules are transposed in the EU, for example on the interaction of client clearing requirements and treatment of margin in the leverage ratio, as well as on certain NSFR issues. In this context, we are also concerned that many of the policies are developed in direct response to weaknesses and crises that have occurred in the US and Europe. The reform package and its objectives may not have been optimal for other markets that are structurally different. It is critical to assess how the rules have impacted emerging markets as well as developed economies outside the US and EU.

It is critical that the FSB ensure that its efforts promote global consistency in regulation. In addition, the FSB, given its global policy objectives, should work to ensure that regional programmes do not develop differing priorities or conclusions that might fragment the global financial system. Therefore, the FSB should also measure the cost of regulatory fragmentation to meet its objective of increasing the resilience of the global financial system, while preserving its open and integrated structure.

The following section is in direct response to the questions in the consultation paper.
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)?

The FSB states that the focus of the framework is on post-implementation evaluation and that ex ante analysis will only be applied to the extent that it is necessary for post-implementation evaluation, comparing impact assessments with realised outcomes. There are inherent risks in such a narrowly scoped analysis, particularly due to the long policy implementation lead times and gold-plating/early implementation that often takes place in key financial centres. Going forward, we recommend that the FSB make ex ante analysis an integral element of the assessment programme, not only to determine if reform measures are fit for purpose, but to help avoid overlaps and inconsistencies.

Indeed, as we will discuss below, proving the direct impact should not be the primary focus of the coherence and calibration exercise, nor should establishing the causality be the deciding factor for proposing changes to the framework.

As observed by the FSB and others, banks generally anticipate regulation and start restructuring their balance sheets, retaining profits or raising capital long before regulations take effect. Their strategy for restructuring the balance sheet, revising their business model and adjusting their capital base depends heavily on economic and market conditions. While restructuring typically focuses on areas of the balance sheet where the policy change has the highest impact on capital consumption relative to return on equity, it also depends on how much it will cost the bank to attract capital from the market given the existing and likely returns it can earn on that capital from its overall business.

The final impact of regulatory change may also not be visible directly after the rules are implemented. Sometimes banks will reduce portfolios and scale down businesses over time rather than exit positions and businesses immediately. One example of such a restructuring is the scaling back and re-focusing of investment bank businesses since 2009 in response to the recovery and resolution plans implemented by the BCBS after the global financial crisis. While the strategies have varied by institution, a PWC\(^5\) report identified that most banks have made strategic business changes, focusing on key clients and markets. The risk from this downscaling is that banks exit markets where they play a key role and the slack cannot be picked up by non financial/unregulated entities. Another significant change, according to the report, is the increased use of subsidiaries, as well as greater segregation of entities and booking models across the industry trending towards subsidiarisation, in response to regulatory expectations. How this fragmentation has affected cross-border flows and the availability of funding to less-developed markets has not been adequately investigated.

These inherently complicated and long restructuring processes cannot be easily compared to the ex ante BCBS monitoring data that focuses on aggregate risk weighted assets (RWA), leverage ratio (LR) exposures and capital levels based on the BCBS implementation timelines. From the outset, consolidated data from immediately before and after the implementation of particular rules is unlikely to demonstrate that there have been fundamental changes in certain market segments. Therefore, it would be very easy to conclude erroneously from globally aggregated ex ante and ex post data that regulation did not have significant undesired impact on the bank or the market.

Table 1 below, for example, shows how global systemically important banks (GSIBs) from the European Union have increased their leverage ratios over time in anticipation of the mandatory requirement and likely GSIB buffers. Similarly, Table 2 shows the reduction in market risk RWAs over a similar time period, after implementation of Basel 2.5 and before implementation of the Fundamental Review of the Trading Book. These tables demonstrate that the impact is far from

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binary as the transition mechanism depends on many variables and the impact is not directly observable as a variance between ex ante to ex post regulatory data submissions. However, they clearly do not explain where the banks reduced their exposures nor how they raised the capital. While the BCBS data sets have more detail than is shown on these tables, we do not believe that level of detail available in the BCBS data sets is sufficient to establish causality.

Table 1: EU GSIBs leverage ratios

To overcome these challenges to aggregate macro level analysis, GFMA, ISDA and our members strongly recommend that the framework focus on developing additional product and market-specific data on key financial products, their market liquidity, availability and the cost of intermediation over the economic and policy cycles. As we mentioned above, demonstrating causality between implementation of regulation and change in bank or market behaviour is difficult to prove by
analysing the consolidated BCBS data. The assessment should, at the very least, take into account varying regional/jurisdictional implementation dates and financial structures, regional gold-plating and additional measures such as stress test-based capital requirements that may affect the outcomes.

We believe that, in addition to analysing portfolio and product level impacts, the framework would greatly benefit from empirical, more qualitative elements that can increase understanding of the impact of regulation on end-users. Similarly, qualitative feedback from banks on their strategic choices could help explain how they are reacting to regulatory changes and where the impact is likely to be focused. To a degree, this type of feedback is included in the regional initiatives, but we recommend that the FSB review and develop its own additional requirements to assess any global spill-over effects resulting from regulation in key financial centres.

2. Are the objectives and scope of the framework appropriately set out?
We commend the following objectives: 1) making financial institutions more resilient; (2) ending too-big-to-fail; (3) making derivatives markets safer; and (4) transforming shadow banking into resilient market-based finance. However, we are concerned that the scope may be unduly narrow and impracticable. Transposing these individual objectives into analysis on how the reforms have changed the manner in which the global financial system functions is much more difficult. Such consequences are best addressed by analysing individual issues (such as functioning of particular markets, availability of certain products) from the bottom up rather than through a top-down analysis that may not identify market failures or changes to market function caused by regulatory reform. In this context, we recommend strengthening the link between market function and end-user experiences. We believe that an assessment that focuses on end-user experiences and capacity constraints is likely to better capture the effects of regulation. These spill-over effects should be included in the macro-economic model and regression analysis that the FSB intends to run. Additionally, we believe that the focus of the framework should also extend to analysing and evaluating the risk sensitivity of reforms\(^6\) and reform impacts at the product, business unit, and customer level.

Moreover, we are concerned with the FSB’s directed focus on only evaluating reforms effects “for which implementation is well underway or completed.”\(^7\) There are a number of key reforms, e.g. capital rules, that have not been fully implemented or are scheduled to be implemented in phases spanning several years. In our view, rules that have not been fully implemented should also be subjected to the framework’s evaluations in order to identify any adverse effects or unintended consequences of such reforms prior to full implementation. Identifying the unintended consequences or adverse effects of a rule prior to full implementation would enable policymakers to determine, early on, whether any additional steps are required to curtail a rule’s undesirable effects.

3. Would you suggest any refinements or additions to the concepts and terms?
We strongly support the broad regulatory reform objectives set out by the G20. However, given the vast scope of individual reforms and the underlying objectives that were developed independently without taking into account developments elsewhere, we recommend that the FSB also consider whether the objectives of reform successfully targeted the problems they were meant to solve and, more fundamentally, whether the problems they were meant to solve were in hindsight problems at all.

\(^6\) Toward this end, the framework should evaluate whether financial regulatory reforms have been “risk appropriate”, i.e., do similar risks get treated similarly under the rules of a particular jurisdiction? What about across jurisdictions?
One such example is the repo market (which has been targeted by several regulations) and the belief that there was a run on repo that made it a key transmission mechanism for the financial crisis. While from the outset it looked like the repo market dried up during the crisis, further evidence based on more detailed analysis suggests that the problem was more closely related to the collateral quality/valuation. Krishnamurthy et al argue that “… the collateral backing these repos prior to the crisis was largely composed of government securities rather than riskier private sector assets. The subsequent contraction in repo with private sector collateral was relatively small in aggregate, and relatively insignificant compared with the contraction in the asset-backed commercial paper market, but its effects were concentrated on a few most exposed dealer banks. [...] We find that dealers with a high share of private securities in repo collateral were the most vulnerable, and most likely to access emergency programs of the Federal Reserve.” While the failure of those dealer banks undoubtedly had significant systemic ramifications, those risks (overreliance on short-term funding, insufficient liquidity and capital) are addressed by the reform package more directly, the rules also have significant combined impacts on the viability of the repo market.

A second example is the post-crisis response to regulation of the securitisation markets in the US and Europe has been punitive. By calibrating regulatory capital requirements to the poor performance of the US sub-prime market, many other asset classes (in the US and Europe) which performed well during and after the crisis have been penalised. In Europe, this is acknowledged as an important factor in hindering market recovery, such that a specific regional regulatory intervention is being undertaken to address the issue.

Third, the incentives for equities financing are not aligned with the broader objectives of the NSFR – to reduce maturity transformation. While banks’ trading books for equities are typically financed with short-term funding so that fluctuations in inventory are managed appropriately, the NSFR requires 50% long-term stable funding against this activity. This introduces a maturity mismatch whereby banks have to take on long-term liabilities to fund short-term assets. While being fundamentally stable, this kind of mismatch in maturity risk is inherently unprofitable and is arguably self-defeating.

With regard to the evaluation objectives, we believe that for individual reforms the BCBS monitoring data can be used as a basis from which a more detailed product level or transaction-based analysis should be developed. The main focus of the work should be on the interaction and coherence of regulations, particularly in relation to issues such as the interaction of the LR and clearing requirements. In this context we believe there would be benefit in assessing the impact on end-users’ ability to transact throughout economic cycles and whether the rules are creating undesired complexity. For example fund managers need to use Level 1 high quality liquid assets (HQLA L1) in repurchase agreements to raise cash required to post variation margin, thereby creating multiple transactions that are all taxed by the rules. Similarly, a product-level analysis would provide useful insights into areas where regulations may have overshot and consequently harm the financial system’s ability to function (e.g. repo market).

While we recognise that some rules have yet to be implemented or even finalised, clearly the analysis needs to look at directional changes and the cost and availability of products and services over a long period of time. Additionally, while the benefits and costs of the initial Basel III package are reasonably well understood, the incremental benefits of further regulation (and changes to the initial rules) are not as well justified. We therefore recommend that more attention be paid to analysing the costs of new regulation against any incremental systemic safety benefits that regulation may yield. Again, while we fully support a comprehensive GDP impact assessment, we believe that analysing the

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impact on individual products and markets will provide more directly observable data than complex econometric models.

Foundations for such an analysis of the costs for the financial system and the broader economy were laid out in the Oliver Wyman study. To understand the changes over time, it is critical to capture the existing as well as ongoing work streams in the analysis.

Table 4: Basel III reforms and ongoing work streams

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<tr>
<th>Basel III</th>
<th>Ongoing and recently completed workstreams</th>
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<tr>
<td>• Quantity and quality of capital (minimum capital requirements and composition thereof)</td>
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<tr>
<td>• Regulatory buffers (capital conservation buffer and countercyclical buffer)</td>
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<td>• Counterparty credit risk capital requirements (standardised approach for measuring counterparty credit risk exposures, margin requirements)</td>
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<tr>
<td>• Leverage ratio</td>
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<tr>
<td>• Liquidity reforms (Net Stable Funding Ratio – NSFR and Liquidity Coverage Ratio – LCR)</td>
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<tr>
<td>• Measuring and controlling large exposures</td>
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<tr>
<td>• Standardised approach for credit risk, and operational risk</td>
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<tr>
<td>• Capital floors</td>
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<td>• Constraints on use of internal models</td>
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<td>• Revised leverage ratio</td>
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<td>• Interest rate risk in the banking book (IRRBB)</td>
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<tr>
<td>• Fundamental review of the trading book (FRTB)</td>
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<tr>
<td>• Securitisation</td>
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<td>• Haircut floors for securities financing transactions</td>
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<tr>
<td>• Total loss-absorbing capacity (FSB regulation)</td>
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<td>• Stress testing (primarily jurisdictional regulation)</td>
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<td>• Step-in risk</td>
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In particular, we highlight that post-crisis reforms have a substantial impact on the structure of capital markets and on the costs for major participants. There is already evidence of significant changes in market structure, driven both by regulation and by other factors. For example, banks’ trading balance sheets have contracted by roughly 25% to 30% since 2010\(^\text{10}\).

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?

As mentioned above, and discussed in the Oliver Wyman (OW) paper\(^3\), we believe that isolating the effect of reforms at a point in time across the global financial sector is inherently difficult due to various factors such as early adoption of rules, long lead times and bank-specific strategies to manage their businesses to regulation and other economic factors. The OW report identifies the following challenges:

1. Establishing an appropriate baseline against which to compare the impacts is a key consideration. While comparing changes against the regulatory conditions prior to the crisis may seem logical, it would fail to capture the reality of markets and financial institutions due to changes in stakeholder/market forces demanding higher capital and more liquidity irrespective of regulatory reform.

2. It is difficult to isolate the impact of regulatory reforms from the market response. However, the report argues that the reforms have gone well beyond what the market would require today.

3. It is challenging to attribute observed impacts to a specific regulation, be it Basel reforms, other regulations or government interventions. The study highlights the impact of government interventions and supervisory actions (including stress-tests). Additionally, jurisdictional gold-plating and structural measures have also contributed to the changes in market and bank structures and business models.

4. The unusual economic and monetary policy conditions since the crisis have strongly influenced banks’ behaviour and results in ways that are unlikely to be good indicators of the long-term impact of reforms.

By way of addressing these difficulties, we believe that a more granular analysis is required. The question that the analysis should try to answer is how the markets for the most important products fare now and are authorities content they offer sufficient access and capacity to end-users. For example, PWC’s study\(^\text{11}\) on market liquidity identified that, for major financial products, the deepest cuts in inventories took place in those where risk-based regulatory capital requirements were raised (see Tables 5 and 6). We believe that by extending this type of analysis to capture other relevant regulations and their interaction with each other at product/business level would help with establishing causality and identifying areas where the impact of regulation is most severe.

Table 5: Changes in risk-weighted capital charges due to changes in the Basel capital regime (pre Leverage Ratio)

\[\text{Table 5: Changes in risk-weighted capital charges due to changes in the Basel capital regime (pre Leverage Ratio)}\]

![Table 5](http://www.pwc.com/gx/en/financial-services/publications/assets/global-financial-market-liquidity-study.pdf)

In our view, the focus should be on product-level impact and understanding if the combined effect of regulation has reduced the capacity of banks to provide certain services or products, absent a clear shift in client demand for those services and products and if there are negative consequences resulting from mis-calibration, duplication or conflict that are not justified by any systemic benefits. One needs to consider the binding constraints that may vary across different products and business lines and therefore any impact assessment should be considered at that level in order to determine the causality and relationships between regulatory reforms and the specific product/business line.

Another challenge is to frame the data sample required to analyse the market and bank behaviours. The industry recommends that any quantitative and qualitative data gathered to support the analysis should focus on – in addition to end-user experiences – to the key dealer banks/service providers. It is fundamentally important that the impacts are not masked by much broader sample that masks the impacts of regulation.

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?

We agree with the authorities that regulatory reforms were essential to address key contributors to the financial crisis such as overreliance on short term wholesale funding (STWF), excessive leverage in the financial system and inadequate capital levels. Banks and the broader financial system are safer and sounder today as a result of reforms implemented in the wake of the crisis, including new capital, leverage and funding rules.

For derivatives products, following the global financial crisis the industry has worked closely with the regulatory community implementing a series of regulatory reforms (Dodd Frank, MIFID, EMIR) to establish a new regulatory framework for the regulation and oversight of the over the counter “OTC” derivatives markets. During that time the OTC derivatives markets have made significant progress on improving market transparency, enhancing prudential safeguards and reducing systemic risks stemming from the interconnectedness of firms. There are several notable developments that have resulted from these regulatory reforms including:
• There is more market transparency since all OTC derivatives are now required to be reported to swap data repositories

• As of March 2017, 87.5% of interest rate derivative notional volume and 79.6% of trade count is cleared\textsuperscript{12}

• More than half of all interest rate derivatives, or 56.7% of notional volume and 58.7% of trade count, are transacted on electronic platforms\textsuperscript{13}

• New collateral rules have gone into effect for the largest OTC derivatives users, which are now required to post initial margin and variation margin on their non-cleared OTC derivatives

Notwithstanding these developments, the implementation of a new and comprehensive regulatory regime to oversee the $544 trillion OTC derivatives market\textsuperscript{14} and the establishment of comprehensive reforms of bank capital and liquidity standards across jurisdictions is not without its problems.

In a broader context, some reduction in market liquidity was to be expected given the nature and intent of these regulatory reforms. We have seen recently growing signs of a worrisome reduction\textsuperscript{15} in market liquidity, even for the high-quality liquid assets that underpin the entire financial system. Therefore, one way to look at the functioning of the rules is to examine how the ‘plumbing system’ of the international financial system has changed and if there are undue constraints on generating liquidity through high-quality assets during normal and stressed times.

The incentives created by new regulation have significant implications for capital markets activity, particularly for low-risk assets like cash and highest quality government bonds. These assets are used as collateral for central clearing and other financing transactions by most market participants and as liquidity reserves by small and large banks. Thus, they play a critical role in the smooth functioning of financial markets. If market participants’ ability to generate liquidity through these assets is impaired, particularly during stress periods, it will have ramifications to the functioning of financial markets. Regulations that are risk-insensitive, and regulations that target the same risk multiple times through multiple rules, weigh particularly heavily on such low-risk assets.

Similarly, we are concerned that the cumulative impact of regulation on capital markets intermediation by wholesale banks will further reduce end-users’ ability to transact, particularly during stressed market conditions. In many markets, banks remain central to wholesale transactions, and restrictions on their intermediation capacity will necessarily affect their clients’ ability to execute trades. Lower liquidity and lack of immediacy facilitated by wholesale banks can result in sharper price dislocations. These conclusions are now also pointed out by a recent (April 2017) CGFS study\textsuperscript{16} on repo market functioning.

CGFS’s “findings point to significant variation in the functioning and structure of repo markets internationally. While markets are in the process of adapting to the post-crisis landscape, it appears that in some jurisdictions there is a decrease in end users’ ability to access repo markets and an increase in the costs they incur in doing so”. This is associated with “banks displaying less willingness and ability to use their balance sheets for repo intermediation than in the past.” The increase in

\textsuperscript{12}These figures are available on ISDA’s website at: www.swapsinfo.org. These figures are also available in the SwapsInfo First Quarter 2017 Review

\textsuperscript{13}Id.


\textsuperscript{15}https://www.bis.org/publ/work625.htm


\textsuperscript{16}http://www.bis.org/publ/cgfs59.pdf
market volatility (see Table 7) at each regulatory reporting periods is symptomatic of this dynamic and could be considered as early warning signs of a coming liquidity seizure.

Table 7: Repo rates and volumes

CGFS analysed the drivers that may have induced such changes – with a focus on unconventional monetary policy that might sometimes disguise upcoming regulation (Leverage & NSFR ratios) and its impacts – and how these may or will further constrain the functioning of repo markets. This could impact primary dealers, secondary markets (vectors of market liquidity) and the capacity they generate for buy-side/end users such as money market funds, insurers, pension funds and corporates.

A contraction in the intermediation capacity available for repo markets may also signal a reduced ability to respond to end users’ needs in episodes of stress, and impose costs for the real economy by creating frictions in cash and derivatives markets. As mentioned, the issues outlined in the document may become more acute during future periods of market tension if they reduce the financial institutions’ ability to monetise assets that they hold for liquidity risk.

The Committee on Global Financial System also provided a set of policy messages that might be useful for authorities in jurisdictions affected by a decline in repo market functioning: recalibration of Leverage ratio and G-SiB additional buffer and attention to pay to calibration of coming NSFR. The CGFS finally concluded that “The potential strength of this effect is hard to gauge, but the implications for financial stability could be important and that these risks need to be weighed against the benefits of having more constrained repo markets”.

Another factor that impacts investors’ ability to execute trades and market liquidity more generally is the adoption of new transparency regimes that require virtually real-time disclosure of prices and trading volumes in many markets. While these transparency rules were designed to foster a more open marketplace, in conjunction with the prudential rules and reduced broker dealer trading they may have the unintended effect of reducing market depth, thereby weakening market liquidity.

In looking at the full rule-set today and what we expect to see in the near future, we find duplications and inconsistencies between the rules that together have an undesirable cumulative effect. For
instance, the rules designed to prevent funding mismatches are overlapping. The LCR and NSFR significantly mitigate near- and longer-term risks of such funding mismatches, and regulators have widely acknowledged that banks have reduced their reliance on short-term wholesale funding, concurrent with the implementation of new prudential standards\textsuperscript{17}. Yet other rules target the same funding activity as well. The GSIB Method 2 methodology in the US, for example, does not consider firms’ LCR or NSFR compliance, meaning that liquidity risk is addressed twice through separate and unaligned standards. Potential revisions to stress testing methodologies (such as CCAR) to incorporate GSIB buffers into post-stress minimums would address this risk a third time.

Additionally, the treatment of low-risk, high-quality assets like cash and cash equivalents varies depending on the rule and often does not reflect their low-risk or risk-free status. For example, while treasury securities receive a 3\% to 6\% capital charge under the LR, the NSFR imposes a 10\% funding charge on reverse repos secured by treasuries, making it difficult to provide financing against such high-quality, cash-equivalent assets\textsuperscript{18}. To this end, we believe that the assessment should analyse whether reform rules are risk appropriate, i.e., whether similar risks are treated the same or similarly within and across jurisdictions.

Finally, the assessment should examine the calibration of specific rules that are designed to serve as backstops but that instead operate as binding constraints, and do so in light of the cumulative impact of the full set of rules. The capital floors – for internal models based outputs measured against standard approach based capital requirements – introduce another risk insensitive backstop in addition to the leverage ratio. One example is the Fundamental Review of the Trading Book (FRTB) and its interplay with the (forthcoming) standardized floors, leverage ratio and TLAC (TLAC has both RWA and leverage based minimum requirements).

Despite BCBS’s reiteration of its intention not to significantly increase risk based capital requirements, the trading book capital under the new internal models based rules is over 1.5 times its current proportion of total risk based capital. Furthermore, the gap between internal models and standardized approach capital outcomes remains significant and puts into question the possibility to employ standard rules as a credible fall back scenario to internal models. Our concern is that the FRTB, coupled with standardized floors will lead to significant further RWA increases for trading activities in key asset classes. Such an increase in RWAs would also increase banks’ TLAC requirements, compounding the effect. We worry that the overall impact will have a disproportionate effect on dealer banks and result in further reduction in capital markets intermediation, market liquidity and ultimately higher financing costs to end-users. To date, the banking industry has tended to adapt to the changing regulatory environment by raising capital, deleveraging, adjusting the composition of portfolios and reducing costs. The low interest rate environment has meant that banks have been constrained in their ability to raise prices, but they are under increasing pressure to increase their returns on equity, so re-pricing is a lever that is likely to be used more in the future. As regulatory capital becomes scarcer, it will be deployed to assets and exposures that generate the highest returns for the capital consumed; this is likely to have an adverse effect on the availability of low risk, low margin products such as trade finance.

Again, we believe the duplication and conflict among the many new rules were not necessarily intended, they should be addressed and mitigated. We believe this can be accomplished without undermining the safety and soundness of individual banks or the overall financial sector.


\textsuperscript{18} BCBS, The net stable funding ratio, (Oct. 2014), p. 38: “Unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 assets as defined in LCR paragraph 50, and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan.”
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?

As Mark Carney in his role as the Governor of bank of England noted to the UK Treasury Select Committee in 2016: “Bank capital is not costless to society. If capital requirements are increased, some of those costs will be passed on to households and businesses in the real economy”.

The case for the post-crisis regulatory reform was made by comparing the costs of new regulations against the benefits of avoiding another financial crisis. The evidence collected by the FSB suggests that the benefit of avoiding future financial crisis is worth 1.8% of GDP per annum, compared with an estimated loss of output from a financial crisis of 63% of pre-crisis GDP per annum. There are many other studies that have assessed the cost of financial crises and have come to different conclusions, depending on the assumptions on longer term GDP trajectory and assumptions made on whether financial crises have temporary and permanent effects. We also note that regulation can also be a drag on the economy after the recession, if it results in too much capital and bank balance sheet allocated to regulatory compliance. For example the current recovery in the US is the slowest of the past 10 recoveries. The head of the U.S. Commodity Futures Trading Commission, speaking at ISDA’s annual conference 9th May, 2017 said that not enough has been done to ensure that regulations imposed after the financial crisis of 2008 “have made the financial system as effective as possible in supporting economic growth.” He further iterated that “It is critical that international bodies make it their top priority to take up this challenge of looking across reforms to see if we have this balance right. We risk causing irreparable harm to the global markets if we do not do this."

Table 8: Post recession recoveries in the US

A helpful review of cost-benefit analyses was produced by the Bank of England. Table 9 from the Bank of England study provides useful background on how to look at the costs to the economy against systemic safety benefits.

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20 http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper35.pdf
In our view, this benchmarking and determining what the capital and liquidity positions of banks would look like absent the reform package, are some of the key considerations when evaluating the efficiency of the reform package. Over the years, many studies have tried to put a price tag on the regulation imposed by the initial Basel III package. However, based on a review in the Oliver Wyman study\(^1\) on regulatory coherence published last year, the framework has changed drastically since most of the studies on costs were completed and there have been very few efforts recently trying to capture all the rule changes and their impact on both traditional lending, market-based financing and endusers. We also note that while there is value in analysing the different aspects of reform costs (social vs private), we would caution that when banks are acting in purely agent businesses, the dividing line between private and social costs is not clear-cut, and significant additional private costs will inevitably be externalised to clients to some extent.

With regards to the too-big-to-fail banks, we commend the implicit subsidy analysis by PWC\(^2\) in relation to explicit subsidy in the EU banking sector. During the global financial crisis, substantial amounts of public financial support were provided to financial institutions at risk of failure in order to prevent contagion and damage to the functioning of the wider economy. Financial regulators have subsequently defined those banks who pose systemic risks or were considered Too Big To Fail (TBTF), or Too Important To Fail (TITF) as Globally Systemically Important banks (G-SIBs). The impact of being TBTF on banks’ behaviours and potential uncompetitive advantages compared to smaller banks has been a topic of research and discussion since the global financial crisis. Most of this research has concentrated on whether G-SIBs benefit from funding advantages, as a consequence of this implicit guarantee. The report concludes that for instance there have been significant regulatory developments with a view to making banks more resilient and therefore less reliant on government support – including the adoption and phased-in implementation of the Capital Requirement Directive (CRD IV) and Capital Requirement Regulation (CRR). Moreover, the Bank Recovery and Resolution Directives (BRRD) and establishing a new framework for managing troubled banks in the European Union (EU), as well as the Single Resolution Mechanism (SRM) regulation, are being adopted. While some of these are still evolving and will only be fully implemented in due course, any assessment based on market pricing information does inherently incorporate debt investors’ expectations of the impact of these regulatory developments (as spreads capture forward looking expectations of default, and hence take into account the future implementation of regulation). This again highlights

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the inherent complexity in isolating impacts of individual regulations as well as the issue of identifying the appropriate baseline for an ex post analysis.

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

Generally, we are sceptical about how valuable a regression analysis is on a standalone basis for this framework and for trying to establish causality, especially for assessing coherence and interactions of multiple regulations that address the same risk. In our view, a more helpful methodology would look at more granular, product and market specific impacts and if the financial risks have shifted for example from banks to end-users or shadow banking sector.

For example, in Europe, for insurance company investors, the post-crisis regional response to the losses sustained in US sub-prime mortgages and related CDOs was to prescribe very high regulatory capital requirements for investment in securitisations while at the same time reducing to very low levels (in some cases to zero) investment in the same underlying assets through the medium of “whole loan” portfolios. This very marked difference in regulatory treatment has created a strong incentive for the departure of nearly all insurer investors from the mainstream securitisation market in favour of “whole loan” investment. Not only does the latter form of investment carry inherently greater risk and less liquidity than securitisation investment, but it also encourages the development of the “shadow” banking sector and constrains the recovery of the securitisation market in Europe.

The analysis should also capture potential opportunity costs, or in other words, what are the costs to the financial system and market participants if certain services or products become unavailable, operationally too burdensome or too costly. Therefore, we recommend that the general equilibrium model is supplemented with bottom-up analyses on product level, capturing more nuanced impacts of regulation and bank management responses on market structures and end-users.

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

The quality, consistency and coherence of the data is at the heart of the evaluation process. While the data on BCBS monitoring is largely uniform across the regions, any other data (transactional, qualitative, end-user costs) is at best regional. We recommend that the FSB assess the commonalities between data sets provided by banks under the EU MiFID and US Dodd-Frank acts, particularly in relation to bank risk warehousing capacity (Volcker, systematic internaliser), and between trade repositories and other data providers. Additionally, commonalities and improvements should be sought in relation to regional evaluation frameworks (the EU Call for Evidence and US Executive Order on Enforcing the Regulatory Reform Agenda) and they should be further enhanced to capture cross-border spill-over effects.

We also recommend that the FSB establishes end-user survey/data templates to assess costs and availability of key financial products across jurisdictions and over the regulatory cycles. Proprietary data gathered for the objectives of this evaluation framework would ensure that the data is addressing the questions set-out in the framework’s objectives.

There are existing product level data sets that the FSB should seek to use to support its evaluations, e.g. when assessing the calibration of the regulatory capital framework. An example is the International Chamber of Commerce’s Trade Register which is an authoritative source of data and analysis on trade finance. The Trade Register covers US$9.1 trillion of exposures and 17 million transactions across major products and regions, and demonstrates the low risk nature of trade services.

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23 The regulator regime known as “Solvency II”. 
finance when judged against comparable asset classes, such as corporate and small to medium-sized enterprise (SME) lending.

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?

The methods used to understand economic externalities particularly on taxation could be useful in assessing regulatory costs. We commend the methods and analysis done by Oliver Wyman in the context of the EU transaction tax\(^ {24} \), particularly in assessing the broader effects of regulation that impacts capital markets intermediation. In addition, there is a need to have specific and well defined assessment tools that capture evolving capacity/changes in capital requirements against business lines/products, supported by qualitative assessments/feedback from stakeholder groups. Such a toolset would allow for more timely responses that facilitate more sensitive regulatory responses to undesired changes in the market.

In terms of market liquidity assessment, the evaluation methodology needs to be dynamic and capable of evolving over time. As noted in the BIS study\(^ {25} \) on FX market liquidity structural changes in FX markets have reduced the usefulness of some of the conventional FX liquidity metrics. Market participants and central banks stress that no single metric can give a complete picture of market liquidity independently. But in combination, these metrics can give insights into the state of market liquidity. Secondly, using analytical methods such as in the BIS quarterly review, 09/16\(^ {26} \) could help identify areas where dealer capacity constraints (and central bank interventions) have led to market imperfections and loss of for example covered interest parity.

Other frameworks that may help in assessing dealer capacity and changes in market risk absorption relate to regional transparency, structural and infrastructure rules, such as MiFID in Europe and Volcker in the US. For example, a recurring measure of liquidity in European markets is expected to become available in August 2018 as a result of the MiFID II regulations. Financial firms will have to assess their own activity in various markets to determine whether they are a ‘systematic internaliser’. Reviewing this framework and others that have similar characteristics could be valuable in the post crisis evaluation process. A template developed specifically for the FSB’s evaluation, based on common characteristics of such regional submissions would help with harmonisation and reducing banks’ data gathering burden.

Governance is another area where there are precedents to consider. An element of independence is often considered in processes where the stock of regulation is being considered (rather than the latest flow - for which the FSB and BCBS have established processes). FSB members commit to lead by example, undertaking regular IMF Financial Sector Assessment Programmes (FSAPs), and FSB peer reviews. These both incorporate the concept of independence, with the IMF standing independently of the FSB and SSBs. Under FSB peer reviews, FSB members hold each other to account and provide constructive suggestions. In some jurisdictions, the review of the stock of regulations often include panels of experts drawn from public sectors, private sectors and academia. Examples include the Financial System Inquiry in Australia (2014)\(^ {27} \), the Independent Commission on Banking in the UK (2011)\(^ {28} \). The FSB should give consideration to the actual and perceived independence of its reviews.

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\(^ {25} \) http://www.bis.org/publ/bppdf/bispap90.pdf
\(^ {26} \) http://www.bis.org/publ/qtrpdf/r_qt1609e.htm
\(^ {27} \) http://fsi.gov.au/panel/
having regard to the role of the IMF, and the possible participation of representatives from the banking sector or real economy.

Again, we note that it is extremely important to form relevant samples for the data gathering and analysis to ensure that the outcome evaluation is based on sound impact assessment.

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

In terms of sharing arrangements, we recommend that the FSB establishes sharing arrangements with the BCBS and its underlying data gathering organisations to ensure access to all relevant data, aggregated at the desired level of granularity across different jurisdictions and market segments. The FSB should also work together with the BCBS in order to ensure that the BCBS monitoring captures data that is useful for the FSB’s purposes and that it is gathered and aggregated in a manner that ensures best possible consistency and comparability.

As an industry, we would support additional data gathering and we are willing to participate in helping to define the requirements. Such work from time-to-time is undertaken by industry with the Global Association of Risk Professionals to develop bespoke studies which provide the industry and global standard setters with empirical analysis on the impact of regulatory reforms. Elsewhere, metrics should be developed from the many existing evaluation processes (for example market liquidity, repo market capacity) to specifically target the issues that the FSB’s evaluation process is addressing to ensure that the data requirements are set-out correctly and that the assessment can be run coherently over regulatory and economic cycles.

The industry has invested significant resources to analyse and assess the quantitative impact study data as part of the Basel III monitoring exercises over the last years. Any attempt to consolidate data sets from large number of institutions poses significant challenge to ensure consistency of the underlying assumptions to address unwarranted variability in the results. In that regard, we highlight the importance of clear and timely instructions for any such initiative that should include the capacity for the industry SMEs to review and provide feedback in advance of finalisation and publication of final data templates and instructions. Equally important is the proper functioning of an FAQ process that would enable the participating institutions to receive timely feedback and clarifications ahead of submitting input to the process. From the number of studies the industry has conducted on the impact of the regulatory reforms, it is evident that given the complexity and multidimensionality of such projects there is the need for a continuous dialogue between the SMEs from the institutions that will be tasked to provide input and the regulatory authority that will undertake the design of such data collection exercise.

In terms of publication of the results, it is important that they are made available to stakeholders and are directly related to the underlying cost and benefit analysis. Equally important, publication of the results should also disclose any underlying assumptions made or employed. Results and assumptions must be published with sufficient detail in order to enable regional policymakers and stakeholders to understand the analysis, replicate the assessments and provide comments and other feedback on an ongoing basis to help improve the evaluation methodology. In a broader context, it is also vital for global regulatory consistency – to avoid that the ongoing regional regulatory coherence assessments come to different conclusions – for stakeholders to have adequate access to the data and the results.
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)?

The industry believes that the best way to engage with the relevant stakeholders on an ongoing basis is through established stakeholder groups that meet and discuss the evaluation work with the FSB and SSBs at regular intervals. The stakeholder group should consist of various types of end-users, including investors, pension funds, corporates and fund managers as well as providers of financial services, central banks, finance ministries and academics. There may also be a need for a number of stakeholder groups that focus on different areas of the framework. While there is a need for senior engagement to ensure that the broad outline and objectives are set out correctly, there is a need for engagement between industry, regulator/central banks and the FSB technical experts to review the macroeconomic models and specific data gathering templates. Additionally, we believe it would also be helpful for the FSB and the SSBs to make public a list of staff and experts involved in the process to facilitate an ongoing bilateral dialogue with regional stakeholders.

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?

We recommend that the scope of the exercise should capture all key aspects of the regulatory reform package, including transparency requirements. However, we believe that the calibration and interaction of the liquidity rules, leverage ratio, clearing, risk based capital and margin requirements warrant particular attention. In addition, effects of multiple backstops – the Leverage Ratio and proposed floor requirements on an RWA basis, complemented by stress testing – should be at the heart of the evaluation programme.

In conjunction with the analysis of particular rules, we urge the FSB to look at the interaction of the key policies and their interaction in the context of well-defined products. We believe that the key markets where the regulatory overhaul may have had an impact that goes beyond the intended consequences relate to the following product sets:

- Liquidity of government bond markets: AFME’s Quarterly Government Bond data report shows there has been a trend of decreasing liquidity in recent years. At least seven banks have quit their primary dealer roles in European markets since 2015. There is a general view in the market that regulation and more specifically capital rules under Basel III have contributed to this erosion and have put pressure on market making activities. The costs for primary dealers may be further impacted once MiFID II comes into force in January 2018, particularly as a result of additional rules around price transparency.

- Repo market capacity: there is an increasing amount of evidence suggesting that the repo markets do not function as efficiently as they should and are subject to much higher volatility than in the past. As reported by the Study Group established by the Committee on the Global Financial System, underneath the relative stability in headline measures of activity and pricing, there are signs of banks being less willing to undertake repo market intermediation, compared to the period before the crisis. The volatility in prices and volumes around balance sheet reporting dates can be associated with banks in some jurisdictions contracting their repo exposure in order to comply with the regulatory ratios.

- Securitisations: in the context of the proposals set out in the second consultative document "Revisions to the Basel securitisation framework" published on 21 December 2013 (BCBS 269), the industry and other trade associations expressed their concerns
that the proposals would not meet the stated objective of comparability, resulting instead in capital requirements that were neither comparable among calculation methods nor proportionate to risks. It was recommended that additional work should be undertaken to refine the calibration of the proposed framework and especially to improve the consistency of results between the internal ratings-based approach (IRBA), the external ratings-based approach (ERBA) and the standardised approach (SA). This should include gathering additional, more granular data and undertaking further analysis beyond what was provided in the QIS. In particular, we recommended conducting analysis of data grouped by the market-defined asset classes of the underlying exposures (rather than according to the regulatory exposure categories). Further details are available on request from GFMA.

- CDS market: At its high-water mark in June 2011, the total notional amount outstanding on single-name CDSs based on corporate and sovereign borrowers was $15.4 trillion. By June 2015, notional outstanding had collapsed to $6 trillion – i.e., a contraction of 61 percent over four years. Several possible reasons may explain the recent decline in single-name CDS activity. One possibility is that the current environment of relatively low interest rates and default rates has reduced the demand for hedging and synthetic bond investments (a.k.a. taking a position on the credit risk of a borrower) using CDSs. Another often cited potential explanation for the post-2011 contraction in the single-name CDS market is the panoply of changes to the global financial regulatory framework, such as margin and capital requirements on cleared and noncleared swaps and the ban in the E.U. on short selling using sovereign CDSs. These regulatory changes have already reportedly raised costs and decreased demand for single-name CDSs (or for hedging entity-specific credit risk altogether) even though many regulatory initiatives have still not been implemented in final form.

- Corporate bonds: recent feedback from industry and the regulatory community suggests there is evidence of a deterioration of liquidity conditions in bond markets. Trading conditions have become more difficult from 2014/2015 onward in the UK corporate bond market according to one recent analysis. We continue to observe sufficient early warning signals to suggest that regulation and other market factors are contributing to a reduction in certain aspects of secondary liquidity in corporate bond markets that is likely to be exacerbated by the unwinding of quantitative easing (QE) or another stressed market situation. Experience from the financial crisis has shown that, in normal times, liquidity conditions may be perceived to be ample, but a sudden lack of liquidity can occur during times of stress. We believe a decline in market making capacity in dealer banks is a source of material potential risk in fixed income markets. Regulators should consider areas where further research is needed. We emphasize the importance of analysing data on unexecuted orders, as well as continuing to develop an understanding on optimal liquidity levels across markets.

- Emerging markets (Lack of CCPs, non-rated/high-yield debt issuance and trading, FX market liquidity, commodities). It is expected that data and evidence issues are likely to be particularly acute in assessing the spill overs from the financial reform agenda on emerging markets. Prior to the FSB’s Annual Report process on the impact of reforms, the FSB published annual monitoring reports on the “effects of agreed regulatory reforms on emerging market and developing economies (EMDEs)”30. However, these suffered from a lack of resources and available data from emerging markets. Since 2015,

29 Single-name Credit Default Swaps: A Review of the Empirical Academic Literature
(https://www2.isda.org/attachment/0D9cYXw==/Single-Name%20CDS%20Literature%20Review%20%Culp,%20van%20der%20Merwe%20%26%20Staerkle%20-%20ISDA.pdf)
the FSB has held emerging market forums to better collect views from emerging market members. For any review process in this area, the FSB would need to promote a similarly qualitative approach, while working with the finance industry which may be better placed to provide quantitative evidence of the impact of the reforms in some policy areas (such as those listed above).

- Trade finance: it tends to be low margin business for banks, reflecting the fact that it is low risk, short tenor and often secured on the goods being shipped, and yet the regulatory treatment is more in line with higher risk, unsecured lending (as evidenced by the ICC which has built up a comprehensive database of loss history through its Trade Register). Any increase in the regulatory capital requirements for such exposures arising from the finalisation of Basel III is likely to have a further detrimental impact on its availability and pricing for corporate and SME customers.

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