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Whitepaper

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How is the Standardised Approach Floor changing the game for banks?

Highlights

- **Modelled RWA subject to Standardised Approach RWA floor**
- **Impact of the floor is large and geographically diverse**
- **Aggregate floor poses challenges as it complicates marginal contribution analysis, simulation and stress testing**
- **Changes to modelling regulation should be anticipated**

In its effort to reduce the variability in modelled Risk Weighted Assets (RWA), the BCBS has included a Standardised Approach Floor to IRB RWA results in the Basel4 framework. In this article, ElysianNxt examines additional effects of the SA Floor and what challenges lie ahead.

One of the key additions in the Basel4 framework is the SA floor as a back stop to the reported IRB RWA's. The main objective of the floor is to promote the comparability of RWA's across IRB banking institutions by limiting excessive variability of modelled RWAs. It is also believed that the backstop might trigger a more conservative approach towards modelling going forward by reducing the capital relief potential of the IRB approach.

Impact is significant and disperse alike

The impact of the output floor on capital requirements is material as EBA's October Basel 3 monitoring report1 showed a 19.3% increase in Pillar 1 capital requirement after the full Basel 3 reforms are implemented. The capital impact also seems to be stable overtime hovering around 20% across the 3 data sets used in the exercise (Dec 2017, June 2018, Dec 2019). The monitoring exercise also shows that 5.4% if the overall capital impact can be attributed to the Output Floor, making it the single largest driver.

This massive impact on IRB bank's RWA numbers explains the multiple EU-US negotiation rounds on the topic of the output floor before it was penciled in as part of the final package. Geo-political negotiations between US and EU supervisory bodies on the level of the output floor delayed the process. This reflects the differences in the impact of the output floor on the competitive positions of the IRB banks on both sides of the Atlantic. EU's initial position was that 70% was the maximum acceptable level, while the US insisted on a higher level (the Collins Amendment to the Dodd Frank Act introduced a floor to the US banks in any case). The ultimate outcome at 72.5% was generally assumed to be a challenge for EU IRB banks, which seems supported by the impact from EBA's study.

Is modelling for some portfolios still worth it?

Apart from the question on the competitive level playing field aspect, there are other concerns banks might have in relation to the SA output floor;

Firstly, the output floor might trigger banks' senior risk management to reflect on the question whether the cost of maintaining some of their (expensive) IRB models is still worthwhile, given that their capital relieve impact became at least partially irrelevant. This outcome would mean an unsolicited side-effect of the output floor that goes directly against the overall objective of promoting modelling across the board.

[1] EBA, Basel III Monitoring Exercise, Oct 2019

Commented [JD1]: I have a bit the feeling that we are immediately diving in. Maybe we need some kind of opening, short obviously rather then start head long with the topic? Maybe for instance a short intro to ElysianNxt/b.fine or a quote?

Commented [PM2R1]: Agree a good opener is still missing. Any creative thoughts? A quote about something of a floor?

Commented [NTL3R1]: Hi all, I added in an introduction – please feel free to edit or suggest another one, but as a standard on the RiskMinds365 community, we always have an introduction provided.

Practical challenges for simulations

Secondly, the mechanics of the output floor need to be considered carefully given the aggregation level2 of the floor. In a BAU context, this aggregation introduces an unintended complication since the marginal contribution to regulatory capital requirements of an individual deal or (sub-) portfolio is no longer known after the (aggregate) floor kicks in. This might complicate BAU business decision making based on cost of (regulatory) capital parameters.

What about Stress Testing?

Thirdly, a similar challenge lies in the interpretation of bank level stress testing results in a context where the output floor applies. Stressed risk factors have different impacts on capital requirements in the SA and the IRB approach respectively. Therefore, any outcomes of stressed scenarios are uncertain given that both the IRB capital requirement and the SA floor will react to the stressed conditions differently. Similar to BAU, impact analysis of stress scenario's to sub-portfolio levels will equally become complicated in cases where the output floor applies. A similar effect was also described by ECA3 in its conclusion of the 2018 stress test "[…] the bottom-up approach was constrained by imposing a number of caps and floors […]. The EBA did some ad-hoc assessments […] to estimate the impact of these caps and floors on the banks' results. However, given its limited resources, the EBA has not been able to produce a comprehensive overview of the impact of these caps and floors on the results." Even though the ECA refers to the overall lack of transparency on how caps and floors generally impact bottom-up results, it is crystal clear that the introduction of the SA output floor has pushed the issue center stage.

Pillar 2 overlap

Finally, the EBA already pointed out potential challenges and overlaps between the output floor and Pillar 2 stating that it is "[…] important that Pillar 2 and systemic risk buffer decisions are reviewed in a framework that includes the output floor […]". In its final conclusion, the EBA recommended the use of the floored RWA for both Pillar 1 and Pillar 2 requirements and insists that national competent authorities revise their Pillar 2 requirements taking the impact of the Output Floor into consideration. However, EBA refrains from providing guidance on the 'how'-question.

Commented [JD4]: Maybe an angle to look at. Would banks do an analysis on individual transaction level to know which transactions contribute most towards breaching the output floor. For instance a bank might be faced with a breach thus falling back on the output floor but this breach might be caused by a single business line or a limited set of products. Might be interesting for banks to know this and to have some kind of tool available to calculate on the one hand the pro's of holding the positions vs the cost of the output floor being applied?

Commented [PM5R4]: Yes, indeed. I would imagine that this sort of analysis would be useful on the sub-portfolio level. This would indeed require some sort of allocation mechanism.

[2] From the Governors and Heads of Supervision (GHoS) press release, which was published together with the December 2017 revised framework, it was clear that the floor is a single, aggregated floor: 'The reforms endorsed by the GHoS include the following elements: […] an aggregate output floor, which will ensure that banks' risk-weighted assets (RWAs) generated by internal models are no lower than 72.5% of RWAs as calculated by the Basel III framework's standardized approaches […]'.

[3] European Court of Auditors' Special Report "EU-wide stress tests for banks: unparalleled amount of information on banks provided but greater coordination and focus on risks needed", 10 July 2019.

Conclusion

In conclusion, while overall the output floor meets its immediate objective of serving as a backstop against RWA variability, more work lies ahead to work around some of the unintended challenges that it brings with it. Unintended consequences and operational complexities need to be sorted out. Banks should therefore anticipate further regulation to modelling that complement the output floor, also given that loan loss provisioning under IFRS9 seem to suffer from an even greater level of output variability. Even though the most recent Basel framework is based on what is called 'the finalisation package', further work is required on the modelling part of the framework. Banks defining their strategies for compliance with the international regulations like Basel and IFRS should keep the ever-evolving nature of this area of the regulation in mind and make sure their systems and processes allow for a sufficient degree of flexibility and adaptability. In addition, banks should be able to easily assess impacts to model changes to capital and provisioning alike.

About ElysianNxt

ElysianNxt is the pioneer in real-time enterprise wide Risk and Finance solutions for the Financial Industry. It enables Financial Firms to respond faster and more cost effective to the global regulatory trends. With the unparalleled performance and the cutting-edge technology, ElysianNxt managed to convince more than 10 financial institutions in 2018 only, for their adoption of IFRS 9 and Basel IV. Our .NXT platform is highly scalable, flexible and allows real-time simulations and stress tests on millions of contracts in a matter of minutes instead of hours or days.

For the reporting and the eventual submission of the figures to your regulator, ElysianNxt has partnered with b.fine, a disruptive player in the field of regulatory reporting. Like ElysianNxt, b.fine differentiates itself from the current competition by making use of the most recent technology stack and by providing a workflow centric user interface.

Both companies make use of modern proven technologies like React, GraphQL and micro services to deliver a significantly lower total cost of ownership and incomparable performance. A workflow centric approach provides a central place for institutions to collaborate and manage major parts of the regulatory process that are outside of the scope of the current software solutions (review cycles, document management, data governance).

ElysianNxt recently celebrated its 2-year anniversary and already managed to establish a long and diverse list of clients; from the biggest bank in Indonesia over SME lending focused banks to Multi finance institutions. ElysianNxt' headquarters and development center are based in Bangkok, with branches in Jakarta and Brussels.

Commented [JD6]: I don't see any mentioning on the requirement that the output floor also should be used as a sound principle for management, similar to the requirements for LCR and NSFR that EBA put forward. Maybe we could highlight in one way or another that the RWA calculations are no longer a regulatory check in the box but that they more and more become also an operational measure used for steering and being monitored on a continuous basis?

Commented [PM7R6]: Added the last 3 sentences as 'call to action' that is directly linked to the output floor, i.e. flexibility. What do you think?