

# Global Regulatory Network

## Executive Briefing

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## The likely path for Basel capital requirements – piecemeal change rather than Basel IV?

by Patricia Jackson

### Introduction

This paper takes stock of the changes in international minimum capital requirements currently underway or likely to be agreed this year – the Basel Committee is trying to complete all unfinished business in this area by end-2016. This new set of requirements is labeled by some as Basel IV, but it is really too piecemeal to be regarded as a new standard. There are many parts to the changes, which all need to be considered: the leverage ratio, the Fundamental Review of the Trading Book (FRTB) final rules, counterparty risk, Interest Rate Risk in the Banking Book (IRBB), risk-sensitive standardized approaches for trading books and credit, modeling for credit risk and operational risk, and total loss-absorbing capacity (TLAC). Taken together, however, the changes mean two things for banks: more work and, for the larger banks, more capital.

Since the finalization of Basel III,<sup>1</sup> which set higher capital buffers and demanded higher-quality capital (as well as creating a new liquidity regime), the Basel Committee has continued to work on different aspects of the detailed capital requirements. These changes will not affect the capital-to-risk-weighted assets ratios (RWAs) set by Basel III, but they will have a substantial effect on the size of the RWAs against which capital has to be held and, therefore, the total quantum of bank capital.

<sup>1</sup> Basel Committee on Banking Supervision (BCBS), *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010.



The future path of capital requirements has been clarified by several Basel Committee publications in recent weeks. In mid-January, the Committee published the final FRTB rules,<sup>2</sup> and a statement was published following the meeting of central bank governors and heads of supervision endorsing the Committee's capital program and providing further detail on the changes.<sup>3</sup> In addition, in December, the Committee released a new consultation paper on the standardized approach to credit risk.<sup>4</sup>

This paper looks at the changes that have been announced, as well as those still under consideration, and the implications for banks. The areas of change cover three broad themes:

1. Unfinished business has led to a significant volume of change. For example, the swift changes to the market risk requirements and securitization treatments immediately post-crisis were seen as stopgap measures, and a fundamental review of the FRTB was launched. It was focused in particular on the treatment of the relative liquidity or illiquidity of different instruments (and the banking book/trading book boundary), as well as a more consistent approach to modeling tail risks within market risk portfolios. Another area of unfinished business was the bankwide leverage ratio.
2. Credible standardized approaches were seen as necessary to underpin the modeled approaches for credit risk, counterparty risk, operational risk, and in the FRTB, market risk. These would make it possible for a bank to be asked to move from a modeled to a standardized approach for the regulatory capital calculations if there were concerns over the quality of its internal models. Improved approaches would also make floors using a standardized approach more risk-sensitive. Under the FRTB, it has been stated explicitly that the standardized will be a floor against the modeled-position risk requirements.
3. Consistency of capital requirements across banks was raised as an important issue, with consideration being given to the use of internal ratings-based (IRB) models for credit risk and a focus on comparability of results. This may entail some portfolios being taken out of the IRB scope and the introduction of floors on certain parameters in the models.

It is clear that the changes announced to date and the path of future changes will drive capital requirements for banks yet higher. The earlier FRTB proposals seemed likely to push the capital of some banks up substantially. The Basel Committee has recalibrated parts of the FRTB framework in the light of Quantitative Impact Studies (QIS) and has made changes that reduce some of the more extreme effects. Nonetheless, the Committee's estimates point to 40% being added to capital requirements (on a weighted-average basis, weighted by the size of the bank) for trading books. This will intensify the business model changes that have been a pronounced feature of the markets over the past few years, with a reduction in the number of firms willing to hold positions and market-make. Likewise, the introduction of floors within IRB models (under consideration) could also affect credit activity by pushing capital on some lending higher than the risks, with knock-on effects for business model change. Further changes in capital requirements are also being considered for counterparty risk and operational risk.

All banks will be affected, both large international banks and those more locally focused. Although for some low-risk banks on the standardized approaches, such as mortgage banks with very low loan-to-value (LTV) mortgages, there could be reductions in the capital required as the non-modeled approaches become more risk-sensitive, other standardized approach banks will see increases. Some requirements, such as total loss-absorbing capacity, are focused at an international level on systemically important banks, but some jurisdictions may widen the application. The effects on individual banks will also be influenced by the way that internationally agreed standards are implemented in different jurisdictions. In the US, for example, the stress testing Comprehensive Capital Analysis and Review (CCAR) approach will continue to be the main

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<sup>2</sup> BCBS, *Minimum capital requirements for market risk*, January 2016.

<sup>3</sup> BCBS, "Revised market risk framework and work programme for Basel Committee is endorsed by its governing body – Press release," January 2016.

<sup>4</sup> BCBS, *Revisions to the Standardised Approach for credit risk – second consultative document*, December 2015.



determinant of minimum capital. This paper focuses on the international standards rather than on regional implementation.

Another aspect of major importance to the industry is the time and effort that will be required to implement the requirements already announced, as well as the further changes to come. The FRTB changes in particular will be onerous to implement in a number of respects. The EY/IIF risk management survey of major financial institutions, *Rethinking risk management: banks focus on non-financial risks and accountability*, published in October 2015, has already highlighted that regulatory compliance was seen as a dominant area of focus for CROs.

The Committee is linking the use of models to the quality of risk governance in banks, which aligns with the overall enhanced focus on the quality of governance. In the FRTB rules, the Committee makes clear that the use of internal models is contingent on the bank's risk management system being conceptually sound and implemented with integrity. This goes beyond just the modeling capability. In that area, too, the requirements have intensified. Banks must have sufficient staff skilled in the use of sophisticated models in the trading area, risk control functions, audit and, if necessary, the back office. The models have to have a proven track record in measuring risk, and there must be regular stress testing. Furthermore, FRTB introduces more granular regulatory focus and scrutiny on bank trading activity – in particular, on specific trading desk performance and corresponding internal model eligibility.

Further details of proposed revisions to the capital requirements are likely to be published after the Committee's March meeting.

The rules on TLAC also interact with the Basel minimum capital requirements, and this aspect, too, is explored below.

## **Leverage ratio**

The leverage ratio will be based on a Tier 1 definition of capital and will have a minimum level of 3% although there may be higher requirements for systemically important banks. The calibration will be finalized in 2016 and implemented as a Pillar 1 measure by 1 January 2018.<sup>5</sup>

## **Market risk requirements: Fundamental Trading Book Review**

The final market risk rules, published on 14 January, follow four consultation papers on the outcome of the FRTB papers and corresponding QIS over recent years.<sup>6</sup> The principal features of the revised framework include:

- ▶ A revised trading book and banking book boundary
- ▶ Revised internal models and standardized approaches for market risk
- ▶ A move to expected shortfall from a value-at-risk (VaR) measure
- ▶ Incorporation of the risk of market or instrument illiquidity
- ▶ Desk-level internal model eligibility criteria

The revised framework will come into effect by 1 January 2019 with bank reporting by end-2019. Relative to the post-crisis Basel 2.5 market risk requirements, this represents a significant change, not least, to the elements included in the trading book. There has been a substantial tightening in the banking book/trading book boundary to reduce the scope for regulatory arbitrage across the boundary. There will be strict constraints on the movement of instruments between books and, if the move of an instrument is approved by a regulator and results in a reduction in capital required for a bank, the capital change will be re-imposed

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<sup>5</sup> BCBS, "Revised market risk framework and work programme for Basel Committee is endorsed by its governing body – Press release," January 2016.

<sup>6</sup> BCBS, *Minimum capital requirements for market risk*, January 2016.



through a fixed add-on. Certain instruments will have to be assigned to the banking book – including unlisted equities, instruments being warehoused for securitization, real estate holdings, and retail and SME credit. In addition, FRTB sets out far more prescriptive trading-intent criteria than are currently required for instruments included in the trading book.

With regard to the modeling of market risk, Basel 2.5 had introduced Stress VaR in addition to VaR for position risk. Now, FRTB changes the approach once again to expected shortfall, focused on the magnitude of the tail of the loss distribution and calibrated to a period of market stress. VaR has now been dropped completely.

To use an internal model for position risk, banks have to go through a number of new sequential steps:

1. A qualitative and quantitative assessment will be made of the bank's firmwide internal risk capital model.
2. If the bank's firmwide internal risk capital model is approved, the bank will be required to nominate which trading desks are in or out of the scope of the internal model – those designated as out of scope will have capital requirements calculated using the regulatory standardized approach.
3. Once a trading desk has been nominated for inclusion in the scope of an internal model, an assessment will be made of the performance of that model for that desk, with clear thresholds for breaches of P&L attribution and backtesting.
4. For all trading desks for which internal models have been approved, an individual risk factor analysis is required to demonstrate that sufficient real data points are available to assess liquidity across the range of instruments traded by the desk. For those without sufficient data points, risk factors would have to be modeled separately.
5. If a desk's models pass the tests, then the expected shortfall approach can be used with an additional default risk charge added on, and a stressed capital add-on must also be included for non-modelable risk factors. However, failure at any step would require the desk to use the standardized approach.

The standardized approach is itself complex, requiring the calculation of risk sensitivities as well as the inclusion of a standardized default risk charge, similar to the banking book, and an additional residual risk add-on, to capture other risk factors.

The QIS on the earlier consultation proposals indicated that some banks would face very large increases in capital requirements. The industry also highlighted that the very long maximum liquidity horizons proposed would result in capital requirements far in excess of the risks faced, as did the securitization treatments. This has led the Committee to rethink some of the details in the proposals, and the key changes that have been made are set out below. For the most part, these reduce the requirements relative to earlier proposals, but even so, capital will rise significantly for many banks. The Committee estimates that, on a weighted-average basis (weighted by size of bank), capital required on trading books will be 40% higher. For some banks, trading book requirements might be only 10% or less of their total capital requirements, but for investment banks it is a much larger proportion. FRTB will therefore have a considerable effect on the total capital required for some banks.



The key revisions to the framework since the previous consultation paper, published in June 2015, are summarized in the following table.

Framework component	Summary of revisions made	Capital impact
Internal Models Liquidity Horizons	A cut in the maximum liquidity horizon across major asset classes (equity, credit and FX)	Reduction in market risk capital requirements relative to previous proposal
Regulatory Capital Multiplier	The capital multiplier to be applied to the internal model capital requirement has been increased from 1 to 1.5. This will now only be applied to the expected shortfall component – it will not be applied to the add-on for non-modelable risk. The upper level of the backtesting multiplier has also been increased from 0.33 to 0.5.	Increase in market risk capital requirements relative to the previous proposal
Standardized Approach – Residual Risk Add-on	The add-on for other (residual) risks in the standardized approach of 1.0% of the notional value of instruments will now only be applied where the underlying is an exotic instrument	Reduction in market risk capital requirements relative to the previous proposal
Standardized Approach – Securitizations (non-correlation trading)	Securitization risk weights were reduced significantly across the relevant buckets (new requirements approximately four times less in some cases)	Reduction in market risk capital requirements

The implementation of the rules will present a number of organizational and infrastructure challenges, including:

- ▶ Increased hardware requirements to support the number of (re)valuations and prescriptive calculations needed under the new framework
- ▶ Increased market and reference data sourcing and quality procedures to meet “real-price” criteria
- ▶ Significant new model development and existing model enhancements to capture new eligibility test outcomes and revised capital calculations at the prescribed level of granularity

The new standardized approach will be difficult for all banks to implement because it is highly prescriptive and will most likely require marked enhancement to current data, data attributes and processes in banks.

## Counterparty risk

The treatment of counterparty credit risk (CCR), the risk associated with the uncertain future exposure on derivatives and repo-like transactions, has already been subject to substantial change under Basel III in response to the financial crisis, and further changes are going to be made.

Basel III introduced a new “credit valuation adjustment (CVA) volatility” charge and more stringent requirements for firms using their own models as an immediate means to rectify what were seen as deficiencies in the capital rules that surfaced during the crisis. However, in line with the FRTB, since finalizing Basel III, the Committee has worked on a more risk-sensitive standardized approach for counterparty risk than the current one, as well as more a fundamental review of the requirements.



For counterparty risk, the new standardized approach (SA-CCR) was finalized in March 2014 and is due to be applicable to all derivatives contracts (not repo-like transactions) from January 2017.<sup>7</sup> There is, however, some uncertainty around timelines at jurisdiction level (US, EU and others). The SA-CCR approach plays a material role in the calculation of large exposures, capital requirements (CCR and CVA) and the leverage ratio of banks. It will also indirectly impact capital held by banks that are clearing members.

The SA-CCR has generally been welcomed by the industry as a more risk-sensitive approach than the existing standardized approach. In particular, it can lead to materially lower exposure estimates for margined trades. It can, however, be more punitive for some types of exposure, in particular for un-margined, long-dated trades that are not part of a netting set. It also introduces a minimum exposure floor that cannot be offset by collateral, potentially impacting intra-group risk transfer arrangements in some banks. Revisions to the credit risk mitigation framework have also been proposed, which would make the use of the SA-CCR compulsory for collateralized OTC derivatives (instead of the Internal Model Method, for example). Other internal model approaches could also be disallowed for some transactions, e.g., VaR for certain securities financing transactions (SFTs), as well as own estimates of haircuts for calculating capital requirements.

The new calculation logic introduced by the SA-CCR requires new data inputs compared with the current standardized approach for CCR, particularly with respect to margin terms and position data, which some banks may find challenging to implement. It is an approach with many steps to complete.

The Committee is currently reviewing the CVA treatment and will be producing updated proposals for change in 2016. The CVA is being changed in line with the FRTB framework to introduce the use of the new standardized approach for position risk and the expected shortfall approach in place of VaR. The proposal currently also includes an extension of the trade population in the scope of the charge, extension of the recognition of CVA hedges and a proposal to leverage the banks' own accounting-based CVA. It will also be a multi-step approach under the latest proposals. If a bank does not have a dedicated CVA desk or cannot pass other tests (such as modeling of CVA sensitivities), then a basic CVA approach will be used. If a bank passes the tests, then the FRTB framework will be used. It is too early to say what the effect of this will be.

## **Interest rate risk in the banking book**

For over 25 years, the Basel Committee has been debating whether interest rate risk in the banking book should carry a Pillar 1 minimum capital charge. This has again been under review. The expectation is that the Committee will decide to maintain the Pillar 2 approach (i.e., the capital required is set bank by bank by the home supervisor) but is likely to enforce greater standardization of the assumptions used in modeling the risk.

## **Credit risk**

The two credit risk topics that preoccupied the Committee for much of 2015 were how to create a credible standardized approach for credit risk and whether and how the IRB approach should be adjusted to create greater simplicity and comparability.

At different times there have clearly been different camps, with some calling for an end to IRB modeling and others wishing to retain it. Given the distortions caused by non-risk-sensitive capital requirements, the pendulum has swung to retaining the IRB but with consideration of floors or constraints for some models. This work is underway and is planned to be completed before year-end. This is likely to result in some difficult-to-model portfolios, such as sovereign or very low default, being excluded from the IRB. It could also result in constraints on some parameters in models although this could create distortions in capital relative to risk. In the US, reliance will still be placed on CCAR stress testing rather than IRB models.

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<sup>7</sup> BCBS, *The standardized approach for measuring counterparty credit risk exposures*, March 2014.



The moves in both position risk and counterparty risk toward adding to the requirements around model usage are also likely to be mirrored in the changes on credit risk.

One intractable problem faced by the Committee was how to create a risk-sensitive standardized approach without using external ratings. In December, the Committee published a second consultation document (with comments due back by 11 March 2016).<sup>8</sup> Whereas the earlier consultation paper had set out an approach that avoided the use of ratings by turning instead to a limited number of indicators of borrower credit worthiness, such as leverage, the December paper acknowledged that this was not the best way forward and reintroduced ratings (subject to due diligence requirements).

For exposure to banks, a two-stage process is required under the proposals. A base risk weight would be determined based on the external rating (excluding government support) using a lookup table. The risk weights in the lookup table per rating are the same as those in the original Basel II standardized (including preferential weights for short-term interbank), with the exception that unrated exposures will be subject to a new approach. However, where there is an external rating, banks also have to carry out due diligence on the counterparty to ensure the external rating is conservative, which might result in an increase of the risk weight.

For unrated exposures, or exposures to banks incorporated in jurisdictions that do not allow ratings, credit worthiness would be assessed by the bank and the exposure would be allocated to Grades A, B or C, subject to laid-down criteria.

For corporates, the approach in jurisdictions allowing ratings is again to determine a base risk weight according to the rating, with due diligence to assess if it should be higher. The requirements are again the same per rating as in the Basel II standardized.

For unrated corporate exposures, the bank would assign a 100% weight – unless the exposure was in default. For banks in jurisdictions that do not allow the use of ratings, a 75% risk weight would be assigned to exposures to counterparties that meet the criteria laid down by the Committee for “investment grade.” All others would be 100% unless in default.

For SMEs, a risk weight of 85% is proposed. This would bring the risk weight closer to that from the IRB for many banks.

For specialized lending, it is proposed that issue-specific external ratings should be used. Where a rating is not available, or not allowed, object or commodity finance would have a risk weight of 120%, and for project finance, the weighting would be 150% for the pre-operational phase and 100% in the operational phase.

The paper proposes that all loans related to real estate, including specialized lending, be in the same asset class. A three-category risk classification from less to more risky is proposed:

- ▶ Repayment is not materially dependent on rent/sale of the property.
- ▶ Repayment is materially dependent on cash flows generated by the property.
- ▶ The exposure relates to land acquisition, development and construction.

The consultation paper does not set out a standardized approach for sovereigns and other public sector entities, which are being considered under a broader review of these exposures, including the use of IRB.

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<sup>8</sup> BCBS, *Revisions to the standardised approach for credit risk – second consultative document*, December 2015.



In a major departure from the Basel II standardized approach, there would be a granular approach to LTV, with significant variation in risk weights, for residential mortgages and commercial properties. With regard to residential mortgages, for loans with an LTV of less than 40%, the risk weight could be 25%, for example, less than the current standardized, but on loans with LTVs of 90% to 100%, it would be 55%. However, to apply these risk weights, a range of criteria, from enforceability to prudent valuation and documentation, would have to be met. There would also be a test based on whether repayment was materially dependent on cash flows, with higher risk weights applying to those that are.

For non-mortgage retail loans, a flat 75% weight is proposed, which is the same as the current treatment. If loans do not meet all the criteria for the retail classification, then a 100% risk weight would apply.

The table below compares the standardized proposals with the Basel II standardized currently in place.

#### Comparison of the current Basel II standardized approach and the latest proposals

Corporate							
Current standardized approach	Credit risk assessment	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	Unrated	
	Risk weight	20%	50%	100%	150%	100%	
Latest proposals <sup>9</sup>	Unchanged						
Interbank							
Current standardized approach	Credit risk assessment of counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
	Risk weight	20%	50%	50%	100%	150%	50%
	Risk weight for short-term claims	20%	20%	20%	50%	150%	20%
Latest proposals	Unchanged						Gradings A to C apply
Latest proposals (for unrated counterparty exposure or banks incorporated in jurisdictions that do not allow the use of external ratings)	Credit assessment of counterparty	Grade A		Grade B		Grade C	
	Risk weight	50%		100%		150%	
	Risk weight for short-term claims	20%		50%		150%	

<sup>9</sup> For corporate exposures of banks incorporated in jurisdictions that do not allow external ratings, or where they are not available, banks will apply a 100% risk weight.



Residential mortgages exposures							
Current standardized approach	Risk weight	35%					
Latest proposals (repayment is not materially dependent on cash flows generated by property)	LTV ratio	LTV ≤ 40%	40% ≤ LTV < 60%	60% < LTV ≤ 80%	80% < LTV ≤ 90%	90% < LTV ≤ 100%	LTV > 100%
	Risk weight	25%	30%	35%	45%	55%	RW counterparty <sup>10</sup>
Latest proposals (repayment is materially dependent on cash flows generated by property)	LTV ratio	LTV ≤ 60%		60% < LTV ≤ 80%	LTV > 80%		
	Risk weight	70%		90%	120%		
Commercial real estate exposures							
Current standardized approach	Risk weight	100%					
Latest proposals (repayment is not materially dependent on cash flows generated by property)	LTV ratio	LTV ≤ 60%			LTV > 60%		
	Risk weight	Min (60%, RW of counterparty)			RW counterparty <sup>11</sup>		
Latest proposals (repayment is materially dependent on cash flows generated by property)	LTV ratio	LTV ≤ 60%		60% < LTV ≤ 80%		LTV > 80%	
	Risk weight	80%		100%		130%	
Latest proposal (land acquisition, development and construction)	Risk weight	150%					

<sup>10</sup> For residential real estate exposures to individuals with an LTV ratio higher than 100%, the risk weight applied will be 75%. For residential real estate exposures to SMEs with an LTV ratio higher than 100%, the risk weight applied will be 85%.

<sup>11</sup> For commercial real estate exposures to individuals with an LTV ratio higher than 100%, the risk weight applied will be 75%. For commercial real estate exposures to SMEs with an LTV ratio higher than 100%, the risk weight applied will be 85%.



Other retail		
Current standardized approach	Risk weight	75%
Latest proposals	Unchanged	

The standardized approach will be finalized in 2016 and will be an important determinant of bank capital requirements given its likely use as a floor underpinning the IRB. The calibration of the floor will be decided this year.

### Operational risk

Operational risk was not directly implicated in the causes of the financial crisis and therefore was not included in the first wave of changes to the capital regime. However, the conduct failings that have come to light since the crisis, with resulting large operational losses for some banks because of fines and remediation, have called into question the Basel II approaches currently being used. Substantial variations have been uncovered in the advanced modeling approach (AMA) across banks, and the Basel Committee is considering moving away from the AMA completely.

On the other hand, simpler approaches based on gross income bear little or no relationship to the operational risk they are measuring, except as an overall measure of the size of the bank. In October 2014, the Committee published a consultation paper stating that the findings from a fundamental review of the simple operational risk approaches showed that, on average, all three approaches – basic indicator, standardized and alternative standardized – are under-calibrated.<sup>12</sup> They also found that the AMA capital approaches were benchmarked against these under-calibrated simpler approaches.

In the light of these findings, the Committee investigated more than 20 potential benchmarks for their sensitivity to operational risk exposure. They found that a business indicator (consisting of the components of the income statement – interest component, services component and financial component) was the most suitable replacement for gross income. They also found a non-linear relationship between the amount of capital required to cover exposure to operational risk and the size of the bank, pointing to the need for size to be taken into account.

In March this year the Basel Committee released a new consultation paper on operational risk.<sup>13</sup>

This proposes an end to the use of internal bank models for operational risk on grounds of complexity and lack of comparability arising from a variety of different modeling practices. The committee is now suggesting a single standardized approach, the SMA. This combines the Business Indicator (the BI), which is a simple financial statement proxy for operational risk exposure with bank-specific loss data.

The recent analysis carried out by the Committee has been used to adjust the BI relative to the current gross income measure. In the future, unlike in the calculation of the current gross income figure, only positive values of the income components will be included – so that losses in some part of the business do not reduce the BI. Other changes have been made of a similar nature. Further, the structure of the BI has been adjusted following the earlier consultation to avoid too large capital requirements caused by net interest margin being high to cover credit risk or for banks with high fee revenues and expenses.

Banks are divided into bands according to their BI with a separate calculation for the BI component for each band.

<sup>12</sup> BCBS, *Operational risk – Revisions to the simpler approaches – consultative document*, October 2014.

<sup>13</sup> BCBS, *Standardised Measurement Approach for operational risk – Consultative Document*, March 2016



Bucket	BI range	BI component
1	€0-1b	$0.11 * BI$
2	€1b-3b	$€110m + 0.15(BI - €1b)$
3	€3b-10b	$€410m + 0.19(BI - €3b)$
4	€10b-30b	$€1.74b + 0.23(BI - €10b)$
5	€30b+	$€6.34b + 0.29(BI - €30b)$

The marginal effect of the BI is greater for the higher bands. For banks in buckets 2 to 5, the calculation is in two parts:

- ▶ The base line level of operational risk capital is calculated using the BI component measure.
- ▶ In the second step for all banks above bucket 1, there is an adjustment for the bank's loss experience based on a function supplied by the Committee, in order to differentiate between banks with different risk profiles. Banks will have to have 10 years of good quality loss data (meeting laid-down standards) to calculate the averages used in the loss component. In a transition period, banks may be able to use five years of data. SMA capital for these banks will be a function of the BI component and loss history. Comments have been requested by 3 June 2016. The exposure relates to land acquisition, development and construction.

### Total loss-absorbing capacity

For global systemically important banks (G-SIBs), the TLAC rules must also be considered – not only must capital be sufficient to reduce the likelihood of failure (under the Basel rules), but there must also be sufficient loss-absorbing and recapitalization capacity available to implement orderly resolution. The Financial Stability Board (FSB) has set out the principles and term sheet.<sup>14</sup> In Europe, Minimum Requirement for Own Funds and Eligible Liabilities (MREL) amounts will be set bank by bank for all banks, with the first requirements for a small subset of banks likely to be set in Q3 2016. Over time, for the largest banks, these requirements are likely to be aligned with the TLAC requirements whereas for smaller banks, MREL may not be required.

<sup>14</sup> Financial Stability Board, *Total Loss Absorbing Capacity (TLAC) Principles and Term Sheet*, November 2015.



Under the FSB term sheet, minimum TLAC must be equivalent to at least 16% of the bank’s RWAs from 1 January 2019 and at least 18% from 1 January 2022. There is also a TLAC leverage requirement: TLAC/total assets (total assets as defined in the Basel III leverage denominator) must be at least 6% by 2019. Instruments that count toward the TLAC must be subordinated to non-TLAC liabilities and junior in the creditor hierarchy to those liabilities. The Basel III capital (Tier 1 or Tier 2) needed for the minimum capital requirements can be used as part of the TLAC, but not the common equity Tier 1 capital held for the variable capital buffers, capital conservation, the G-SIB surcharge and countercyclical buffers, designed to be utilized in stress periods and therefore not necessarily available in resolution. The following minimum capital amounts laid down by Basel III, therefore, count toward the TLAC:

- ▶ Common Equity Tier 1 (CET1) must be at least 4.5% of risk-weighted assets at all times.
- ▶ Tier 1 Capital must be at least 6.0% of risk-weighted assets at all times.
- ▶ Total Capital (Tier 1 Capital plus Tier 2 Capital) must be at least 8.0% of risk-weighted assets at all times.

This means that, of the 16% TLAC requirement from 2019, half could be met by Tier 1 and Tier 2 capital held to meet the minimum requirements. However, the TLAC rules do lay down extra provisions that have to be met by debt instruments even if they are fully Tier 1 or Tier 2 compliant – see below.

	TLAC-compliant
Common Equity Tier 1	Fully counts
Other Tier 1 and Tier 2 instruments	Must meet TLAC legal jurisdiction requirements
	TLAC requirements around instruments issued by subsidiaries
	Cannot be funded by a party related to the resolution entity
	Must meet TLAC rules regarding capital instruments issued by entities forming part of a material subgroup
From 2022	Tier 1 or Tier 2 instruments must be issued from the resolution entity

In actuality, most large banks would carry internally derived equity buffers in excess of the total of the minimum required CET1 Capital (i.e., the minimum capital plus variable capital buffers). These excess CET1 capital amounts would also, in theory, count against the TLAC requirement. However, another TLAC provision limits the total reliance on CET1 to 66% of the total TLAC requirements. The FSB TLAC term sheet states that, to help ensure that a failed G-SIB has sufficient outstanding long-term debt for absorbing losses and/or effecting a recapitalization in resolution, it is expected that the sum of a G-SIB’s resolution entity or entities, (i) Tier 1 and Tier 2 regulatory capital instruments in the form of debt liabilities, plus (ii) other TLAC-eligible instruments that are not also eligible as regulatory capital, be equal to or greater than 33% of their Minimum TLAC requirements.



G-SIBS will have to hold the following amounts of core Tier 1 capital and other TLAC instruments to meet both the Basel III and TLAC requirements.

<b>CET1 Capital buffers</b>		
Capital conservation buffer	2.5%	
Plus G-SIB buffer	1% to 2.5% (depending on systemic band for the bank)	
Plus countercyclical buffer	Variable over time	For overheating markets 0%–2.5%
Total CET1 capital covering buffers that therefore does not count toward TLAC	3.5%–5%	
Basel III capital that does count toward TLAC	8% (Tier 1 plus Tier 2)	
Extra TLAC capital required	8% (2019)	
Total Basel III capital plus TLAC instruments required	19.5%–21%	

A total Basel III plus TLAC requirement of around 20% of RWAs means that for many banks (with RWAs around half of total assets), 10% of funding going forward would have to be from capital and TLAC instruments.

## Overall implications

There are significant implications for firms and markets of the likely path for capital requirements. Capital requirements, which have already undergone a necessary and substantial step change under Basel III, are moving steadily higher with the further changes being made. This year, following the finalization of the market risk requirements, the Committee will also be focused on finalizing the changes to the credit risk requirements (IRB and standardized) and CVA and operational risk (standardized and modeled approaches), as well as IRBB.

The changes are being driven by three separate goals. Much of the granular detail in the changes is to try to ensure that capital requirements for individual exposures are at least as high as the risk. FRTB treatment of the banking book/trading book boundary and liquidity is to deal with the deficiency of the previous VaR regime, which simply assumed that exposures could be sold or hedged in 10 days whereas positions could be highly illiquid. A fail-safe mechanism is also being introduced in a number of areas – for example, with the use of external ratings in the standardized credit risk proposals, banks also have to carry out due diligence to assess if capital needs to be higher. This also highlights the importance being placed on enhancing internal risk assessment processes in the banks. Going forward, poor risk governance and processes may be penalized several ways – through knock-on into model approvals and Pillar 2 requirements.



The Committee has also been working on risk-sensitive standardized approaches to provide more credible fallbacks to modeled approaches and to replace the current Basel I floor. The implication is that they will be more willing to remove a bank's model approvals, making it essential that validation and the approach adopted are robust. In terms of the standardized floors, the Committee sees this as complementing the leverage ratio. The way that floors will work, and their calibration, is also the work of 2016, and this will play a crucial role in the final magnitude of the requirements. For example, it makes a critical difference whether a bank needs to maintain 80% or 90% of the standardized requirements as a floor behind the IRB. The third area of focus is comparability of the IRB with the possibility of yet more floors within the models for certain parameters and the exclusion of some portfolios. Comparability of the counterparty risk models is also in the frame.

It is, however, less than clear why multiple floors are needed and how they will interact – the leverage ratio, standardized floors, floors within models. The real risk is that the floors will create distortions between the capital required on different exposures. Where capital requirements exceed the risk, they cannot be remunerated – for example, on a hedging instrument, a counterparty will not pay more than the hedge is worth in terms of risk transfer. This is likely to lead to banks retreating further from particular exposures and markets. The increases in capital required, caused by changes in detailed capital requirements, also need to be set alongside the effect on available capital of the banks caused by the move to expected loss provisioning under IFRS 9, which will lead to a step change in provisions. In addition, the new requirements for TLAC available in resolution also need to be considered. The latter will have implications for funding costs. By 2022, a combination of Tier 1 and Tier 2 capital instruments and other TLAC debt instruments will need to amount to more than 20% of RWAs. At a minimum, banks will have to sift through their Tier 1 and Tier 2 instruments to try to ensure that, as far as possible, they count toward TLAC (i.e., that the rules on issuing entity and legal jurisdiction as well as other TLAC provisions are met), but for most banks, new TLAC instruments will need to be issued to reach the total.

The industry also needs to be prepared for the amount of work necessary to meet the new requirements, which will affect many aspects of the business, from data and systems to capabilities in the front and back offices and control functions. Over and above this, model validation approaches need to be tightened further, and risk governance quality must provide a convincing platform for use of more sophisticated approaches.

## For additional information

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## EY Global Regulatory Network Executive Team Previous appointments

**Mario Delgado:** FROB (Spanish Banking Resolution Authority) Head of International Coordination and EBA and FSB representative; Spanish Ministry of Economy: Director of Office of the Secretary of State for the Economy in the Economic Affairs; Head of the Spanish Delegation in the Paris Club; Deputy Head of relations with the IMF

**Marie-Hélène Fortés:** Autorité de Contrôle Prudentiel (French Prudential Supervisory Authority); Association Française des Banques (French Banking Association); and French National Institute for Statistics and Economic Studies. She has also held senior roles at a global investment bank

**Dr. Tom Huertas:** UK Financial Services Authority's Executive Committee; Alternate Chair of the European Banking Authority, Basel Committee on Banking Supervision; and Financial Stability Board Resolution Steering Committee

**Patricia Jackson:** Basel Committee Member; Basel II lead; Global Quantitative Impact Studies Committee Chair; Basel II Calibration Subgroup Chair; Head of the Financial Industry and Regulation Division of the Bank of England

**Hidekatsu Koishihara:** Chief inspector and inspection administrator for the Japan Financial Services Agency, Ministry of Finance (MOF) of Japan; Japan's former financial regulator as financial inspector at the Bank Bureau of MOF and Financial Inspection Division; and Minister's Secretariat of MOF

**John Liver:** Divisional Compliance Lead at Barclays; Head of Department, Investment Firm Supervision, and prior roles in enforcement and supervision of investment management, life insurance and pensions at the UK Financial Services Authority and its predecessors. Current EY/UK Financial Conduct Authority relationship lead

**Shane O'Neill** has 20 years' experience in banking, capital markets, asset finance and prudential regulation in CFO, COO, strategy and regulatory roles. As Head of Banking Supervision at the Central Bank of Ireland he influenced restructuring and recapitalization and executed numerous stress tests and asset quality reviews

**Keith Pogson:** Immediate Past President of the Hong Kong Institute of Certified Public Accountants; more than 20 years of experience advising governments and regulators across Asia-Pacific on acquisitions, market entry strategy and due diligence across banking, asset management and securities

**Ted Price:** Deputy Superintendent and Head of Supervision at the Office of the Superintendent of Financial Institutions, Canada, serving on the Senior Supervisors' Group and the Financial Stability Board Supervisory Intensity and Effectiveness Working Group. Prior to OSFI, Ted held senior roles at a global investment bank

**Philip Rodd** has more than 23 years of experience in accounting and risk management, including 13 years in the Asia-Pacific region. His areas of expertise include assisting clients in assessing the impact of regulatory change, implementing compliance initiatives, and responding to regulatory findings

**Marc Saldenberg:** Senior Vice President and Director of Supervisory Policy at Federal Reserve Bank of New York; Basel Committee Member and Liquidity Working Group Co-chair; involved in the development of supervisory expectations for capital planning, liquidity risk management and resolution planning

**David Scott** is involved in addressing emerging regulatory and legislative initiatives and engaging in dialogue with regulators and supervisors on emerging issues. He has worked with a number of large global institutions, most recently on the implementation of the global financial regulatory reform agenda

**Rick Small:** Deputy Assistant Director, Federal Reserve System, Enforcement and Investigations, and Policy Leader for anti-money laundering and sanctions; executive leadership positions overseeing global financial crimes risk and compliance functions at American Express, Citigroup and GE Money; former federal prosecutor

**Judy Vas:** Currently sits on the Hong Kong Takeovers Panel, Takeovers Appeals Committee and the Hong Kong Securities & Investment Institute Examination Committee. Former managing director, Head of Regulatory Affairs and Head of Compliance for Asia (excluding Japan), Goldman Sachs

**Scott Waterhouse** was capital markets lead expert for large banks at the Office of the Comptroller of the Currency (OCC) and Examiner-in-Charge of the OCC's London Office. He coordinated the supervision of trading, treasury and capital markets activities including Dodd-Frank implementation and Basel Committee requirements

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### About the EY Global Regulatory Network

EY's Global Regulatory Network helps our clients find solutions to their regulatory challenges, providing extensive experience, leadership and strategic insights on financial regulation. Led by Dr. Tom Huertas, former Alternate Chair of the European Banking Authority, the network comprises more than 100 former regulators throughout the Americas, Asia and Europe, many with senior regulatory experience, including membership in the Basel Committee, the Financial Stability Board, the European Banking Authority, the Federal Reserve Bank of New York and the Japanese Financial Services Agency. The network enables our clients to understand and adapt to the impact of the changing regulatory landscape, advising on such topics as:

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- ▶ Recovery and resolution
- ▶ Governance
- ▶ Risk culture and controls
- ▶ Structure
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