

Why finalising Basel III is good for the European banking sector

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Basel III is an internationally agreed set of measures to strengthen the regulation, supervision and risk management of banks. Finalising the 2017 agreement will contribute to a banking system that is more resilient and in a better shape to support the real economy. It is possibly the final milestone in the post-crisis reform agenda, and represents a crucial step towards a level playing field for banks internationally. The EU banking sector is particularly sensitive to the conclusion of this process, as solvency ratios will be more affected there than in other jurisdictions.

This paper shows the advantages of adopting a multi-metrics approach to capital measurement, simultaneously using risk-weighted criteria for capital adequacy, the establishment of an output (risk-weighted assets) floor and the deployment of a minimum leverage ratio, as defined in the Basel III finalisation. The complementary use of those metrics brings a far more robust approach to capital measurement since each one may constitute a binding restriction for different banks. Consistent implementation of Basel standards at the global level is fundamental to a sound banking system. It is therefore of the utmost importance that the legislative implementation of the Basel III finalisation in the EU is timely and in full compliance with internationally agreed standards.

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The impact of finalising Basel III on the EU banking sector

In December 2017, the Basel Committee on Banking Supervision, henceforth referred to as the Basel Committee, concluded a review of the regulatory framework for finance² that began in response to the international financial crisis. Its main objective was to create the conditions for a more resilient banking system that is in a better position to support the real economy. The Basel III agreement is a follow-up to earlier accords, Basel I (1988) and Basel II (2004). Although international compliance with its regulatory regime of augmented capital reserves and greater risk transparency/disclosure by banks is voluntary, the EU is implementing the accords into European law, in stages. The final part of the Basel III process, known as *the Basel III finalisation*, was made public on 7 December 2017. It aimed to tighten standards for the calculation of risk-weighted assets (RWAs). As the Basel Committee itself stated:

At the peak of the global financial crisis, a wide range of stakeholders – including academics, analysts and market participants – lost faith in banks’ reported risk-weighted capital ratios. The Committee’s own empirical analysis highlighted a worrying degree of variability in the calculation of RWAs in banks.³

The revisions defined that December by the Basel Committee to restore credibility to the calculation of capital adequacy were as follows: i) enhancing the robustness and risk sensitivity of the standardised approach for calculating credit risk and operational risk to improve the comparability of banks’ capital ratios; ii) further limiting the use of approaches that relied on internal bank models; and iii) complementing the use of risk-weighted capital ratios with the leverage ratio⁴ – finalised with the creation of a leverage ratio buffer applicable to global systemically important banks (G-SIBs) – and the introduction of a revised output floor.

The output floor is one of the key components of the Basel III finalisation. It stipulates that the RWAs obtained from internal models – and used to calculate the Common Equity Tier 1 (CET1)⁵ ratio and other risk-weighted capital measures – may not be, at the end of the implementation period,⁶ less than 72.5% of the total RWAs calculated using only the standardised approaches. Thus, the output floor was introduced to reduce disparity among assessments of risk-weighted assets and to enhance the comparability of risk-weighted capital ratios across banks. The output floor will initially be set at 50% of standardised capital requirements on 1 January 2023 and will then increase by 5 percentage points each year until reaching 70%, before finally increasing to 72.5% in 2028.

² BCBS (2017), “Basel III: Finalising post-crisis reforms”, Basel Committee on Banking Supervision, December 2017.

³ The BCBS also stated the following: “*The unwarranted variation makes it difficult to compare capital ratios across banks and undermines confidence in capital ratios. The reforms will address this to help restore credibility of the risk-based capital framework.*”

⁴ The leverage ratio corresponds to the ratio of Tier 1 capital to the measure of total exposure, including balance sheet assets and off-balance sheet items not weighted by risk. Tier 1 capital includes Additional Tier 1 capital in addition to the Common Equity Tier 1.

⁵ The CET1 ratio measures a bank’s capital against its assets, as weighted by risk.

⁶ The December 2017 agreement defined 1 January 2022 as the implementation date for most of the changes set out in the Basel III finalisation. The only relevant exception is the implementation period for the output floor, which would increase regularly from 50% on 1 January 2022 to 72.5% on 1 January 2027. More recently, on 27 March 2020, the Group of Central Bank Governors and Heads of Supervision (GHOS) postponed these dates for one year, in order to increase the banks’ and supervisors’ operational capacity to respond to the most immediate financial stability priorities resulting from the impact of the Covid-19 pandemic on the global banking system.

The European banking system is particularly sensitive to the Basel III finalisation in terms of the impact on risk-weighted solvency ratios. A recent impact study by the Basel Committee⁷ estimated that Tier 1 capital requirements for large and internationally active European banks, could rise by about 18.1% from where they were in December 2019 as a result of the full implementation of Basel III. This figure compares with a small decrease for banks in the Americas (-0.3%) and a more sizeable decrease in the rest of the world (-6.7%). The corresponding (negative) effect on average CET1 ratios in Europe would be approximately 2.3-2.4 percentage points. The same study also shows that, at the end of December 2019, leverage ratios were lower in Europe (5.3%) than in the Americas and in the rest of the world (6.3% and 6.8%, respectively).

The Basel Committee report also estimates that, for large and internationally active European banks, the introduction of the output floor corresponds to approximately 50% of the estimated increase in the Tier 1 capital requirements. The material impact on the EU banking sector is therefore clear: the output floor serves as an effective tool to reduce the variability in how RWAs are accounted for.

The Basel III finalisation's Tier 1 minimum capital requirements are expected to have a heterogeneous effect among EU institutions, according to their size, their business type and the extent of their reliance on internal modelling. This point is highlighted by a recent study conducted by the European Banking Authority (EBA).⁸ The impact is greater on large and systemically important institutions than on small and medium-sized ones. Regarding a financial institution's particular area of service, on average, mortgage banks are likely to be most affected, followed by, in descending order, cross-border universal banks, public development banks and local universal banks. The overall impact on different banking systems is estimated to vary from approximately +35% (requiring a 35% hike in capital reserves) to -10%, highlighting the markedly different consequences of Basel III across EU countries.

The need to improve the comparability of internal models and to harmonise supervisory practices has been a clear priority for the EBA⁹ and the EU's Single Supervisory Mechanism.¹⁰ The ECB has recently released¹¹ the results of its Targeted Review of Internal Models (TRIM), covering such 200 models across 65 significant institutions, comprising internal models for credit risk, market risk and counterparty credit risk. A significant number of deficiencies ("findings") were identified, requiring significant effort by the institutions concerned to remediate. In particular, the ECB concluded that

it is estimated that the aggregate impact of TRIM limitations and model changes approved as part of TRIM investigations will lead to a 12% increase in the aggregated RWA covered by the models assessed [...] and an average impact of -71 basis points on the CET1 ratios of the in-scope institutions.

⁷ BCBS (2020), *Basel III Monitoring Report*, Basel Committee on Banking Supervision, December 2020. 173 banks were considered, including 105 large internationally active ("Group 1" banks), among them all 30 G-SIBs, and 68 other ("Group 2" banks). The results shown in this commentary refer to large, internationally active banks.

⁸ EBA (2020), *Basel III Reforms: Updated Impact Survey*, December 2020. Results based on data as of 31 December 2019, covering 99 banks from 17 EU countries, corresponding to around 75% of total EU banks' assets.

⁹ The EBA has conducted several reviews on RWAs in the EU banking sector, with the objective of identifying material differences in RWA outcomes, understanding them and formulating policy solutions to enhance consistency between banks' practices.

¹⁰ The ECB launched, at the beginning of 2016, the Targeted Review of Internal Models in close cooperation with the national bank supervisors.

¹¹ ECB (2021), *Targeted Review of Internal Models. Project Report*, ECB Banking Supervision, April 2021.

These results show that, in a significant number of cases, RWAs were not appropriately reflecting the underlying risks, as a consequence of critical shortcomings in some internal models.

The Basel III finalisation may well increase capital costs for banks since solvency requirements are more demanding. However, it also reduces the tail risk of any future financial crisis. The EBA (2019) has concluded, from a macroeconomic point of view, that i) the long-term benefits of the reform are substantial and outweigh the transitory costs, which fade in significance over time, and ii) the reform would mitigate the severity of future economic downturns through a reduction in both the probability and intensity of future banking crises.¹² Thus, the finalisation of Basel III will bring net benefits for EU economies, in terms of higher long-term growth and better resilience in the financial sector.

Summing up, the key messages are that supervisors, market participants and external stakeholders have expressed concerns about the complexity of banks' internal models resulting from i) the opaqueness of the modelling approaches, and ii) the unwarranted variability in the methods of computing regulatory capital requirements. The EU banking sector, as a result of a much higher degree of reliance on internal models, is particularly affected by the implementation of the Basel III finalisation. While there has been some resistance to the introduction of output floors, it is extremely important to incorporate the Basel III finalisation into EU legislation in a manner that is timely and fully compliant with internationally agreed standards. One additional important point, sometimes missed in the debate, is the extraordinary utility of fully implementing a holistic (or multi-metrics) approach to capital measurement as defined by the Basel Committee.

Rationale for a multi-metrics approach to capital measurement¹³

This policy brief makes the point that the use of more than one solvency metric is extremely important to reinforce the resilience of the banking institutions and, as a consequence, the banking system as a whole. A multiple-metrics approach to capital measurement—using simultaneously risk-weighted capital ratios apart from the output floor the output floor and the leverage ratio—brings a much more robust approach to capital measurement, as each one of these metrics may constitute a binding restriction for different banks. As a corollary, a stronger and more integrated role for all these metrics in the EU-wide stress-testing exercises is much needed.

The complementary use of those capital metrics provides a more robust assessment of capital adequacy, in particular, in the cases of banks that use internal models more extensively. Borio, Farag and Tarashev (2020) show that, for a large sample of internationally active banks, each of the metrics – risk-based capital, output floor, and leverage ratio – is binding for a subset of the banks in question (varying from slightly more than 20% to around 40%). This result convincingly illustrates the complementarity and mutually reinforcing nature of those solvency metrics.

The leverage ratio, a measure of a bank's loan portfolio relative to its assets, benefits from its extreme simplicity: it is hard to game, and it is easy to compare across institutions and jurisdictions. Leverage

¹² On this point, see also Enria (2021), "Basel III implementation: the last mile is always the hardest".

¹³ This section has been adapted from Neves (2020), "An encompassing forward-looking approach to increase resilience in the banking sector: a second life for EU stress tests". For the comparison of the properties of the CET1 and the leverage ratio see also Bank of England (2014), "The Financial Policy Committee's review of the leverage ratio", and BCBS (2014), "Capital floors: the design of a framework based on standardized approaches". For the assessment of the relative merits of the output floor see Borio, Farag and Tarashev (2020), "Post-crisis international financial regulatory reforms: a primer".

ratios have played a greater role in stress testing in both the UK and the US than in the EU. Stress tests in the UK and the US have explicitly defined binding hurdles for this metric under stress, which has not been the case for the EU-wide stress test. However, the leverage ratio has some drawbacks as well. In particular, because capital requirements are identical regardless of the degree of risk of the underlying assets, banks seeking to maximize returns on capital have an incentive to concentrate on riskier assets.

Figure 1 below illustrates the relative merits of the risk-weighted capital measures, the output floor and the leverage ratio. Risk-weighted capital measures benefit from the granularity of risk assessment—at the level of each individual asset—mitigates the tendencies toward excessive risk taking (by distinguishing high-risk and low-risk assets, and thereby discouraging an excess accumulation of high-yield assets), and provides incentives for better risk management by banking institutions. Risk-weighted measures subject to an output floor typically share the same pros; because the leverage ratio does not have these characteristics, those are clearly its drawbacks.

The leverage ratio has some points in its favour beyond simplicity of computation. It is also true that the leverage ratio overcomes the problem of zero weights for some assets (like holdings of sovereigns); the leverage ratio provides better protection against risks or uncertainties that are difficult to model (that is, more immune to modelling risk); finally, some empirical evidence shows that the leverage ratio is less pro-cyclical (hence less likely to exacerbate swings in the business cycle) than risk-weighted capital measures. In all those cases, risk-weighted capital measures subject to an output floor tend to share the corresponding shortcomings of the risk-weighted capital measures on their own.

Risk-weighted capital measures are associated with other cons: risk of a boost in financial leverage, at the institution level, by increasing exposure to low-risk-weighted assets; risk of gaming the system and, as result, lack of confidence in the markets regarding the reliability of such capital measures of. Risk-weighted capital measures subject to an output floor go some way toward resolving these issues but not totally. All those concerns make a case for the leverage ratio, which renders comparability simple, overcoming the complexity and lack of transparency under the risk-weighted framework.

It is, however, the case that some of the disadvantages of the risk-weighted capital measures are more adequately compensated for by an output floor than by the leverage ratio. Excessive variation in the valuation of RWAs for the same exposure, extremely low levels of model-based RWAs for certain exposures, and horizontal inequality between standardised and internal model weights are all suitably addressed by risk-weighted capital measures subject to an output floor and are not, or at least not satisfactorily, dealt with by the leverage ratio.

Conclusion

The Basel III finalisation was intended to curb unwarranted variation in the calculation of risk-weighted assets and to develop a more robust assessment of capital adequacy, through the use of complementary solvency metrics. In addition, it promises to bring benefits for the EU economies in terms of higher long-term growth and a more resilient financial sector. Lastly, the implementation of Basel III's provisions will reinforce the concept of a level playing field, both within the EU and globally, through established, internationally consistent standards.

This policy brief highlights the advantages of adopting a multi-metrics approach to capital measurement. Risk-based solvency measures, risk-weighted measures subject to an output floor and the leverage ratio each have their own pros and cons; therefore, none of them provides a consistently accurate picture of capital adequacy. The complementary use of these three capital metrics – since each

one of them may amount to a binding restriction for different banks – offers a more robust view on the sufficiency of banks' capital reserves and therefore contributes to a more resilient banking system.

Consistent implementation of Basel standards is fundamental to a sound banking system. The European Commission is expected to present, later this year, legislative proposals to implement the final package of the Basel reforms. Calls for lenient implementation of the Basel III finalisation in the EU, coming from some segments of the banking sector, are unwarranted. The output floor, in the way defined by the Basel Committee, plays an essential role in the reform, as it contributes to the delineation of a level playing field across the globe, which is indispensable for progress.

As the chair of the Supervisory Board of the European Central Bank has just stated,¹⁴

Postponing or watering down the Basel III standards in European implementation would only crystallise for a longer period of time an undue regulatory benefit for some banks at the expense of others, and with the risk that trust in internal models would completely evaporate in the event of future crisis.

It is therefore of the utmost importance that the legislative implementation of the Basel III finalisation in Europe is timely and fully compliant with well-established, internationally agreed-upon standards.

¹⁴ Enria (2021).

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Figure 1. Capital metrics (pros and cons)

	Risk-weighted Capital Measures	Output Floor	Leverage ratio
Considers risk of individual assets	✓✓	✓✓	xx
Mitigates risk for excessive risk-taking (low incentives to riskier, higher-yield assets)	✓✓	✓✓	xx
Promotes risk management practices	✓✓	✓✓	xx
Simplicity (versus complexity)	xx	xx	✓✓
Treatment of zero RWAs	xx	xx	✓✓
Model risk	xx	xx	✓✓
Pro-cyclicality	xx	xx	✓✓
Risk of building-up of excessive leverage	xx	x	✓✓
Risks of gaming (non-comparability)	xx	x	✓✓
Lack of market confidence in RWAs	xx	x	✓✓
RWAs dispersion and inconsistency	xx	✓✓	x
Low levels of model based RWAs	xx	✓✓	x
Horizontal inequality in RWAs requirements	xx	✓✓	x

Legend: ✓✓ means *pros*; xx means *cons*; x means mitigated *cons*.

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