CRR3 - Output Floor: Implementation as a genuine backstop

Executive Summary

The introduction of the Output Floor is expected to have the single largest impact on the minimum capital requirements banks should hold against unexpected losses. Its purpose is to limit the perceived benefit that banks may derive from the use of internal models in assessing capital requirements compared to those calculated using the standardized approaches. According to the EBA the full implementation of Basel III will result in a minimum shortfall of €124.8 billion for EU banks, with almost one third of the required capital increase attributable to the Output Floor itself. It is therefore crucial that the implementation of the Output Floor reflects the policy intent behind its design: that it function as a genuine backstop to risk based requirements - not a constraint , and that its implementation is consistent with the EU and internationally-made commitment to no significant increase in overall capital requirements in the context of Basel III. This is all the more relevant to ensure banks have sufficient capacity to fund the post-COVID economic recovery.

To this end, **AFME recommends that the Output Floor is applied at the consolidated group level, and the EU adopts a "Parallel Stack Approach" for its calculation described below**.

Output Floor: A Brief Primer

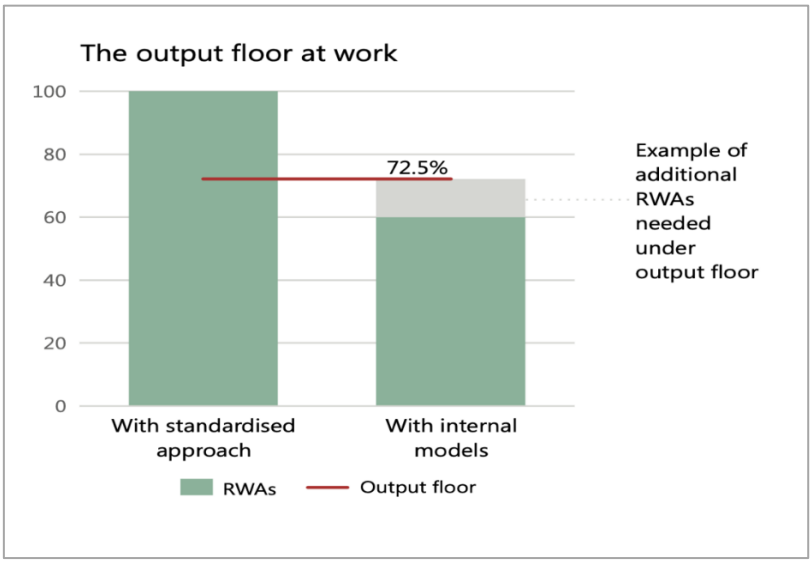
One of the key aims of the Basel III reforms was to introduce measures that would reduce any unwarranted variability in RWAs observed across different banks when using the Internal Ratings Based Approach (IRBA)[1] compared to similar portfolios measured under the Standardized Approach (SA)[2]. To achieve this, in addition to refinements introduced to the risk-based measures (e.g. more risk-sensitive weightings in the credit risk framework), Basel III incorporates two further measures to act as backstops to internal modelling and excessive build-up of leverage, respectively: the output floor and the leverage ratio (which has already been implemented under CRR2).

Specifically, the revised Output Floor, which replaces the capital floor set in Basel I, limits the amount of capital benefit a bank can obtain from its use of internal models, relative to using the standardised approaches. Banks' calculations of RWAs generated by internal models cannot, in aggregate, fall below 72.5% of the risk-weighted assets computed by the standardised approaches.

The Output Floor will also be phased in over 5 years, thus, taking into account the internationally agreed delay of one year to Basel implementation, means the full 72.5% limit should in practice apply as of 1 Jan 2028.[3] Nonetheless, market expectations often result in banks having to apply measures as soon as they enter into

[1] Internal ratings-based models: internal models used for the calculation of capital requirements, for the use of which approval must be sought by supervisors.
[2] Standardized approaches: approaches for calculating capital requirements for which the RWs are set in regulation, and not determined by banks.
[3] The Output Floor will be phased in starting with a 50% floor on 1 Jan 2023 and rising incrementally by 5% each year until 1 Jan 2028 when the 72.5% will fully apply.

force, because market analysts look at the end state position rather than giving banks the benefit that they will be able to reach targeted levels over the permitted transition period.

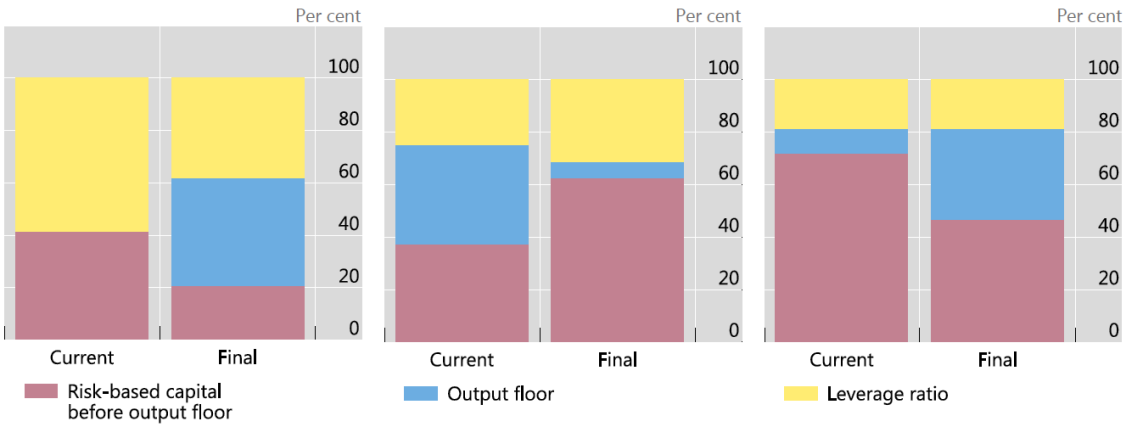


In combination with the risk-based changes introduced in the credit risk framework - namely increases in RWAs for unrated corporates, Secured Financing Transactions, equity exposures, and more – it is expected that the Output Floor will have the greatest single impact on European banks of any of the reforms in the final December 2017 agreement. Notably:

- According to the EBA's Advice[4], there would be an increase in minimum capital requirements (MRC) and related capital shortfall (relative to current Tier 1 MRC) of 8.6% points.
- The Basel III monitoring report of October 2019[5] shows that, due to their use of IRBs, 80% of the largest internationally active European banks would be bound by the Output Floor or the Leverage Ratio) rather than the risk-based requirements.

Percentage of banks constrained by different parts of the framework, by region

Group 1 banks — Graph 73



Source: BCBS (N.B. the absence of any impact of a floor in Europe currently is due to the fact the Basel 1 floor no longer applies)

The impact of the Output Floor must also be considered alongside the restrictions in the use of IRB approaches introduced by Basel III, which will lead to further increases in capital requirements. Beyond the credit risk framework, the Output Floor is expected to negatively interact with the calculation of RWAs under other parts

[4] https://eba.europa.eu/eba-advises-the-european-commission-on-the-implementation-of-the-final-basel-iii-framework
[5] https://www.bis.org/bcbs/publ/d477.pdf

of the Capital Requirements Regulation , such as the new Standardized Approach to Counterparty Credit Risk (SA-CCR), where the interaction was never considered as this approach was developed prior to the conception of the Output Floor.

At the same time, since 2015 other measures have been developed to address unwarranted variability in RWAs, such as the **ECB's Targeted Review of Internal Models** (TRIM) and **the EBA's repair work for internal risk-based approach** (IRB repair).

These developments have significantly overhauled how banks use their internal models and have set common EU supervisory approaches to assessing banks' methodology for doing so. EU banks have actively and positively engaged in the development and implementation of these reforms, pre-empting to some extent the objective of the Output Floor and rendering it largely duplicative. Indeed, according to the EBA's 2019 Annual Assessment of the Consistency of Internal Model Outcomes[6] significant progress has been made in terms of accounting for variabilities. The report highlighted that for both the IRB approach and the SA, a top-down analysis of the default mix (share of defaulted exposures) and the portfolio mix (the share of regulatory (sub) exposure classes) **explain more than 70% of the observed variability**, thereby negating the need for a further new backstop to tackle RWA variability

Implementing the Output Floor

AFME's recommendations for the implementation of the Output Floor fall under two broad categories. The first one relates to **the method of its calculation**, and the second one to **the level of application.**

1. Calculation Approaches: The "Parallel Stack"

In its Call for Advice on the Basel III Reforms, focused on the Output Floor, and submitted on 2 August, 2019[7], the EBA sets out three possible approaches for the calculation of the Output Floor – the Main and Alternative Approaches (please see Box 1), and the "Parallel Stack" Approach.

The Parallel Stack approach gets its name from the fact that it would require the calculation of two sets (or stacks) of capital requirements. The first stack would be the product of Floored RWAs i.e. RWAs based on an overall limit equivalent to 72.5% of those calculated under the Standardised Approach and the capital requirements set at Basel, while the second stack would include internally modelled RWAs, capital requirements set at Basel, and capital requirements set by the CRR which, , includes the EU-specific Systemic Risk Buffer (SyRB) and Pillar 2 requirements. as further described in Box 1 below.

The Output Floor would then be determined based off of the stack with the highest amount:

$$\text{Max}\left\{\text{Floored RWAs} \times \sum \begin{array}{c}\textbf{Pillar 1 Requirements}\\(4{,}5\%/6\%/8\%)\\\textbf{Conservation Buffer}\\(2{,}5\%)\\\textbf{Countercyclical Buffer}\\(\%\ \text{applicable})\\\textbf{G - SIIs Buffer}\\(\%\ \text{applicable})\end{array}\ ;\ \text{IRB RWAs} \times \sum \begin{array}{c}\textbf{Pillar 1 Requirements}\\(4{,}5\%/6\%/8\%)\\\textbf{Pillar 2 Requirements}\\(SREP\%)\\\textbf{Conservation Buffer}\\(2{,}5\%)\\\textbf{Countercyclical Buffer}\\(\%\ \text{applicable})\\\textbf{G - SIIs/O - SIIs Buffer}\\(\%\ \text{applicable})\\\textbf{Systemic Buffer}\\(\%\ \text{applicable})\end{array}\right\}$$

Basel – based stack **CRR-based stack**

[6] https://eba.europa.eu/eba-releases-its-annual-assessment-consistency-internal-model-outcomes
[7] https://eba.europa.eu/sites/default/documents/files/documents/10180/2886865/d00198e3-82ab-4bc8-bb4b-8d95e7e777c1/Policy%20Advice%20on%20Basel%20III%20Reforms%20-%20Output%20Floor.pdf?retry=1

AFME considers this approach to be the one most aligned with the intention and drafting of the Basel floor and providing a true 'backstop', and simpler when compared to the Main and Alternative Approaches proposed by the EBA (See Box 1). Nonetheless, the Parallel Stack approach has come under the most criticism by supervisors for potentially being non-Basel compliant, as it would only require a comparison between two capital stacks, meaning potentially the floor will not be applied at all times if the sum of the non-floored internally modelled capital requirements is higher. This has been refuted by analysis of the Legal High Committee for Financial Markets of Paris[8] which has determined the Parallel Stack is indeed legally compliant with Basel III which only requires banks to apply the *"maximum of"* either the floor or the modelled RWA. Moreover, there is some concern from regulators that banks would use elements of the Pillar 2 requirements and the Systemic Risk Buffer (SyRB) which cover "other risks" to meet the Output Floor requirement. However, it has not been set out what these "other risks" might include, nor is it clear how much capital this would amount to as under Pillar 2 as there is no breakdown of what capital is assigned to address the additional risks banks might face under this requirement.

The Parallel Stack approach is the one most likely to reduce any risk of gold-plating of the Output Floor during its implementation. This is because the other two approaches go beyond the Basel III rules in basing the calculation of capital requirements on a consolidated capital stack, **including the EU-based capital requirements** of Pillar 2 and EU-specific capital buffers. However, Basel III only requires the capital floor be calculated based on Basel-based capital requirements and international capital buffers. The addition of EU-specific capital requirements, specifically Pillar 2, would introduce a level of variability between banks' capital ratios that would make comparability difficult – since Pillar 2 capital requirements are bank-specific, and decided by national supervisors, varying greatly by jurisdiction. Moreover, the SyRB is also designed to address macro-systemic risks such as asset bubbles, not model risk. The application of Pillar 2 and the SyRB also range widely between member states[9].

Finally, it should be noted that a faithful Basel implementation is essential in the context of international consistency, given the significant impact for EU banks relative to other parts of the framework.

AFME recommendations on the calculation of the Output Floor

AFME recommends that:

- The "Parallel Stack approach" be adopted uniformly for the calculation of the Output Floor. This should be based on setting own funds based on the higher of:
  i. The capital requirement resulting from the application of the capital ratios that are mentioned in the Basel text (minimum capital requirements, capital conservation buffer, countercyclical capital buffer and G-SII buffer) and the floored RWA ;This; this would not consider the SRB and P2R ; or
  ii. The capital requirement resulting from the application of all capital requirements (including P2R and the SRB) and the RWA stemming from internally modelled approaches.
- The Output Floor, would then be limited to minimum capital requirements set through Pillar 1 and internationally agreed capital buffers so that it is a genuine 'backstop'.
- Given the impact of the floor, the European Commission should investigate and explain why it is so binding for EU banks relative to other parts of the framework. This could be undertaken as part of the impact analysis the Commission is required to do prior to the publication of the CRR3 proposals. In light of this they should also consider whether there are any global consistency implications in terms of outcomes. If any are identified, the EU should consider re-addressing these at the global level, failing which it should be addressed in the EU.

[8] https://www.banque-france.fr/sites/default/files/rapport_28_a.pdf
[9] https://www.bis.org/bcbs/publ/d465.pdf

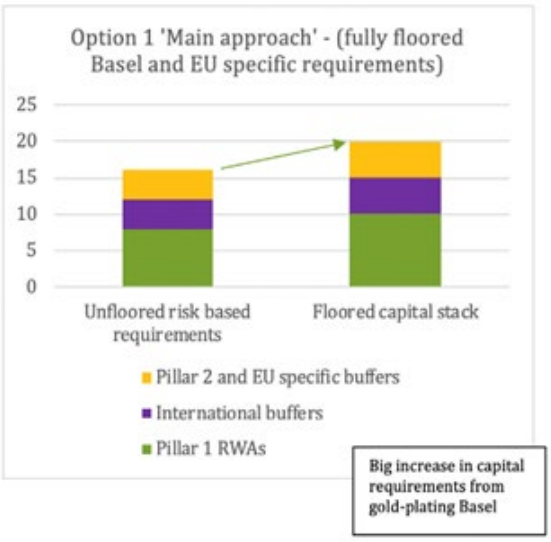
Box 1: Limitations of the Main and Alternative Approaches

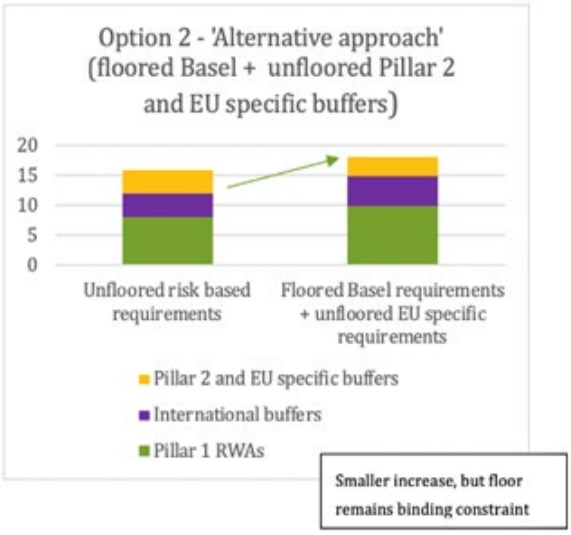
In its Policy Advice on the Output Floor, the EBA described two additional approaches for the calculation of the floor in determining minimum capital requirements – the Main Approach and the Alternative Approach. In brief, the purpose of the different calculation approaches is to determine the extent to which the Output Floor should be applied to the capital requirements set additionally by European regulations (CRR), beyond the ones stipulated at Basel level.

The Main Approach stipulates that the Output Floor must apply to all regulatory capital requirements, including both those set at Basel level, and those set at EU level, hence gold-plating the international agreement. The floor would be the product of two components: floored RWAs and international capital buffers (set by Basel) and the floored capital requirements stemming from EU and banks specific requirements, namely the Systemic Risk Buffer (SyRB), the other systemically important institutions (OSII buffer) and Pillar 2 requirements, which is additional capital set by the supervisor to cover individual bank risks not captured by the CRR.
The Alternative Approach likewise includes all components of the capital stack (both Basel and EU) but applies the floor just to the Basel RWAs and international capital buffers, whereas the EU specific SyRB and Pillar 2 capital requirements are calculated on the basis of the bank's RWAs from internally modelled approaches (meaning this would still be a gold-plating of Basel).

It is AFME's view both these approaches go beyond what was set out in the Basel text in determining the application of the floor so that it acts as a 'backstop'. Indeed, while the EBA has argued that taking into account Pillar 2 and SyRB would make for a simpler EU calculation of the floor, it is our view that neither Pillar 2 or the SyRB are specifically targeted at risk weighted variability which the Output Floor is designed to address.

For more information concerning the estimated increases in capital requirements for EU and US banks, please refer to: the EBA's Basel III Reforms: Impact Study and Key Recommendations.





2. Application of the Output Floor at the Consolidated Level

When the final agreement on Basel III was reached, the only assessment of impact and calculation of the Output Floor was based on analysis calibrated at the consolidated group level. This would imply that the floor should be applied at the aggregate RWA level of the group, and not at the level of each jurisdiction in which a bank has an entity. Indeed, the only empirical analysis of the Output Floor to date has been made on the consolidated basis, apart from limited policy analysis and advice undertaken by the EBA[10], which did demonstrate nonetheless some impact on specific business models including corporative and universal banks.

Should the Output Floor be introduced on an individual entity (solo) level as well as a consolidated level then banks which choose or are obliged to arrange their business model in such a way so as to lower risk, by spreading activities across different subsidiaries may be constrained in doing so. Furthermore, if the Output Floor applied at the level of the regulated entity, it may result in overly penalizing a subsidiary for exposures that are not relevant at a consolidated level. This may result in the Output Floor being more favourable to one business model over another, reducing and limiting the tools banks have at their disposal for the management

[10] https://eba.europa.eu/about-us/missions-and-tasks/calls-for-advice

of their risks, for which subsidiary structure is an important consideration. This is especially the case in Europe, where the universal banking model allows for risks to be diversified at group level. The results of an Output Floor calculation at the solo level would therefore constrain banks wanting to diversify risks, without any practical implications for better risk management and bias a more consolidated business model.

This view has received public support from the SSM. In a recent speech at the November 2019 European Commission hearing on Basel III, Andrea Enria, Chair of the SSM, stated the following, which AFME supports: *"…they should apply it [Output Floor] at the highest level of consolidation. This would be simpler, because each banking group would only have to calculate the output floor once. It would also be in line with our goal of supporting a truly European banking market. If the output floor were to be applied at the individual level, the European banking market would fragment further. This cannot be in our interest."*

Furthermore, from an international perspective, the co-legislators should reflect on the requirement for the level of application of the floor at the global consolidated group level as, in the interests of international consistency, if all global regulators take such an approach it will not be necessary to apply at the level of each jurisdiction in which the bank has an entity.

AFME recommendations on the level of application of the Output Floor

AFME recommends that: The Output Floor be applied at the global consolidated level, in order to ensure it is truly business model-neutral, allow banks to diversify their risks and avoid regulatory fragmentation.