May 10, 2017

Mr. Svein Andresen
Secretary General
Financial Stability Board
Bank for International Settlements
CH-4002 Basel
Switzerland

Re: Consultation Document - Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms

Dear Mr. Andresen:

The Institute of International Finance (IIF) welcomes the Financial Stability Board's ("FSB") recent Consultation Document. We also commend FSB Chair Mark Carney's recent remarks at the IIF's Washington Policy Summit, where he emphasized the importance of dynamic and efficient implementation of post-crisis reforms while maintaining the resiliency of the financial system.[1]

As you know, for the past several years the IIF has been consistently underscoring the importance of evaluating the effectiveness of the agreed reforms, their impact and potential unintended consequences. The formulation of a framework to conduct such analysis is a fundamentally important initiative that we fully support, and we value this opportunity to provide our input.

We are grateful for the ongoing dialogue that we enjoy with the FSB, and are especially grateful for the participation of the FSB Secretariat and national authorities in the IIF's recent workshop on this topic. That workshop was illuminating for the industry in understanding the FSB's mandate and objectives, and instrumental in shaping our comments, which we hope can assist you as you finalize the framework. From our perspective, formal and ongoing engagement between the public and private sector, especially in light of the FSB's proposed framework and Governor Carney's dynamic implementation priority, will produce better regulatory outcomes not just for the global financial system but for all end-users.

We also note that the timing of this initiative means that it must inevitably be viewed against the backdrop of the current threat of increased regulatory fragmentation. In this context, we emphasize the importance of enabling greater competition, through promoting level playing fields and removing barriers to entry, with the resulting benefits of competition for end-users in credit availability, product development and pricing.

While we are encouraged by the decision to develop a framework for post-implementation evaluation, we note in our comments the importance for the FSB to expand the scope of examination and broaden the opportunities for evaluation. We believe that significant value can be obtained from the proposed framework when it is also utilized to proactively inform on

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[1] Mark Carney, "What a Difference a Decade Makes," speech at the IIF Washington Policy Summit, Washington, April 20, 2017; http://www.fsb.org/wp-content/uploads/What-a-Difference-a-Decade-Makes.pdf

the potential implications of future proposals, as well as for finalization of guidelines currently under consideration. We similarly encourage the FSB to be more ambitious in regard to the timing of future analyses of specific issues and evaluation of the overall picture of post-crisis regulatory changes.

In our comment letter we also outline the industry's priorities regarding the analysis to be conducted. Given the limitations of time and resources, effective prioritization will be an essential feature of the future FSB work program. In this regard, we reiterate the criticality of analyzing risk-sensitivity in the regulatory framework, and underscore the importance of assessing the effects of reforms at the levels of business-lines, products and markets, not just at aggregated firm level. Much has been achieved in the last nine years in making the global financial system stronger and more resilient, but some specific reforms could erode the great progress that has been made in improving risk management and embedding risk-consciousness within firms.

Finally, we underline that it is vital to establish a clear governance structure for the analysis to be conducted, with clear delineation of responsibilities regarding decisions on the scope of analysis, the analysis itself, the evaluation of results and the decision-making process through which eventual policy revisions will be conducted. The draft framework could provide greater clarity on this, though we stress that we welcome the initiative to put studies out for comment prior to publication, which will help to ensure appropriateness of approach and data collection.

As well as addressing the specific questions posed in the consultation document, our comments are consequently structured in three sections:

- Observations on the FSB's envisaged scope, resourcing and deliverables;
- Some suggested priorities, with particular emphasis on risk-sensitivity; and
- Experiences and lessons learned from our own previously conducted analyses.

As always, the IIF stands ready to provide any necessary expansions or clarifications on our comments, and we welcome continued dialogue on this important matter. If you have any questions on the issues raised in this letter, please contact myself or Brad Carr (bcarr@iif.com).

Sincerely,

Andrés Portilla
Managing Director of Regulatory Affairs

Contents

1. Executive Summary

The IIF welcomes the FSB's initiative in launching a new program for evaluating the impacts of regulatory reforms, and the development of a reusable framework for such evaluations.

The IIF shares the FSB's desire to rigorously test the downstream impacts of reforms. Much has been achieved over the last decade, and we agree that the financial system is significantly stronger and more resilient for that. Concurrently, there have been costs and microeconomic frictions, and the relative stagnation in many economies makes such evaluation both important and timely.

We also note that in the current political climate, the role of international bodies such as the FSB has unfortunately been called increasingly into question, with critics citing a lack of transparency and insufficient evaluation of the potential impacts of regulatory reforms. The IIF urges the FSB to pursue this exercise aggressively and comprehensively, and take proactive steps to ensure that global standard-setters can continue to make their valuable contributions.[2]

Accordingly, our comments on the Consultation Document are focused on offering constructive suggestions on how to craft a framework for effective impact analysis, on identifying where the FSB can deliver the maximum value, and on where the scope of activity should be expanded.

The IIF commends the FSB for identifying the three "perspectives" for evaluation set out in the consultation document (individual reforms; interaction and coherence among reforms; overall effects). However, we believe that these perspectives need to be brought to a wider scope, specifically in respect of:

- Reforms: looking beyond the G20 reforms, to include some significant reforms that already existed or have been implemented concurrently, and to consider variable implementations;
- Sectors: while the G20 reforms have been predominantly bank-centric, there are reforms, issues and impacts across other sectors of the financial industry that all warrant examination;
- Pre and post implementation: while we understand that the FSB's initial focus is on post-implementation evaluation, proactive pre-implementations assessments are also critical; and
- Granularity: ensuring that the FSB's studies explore specific impacts across business models, scale of institutions and jurisdictions.

We understand that the FSB's intended schedule is to undertake one or two review projects annually. With such an enormous reform package having been implemented over the last decade (and still continuing), and with such profound transformation having occurred in firms' businesses and balance sheets, we believe a more ambitious delivery schedule should be pursued. We encourage the FSB Plenary to increase the emphasis and investment for this activity, and also to consider utilizing resources from other sources, such as from the industry, professional services, and bodies such as the Global Association of Risk Professionals (GARP).

[2] IIF, *International regulatory standards: vital for economic growth*, March 15, 2017, https://www.iif.com/publication/regulatory-report/international-regulatory-standards-vital-economic-growth

In terms of priorities for such projects, the IIF stresses the importance of maintaining risk-sensitivity at the center of the regulatory framework, and ensuring that capital and liquidity metrics are sufficiently aligned with underlying risks. We urge the FSB to prioritize the examination of specific reforms that apply blunt metrics to over-ride risk as a key driver in business decisions.

Critics of the industry have often decried efforts by firms to optimize the efficiency of their capital base, notwithstanding that firms are commercial enterprises with obligations to generate returns for shareholders. The IIF contends that a rational firm should assess potential returns against risk, and as long as capital requirements are closely associated with risk, a commercial focus for investors will align with sound risk management practices. It is only when regulatory requirements introduce distortions and create divergences from risk that the drive for efficiency in capital and returns becomes problematic.

Moreover, capital metrics are central not only for regulatory compliance and demonstrating capital adequacy at the 'top of house' level, but also for a range of downstream applications within the firm: in banks' strategic planning, in how they price deals, in portfolio construction (and the risk of adverse selection), and in how bank staff are assessed and remunerated. This is critical for ensuring appropriate signaling and encouraging desired behaviors.

There are several specific reforms that can over-ride the risk-based framework, most notably the Leverage Ratio, but also some of the BCBS's new proposals for parameter ('input') floors as well as an 'output floor' in RWA calculations, each compounding and creating an excessive and intricate construct of multiple 'backstop' measures.

The IIF continues to support the inclusion of a moderately-calibrated Leverage Ratio as a backstop measure, but when a non-risk-based measure prevails as the binding constraint, low-risk activities are invariably the ones that suffer from the distortions that are created – products such as trade finance, and markets for high-quality securities such as Treasuries.

It is consequently vital to examine the impacts of reforms at the level of business lines, customer segments and specific markets, not just at a total firm level, where the true impact of a 'backstop' measure may be masked. The resultant impact where a bank exits a particular market, discontinues offering a particular product or materially changes the pricing of a particular service is ultimately felt by end-users, and the economy at large.

We also urge the FSB to prioritize assessment of the impacts of reforms on financial inclusion, noting that certain reforms have changed the economics of providing affordable access to various services.

In assessing the overall effects of reforms, we also urge the FSB to assess whether the impact of reforms has achieved consistent application internationally, thereby fostering a level playing field for internationally active banks.

In highlighting the need for an expanded scope and expedited schedule, and for the prioritization of projects that test for the loss of risk-sensitivity and financial inclusion, we are also pleased to offer our own experiences and lessons learned from our own endeavors in assessing impacts. Among our own learnings were the criticality of frequent and early engagement with technical experts and those that can supply data, to ensure that exercises are designed and structured such that they reflect true underlying fundamentals and use clear and consistent terminology. This aligns with our broader desire for the FSB to continue active engagement with a diverse stakeholder group, and the IIF stands willing to continue helping to facilitate such consultations.

2. The FSB's Envisaged Scope, Resources and Deliverables

We understand that this framework has been prepared on the basis of a particular mandate from the FSB Plenary, and we believe the scope of this mandate (and associated expectations) is somewhat limited. Consequently, in conveying our support for this particular initiative, we urge the FSB to not lose sight of the need for expanded or parallel activities in concurrence.

In our comments in this section, we address Questions 1, 2 & 3 of the consultation document:

> *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)?*
> *Are the objectives and scope of the framework appropriately set out?*
> *Would you suggest any refinements or additions to the concepts and terms?*

2.1 Scope

We recognize that the mandate for this initiative has been cast in terms specifically of post-implementation assessment of G20 reforms. While we understand the intent of confining this initial activity to what is perhaps perceived as a more manageable scope for this initial activity, we urge the FSB to also pursue other impact assessment activities, including proactive pre-implementation evaluations to assist in the calibration of further initiatives under consideration.

Scope: reforms

While the FSB's exclusive focus on new reforms mandated by the G20 is somewhat understandable, we believe there should also be scope to consider:

i. cases where other existing regulations cause distortive and unintended impacts;
ii. non-standard, non-G20 reforms (e.g. Vickers / Volker, cybersecurity regulations, national-level stress tests) as well as the actual G20 reforms, given that the former may in fact be more counterproductive than the latter;
iii. varying national/regional implementations of G20 reforms, including looking beyond the G20 countries.

We also seek confirmation that the various accounting reforms (under IFRS and FASB) that have been developed in response to the G20 agenda are explicitly considered to be within scope.

Scope: sectors

We note that if the scope is narrowly confined to merely the G20 package of reforms, this necessarily becomes very banking-centric. For instance, insurance coverage is limited to only the Global Systemically Important Insurer ("GSII") level measures.

With other sectors such as market-based finance having an increasingly important role in the global economy, and noting the stated G20 objective of transforming shadow banking into resilient market-based finance, we believe it is necessary to also consider:

i. other regulatory reforms, in market-based finance and insurance, specifically the treatments for systemic risk and the proposed Insurance Capital Standard (ICS); and

ii. where regulatory initiatives in different sectors can have compounding impacts, for instance where they might deter different sectors from investing in or financing the same asset class.

Whereas other international bodies are more sector or product specific, the FSB is uniquely placed to provide a cross-sectoral view, and we encourage it to pursue this opportunity.

Within the non-bank sectors, the IIF has consistently advocated that regulation be applied on an activities-based approach, rather than by other approaches such as individual firm-designation, and we would welcome the testing of the various approaches.

Scope: pre and post implementation

The IIF commends the fact that this framework has been deliberately drafted such that it can be applied (or scaled) for potential future use in pre-implementation assessment as well.

Consequently, we urge the FSB to clarify that the post-implementation focus reflects a starting-point (or a first phase of activity), and to not lose sight of the need and opportunity to undertake pre-implementation evaluations in a subsequent phase.

2.2 G20 Reform Objectives

We note that the Consultation Document references four core objectives of the G20 post-crisis reforms, namely (i) making financial institutions more resilient, (ii) ending too-big-to-fail, (iii) making derivatives markets safer, and (iv) transforming shadow banking into resilient market-based finance.

Firstly, we fully support FSB Chair Mark Carney's recent assertion of the importance of "dynamic implementation" and "efficient resilience."[3] The G20 reform objectives need to be considered in a dynamic environment, where economic and societal priorities have continued to evolve since the immediate post-crisis period. The objectives of safety and resilience needed to be balanced with the efficient support of the economy.

That said, we should not lose sight of all the original objectives cited at the time of the 2009 Pittsburgh G20 Summit, and reducing procyclicality was identified as a headline item in the Pittsburgh Communique.[4] With Expected Credit Loss requirements under IFRS9 and FASB's CECL due for implementation in the coming years with no offset for capital requirements in place, we anticipate a substantial increase in the procyclical effects on banks' capital, for which a pre-implementation assessment is urgently needed.

2.3 Resourcing and Deliverables

We understand that the intent is to run one or two projects per year under this framework. With the extent of the reforms that have been undertaken since the crisis, and their often far-reaching consequences, we consider this to be quite a modest aspiration, although we understand that it is a factor of the resources that have been made available for such projects. Across the three perspectives described in the consultation document (effectiveness of individual reforms; interaction and coherence among reforms; overall effects), there is a very

[3] Mark Carney, "What a Difference a Decade Makes," speech at the IIF Washington Policy Summit, Washington, April 20, 2017; http://www.fsb.org/wp-content/uploads/What-a-Difference-a-Decade-Makes.pdf

[4] Leaders Statement – the Pittsburgh Summit, September 24-25, 2009, https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf

large range of valuable potential projects, and we urge the FSB to expedite the delivery of projects beyond that planned schedule.

To that end, we encourage the FSB to increase the availability of resourcing for impact assessment. By way of some additional suggestions:

- the industry would be willing to provide some resources to support;
- the FSB could potentially engage professional services firms;
- bodies such as the Global Association of Risk Professionals (GARP), which has a proven track record including the IIF-ISDA Cumulative Capital Impact studies of 2016, could be engaged to assist in data collation and analysis (see Section 4.1 for specific insights and learnings from the IIF's previous collaborations with GARP).

3. Suggested Priorities

The IIF has consistently emphasized the criticality of risk-sensitivity, for the efficient allocation of credit within the economy, the promotion of risk-conscious behaviors within firms, the avoidance of adverse selection in credit portfolios, and to promote the generation of sustainable returns. This necessarily entails looking at the effect of regulatory requirements beyond the 'top of house' (institution-level) view, and considering the incentives and impacts that are produced at a business line or product level.

We therefore urge the FSB to prioritize the assessment of cases where a non-risk-based measure is binding, or where regulatory requirements for capital or liquidity are over-stating risk. We also urge the prioritization of cases where reforms may have impeded financial inclusion. The IIF believes that the FSB will benefit from further engagement with the industry when finalizing the prioritization of its work program.

In our comments in this section, we address Question 12 of the consultation document:

> *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?*

3.1 Risk-Sensitivity

As described in the IIF's September 2015 paper *Risk and Capital: the essential nexus*, capital measures are of critical importance not only at the 'top-of-house' for measuring the risk of insolvency, but for the series of 'downstream' uses within the organization, including:

- strategic planning
- pricing
- portfolio construction and management
- performance management and remuneration[5]

Reflecting the shared objective of incentivizing desired behaviors and promoting capital consciousness at grass-roots levels, the Basel Committee's Use Test requires banks to explicitly demonstrate that the underlying risk components used in regulatory capital are also employed for internal purposes.[6] The above-mentioned four key elements of how capital metrics are used within firms are summarized in Appendix 1.

In this context, it is stressed that capital and liquidity are scarce resources, with direct impact on the metrics that are inherent in firms' strategic investment decisions, pricing, performance assessment and remuneration. As the annual IIF/EY Risk Management Survey has continued to highlight, banks continue to be under pressure from investors to deliver higher ROEs, with 82% of firms reporting this in 2016 (see Appendix 2 for more details).[7]

3.1.1 Binding Constraints

It is important to fully understand the multiple constraints that banks manage to, and which of these are binding (and therefore driving strategies and pricing) for particular firms. Downstream

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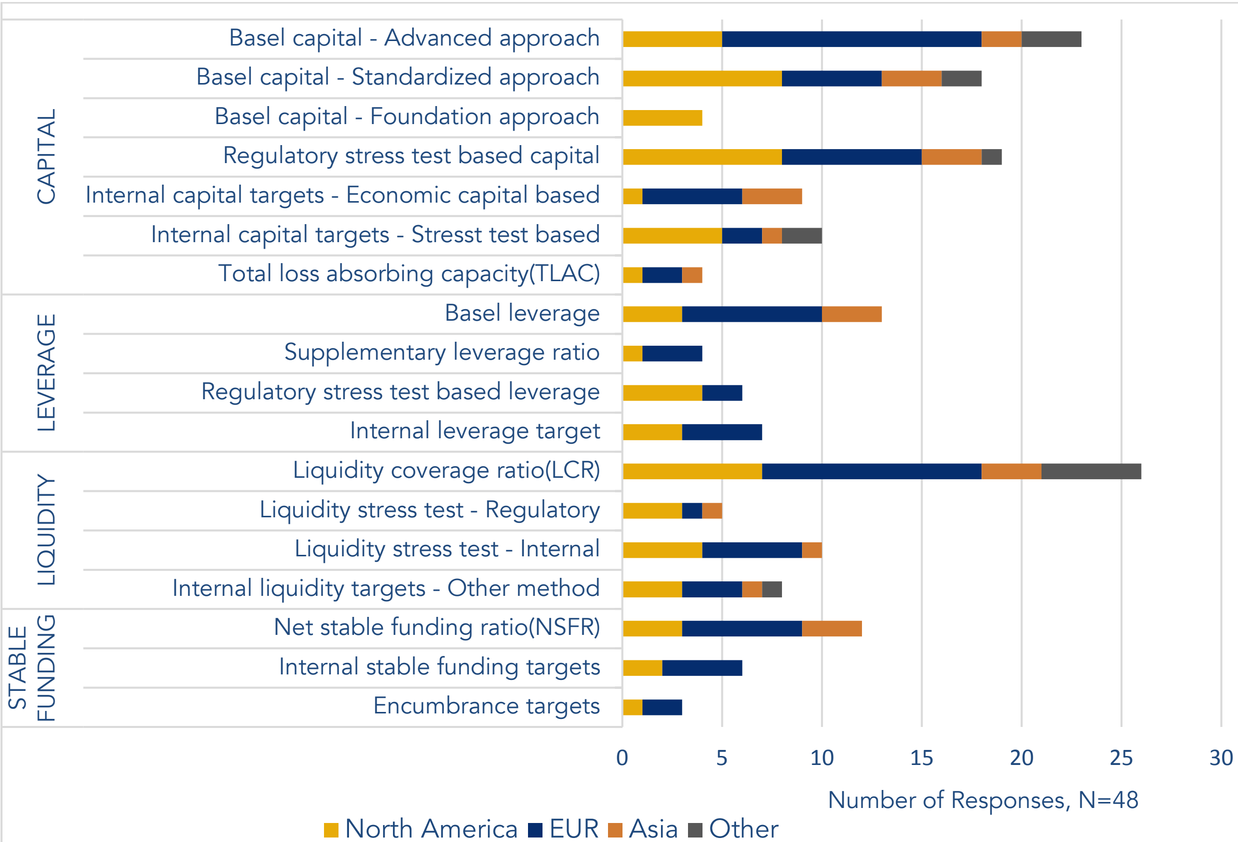
[5] IIF, *Risk and Capital: the essential nexus*, September 2015, www.iif.com/publication/regulatory-report/risk-and-capital-essential-nexus.

[6] Basel Committee Newsletter No. 9, *The IRB Use Test: Background and Implementation*, September 2006.

[7] IIF/EY, *A working set of blueprints to deliver sustainable returns*, Seventh annual global bank risk management survey, 2016.

impacts, and in particular unintended consequences, are shaped significantly by whether a given reform binds on a firm, and which products and customer segments are more susceptible to which constraint.

An insightful report by the International Association of Credit Portfolio managers ("IACPM") in 2016 illustrates the top three binding constraints across a sample of 48 banks, demonstrating that there are variances both across and within regions, as follows:[8]



Understanding which constraints might bind on which firms or which business models is a critical prerequisite to being able to properly test impacts – a particular reform may have a dramatic impact on the capacity of one form to provide credit, but no impact on another, depending on how their respective balance sheet mixes align to the field of constraints.

Amongst these multiple constraints, the IIF is most concerned with those that are not risk-based. We note that the Leverage Ratio has been consistently described by the Basel Committee as a "supplementary" or "backstop" measure.[9] The industry has supported its inclusion within the capital framework on that basis, noting that if it is calibrated at a moderate

[8] IACPM / Oliver Wyman Financial Resource Management Survey, 2016 ("For a select list of Capital, Leverage, Liquidity, and Stable Funding related constraints, indicate the top three most binding constraints").

[9] Basel Committee on Banking Supervision, Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010 and June 2011.

level, it will serve as an effective back-stop without impeding the role of risk-sensitivity as a behavioral driver.[10]

Where the BCBS has proposed a new capital (output) floor, this becomes a second backstop, then further compounded by the proposal for a series of parameter input floors as well, increasing the probability that a non-risk-based measure will bind.

It is important to remember that a blunt capital framework (Basel I) prevailed and promoted distortive incentives in the pre-crisis years.[11] In contrast, the subsequent move from Basel I to the risk-based Basel II and III has generated great improvement in risk management (see Appendix 3), and it has greatly empowered the role of the Risk function within firms – gains which should be maintained and consolidated.

The IACPM analysis also highlighted the prevalence of regulatory stress tests amongst the key constraints, whether under risk-based capital level, leverage or liquidity. This underscores the importance that the FSB thoroughly engage and explore the various national stress testing regimes, as the published international standards may understate the true binding requirement.

3.1.2 Low-risk Products and Customer Segments Affected

Viewing risk-sensitivity and the non-risk-based reforms from a product or customer perspective, we reiterate that such measures impact lower risk credits, while often actually under-stating the higher risks.

Where the combination of (i) higher capital ratios under Basel III and (ii) some specific moves targeted at trading books such as Basel 2.5 served collectively to increase capital requirements, they did so in a way that preserved the relationship between risk and capital. In contrast, measures such as the Leverage Ratio and the BCBS's new proposals on credit RWA serve to distort that relationship.

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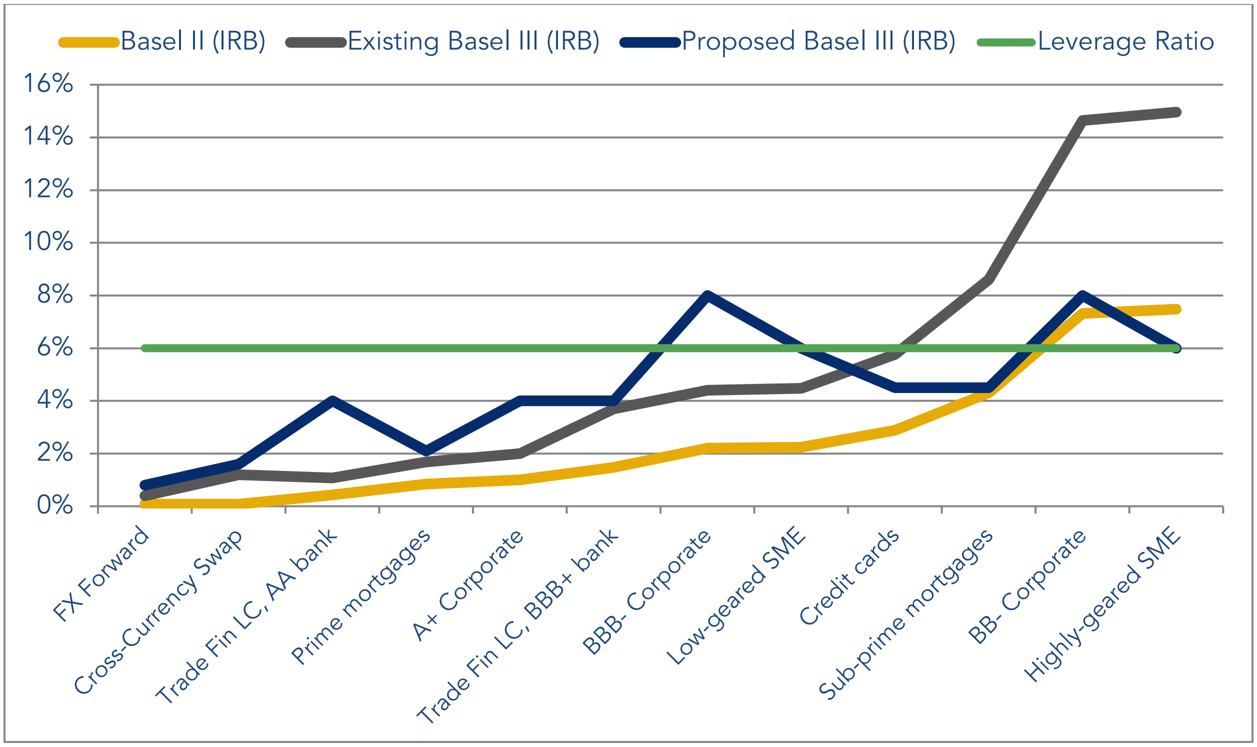
[10] Joint Associations (IIF, ISDA, GMFA, ABA, FSR, & IIB) *Comments in Response to the Consultative Document on the Revised Basel III Leverage Ratio Framework and Disclosure Requirements*, September 20, 2013.

[11] IIF, *Basel's evolution: a retrospective*, April 2016, https://www.iif.com/publication/regulatory-report/basels-evolution-retrospective

The IIF's analysis of these impacts across products and segments is depicted in the following:[12]



The ability of banks to apply risk-based pricing is particularly crucial to **trade finance** products, which are often of a low-risk profile with:

- very short-dated tenors;
- very low levels of default;
- strongly-rated counterparties;
- self-liquidating nature; and
- tangible collateral.

Correctly reflecting the low risk of this asset class is not only desirable for the sake of accuracy in and of itself, but it also has an economic benefit in helping to direct credit towards an area of productive investment that is central to economic recovery in developed economies, and growth in emerging markets (see Appendix 4 for more details). The IIF recommends the International Chamber of Commerce ("ICC"), the African Development Bank and the Asian Development Bank as potential data sources for further analysis in this area. The IIF and its members that are active in trade finance would be pleased to help connect the FSB to the ICC.

[12] Assumptions reflected in this analysis are as follows:

- Core equity ratios are assumed to have increased from 4% to 8% from Basel II to the existing Basel III standards
- The proposed Basel III standard are reflected as per the BCBS consultative documents of December 2015 (for the Standardized Approach) and March 2016 (for IRB); a Standardized-based floor has been extended at the rate of 75% to those asset classes where the consultative documents provided for the continuation of IRB.
- IRB risk-weights have been estimated based on modelled outcomes averaged across a small sample of banks.
- The Leverage Ratio has been depicted at the 6% level applied for large banks in the US.

Another significant area is the **market for highly-rated securities**, including government securities (eg. US Treasuries) and highly-rated corporate bonds. There has been a substantial reduction in the market liquidity for these instruments, and while this trend has had multiple causes beyond regulations, reforms such as Basel capital requirements and the Volcker Rule have greatly impeded banks' ability to serve as market-makers. Some notable impacts include:

- European corporate bond trading volumes declined by 21% during 2010-2015;
- Large trades more difficult to execute; market participants breaking up into smaller tranches;
- Banks' holdings of trading assets decreased by over 40% during 2008-2015; and
- Dealer inventories of corporate bonds in the US declined by almost 60% during 2008-2015.[13]

Within the realm of the capital requirements, it is significant that the instruments at issue are well-rated securities, for which the Leverage Ratio (or for that matter, a Standardized-based floor) serves to over-state the true risk, and therefore creates an artificial disincentive for banks to hold an inventory of these securities.

Mortgages account for a substantial proportion of banks' assets in most jurisdictions, and are rightly a key area of current macroprudential policy focus. We stress the importance of the capital framework differentiating between the risk attributes of different borrowers, markets and properties. Whereas Basel I followed a Leverage-style approach and grouped all mortgages (e.g. prime and sub-prime) together, it is significant that the Basel II reforms have allowed and encouraged banks to discern between mortgages assets. In doing so, we believe Basel II delivered significant social benefits, which a Leverage-based focus can reverse.

3.2 Financial Inclusion

Greater financial inclusion is a core social benefit of a well-functioning financial system. Financial inclusion is critical not only to promoting greater equality, but it also helps to improve the efficiency of intermediation and foster economic growth. It helps to strengthen households' balance sheets and promote saving and investing. Inclusion issues are important both for participation of less-favored households in any given economy and for the performance of many emerging-market countries in the global system.

Certain recent regulatory proposals resulted in increased cost and complexity of providing financial services to consumers and as a result, formal financial services are deemed too expensive and cumbersome by consumers in many markets, or disincentives are created to offering services to such consumers.

In addition, expanding financial inclusion requires firms to invest in distribution channels, new products and risk management systems; the obvious converse is that less inclusion (or "financial exclusion") can result if firms exit markets, channels or products, or adjust pricing to levels where they are less accessible.

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[13] PwC Global Financial Markets Liquidity report, August 2015 (commissioned by GFMA and IIF)

We define financial inclusion as where users of financial services enjoy the following attributes:

Key attribute	Suggested measures
Access: the availability of formal, regulated financial services	Affordability (eg. the World Bank *Doing Business* assessments for ease of access to credit); Physical proximity to service-points
Usage: where the available services are actually being utilized	Regularity, frequency, duration of time used; volumes of particular credit products and payment service formats
Quality: where the available products are well tailored to client needs	Segmentations applied in product development and deployment

Some specific reforms that impact the ability of firms to provide accessible and affordable services include:

- Basel III capital requirements, both in aggregate and in credit provision to some specific segments (for example, see Section 3.1.2 for more details specifically on trade finance);
- Basel III liquidity requirements, specifically where certain depositor segments and deposit tenors are less valued for stable funding, and at a direct cost in required liquid asset holdings; this can impact the economics of providing some basic current account services;
- Greater costs of compliance, which needs to be factored into assessments of the profitability of customer segments and products;
- Know your customer ("KYC") and other Anti-Money Laundering and Counter Terrorist Finance requirements compounded by impediments to information sharing and effective compliance that have had the effect of increasing disincentives to correspondent banking and cross-border payment provisions;[14] and
- The emerging trend of increased regulatory fragmentation, which forms an additional barrier to the provision of cross-border services and competition.

We stress that financial inclusion is a topic that spans both developed economies and emerging markets, though in different ways and perhaps from different starting-points. Standard Setting Bodies have started to recognize that financial inclusion considerations should not be ignored or be relegated to a future priority, as their impact on providing financing critical for economic growth is already consequential. The sensitivities to particular reforms vary in line with the geographical and jurisdictional variances that we outline in Section 3.4, but we believe that greater financial inclusion is a critical objective on a universal basis, warranting prioritization by the FSB.

3.3 Interaction and Coherence

In addition to the specific themes of Risk-Sensitivity and Financial Inclusion highlighted above, we are pleased that the consultation document identifies interaction and coherence among reforms as one of the three perspectives, alongside assessment of individual reforms and overall effects. It is important that impact is not isolated to RWA reforms in isolation, or funding

[14] IIF, *Financial Crime Information Sharing Report*, February 2017, iif.com/publication/regulatory-report/iif-financial-crime-information-sharing-report

requirements in isolation. For instance, the second order effect of funding requirement on capital ratio levels should be included for effective policy evaluation, so that the overall picture is not distorted by partial omissions from scope.

There are several potential projects that the FSB could undertake in this area. The IIF previously submitted a detailed list of specific items where particular sets of reforms either compound or contradict each other to the BCBS's Task Force on Coherence and Calibration in June 2015, including some items that reinforce the risk-sensitivity theme described above.[15] The full list of these particular instances is reproduced in Appendix 5.

To briefly highlight two issues that emerged to greater prominence since our 2015 letter to the BCBS's Task Force, firstly, the interaction between capital and resolution frameworks warrants attention. While the IIF has consistently backed the cross-border resolution program promulgated in the FSB's *Key Attributes of Effective Resolution* as essential to achieving the goal of ending Too Big To Fail, interaction of the resolution and capital frameworks is clearly one of the major impacts of the overall G20 program and merits attention. This includes specific issues such as the treatments of minority interests, and the circumstances of 'double triggers' for instruments that are subject to entity-level and group-level triggers. We also urge the FSB to review the impact of the TLAC issuance required on the type of assets that banks would need to bring onto the book so that the funding requirements (such as maturity match of assets and liabilities) are met, as well as the overall resulting financing stack for major firms. To some extent capital, resolution, and other (including non-G20) reforms all aim to achieve essentially the same things.

A further area of inquiry should be the interaction of Internal TLAC as defined by the FSB with local structural requirements, which may have the effect of increasing TLAC requirements beyond what would be sufficient looking at the group level. While this issue and the potential economic efficiency costs of overstating TLAC requirements have been recognized by the FSB, further analysis is required, especially in light of currently proposed additional structural requirements in some jurisdictions, and conflicts between the single-point of entry and single entity resolution approaches.

Secondly, we emphasize the impacts of accounting changes for expected credit losses, under both the IASB's IFRS9 regime as well as FASB's standards. These will impact capital levels via both the expected loss deduction treatments, as well as their impact on banks' earnings, which ultimately affect available capital.

As outlined in Section 2, we believe this extensive array of issues merits greater resourcing on the part of the FSB, so that more than one or two projects can be targeted for delivery annually.

3.4 Geographic or Jurisdictional Concentrated Impacts

In assessing impacts and whether reforms have achieved their objectives, the FSB could consider both:

i. the variable impacts that can arise from a particular reform, across different countries or regions; and

[15] IIF, Letter to BCBS Coherence & Calibration Task Force, June 17, 2015, https://www.iif.com/publication/regulatory-comment-letter/iif-letter-bcbs-taskforce-coherence-and-calibration

ii. the extent to which there are inconsistencies in national implementations of reforms.

Firstly, it logically follows that changes in bank capital requirements would have a greater macroeconomic impact in markets where bank lending is relied upon more heavily to fund the economy.

Such impacts are often magnified in Emerging Markets, where domestic capital markets are less developed and there is a high reliance on banks (both local and foreign) to finance the Corporate and SME sectors. With Emerging Market economies typically having fewer rated corporate entities, the BCBS's proposed increased reliance on the Standardized Approach (and therefore in turn on external credit ratings) would have a disproportionate impact on many important developing economies.

There remains a major funding gap in numerous developing economies, where direct foreign investment is not sufficient, local capital markets are missing or marginally developed, and commercial bank lending is needed. For instance, infrastructure investments that have low returns have been further affected, which is a matter of great importance among emerging countries, and infrastructure credit has a low degree of substitutability. Capital markets in EMs (for sovereigns, banks and corporates) have also been affected in terms of volume, liquidity and rates, because the Basel III reforms made these investments less attractive to banks from developed countries.

Similarly, OTC Derivatives reforms will be more impactful in regions where there is a greater reliance for corporates on offshore funding. The inherent need for cross-currency swaps (long-dated trades that involve a principal exchange) to convert foreign funding into local currency is susceptible to huge spikes in Credit Valuation Adjustment ("CVA") in regions where that has been implemented.

Concurrently, the Basel III liquidity reforms have a more pronounced impact in economies that have a scarcity of available High Quality Liquid Asses ("HQLA"), and where retail domestic savings rates are lower, causing banks to import funding.

We urge the FSB to be conscious of these variances in local market conditions, and not to only consider the impacts of reforms on a global average basis.

Secondly, there remains considerable variance in the national and regional implementations of the G20 reforms. The FSB should consider whether the reforms have achieved consistent application internationally, thereby fostering a level playing field for internationally active banks, and enabling the benefits of competition to flow to corporates and consumers.

For one readily available data source, the BCBS's Regulatory Consistency Assessment Programme ("RCAP") was established in 2012 to monitor and assess the adoption and implementation of its standards, to ensure full, timely and consistent implementation of the Basel III framework, and thus to contribute to global financial stability.[16]

In particular, we suggest that where there are a number of allowable discretions and other variations in the application of the G20 capital reforms, the resultant differences should be specifically identified and quantified. As another data example, the Australian Prudential Regulation Authority identified a number of modelling differences between the Australian bank

[16] BCBS, Basel III Regulatory Consistency Programme, April 2012, bis.org/publ/bcbs216.pdf

capital ratios and the Basel Framework, which APRA confirmed represents a difference in capital ratios of 350bps.[17]

Simultaneously, we urge the FSB to not be limited by the G20 boundary (including the RCAP and the Basel Framework as a reference point), as the inconsistencies and playing field distortions extend beyond that, and can serve as a barrier to firms from G20 markets providing credit into other economies.

[17] Australian Prudential Regulation Authority, *Insight*, Issue 2, 2016

4. Our Experiences and Lessons Learned

The IIF is pleased to share insights from some of our own studies, which may be helpful to the FSB.

In our comments in this section, we address Questions 8 & 9 of the consultation document:

> *Do you have suggestions on approaches to ensure the quality and replicability of results?*
> *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?*

4.1 IIF-ISDA Cumulative Capital Impact study, 2016

In 2016, the IIF and ISDA published a series of reports as part of our IIF-ISDA Cumulative Capital Impact study, in which we assessed the impacts on banks' capital metrics from the BCBS's proposed reforms in finalizing Basel III. This included assessing the published BCBS proposals, some projected potential amendments to the proposals, and some of the IIF's own alternate proposals.

For their implications for data collection, methodology and quality of the FSB's studies, our key observations and learnings are summarized as follows:

Greater centralization of data collection and cleansing: GARP provided a means of doing data cleansing consistently, as opposed to the apparent inconsistencies amongst national regulators' approaches within the Basel QIS process, an issue confirmed by feedback from national authorities.

Respecting banks' resource constraints: multiple requests will commonly all end up imposing on the same Regulatory Reporting functions, and/or require performing additional runs of the same models. We consequently sought to align template design as closely as possible to other exercises that the banks are required to run for other purposes.

Starting-point data: from our conversations when debriefing our study with national authorities, we learned that BCBS studies have commonly used an assumed starting-point, reflecting a theoretical scenario of the full implementation of existing standards. This introduces an additional variable into exercises that are already assumption-laden, whereas we used banks' current, reported actual data as the starting-point for comparison.

GARP's infrastructure: GARP already has the necessary technical, legal and management infrastructure in place, with the ability to protect data confidentiality, supported by Non-Disclosure Agreements and clear protocols.

Diversity of sample:

- Our exercise was greatly strengthened by having 56 banks participate, from across all continents and various scales and business models.[18]
- One limitation was the restriction in how we structured the project from the outset, with a minimum of ten respondents required to be able to disclose a more granular cut of the data (ie. we could only disclose at the levels of Europe, North America, and the Rest of World). With the benefit of hindsight, we recommend that future activities be structured at a level that enables the US to be distinguished from Canada, and Japan and Australia from other Asia-Pacific markets, for example, as well as according to different business models, to ensure adequate granularity below global averages. A revised minimum of perhaps four or five respondents could enable this, while still ensuring adequate protection of an individual firm's confidentiality.

4.2 IIF RWA Task Force: various studies 2014-17

The IIF RWA Task Force was established as a multi-bank project to firstly interrogate banks' modeling practices in credit risk and market risk, in order to understand variances and proposed recommendations for where practices could be reasonably harmonized. Beyond the initial study (which included 43 banks), subsequent incremental studies have explored specific topics, such as the distinction between Point-in-time and Through-the-cycle modeling.

For the data collection, methodology and quality of the FSB's studies, our key observations and learnings with implications for the FSB's studies are summarized as follows:

Criticality of preparing survey questions that are clear and relevant, in terminology that is universally understood: the quality of responses to our surveys (and therefore the usefulness of that data) has been greatest when we engaged the participating banks to help design the survey questions, not only reviewing draft surveys but in having rigorous open dialogues. The terminology used for particular items is not always common or intuitive, especially on very technical and specialized topics.

Value of one-on-one interviews: we have found that survey responses have been most reliable when the IIF has engaged in a one-on-one interview with each participant (as opposed to mere online submission). While this is intensive in the resourcing commitment, it has a dramatic impact in helping ensure understanding and the quality of submissions, and the quality of responses and data submissions improved as we increasingly adopted this approach in our exercises. Ideally, we recommend that all one-on-one interviews should be conducted by the same personnel, to ensure consistency.

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[18] Banks that participated in the IIF-ISDA Cumulative Capital Impact study were ABN-Amro, BBVA, BNP Paribas, BPCE, Caixa, Commerzbank, Credit Agricole, Credit Suisse, Deutsche, DNB, Erste Group, HSBC, ING, Intesa Sao Paulo, KfW, Lloyds, Nykredit, Rabobank, RBS, Santander, SEB, Societe Generale, Standard Chartered, UBS, Unicredit (Europe); Bank of America, CapitalOne, Citibank, Goldman Sachs, JP Morgan, Morgan Stanley, PNC, State Street, US Bank, Wells Fargo (USA); Bank of Montreal, CIBC, RBC, Scotiabank, Toronto Dominion (Canada); Banco de Credito del Peru, Itau Unibanco (South America); Nedbank, Standard Bank (Africa); Mitsubishi UFJ, Mizuho, Nomura, Sumitomo Mitsui Banking Corporation, Sumitomo Mitsui Trust Bank (Japan); DBS, Maybank (South-East Asia); ANZ, Commonwealth Bank, Macquarie Bank, National Australia Bank, Westpac (Australia)

5. Other Consultation Questions

Of the 12 questions posed in the consultation document, several are addressed in the specific sections of our comments, specifically:

- Section 2 (The FSB's Envisaged Scope, Resources and Deliverables) includes content relating to Questions 1, 2 & 3
- Section 3 (Suggested Priorities) includes content for Question 12
- Section 4 (Our Experiences and Lessons Learned) includes content for Questions 8 & 9

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?

For purposes of isolating impacts from different reforms, it is important to fully understand which requirements are binding on, or material to, particular firms, and thereby driving behaviors and offerings in the market (please refer to Section 3.1.1). We urge the FSB personnel (or other contracted resources) working on impact evaluations to invest in dialogue with firms to understand the nature of their respective balance sheet constraints, appreciating that these can vary across firms with different business models, customer bases and geographies.

Only with a good command of such information will meaningful analysis of interactions be possible. One concern with focusing on cause and effect with regression analysis is that it is often very difficult to isolate a single factor, and liaising with industry experts to understand firms' constraints and decision-making processes is critical to making sense of this.

We also suggest undertaking qualitative evaluations of the reforms, involving custom survey and interviews. There may be important subjects with scarce or nonexistent data sources, especially in emerging markets and for traded securities that have had significant reductions in volumes and liquidity. For such markets and products, experienced practitioners are likely to be the most reliable source of the kind of broad-gaged information needed for the FSB's inquiry.

Implementation of OTC derivatives reforms provide a unique example of some of the challenges and opportunities tied to measuring interactions between reforms across jurisdictions. The reforms cover four areas (trade reporting, platform trading, margin requirements, and central counterparty clearing) across five derivatives products (interest rates, forex, commodity, credit, and equity derivative products) used by a wide range of financial intermediaries, with varying degrees of implementation across 24 FSB member jurisdictions since 2009.

The FSB and BIS already report progress on these reforms, isolating the timing of adoption of different reforms in different markets. This can be used to support evaluating the direct effects and costs tied to a wide combination of products, reforms, jurisdictions, and levels of adoption. The benefits and costs associated with these reforms should generally be more defined and less sensitive to review than those of other reform areas, in particular evaluations of the impact of reforms on the broader economy.

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 firstly stress the need to not only consider whether an objective was met by a reform, but also the efficiency with which that objective was met. At last month's IIF Washington Policy Summit, FSB Chair Mark Carney described the importance of "efficient resilience," marking this as one of the top three priorities going forward.[19]

For many reforms, the original objective (at the time of the Pittsburgh G20 Summit in 2009) was about stability, whereas G20 leaders now are increasingly focused on objectives aimed at greater growth – so it is entirely possible that a particular reform may well have met its original intent, but be found at odds with the current political and societal objectives, requiring a reevaluation of the trade-offs. We urge the FSB not to focus merely on justifying a reform just on the basis of what was stated as the intention in 2009-10, but to be conscious of the need that Governor Carney described for "dynamic implementation."[20]

We also stress our agreement that if something doesn't work now, that is not necessarily a criticism of those who put it in place under different conditions and instructions – i.e. this shouldn't be about whether or not the architects of a given reform did a good job (under the conditions of the post-crisis period), but rather a proactive exercise of testing whether a reform or a complex of reforms still reflects appropriate trade-offs or can be expected to have reasonable and proportionate economic as well as stability effects in the future.

For considering intended versus unintended consequences, we note that consequences can be only partially evaluated by the original stated objectives of a reform; unintended consequences were by definition not part of the original objectives and in many cases reflect issues that were probably unanticipated and therefore not presented as part of the original analysis.

We also note that there were sometimes degrees of intent. In assessing social costs and benefits, there is a need to be cognizant of instances where there was a clear intent to rein in certain activities, but perhaps not to the extent that has been realized.

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?

Firstly, we agree on the importance of measuring social benefits and costs, but we are concerned by a representation that the BIS sometimes makes in setting out an economic growth trajectory as a possible benchmark. Where the cost of the crisis (or the benefits of the reform package in preventing another crisis) are considered in terms of economic output, the BIS compares the actual realized GDP growth rate since 2008 against a straight-line trajectory

[19] Mark Carney, "What a Difference a Decade Makes," speech at the IIF Washington Policy Summit, Washington, April 20, 2017; http://www.fsb.org/wp-content/uploads/What-a-Difference-a-Decade-Makes.pdf

[20] Mark Carney, "What a Difference a Decade Makes," speech at the IIF Washington Policy Summit, Washington, April 20, 2017; http://www.fsb.org/wp-content/uploads/What-a-Difference-a-Decade-Makes.pdf

that is based on the pre-crisis growth rates, represented as the "output gap" caused by the crisis.[21]

Concurrently though, it is widely agreed within the regulatory community (and the industry) that the pre-crisis conditions were unsustainable, with excessive levels of credit growth and bank leverage, and asset price bubbles). On that basis, it is disingenuous to use that same unsustainable growth path as the basis for a straight-line trajectory of what economic growth would have been without the crisis. We strongly urge the FSB to avoid using such a mistaken benchmark when assessing the social benefits.

Secondly, when assessing the social benefits and costs of additional capital requirements, it is important to recognize the benefits that have been delivered by other, concurrent reforms. For instance, when examining data on the historical incidence of bank failures and capital ratios for past periods, it is important to note that the LCR and NSFR were not in place throughout those historic data-sets.

Furthermore, it is important to include loss-absorbability in this analysis. A recent Federal Reserve Bank of San Francisco paper suggested that higher capital ratios historically had not been effective in preventing crises, but that they had been helped to mitigate the depth of resultant recessions.[22] This emphasizes the need for some form of loss-absorbing resource, and it must be noted that the historic data-set that they examined pre-dates the advent of TLAC. Similarly, Bank of England research cited that where the socially optimal level of Tier 1 capital is in the 10-14% range, this would be approximately 500bp higher if we didn't have TLAC and resolution regimes.[23] It is critically important that any attempt to measure social benefits takes into account these measures.

It is also important that the FSB's evaluation of social benefits and costs considers the nature and profile of firms' shareholders, as well as the potential costs of direct public-sector bail-outs. Bank and insurer shareholders are commonly pension funds and other collective investment vehicles, with long-term interests in the performance of financial firms, financial stability, and the broader economy. In many jurisdictions, profits that accrue to such shareholders have substantial social benefit, in providing for retirement, mitigating the increasing trend of individuals' longevity risk, and easing the growing fiscal pressure of public pensions. This is not to say that it is never appropriate for losses to accrue to such entities, or that they should not provide market discipline, but that a full evaluation of benefits and costs must take potential losses by such entities into account.

Lastly, we urge the FSB to take a proportional view. Proportionality is important in that the relative benefits and costs of a regulation may vary with the scale of firm(s) affected, and the nature of the market in each jurisdiction. Noting the political trend for increased emphasis on proportionality, it would be timely for the FSB framework to factor this in.

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[21] BCBS, *Finalising Post-Crisis Reforms: an update - a report to G20 leaders*, November 2015, https://www.bis.org/bcbs/publ/d344.pdf

[22] Federal Reserve Bank of San Francisco, Working Paper Series, *Bank Capital Redux: Solvency, Liquidity and Crisis*, Working Paper 2017-06, March 2017

[23] Bank of England Financial Stability Paper No. 35, *Measuring the Macroeconomic Costs and Benefits of Higher UK Bank Capital Requirements*, December 2015.

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

We share the FSB's sense of the inherent conceptual challenges in undertaking this analysis. We have two broad areas of concern, one on the shortcomings of a focus on cause and effect, and the other in how the costs of regulatory proposals are defined.

Firstly, we note that policy objectives, such as financial stability or ending too big to fail, can be better understood with quantitative applications but are inherently qualitative objectives. Even with quantitative tools and regression models to determine the quantitative underpinnings of our financial services industry, a level of uncertainty within enforcement of rules and the predicted outcomes remains unavoidable. The binding capital requirement, for example, might be a nationally driven stress test, rather than the published global minimum standard. While regressions and models can provide valuable insight for the FSB's review, we believe that stakeholder engagement (as outlined in our comments on Question 11) will be crucial in ensuring the costs and benefits of reforms are appropriately captured quantitatively and qualitatively, and fully understood.

Our second concern stems from defining regulatory costs as 'transitional', as opposed to 'ongoing', and how this might be reflected in an analytical approach that emphasizes equilibria. While the implementation of many reforms will entail a transitional phase and adjustment, it is important to note that the new end-state may also reflect new sustained costs, and thus effects on the longer-term financing capacity of the sector.

Compliance with new reforms is not limited to an upfront, transitional cost as banks adapt to new requirements, with new steady-state costs that are carried forward so long as a reform is in place and requires compliance. For instance, if a higher capital requirement necessitates a new capital raising, it is not a once-off or point-in-time cost at the time of the capital raising, but a requirement to generate returns for those new investors (and 'pay' for that capital) on an ongoing basis. Similar considerations apply for the foregone opportunity cost where a firm is required to maintain lower yielding liquid assets on its balance sheet.

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

The IIF supports the full publication of results at a detailed level, with underlying data. This would not only help to enable replicability from a methodological perspective, but to promote transparency, and demonstrate that the FSB is making itself open to rigorous scrutiny.

This is especially important in the current political climate. The IIF attaches great value to the contribution made by international standard-setters such as the FSB, while noting the criticisms that have been levelled against them of inadequate transparency and acting without adequate impact assessment.[24] We see this initiative as a very welcome step of the FSB proactively addressing such criticisms, and we advocate full publication and transparency, from which the FSB itself can get maximum value from this process. To this end, it is also important that the FSB express the results of its evaluations in terms that are understandable to non-technical observers as well as experts.

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[24] IIF, *International regulatory standards: vital for economic growth*, March 15, 2017, https://www.iif.com/publication/regulatory-report/international-regulatory-standards-vital-economic-growth

We stress that granularity is critical. As we've outlined in Section 3 of this letter, it is vital to look below the 'top of house' impacts on a firm and to assess the sensitivities at the level of business lines, customer segments or geographic regions, and we urge the FSB to make results available at that level.

In line with our comments on engagement (refer Question 11), we also encourage the FSB to share results with the industry prior to official publication, such that any interpretational issues or mistaken assumptions can be addressed collectively.

> *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)?*

As described above, we believe active engagement with stakeholders is critical, and an enabler for the FSB to overcome some of the inherent challenges in this type of analysis. As outlined in Section 4, we are pleased to share the learnings from our own exercises, one of which is how engagement can help strengthen data quality and consistency and reduce the scope for interpretational or assumption-based errors.

We firstly stress that such engagement should be **early**. Engagement is most effective at the outset of the process, for instance in the way that the FSB has engaged with the industry on the development of this framework. We encourage the FSB to seek industry engagement not only in identifying the issue but also on very practical matters such as designing templates for data capture. The industry has significant experience in contributing to data assessment exercises (refer Section 4) and dedicated risk teams who have expertise in handling many different data types. Firms' specialist experts have a good sense of what is achievable and realistic, as well as knowledge of which data sources can be volatile or lead to differing interpretations. Early discussion can help to ensure good data coverage.

Engagement should also be **continuous**, and we encourage the FSB to involve the industry through the life cycle of the evaluation, particularly for those projects that are envisaged to occur over a prolonged period of time.

In order to ensure consistency in data, we urge the FSB to be as **specific** as possible with the instructions. Firms won't necessarily know what the FSB wants to see, and we would encourage the FSB to ask banks to provide the assumptions they use in submissions, such that the FSB can adjust or seek re-submissions as needed.

Engagement should also be **expansive**, in particular for the cross-sectoral and macroprudential evaluations. Most tangible input should come from the institutions within the remit of international standard setters, but there are also important third party channels which should be explored.

We recommend the establishment of a stakeholder group including end-users such as corporates, pension funds and sovereign wealth funds, as well as data providers and rating agencies, and that experts within the industry from across different disciplines (eg. Risk, Treasury, front line businesses). Given the interactions between different types of reforms, it is important to acknowledge that those people who are familiar with RWA rules may not fully understand the liquidity and funding requirements, and vice versa, so it is important to involve different functions in order to determine and understand second or third order effects.

We further recommend that this stakeholder group be formally recognized within the FSB structure, and that it meet a minimum of four times annually.

Additionally, the FSB should be expansive in the scope of data requests, even if it means asking for more data than might be needed. It is much harder for firms to submit additional data and get the gears in motion repeatedly if asked for data multiple times. Iterations will likely be needed, but it should be an objective to try to limit this as much as possible.

We also advocate **efficiency**, and leveraging existing infrastructure and mechanisms where possible. The various Basel QIS activities (including the semi-annual QIS) can consume significant resources at firms, and we hope the FSB can co-ordinate with the BCBS and avoid duplication. It is also helpful to have advance indication when firms might receive data requests, so that internal resources can be managed appropriately.

Lastly, we see this as an **evolving** process. The industry and the FSB should openly communicate with each other and share lessons learned as the stages of the evaluation progress, so that we can refine our input and continue to work constructively together to deliver accurate, understandable and comparable evidence which can be used to generate meaningful conclusions. Equally, financial markets are in a continual phase of adaptation, and the evaluation process should be sufficiently dynamic to cater for market changes.

Appendices

Appendix 1: Risk-Sensitivity and Internal Uses of Capital Metrics

Strategic Planning: Most major banks are diversified across multiple business lines and customer segments, such that each bank itself represents a collection of business units that each compete for capital and investment, akin to an 'internal capital market'. This is fundamental to determining where capital is invested within a bank – in decisions about potential acquisitions or divestments, in the development of new business lines and new products, in risk mitigation, and in allocating capacity in which segments to lend to.

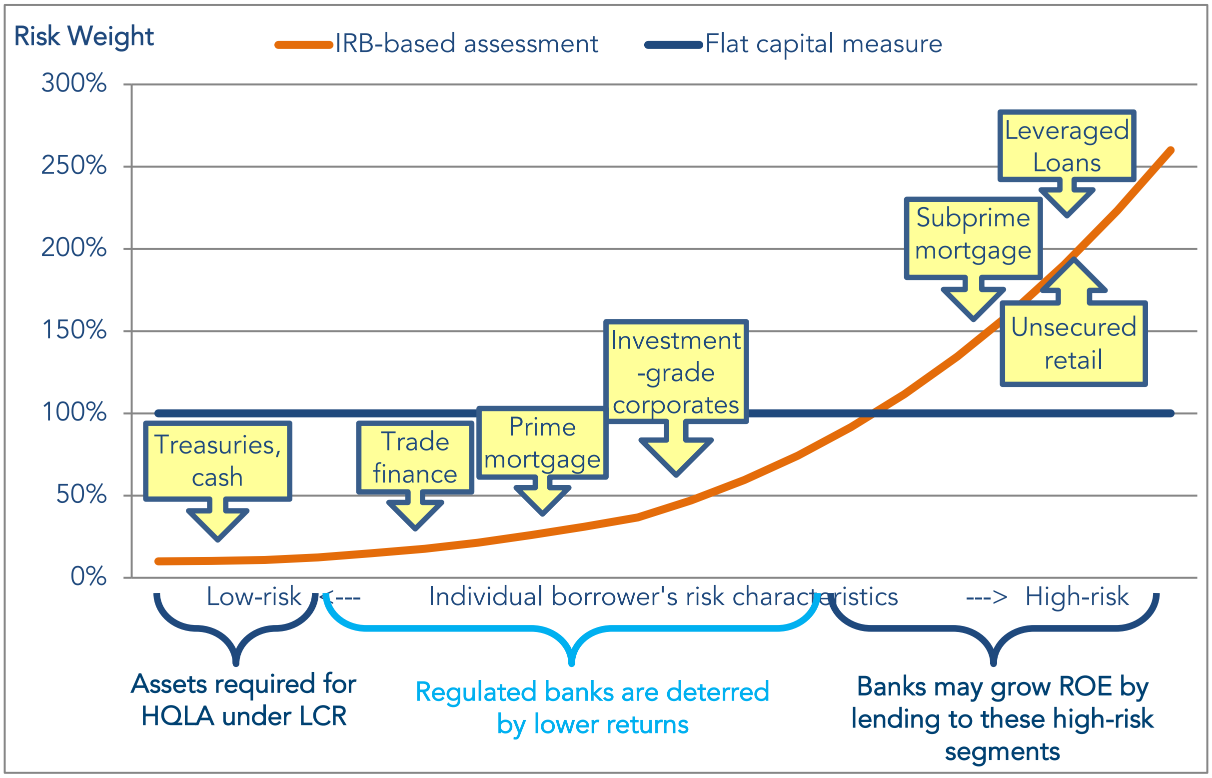
In this environment, in order for risk-consciousness to be truly reflected in strategic planning, and to influence the decisions on which business units and segments to invest in, risk cannot be left in a vacuum. This links with the need for all banks to have a sustainable business model – that they can not only withstand a crisis and remain solvent, but also remain viable. If fully embedded within the business drivers, capital can be a powerful tool for the promotion of a risk conscious culture as part of the budgetary process.

Pricing and Portfolio Implications: In pricing transactions, banks aim to adequately compensate for risk and generate a return on shareholders' capital. A desirable pricing structure is one where the prevailing measure of capital accurately reflects the transaction's risk, so that the return generated is commensurate with risk that is being taken. If the level of required capital assigned to an asset is not risk-based, then this concept is eroded, and some significant distortions and false mis-incentives are instead created.

The potential distortions can also affect the shape of banks' portfolios, creating the risk of adverse selection. A blunt measure of capital across the credit spectrum encourages banks to progressively shift their portfolios towards the higher-risk, high-yield segments. There emerges the risk that the regulated sector over-prices credit for well-rated counterparties and under-prices it for the more marginal counterparties – driving the stronger borrowers to seek their funding elsewhere, and weakening the overall average credit quality of the regulated system.

This is compounded by the Basel III liquidity requirements mandating that banks must hold portfolios of High Quality Liquid Assets (HQLA) sufficient to withstand their potential cash outflows in a shock scenario. While the industry accepts the need for appropriate liquidity requirements, it is important to examine the effects of requiring banks to hold a material portfolio of low-yielding assets, a source of drag on ROE. Optimizing ROE and profitability under a flat or simple capital measure then creates a strong incentive to pursue high-yield assets to counter-balance this this on ROE, whereas more risk-sensitivity in the mix would underpin more appropriate and proportionate strategies.

Banks' portfolios become somewhat 'barbelled' in this scenario, concentrated at either end of the credit spectrum, and reducing the valuable diversity in banks' portfolios:



Incentives and Remuneration: Assessments of performance, both at a business unit level and at the level of the individual banker, consider a series of dimensions, such as revenue or profit, market share and growth, customer satisfaction, minimization of costs and losses, alignment with group-level strategic objectives and corporate values – plus capital and ROE.

It is tremendously powerful to make bankers accountable and responsive to earning a return relative to the amount of the firm's capital that they are putting at risk. The Basel Committee's Compensation Principles put it succinctly that:

> *"Two employees who generate the same short-run profit but take different amounts of risk on behalf of their firm should not be treated the same by the compensation system;" and "Compensation outcomes must be symmetric with risk outcomes."*[25]

Risk-based capital has aided this process, but the FSB's examination should consider the extent to which blunter measures can serve to unwind this progress.

[25] Basel Committee on Banking Supervision, *Compensation Principles and Standards Methodology*, January 2010.

Appendix 2: Return on Equity

While some in the official sector and academia persist in a belief that financial institutions' ROEs can adjust downwards, the reality is that shareholders are continuing to demand higher ROEs.

The annual *IIF/EY Annual Risk Management Survey* attests to the continued pressure that investors are applying, with 79% pushing for increases in ROE in 2015, growing slightly to 82% in 2016. This highlights the continued reluctance of investors to accept lower ROEs, despite the reduction of risk brought about by much higher capital and liquidity buffers.[26]

These studies' results point to continued reluctance by investors to accept lower ROEs despite the improvement in resilience that is the fundamental aim of the Basel III reforms.

Banks have lowered their ROE targets from pre-crisis levels – whereas more than 70% of banks targeted ROEs of above 15% then, there were 63% of G-SIFIs and 40% of non-G-SIFIs targeting returns of 10%–15% in 2015. However, many banks are finding even these new lower target levels of ROE hard to achieve. Indeed, many banks have a cost of capital that is just below, or in some cases just above, actual ROEs.

This pressure from investors to improve performance and increase returns is driving firms to adjust their business models, especially where the higher capital and liquidity buffers have meant that some business lines are now no longer sufficiently profitable. Such changes of business models form an essential backdrop to the evaluation of post-crisis reforms and must be taken fully into account.

[26] IIF/EY, *Rethinking risk management, Banks focus on non-financial risks and accountability*, Sixth annual global risk management survey, 2015; IIF/EY, *A working set of blueprints to deliver sustainable returns*, Seventh annual global bank risk management survey, 2016.

Appendix 3: Risk-Sensitivity and banks' modeling

Proponents of non-risk-based capital requirements have cited concerns on variances and the credibility of banks' models.

While the IIF accepts that the level of unexplained variation between individual banks' RWA calculations needs to be reduced (and mobilized the IIF RWA Task Force to proactively address this), the BCBS's 2013 Regulatory Consistency Assessment Programme (RCAP) attributed three-quarters of RWA variance to legitimate factors such as "underlying differences in the risk composition of banks' assets", with only one-quarter then attributed to variations in bank and supervisory practices.[27]

Concurrently, there are many areas and scenarios where banks' models have proven to be highly effective. Moody's 2014 & 2015 reviews supported the predictive performance of banks' risk-based models as the basis of the best indicator of potential default through the crisis, observing:

> *"in our failure study, the TCE/ RWA [Tangible Common Equity divided by RWA] measure was the most predictive indicator of failure amongst a number of other measures, including an un-weighted leverage measure."*[28]

Moody's findings are recent, based on data where RWA reflects Basel II/III. In contrast, when Bank of England Executive Director Andrew Haldane argued that risk-based capital ratios were historically no better at predicting bank defaults than a Leverage Ratio, he cited a data sample that ran only up until 2006, prior to the adoption of internal risk models.[29] The so-called "risk-based ratios" that he refers to are those of Basel I – which weren't actually risk-sensitive at all.[30]

Analysis by Global Credit Data (GCD) has demonstrated that banks' models are generally calibrated conservatively, such that their estimates commonly over-state the actual observed default and loss rates. For instance, where corporate default and loss rates increased at the height of the crisis, they always remained below the levels predicted by banks' internal models.[31]

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[27] Basel Committee on Banking Supervision, *Regulatory Capital Assessment Programme (RCAP) – Analysis of Risk-Weighted Assets for Credit Risk in the Banking Book*, July 2013, http://www.bis.org/publ/bcbs256.pdf.
[28] Moody's Investor Service, *Proposed Bank Rating Methodology*, September 9, 2014; and Moody's Investor Service, *Rating Methodology: Banks*, March 16, 2015.
[29] Andrew Haldane, "*The Dog and the Frisbee"* (Speech, Federal Reserve Bank of Kansas City's 366th economic policy symposium, "The Changing Policy Landscape", Jackson Hole, August 31, 2012).
[30] For more details, see both (i) IIF, *Basel's evolution: a retrospective*, April 2016, https://www.iif.com/publication/regulatory-report/basels-evolution-retrospective; and (ii) Patricia Jackson, *Simpler capital requirements versus Risk-based – the evidence,* SUERF (European Money and Finance Forum) Conference Proceedings 2016/2: Banking Reform.
[31] IIF, *IIF Response to Basel Committee Proposal on Internal Modeling for Credit Risk*, June 3, 2016, https://www.iif.com/publication/regulatory-comment-letter/iif-response-basel-committee-proposal-internal-modeling-credit

Appendix 4: Trade Finance

Trade Finance has been a key catalyst for the expansion of international trade over the last century. In terms of its recent economic contribution:

- From 1990 to 2008, international trade grew at approximately twice the rate of global GDP, however over the past 5 years it has lagged global GDP growth
- Developing economies now account for 42% of global trade, and trade between developing and advanced economies is now greater than trade between advanced economies

It is significant that banks facilitate international trade by helping businesses to finance and mitigate the risks associated with importing and exporting components for global supply chains, as well as finished goods and services by providing a range of Trade Finance products, e.g. letters of credit and supply chain finance.

According to the International Chamber of Commerce ("ICC"), bank-intermediated transactions now represent more than a third of world trade.

Trade Finance tends to be low margin business for banks, reflecting the fact that it is:

- low risk;
- short tenor; and
- often self-liquidating (secured on the goods being shipped).

It is therefore critically important to the viability of trade finance that this low-risk profile be appropriately reflected in capital and liquidity metrics. However, the prevailing regulatory treatments are often more in line with a higher risk profile, such as for unsecured lending for financing generic corporate activity. This has been evidenced by the ICC, which has built up a comprehensive database of loss history for Trade Finance since 2008.

Banks' appetite for providing trade finance has reduced as margins become compressed, and as regulatory capital has become scarce. The Asian Development Bank (ADB) estimates the gap between the demand for and supply of Trade Finance to be $1.6 trillion.[32]

The BCBS's regulatory capital proposals for finalizing Basel III (as published) could have a significant adverse impact on Trade Finance, with capital requirements estimated to increase by around 36%. This is not consistent with the low risk nature of this asset class but would be the 'collateral damage' from developing regulatory approaches that ignore the underlying risk characteristics of such products, rather than developing a more tailored approach using the comprehensive loss data available.

[32] Asian Development Bank, *2016 Trade Finance Gaps, Growth, and Jobs Survey*, August 2016, www.adb.org/publications/2016-trade-finance-gaps-growth-and-jobs-survey

Appendix 5: Specific Interaction and Coherence issues

The following lists the initial coherence and calibration issues that were identified by the IIF, and submitted to the BCBS Task Force on Coherence and Calibration in June 2015.[33] These were predominantly assembled around the three themes of market liquidity, risk and banks' balance sheets, and banks' funding bases, as follows:

A5.1 Market Liquidity:

Market liquidity across a range of asset classes is being reduced by the conflux of multiple regulatory initiatives, including:

- Capital –eg. higher capital requirements for trading books; the anticipated changes under the Fundamental Review of the Trading Book; repos and initial margin on derivatives that aren't netted under the Leverage Ratio's calculations; increased buffers that have driven deleveraging, especially on corporate bonds
- Liquidity – where banks are required to hold large stocks of High Quality Liquid Assets (HQLA) such as sovereigns, this encourages holding (rather than trading) such assets, and a preference for sovereigns over other assets
- Funding – NSFR asymmetries on matched-book repos, inventories of securities and derivatives, which deter market-making activities and discourage securities lending transactions
- Structural Reform (eg. Volcker Rule) – a previous PWC study found that 90% of universal banks had either stopped or substantially reduced their proprietary trading
- Proposed post-trade transparency requirements

Of course, there are many forces at work as markets change; however, whereas public sector commenters have stressed the uncertainty of regulatory causality and various interpretative issues, the industry, including the buy-side, has become increasingly concerned about overall market liquidity, more about how it would behave in a crisis than about current business-as-usual conditions. While there has been a lot of discussion of this issue from many quarters, the issues are clearly fundamental and require close attention.

A5.2 Risk and Banks' Balance Sheets

Specific instances of where the coherence of multiple regulatory reforms could lead to increase in banks' risk profiles are as follows:

Issue Description	Potential implications for banks' risk management	Potential market implications
Interaction of RWA (under IRB models), Capital Floors and Leverage Ratio: whilst calibration of the Leverage Ratio and proposed Capital Floors are still to be finalized, there is a risk that if these calibrated at high levels,	Risk-return metrics overshadowed, such that the prevailing regulatory capital metrics mask the true level of risk, undermining efforts to embed a risk culture throughout institutions; banks are incentivized towards riskier	Capital allocation is distorted, favoring weaker credits and with pricing anomalies; Better disclosures could help to mitigate the RWA variance issues, whereas Capital Floors and the

[33] 33 IIF, Letter to BCBS Coherence & Calibration Task Force, June 17, 2015, https://www.iif.com/publication/regulatory-comment-letter/iif-letter-bcbs-taskforce-coherence-and-calibration

Issue Description	Potential implications for banks' risk management	Potential market implications
they will cease to provide complementary "backstop" measures and instead over-ride the risk-based measures	transactions, creating a scenario of adverse selection on credit portfolios; business case for further investment in risk models weakened	Standardized Approach may actually create misleading comparisons between banks
Interaction between the LCR (HQLA requirements) and Leverage Ratio: the LCR requires banks to hold a portfolio of low-risk (and low-yielding) assets (and central bank placements), which are then extended at their full nominal value under the Leverage Ratio	With LCR/HQLA providing a hard constraint, optimizing under the Leverage Ratio in effect requires pursuing high-yield/high-risk assets	Banks are driven towards barbell-shaped portfolios, and away from assets such as Investment-grade corporates in the middle range; shrinking balance sheets will also impacts banks' lending to SMEs
LCR HQLA and Derivatives: collateral requirements are both exacerbating a scarcity of the same assets. Concurrently, the NSFR discourages securities lending transactions that could otherwise provide liquidity and reduce transaction costs in these securities.	Inability to secure high-grade collateral; possible need to loosen liquidity policies or widen asset eligibility; greater use of lower-grade collateral with higher levels of over-collateralization required; banks hold more sovereign risk (concentration) in their balance sheets	Implications for other participants who may be crowded out of HQLA; higher cost of hedging due to use of weaker collateral with larger haircuts; reduced capacity of sovereign debts that authorities can utilize for policy measures
Leverage Ratio and Trading Books: collateral and margin are not considered by the Leverage Ratio	A distorted view of in trading activities is created, not representing the true risk of the business	Distortions to the economics of trading activities could increase the cost of hedging
IRRBB & Derivatives: increased costs of regulatory requirements in hedging interest rate risk, against an increased IRRBB capital requirement if unhedged	The increased cost of hedging may encourage banks to take greater interest rate risk; however, increased IRRBB capital requirements may drive the other way	Increased costs associated with funding; note: national consistency element, given that some nations already have IRRBB capital requirements
IRRBB & FRTB: alignment of potential new regulations	As the proposed approaches for IRRBB and FRTB are refined and calibrated, it is important that these reflect the true underlying risks, and are not over-ridden by standardized approaches that could present a distorted picture	If a standardized approach to IRRBB over-rides modeling of behavioral elements, increased capital requirements could deter the provision of credit

A5.3 Banks' Funding Bases

Issue Description	Potential implications for banks' risk management	Potential market implications
Potential structural reform and stable funding: the potential for banks to be segregated by business function of ring-fenced with stable retail deposit funding separated from other business lines	Loss of diversification in funding-bases	Institutional banking operations required to fund from long-term wholesale debt (for LCR/NSFR compliance), causing an increase in funding costs; possible lower yields for retail depositors
LCR/NSFR funding imperatives and TLAC: whereas the LCR & NSFR emphasize the stable value of retail and operational deposits as a funding source, the FSB's TLAC proposals require banks to increase issuance of subordinated debt-type instruments, even for banks that are fully funded with stable deposits and equity	Where banks are compelled to issue subordinated debt that they otherwise have no need for, they may then have to expand their balance sheet, and find assets where their surplus sub-debt funding can be deployed – to offset the cost and maximize returns under the Leverage Ratio, these may be riskier assets	Higher funding costs, potentially reflected in lending costs; reduced incentive to take retail deposit funding (perhaps lower margins paid for deposits); could crowd out non-financials from raising funds from the debt markets
NSFR & Derivatives: whilst the NSFR requires longer funding tenors, there are higher CVA capital requirements for longer-dated hedging; CVA sensitivities are greatest for hedges that are longer-dated and involve a principal exchange, such as Cross-Currency Swaps	These have a compounding impact on banks that raise funding offshore, such as in economies that lack sufficient pools of domestic savings. The deterring costs of long-dated cross-currency swaps may encourage banks to either (i) take greater FX risk (go unhedged), or (ii) pursue more local funding where possible (increase funding concentration risk)	Higher cost of funding, for those banks that rely on sourcing from offshore, such as in many Emerging Markets; Also higher hedging costs for corporates that raise funding offshore

There are interdependencies between the NSFR and RWA requirements (for instance, the application of RSF values according to a 35% threshold of mortgages risk-weighs), which may need to be reviewed depending on the eventual outcome of current RWA consultations.

A5.4 Sovereigns

- LCR-HQLA requirements and capital requirements: potential increases in risk-weights on sovereign exposures may encourage banks to shift their liquidity portfolios towards other assets, perhaps weakening the quality of those portfolios; potential Pillar 1 requirements for Interest Rate Risk could add to such impetus

- Increased capital requirements for sovereign exposures may add to the impetus for banks to balance their overall credit portfolio (and optimize return metrics) with greater high-risk/high-yield assets
- Potential concentration caps: where there have been suggestions to introduce concentration caps on banks' exposure to a particular sovereign, this could contradict HQLA requirements, particularly in markets that lack markets of alternate (private) liquid securities
- Home-host aggregation treatments, where multi-national firms are required to hold local sovereign assets in each of their subsidiaries' liquidity portfolios; this can sometimes see low (or zero) risk-weights apply at the subsidiary level, but not when aggregated at the group-level. This issue extends beyond sovereigns in some jurisdictions, to also include Level 2 liquid assets and potentially cumulative levels of additional buffers.