

BASEL III

Setting a limit to leverage in banking

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Executive Summary

- The Basel III prudential framework (2010) considered the introduction of a restriction on leverage to contain the build-up of excessive leverage in the financial system and serve as a backstop to risk-based capital requirements.
- After mandatory disclosure of the leverage ratio in 2015, the global framework is to be finalised in 2016, in order to be implemented in 2018. In January, the GHOS decided that it should comprise a minimum leverage ratio of 3% and discussed setting additional requirements for G-SIBs. With the aim of finalising the design and calibration, a Basel consultation is currently underway.
- Some jurisdictions have forerun global standard setters and Europe is to decide by End-year on the implementation of mandatory minimum leverage ratio requirements.
- This note reviews the rational and regulatory initiatives to limit banking leverage, highlighting some issues that deserve special attention: Is a minimum leverage ratio of 3% rightly calibrated? Are additional requirements for G-SIBs justified? Would a simple framework be effective? How would banking decision making be affected? Is enough to limit banking leverage or other financial players should also be considered?

A key element of the Basel III framework

The new prudential framework for banks, known as Basel III was issued in 2010 as a reaction to the financial crisis. It considers enhanced bank-level risk-weighted capital requirements as its core element to promote the soundness of banks. But to strengthen the micro-prudential regulation and supervision of credit entities, the Basel III framework has added a macro-prudential overlay to consider additionally systemic risks and for this purpose it incorporates other requirements as is the case of the leverage ratio or of several capital buffers (e.g. countercyclical, systematically important banks). This is complemented by global liquidity standards (LCR and NSFR) to promote both short-term resilience and resilience over a longer time horizon. All these measures contribute to a complex multiple constraints framework, where at least theoretically each measure could offset the shortcomings of the others.

As excessive leverage by banks was believed to have contributed to the global financial crisis, the G20 and the FSB proposed the introduction of a leverage ratio (LR) requirement to contain risks stemming from an excessive size of balance sheets in relation to capita. This new element of the Basel III, that is envisaged as a complement to the risk-based capital framework, serves both micro-prudential and macro-prudential goals: i) **Microprudential perspective:** introducing a backstop to risk-weighted capital requirements ensures that overall exposure, independently of their modelled risk¹, is underpinned by a minimum amount of capital. As excessive leverage could increase the risks faced by an entity and made it more vulnerable to shocks, the introduction of a limit to leverage would improve bank resilience; and ii) **Macroprudential perspective:** restricting the built-up of leverage in the banking sector would prevent destabilising procyclical deleveraging processes that could impact negatively on the broader financial system and the economy. In this vein, a minimum LR requirement would serve as a cyclical backstop to the risk-weighted capital requirements when banks leverage expands more quickly than risk-weighted assets, as has occurred in the past.

1: Risks arising from modeling errors and from unlikely unforeseen events.

First Stage: Pillar 2 approach and mandatory disclosure

Given the novelty of this tool in the global prudential framework, when Basel III saw the light it was decided to postpone until 2018 the introduction of a mandatory Pillar 1 LR requirement, after finalising calibration. In the meantime, risks associated to excessive leverage were kept as part of the supervisory review (Pillar 2) where all risks that entities face are considered. In Europe, the leverage ratio has been part of the Supervisory Review and Evaluation Process (SREP), therefore under Pillar 2, since 2013. CRD IV clarifies that banks should effectively manage the “risk of excessive leverage” – referring to risks resulting from an institution's vulnerability due to leverage that may require unintended corrective measures, including the distressed selling of assets which might result in losses or in valuation adjustments to remaining assets.

Additionally and in order to enhance market discipline, a disclosure mandate was recommended starting in 2015. The Basel III framework set up in 2010 the main characteristics of the leverage ratio framework in order to test a minimum leverage ratio of 3% during the parallel run period (from Jan 2013 to Jan 2017). The definition of the LR was specified to this aim, with Tier 1 capital in the numerator and a measure of total exposure in the denominator that includes both on-balance sheet and off-balance sheet exposures. Based on the results of the parallel run, any final adjustment was to be decided in relation to: i) Final design of the LR both in relation to the capital to be used (Tier 1 versus only capital of the highest quality or CET1) and the exposure measure; ii) Final calibration: consider if a 3% minimum requirement is appropriate over a full credit cycle and for different types of business models.

But in order to facilitate a **harmonised disclosure of the Leverage ratio in 2015**, both the definition of the leverage ratio and the information to be disclosed were defined precisely in advance. Therefore, in **January 2014** the BSBS published final standards² for the leverage ratio framework and disclosure requirements, adopting a package of amendments to the LR's exposure measure with the aim of overcoming differences in national accounting frameworks that had previously prevented ready comparison of bank leverage ratios across Jurisdictions. Additionally, standards were eased in relation to derivatives and SFTs (repos, reverse repos and others), with a favourable impact particularly for investment banks' leverage ratios³. The extent to which certain off-balance sheet exposures are brought back on to the balance sheet for the purposes of calculating the exposure for the LR was also reduced (instead of uniform 100% CCFs, the same factors used in the Standardised Approach for credit risks were adopted, with a floor of 10%), for instance in the case of credit commitments and short-term self-liquidating trade letters of credit, with favourable impact on leverage ratios. See Box 1 at the end for a summary of the Basel III LR framework.

At the same time, a common set of templates was approved to promote consistent disclosure, starting on 1 January 2015. Even if a minimum 3% LR was not set as a minimum prudential requirement, the disclosure further promoted the initiatives of most leveraged entities to strengthen their leverage ratio.

A Pillar 1 approach in 2018: GHOS' decisions on January 2016

At its meeting on 10 January, the Basel Committee's oversight body, the Group of Central Bank Governors and Heads of Supervision (GHOS) discussed the final design and calibration of the leverage ratio, adopting important decisions at this respect:

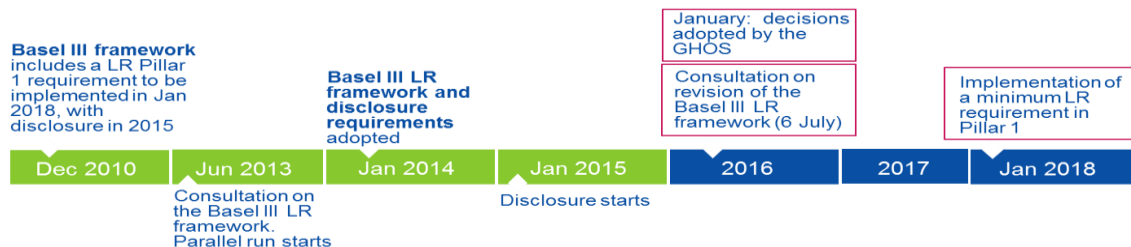
- i) the LR should be based on a Tier 1 definition of capital (discarding the use of CET1)
- ii) it should comprise a minimum level of 3%

2: “Basel III leverage ratio framework and disclosure requirements”. BCBS, January 2014

3: The treatment of derivatives and other off-balance sheet items was questioned due to the various possible interpretations of what constitutes the relevant exposure for computing the leverage ratio. For instance, the application of netting to reduce the exposure measure was widened beyond derivatives to allow a limited netting with the same counterparty in the case of SFTs, where specific conditions are met. Besides, some limited exceptions to the general rule of not allowing mitigation of exposure associated to the reception of collateral have been considered, as in the case of cash variation margin associated with derivative exposures, provided specific conditions are met. Additionally, in the case of central clearing of derivatives, some exposures associated with client-cleared derivatives transactions may be excluded when the bank does not offer guarantees.

- iii) additional requirements for global systemically important banks (G-SIBs) were discussed and
- iv) the calibration will be finalised in 2016 to allow sufficient time for the leverage ratio to be implemented as a Pillar 1 measure by 1 January 2018

Figure 1
Global prudential standards for banking leverage



Source: BBVA Research

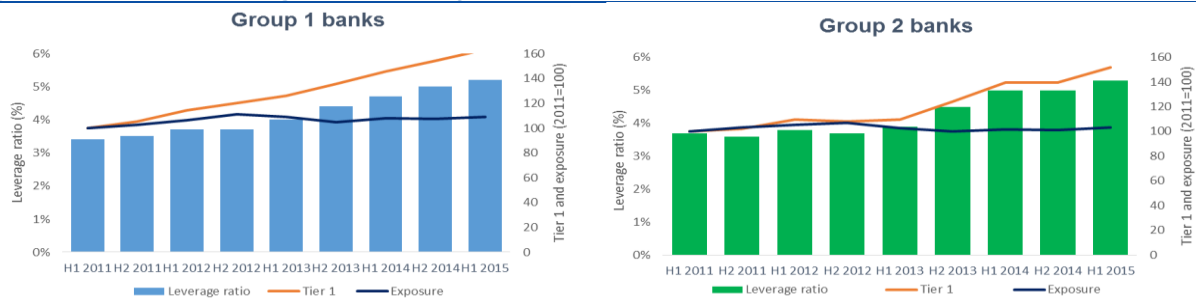
Some questions arise in relation to the decisions taken:

1) is the minimum LR requirement of 3% the right calibration?

For the leverage ratio to act as a “backstop” sometimes it will have to act as a constraint on bank’s behaviour. The minimum leverage ratio should be more capital demanding than the risk-sensitive ratio on at least some banks some of the time. The calibration of the minimum LR has to consider: i) **not be too high**, as risk-based capital requirements should be the main driver of decision making in most cases to prevent the risk of introducing perverse incentives to hold more risky assets and ii) **not be too low** as sometimes it will have to act as a constraint in banks’ behaviour.

The results of the last Basel III monitoring report⁴ show that the weighted average of fully phased-in Basel III Tier 1 leverage ratios is 5.2% for both Group 1 (large internationally active banks) and G-SIBs, while for Group 2 (other banks) the weighted average is 5.4%, well above the minimum 3%. But there is dispersion in the leverage of banks, with 7 banks in the sample not meeting the 3% level⁵, all of them being Group 2 banks. Is then the 3% too low? The answer is not obvious, given the improvements in the leverage ratio in the last years derived from the increase in banks capitalisation, after Tier 1 capital raising to meet the target Tier 1 risk-based capital ratios. A BIS economics paper issued in December 2015⁶ finds that there is considerable room to raise the LR requirement above its original 3% “test” level, within a range of about 4–5%.

Graph 1
Fully phased-in Tier 1 leverage ratios (average ratios for a consistent sample of banks)



Group 1 banks: banks with Tier 1 capital >€3bn and internationally active; Group 2 banks : rest of banks

Source: BBVA Research, based on “Basel III monitoring report. March 2016”

4: “Basel III monitoring report”. BSBS, March 2016.
 5: The minimum LR value observed is as low as 1,1%
 6: Fender, Ingo and Ulf Lewrick, “Calibrating the leverage ratio”, BIS Quarterly Review, December 2015.

An interesting result of the Basel III monitoring report is that for 66 banks out of 207 (that is, 32% of the sample) the 3% minimum LR requires them to hold more capital than the minimum risk-weighted Tier 1 capital ratio of 8,5%⁷, that is to say, the minimum LR is more constraining. Consistency of these figures with the objectives of a LR framework to serve as a backstop, while at the same time the regulators' declared objective of not entailing a significant increase in the overall capital required to the banking sector is preserved, should be assessed. The preliminary results of the quantitative analysis being carried out by the EBA, and unveiled in a public hearing held on 15 April, provide a favourable assessment. Further, the EBA concludes that the potential impact of introducing a 3% leverage ratio requirement on the provision of financing by credit institutions is "relatively moderate when put into the context of the overall size of the banking sector".

2) are additional LR requirements for G-SIBs justified?

In the Basel Committee' opinion, the introduction of higher LR requirement for G-SIBs is advisable to maintain the relative roles of the risk-based ratio and the LR in the regulatory capital framework.

Moreover, the quantitative benchmarking exercise undertaken by EBA, according to the unveiled preliminary results, gives indications for a potentially elevated exposure to "risk of excessive leverage" in the case of the largest and most complex credit institutions, in particular for those that operate the business model of a "cross-border universal bank" and are at the same time G-SIBs. This would justify imposing stricter requirements to G-SIBs, according to this authority.

Although the issue is still to be decided by global standard setters, it seems that it is quite likely that systemically important banks will be subject to additional requirements, as is already the case in the EU for the UK and outside the EU for Switzerland and the US, as shown below.

3) should the LR framework mirror the risk-based framework or be a simpler framework?

The GHOS has agreed on a quite simple framework with a minimum 3% LR requirement that could be complemented with additional requirements in the case of G-SIBs. A simple framework is attractive, so as not to add additional complexity to the current prudential framework. But the alternative approach of setting a more complex framework that mirrors up to a certain point the risk-based approach could also have its benefits. This latter approach has been followed by the UK, that has included a LR countercyclical buffer, in parallel to the risk-based countercyclical buffer (CCB), in order to reinforce the macro-prudential countercyclical properties of the LR tool⁸. In the same vein, the European Systemic Risk Board⁹ considers that when risk-sensitive capital buffers are adjusted to tackle systemic risks, macro-prudential authorities may consider changing the leverage ratio as well to maintain their complementary roles and the balance of the overall capital framework.

Some jurisdictions have forerun global standard setters

Some jurisdictions have anticipated global rules, adopting measures that differ across them. US banks are currently subject to a LR 4% minimum requirement to be met with Tier 1 capital, where LR definition is not consistent with Basel's (e.g. only on-balance sheet is considered). Additionally, as part of the US implementation of Basel III framework, a minimum Tier 1 LR requirement of 3% was introduced in US legislation in 2013 and was subsequently revised to align it with Basel standards of 2014. It is mandatory

7: The 8,5% is the sum of the 6% minimum Tier1 requirement and the 2,5% capital conservation buffer.

8: A fixed minimum LR requirement serves as a cyclical backstop to risk-weighted requirement if banks' leverage expands more strongly than the RWAs during a boom, as has been observed in the past. If a countercyclical LR buffer requirement is added during periods of excessive growth and released when systemic risks materialise, the effectiveness of the measure would be strengthened. Conversely, imposing macro-prudential CCBs without corresponding LR countercyclical requirements could have no impact on banks that remain constrained by the LR, diminishing the role of the leverage ratio in the overall capital framework.

9: "The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector. Addendum: Macroprudential Leverage Ratios", June 2015.

since 2018 and applies only to large and internationally active banks (on-balance sheet greater than \$250bn or foreign exposure greater than \$10bn). For the 8 US top-tier BHCs (Bank Holding Companies with more than \$700bn in assets or more than \$10tn in assets under custody), a strengthened LR standard was adopted in April 2014, requiring an additional 2% capital buffer to avoid restrictions on capital distributions and discretionary bonus payments. Additionally, the insured depository institution (IDI) subsidiaries of those covered BHCs must maintain at least a 6% leverage ratio to be considered "well capitalised" under the agencies' prompt corrective action framework.

In the case of UK a symmetrical leverage ratio framework, that mimics to a large degree the design of the risk-based capital framework, has been adopted instead of choosing a simpler framework. It includes both minimum capital requirements and LR capital buffers. The 7 major UK banks and Building societies¹⁰ are under the scope of the UK Leverage ratio framework that entered into force on 1 January 2016. Those entities are subject to a minimum LR requirement of 3%, to be met with Tier 1 capital. But some restrictions are included in order to promote a high "going concern" loss absorbency of this Tier 1 capital: at least 75% of it should be CET1 capital (equity instruments) and for AdT1 instruments to be included they have to be "high trigger"¹¹ instruments. Additionally, those entities have to meet the time varying Countercyclical LR requirement with CET1 capital equal to 35% of the applicable risk-based Countercyclical capital buffer, reinforcing in this way the macro-prudential objective of mitigating the pro-cyclical behaviour of credit institutions. Furthermore, to address the risk of excessive leverage for the group of firms that are the most systemically important for the UK financial system, additional LR buffers (ALRB) are considered for G-SIBs¹². The consequences of not meeting the buffers will not be an automatic restriction in distributions, but the obligation to notify the PRA and submit a capital plan for restoring the capital levels.

Figure 2
Leverage ratio frameworks for G-SIBs

	LR requirements for G-SIBs	When
US	Min 3% (Tier 1) plus fixed Tier 1 buffer for all G-SIBs BHCs (2%)	2018
UK	Min 3% (Tier 1) plus variable CET1 buffers: i) Countercyclical LR buffer (35% of the risk-sensitive CCB) and ii) additional LR buffer for G-SIBs. Restrictions for AdT1 instruments: Only "high trigger"*, subject to 25% limit	2016
Switzerland	Min 5% (Tier 1). Restrictions for AdT1 instruments: Only "high trigger"*, subject to 33,3% limit	Phase-in until End- 2019

* "High trigger" refers to Contingent Convertible instruments than convert into equity, or are written down , when the CET1 ratio of the issuer falls to 7% (or higher trigger)

Source: BBVA Research

As regards Switzerland, the Swiss "too big to fail regime" was significantly strengthened in October 2015 with the decision to require a minimum leverage ratio of 5% to global systemically important banks (UBS and Credit Suisse). At least 3.5% of this must be held in the form of CET1 and the remainder with Tier 1 instruments, which would be converted or written down if the CET1 ratio falls below 7% ("high trigger" instruments). This capital requirement will be phased in linearly over the period until the end of 2019.

We will have to wait to see if final global standards, in the case of their being less demanding, are implemented in these jurisdictions or if more restrictive rules for G-SIBs are maintained, for instance in the case of USA or Switzerland, gold-plating the global recommendations.

10: Those with retail deposits equal to or greater than £50bn (Barclays, HSBC, Lloyds, Nationwide, Royal Bank of Scotland, Santander UK and Standard Chartered).

11: CoCos or other hybrid instruments that have to convert into CET1 or be written down when the CET1 ratio of the entity equals or is greater than 7%.

12: The UK Leverage ratio framework does not currently include an ALRB for D-SIBs. But the PRA expects to apply it to a subset of UK D-SIBs (those that are subject to a Systemic Risk Buffer).

Pending issues for a Pillar 1 approach in 2018: New BCBS's consultation

Following the decision of the GHOS in January, on 6 April 2016 the Committee released a consultation document¹³ with proposed revisions to the Basel III leverage ratio framework informed by the monitoring process, by market feedback and by the ongoing Q&As process. Among the issues subject to revision are the measurement of derivative exposures, the treatment of unsettled purchases/sales of financial assets, revision of credit-conversion factors for off-balance sheet items and additional requirements for G-SIBs. But current disclosures of the LR, which are based on the 2014 standards, are not going to be affected until 2018 when the new framework enters into force.

Figure 3

Basel III LR framework & current consultation (until 6 July)

A Objectives	<ul style="list-style-type: none"> • Reinforce the risk-based requirement with a simple “backstop” • Restrict the build-up of leverage in the banking sector
B Principles	<ul style="list-style-type: none"> • As much consistency as possible with the rest of the Basel framework • Non risk sensitive measure: not take into account collaterals, guarantees or other risk mitigation techniques to reduce the leverage exposure. But some exceptions allowed for trading activities
C Pillar 1 minimum LR	<ul style="list-style-type: none"> • Numerator: Tier 1 capital • Denominator: Exposure measure (revision under consultation) • Minimum level: 3% • GSIBs: additional requirements (under consultation) • When? January 2018

Source: BBVA Research

In relation to **derivative exposures**, several modifications are being proposed that allow a further consideration of netting and margining practices, with the expected outcome - disclosure of the impact still pending - of reducing the exposure amount to be considered for the LR and thus potentially benefiting entities active in those markets, such as investment banks.

Figure 4

Revision of the measurement of derivative exposures

1	Counterparty exposure	➔	Instead of CME use SA-CRR. For PFE, margining can be reflected in the potential shorter time horizon (5 -10 days)
2	Client clearing business	➔	Seeks comments/evidence before deciding a preferential treatment (further recognition of collateral posted by clients to banks).
3	Clarification of “currency of settlement” (CVM)	➔	Instead of being discarded, CVM to be subject to a FX haircut where the currency of the CVM does not match the “termination currency” of the netting set.
4	Written credit derivatives	➔	Additional criterion for eligible hedges: exclude credit protection purchased from a counterparty that is connected or highly correlated with the reference obligation

CEM: Current exposure method; CVM: Cash Variation Margin; PFE: Potential Future Exposure

Source: BBVA Research

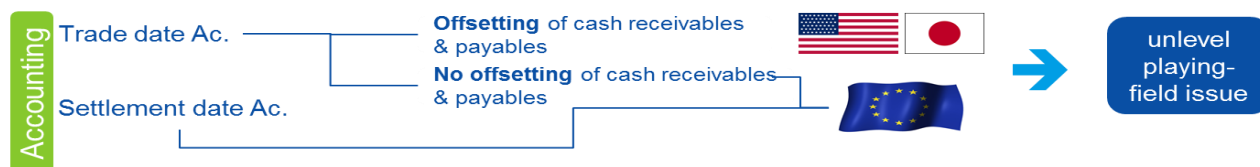
With respect to the exposures associated to regular-way **purchases/sales of financial assets not settled yet**¹⁴, the revision intends to ensure consistency in the LR measure across jurisdictions with differing accounting standards (e.g. netting of cash receivables and payables allowed in USA, but not in Europe). At the same time, the Committee wants to ensure that the LR exposure measure reflects the leverage associated to trades that have not been settled, with independence of the accounting rules. Two alternatives that iron out accounting differences are being proposed: i) not to allow any offsetting between cash

13: “Consultative Document: Revisions to the Basel III leverage ratio framework”. BCBS, April 2016

14: The delivery of the assets occurs within the time frame established generally by regulation or convention in the marketplace.

receivables and payables (reverse out accounting offsetting in jurisdictions where offsetting is allowed) and ii) allow offsetting but subject to certain conditions being met (being a market-maker, the exposures are part of the regulatory trading book and the settlement is on a delivery-versus-payment basis).

Figure 5
Regular-way unsettled purchases/sales of financial assets



Source: BBVA Research

In the case of off-balance sheet items, the revision of the factors applied to convert them in credit-equivalent amounts (CCFs) intends to align them with the ones used in the risk-sensitive framework for the Standardised Approach (SA), considering the current revision to this latter. This could significantly increase the exposure amount to be considered in the case of commitments (e.g. undrawn credit facilities, including those unconditionally cancellable particularly for corporates), if the proposal included in the 2nd consultation for the revision of the SA is maintained.

Table 1
Off- balance sheet items and revision of CCFs

	Current leverage ratio	Proposed revision
Unconditionally cancellable commitments	10%	10%-20% only retail commitments
Commitments up to 1 year	20%	50% - 75%
Commitments above 1 year	50%	50% - 75%
Short-term self liquidating trade letters of credit (movement of goods)	20%	20%
Note issuance & revolving underwriting facilities	50%	50% - 75%
Certain transaction-related contingent items	50%	50%

Source: BBVA Research

Additionally, some clarifications are provided that will favour consistency in the application of the rules. This is the case of the treatment of provisions, to be deducted from the exposure if they have already been detracted from the Tier 1 capital, in order to avoid double counting.

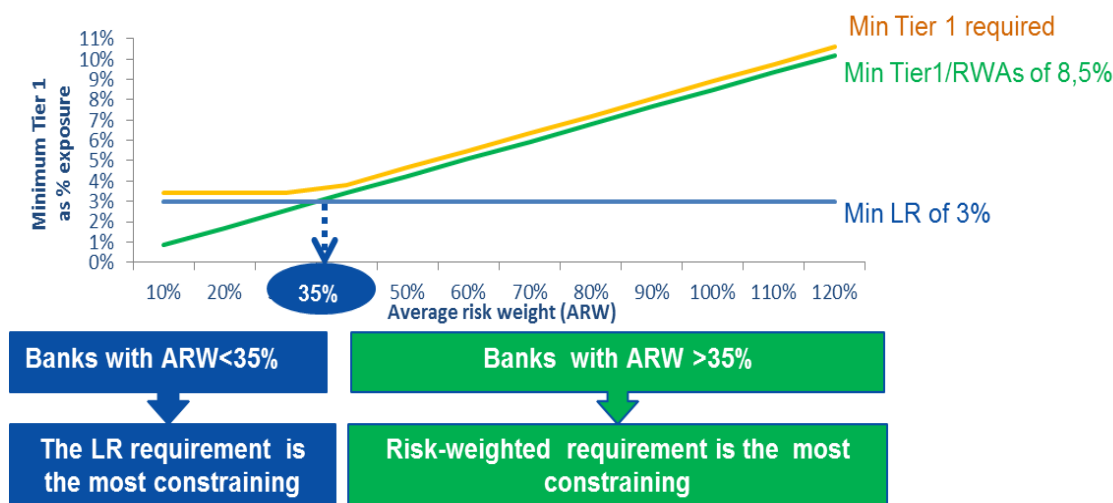
In relation to the additional LR requirements for G-SIBs, the consultation paper does not advance details on the final design or calibration, merely seeking input in relation to different options: i) capital buffers versus higher minimum requirements, ii) fixed for all entities or depending on their systemic relevance, that is considering the risk-based G-SIBs capital buffers currently assigned to each entity (ranging from 1% to 3,5%) and iii) Restrict or not the eligibility of Additional Tier 1 capital, such as the Contingent convertible instruments or CoCos.

Managing banking business with two capital constraints

The introduction of the LR minimum requirement, in addition to the current risk-based capital requirement, raises the question of the need to adapt institutions' decision-making to this additional restriction. Banks thus will face the maximum of the two capital charges and, as can be seen in Figure 7, depending on the entities'

risk profile or average risk weight at a given moment in time (also referred to as density of RWAs¹⁵) the more constraining capital requirement could be the LR or the risk-weighted capital ratio.

Figure 6
Interplay between the LR & the risk-weighted requirement



Source: BBVA Research

A LR framework should ensure that banks do not operate with excessive leverage and at the same time have sufficient incentives for keeping risk-taking in check. But the introduction of a minimum LR has a skewed impact, constraining only those banks with a large share of low-risk weighted assets¹⁶. Following this, a concern that has been raised is that the introduction of a leverage ratio requirement may induce entities constrained by it to increase their risk-taking, potentially offsetting in this way the benefits from requiring them to hold more capital. The underlying reasoning is that entities forced to increase their capital to meet the minimum leverage ratio, could decide to increase their average risks, and expected returns, with zero cost of capital. Nevertheless, additional risk-taking would be subject to the constraint imposed by the risk-weighted capital requirements and empirical research¹⁷ shows that increasing risk-taking is outweighed by the beneficial impact of increased loss-absorbing capacity, resulting in more stable banks.

European course of action

The European Commission (EC) is to decide on the convenience of introducing in the EU a Pillar 1 LR framework, issuing a legislative proposal if necessary. This has to be done by End-year when a report to the Council/Parliament is to be delivered by the EC. With this aim, EBA is preparing its advice to the EC by July in order to respond to key questions: whether to migrate to a Pillar 1 LR regime and what the minimum level or levels should be taking into account business models/risk profiles.

In the [public hearing](#) that took place in April, EBA showed preference for a simple framework, consistent with global standards, whose core element is a minimum requirement of 3% and with additional requirements for G-SIBs. Nevertheless, a preferential treatment could be considered (not decided yet) to accommodate the LR framework to European specificities, in order to preserve certain low risk activities (e.g. very specialised business models such as public development banks).

15: The density of RWAs is defined as RWAs/Assets and can be approximated by Leverage Ratio /Tier 1 risk-weighted ratio.
 16: This can happen on both sides of the spectrum: large investment banks with low average risk weights due to the relevance of the trading book (with daily pricing and short-term investment horizon) and specialised banks (Public development banks, mortgage banks, etc.).
 17: Grill, Michael et al (ECB), "The Leverage Ratio, Risk-taking and Bank Stability", 16 November 2015 (preliminary version). The authors mention the existence of a skin-in-the game effect that can somewhat offset the incentive to increase risk-taking once a bank is bound by the leverage ratio.

Figure 7

EBA's preliminary conclusions (public hearing 15 April)

- | | | |
|---|---|---|
| <p>A 3% level of calibration for the LR is consistent with the objective of a "backstop" measure</p> | ➔ | <ul style="list-style-type: none"> • Moderate impact on the provision of funding by banks • Higher capital requirements than the risk-based 8,5% Tier 1 ratio for 33% of banks in the sample (246) |
| <p>The analysis shows potential different exposition to the Risk of Excessive Leverage (REL*) across business models</p> | ➔ | <ul style="list-style-type: none"> • But difficult to design a differentiated treatment that stays constraining enough • The aim is not to set different minimum LR requirements for different business models in Pillar 1 |
| <p>G-SIIs have a potentially elevated exposure to Risk of Excessive Leverage (REL)</p> | ➔ | <ul style="list-style-type: none"> • Additional requirements would be justified • Current LR : 4,1% (W. average); 4,2% (Median) |
| <p>Need for differentiations in the LR for very specialized business models. No conclusion yet</p> | ➔ | <ul style="list-style-type: none"> • Preferential treatment could be considered to preserve low risk activities • Tier 1 shortfalls remain: Public Development banks, mortgage banks and other specialized banks |

*REL: Risk resulting from the vulnerability due to leverage or contingent leverage that may require unintended corrective measures to its business plan (losses due to distressed selling of assets and valuation adjustment to the other assets)

Source: BBVA Research

Final remarks

A LR capital framework that complements the risk sensitive framework and constraints the practices of excessive leveraging or indebtedness in banking is a valuable element of the Basel III capital framework. But leverage of other financial players should also be closely monitored and curtailed if necessary, given their increasing relevance in the financial system.

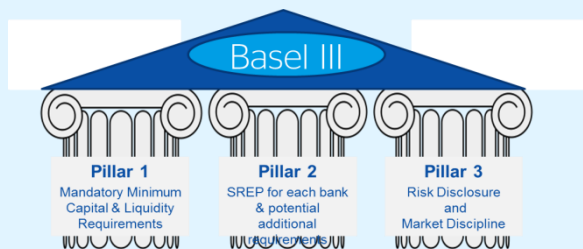
The impact on banks of the 3% LR proposal will be limited since the total shortfall from the new rules has been reduced in recent years due to the increasing capitalisation of banks. Furthermore, with the mandatory disclosure that started in 2015 market pressure was added and promoted further capitalisation in some entities to comply with the minimum standard of 3% unveiled by the Basel Committee since 2010. In the case of entities classified as G-SIBs, all of them comply currently with the 3% requirement. But the decision on more demanding requirements is still pending concretion and could give rise to further capitalisation needs of some of them.

Another issue to be considered is that the leverage ratio also plays an important role to determine the requirement of minimum Total Loss-Absorbing Capacity for G-SIBs to be applied in 2019, following the standards finalised by the FSB in November 2015. The minimum amount of instruments and liabilities¹⁸ that should be readily available for bail in within resolution at G-SIBs has been set at 16% (18% in 2022) of the resolution group's risk-weighted assets and at 6% (6,75% in 2022) of the Basel III LR denominator. The composition of equity and bail-inable instruments to meet these requirements could be influenced by which capital ratio is more constraining for each institution.

18: instruments that can be written down or converted into equity in case of resolution such as CET1, AdT1 and T2, together with long-term unsecured debt, both subordinated and senior.

Box 1. Summary of the Basel III Leverage Ratio framework

Figure B.1.1
Architecture of Basel III



Source: BBVA Research

- **Introduction of a leverage ratio as a supplementary measure to the risk-based capital requirements:** In order to help contain the build-up of excessive leverage in the financial system, serve as the backstop to the risk-based capital requirements and help address model risk, a leverage ratio is introduced, with mandatory disclosure from 2015 and a view to migrating from Pillar 2 to a mandatory Pillar 1 requirement on January 2018, after finalising calibration.
- **Definition of the Basel III Leverage Ratio**

Figure B.1.2
Definition of the leverage ratio

$$\text{Leverage Ratio} = \frac{\text{Tier 1 capital}}{\text{Total exposure}}$$

Source: BBVA Research

Scope of consolidation for the LR computation: prudential consolidation is used instead of accounting rules.

To compute the **total exposure measure**, as a general rule reductions due to physical/financial collateral, guarantees or other credit risk mitigation techniques are not considered. To avoid double counting, assets or items deducted from the numerator can also be deducted from the denominator.

Figure B.1.3
Leverage ratio exposure

1	On-balance sheet exposures	Follows accounting value; net of provisions and other items deducted from Tier 1 not allowed netting loans/deposits
2	Derivatives	Consider exposure associated to the underlying and to the counterparty
3	Securities financial Transactions	Consider both SFT Assets and exposure to the counterparty
4	Off-balance sheet exposures	Same CCFs than in the risk-based approach for credit risk under the Standardized Approach, with a 10% floor

Source: BBVA Research

The **exposure measure for derivatives** considers the sum of the Replacement cost (RC) and the Potential Future exposure (PFE). Collateral received will not be considered to reduce the exposure. Initial Margin received will be treated as collateral and thus not considered. On the contrary, Cash Variation Margin will be considered as pre-settlement and can be used to reduce the PFE if certain conditions are met (exchanged daily, same currency, agreement to settle net). Additionally, if subject to eligible netting agreement is, netting can be considered to reduce exposure, but excluding cross-product netting.

As regards the treatment of exposures arising from **clearing services**, trade exposures to qualifying Central Counterparties (CCP) associated to client-cleared derivative transactions may be excluded if the clearing member does not guarantee to its clients the performance of the CCP or the performance of the trade exposure to the CCP.

As regards **securities financing transactions (SFTs)**¹⁵ the exposure to be considered for LR is the sum of two components: 1) exposure to Gross SFT assets. Securities delivered should be part of the exposure and securities received

15: Including repurchase agreements, reverse repurchase agreements and margin lending transactions

not. Cash payables and receivables with the same counterparty can be netted, if certain conditions are met (same final settlement date, etc.), and 2) exposure to the counterparty, considering the RC but not the PFE, and allowing the reduction in exposure if eligible netting agreements are in place.

Regarding **off-balance sheet exposures**, such as commitments (undrawn credit and liquidity facilities), guarantees, letters of credit, etc., the exposure amount must be calculated

by converting off-balance sheet items into credit exposure equivalents through the use of credit conversion factors (CCFs). The same CCFs will be used than in the Basel risk-based capital framework (under the Standardised Approach for credit risk), but subject to a floor of 10%. This floor of 10% raises the exposure for commitments unconditionally cancellable by the bank at any time, subject to a 0% CCF under the risk-based framework.

Annex

List of Abbreviations

ALRB	Additional Leverage Ratio Buffers
ARW	Average Risk Weight
AdT1	Additional Tier 1 capital
BCBS	Basel Committee on Banking Supervision
BCH	Bank Holding Company
CCB	Countercyclical Capital Buffer
CCF	Credit Conversion Factor
CET1	Common Equity Tier 1 Capital
D-SIB	Domestic Systemically Important Bank
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
GHOS	Group of Central Bank Governors and Heads of Supervision
G-SIB	Global Systemically Important Bank
LCR	Liquidity Coverage Ratio
LR	Leverage Ratio
NSFR	Net Stable Funding Ratio
Q&As	Questions and Answers
RWs	Risk Weights
RWAs	Risk Weighted Assets
SREP	Supervisory Review and Evaluation Process
SA	Standardised Approach
SFT	Securities Financing Transaction
UCC	Unconditionally Cancellable Commitments

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