

# More Details from the Basel Committee Concerning the Basel III Leverage Ratio

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Since 2010, [Basel III](#) (the third in the series of regulatory frameworks for bank capital and risk management agreed by the Basel Committee on Banking Supervision, a forum for international regulatory cooperation with a membership of 27 countries and jurisdictions) has included a regulatory standard for a bank's aggregate leverage ratio. This ratio, which supplements the minimum capital requirements of Basel II for credit, market and operational risk, is a measure of Tier 1 or high-quality capital in relation to on- and off-balance sheet positions and is set at 3 per cent. The ratio is the subject of a detailed specification in a recent consultative document of the Basel Committee on Banking Supervision [[Revised Basel III leverage framework and disclosure requirements, June 2013](#)].

Inclusion of the leverage ratio in Basel III is an attempt by the Basel Committee on Banking Supervision (BCBS) to strengthen the Basel capital framework in response to [criticisms of Basel II and Basel III from several quarters](#), including members of the regulatory community itself, of the framework's reliance on estimates of risk-weighted assets and on banks' own internal models for the purpose of setting capital requirements. According to the critics, the rules of the Basel capital framework gave bank managers excessive scope as to the appropriate amount of capital, with the danger that capital levels could be manipulated to give levels unjustifiably lower for their banks' risks in comparison with Basel I.

These criticisms received support from various non-systematic data on the ratios of estimated risk-weighted assets to assets not so weighted for major banks. The ratios often indicated much lower figures for the former than for the latter, the ratios of risk-weighted to unweighted assets frequently being significantly below 50 per cent and in a few cases as low as 20 per cent ["Minding the GAAP on bank leverage", *The Banker*, January 2012]. A dramatic illustration of the recent trend in the leverage of large United States banks was provided in a recent speech of Thomas Hoenig, a director of the Federal Deposit Insurance Corporation. Historically, Hoenig noted, the ratio of tangible equity (equity without add-ons such as good will, minority interests, deferred taxes and other accounting entities) to tangible assets (all assets less intangibles) varied between 13 and 16 per cent, but by 2007 this ratio had declined to 3.8 per cent. For the ten largest United States banks the ratio had reached a level of only 2.8 per cent, while the ratio of capital to risk-weighted assets, estimated in accord with the Basel capital framework, remained at approximately 11 per cent - a contraction achieved by means of a shrinkage of the denominator of the ratio through the application of increasingly favourable - i.e. low - risk weights to the assets of which the denominator consisted [Thomas Hoenig, "Back to Basics: A Better Alternative to Basel Capital Rules", address to The American Banker Regulatory Symposium; Washington, D.C., September 14, 2012].

A new document of the Basel Committee on Banking Supervision containing an analysis of the weights for credit risk could be taken as indicating the impact of the scope given to bank managers under Basel III regarding the appropriate amount of capital for such risk, although the analysis does not address the question of whether the resulting amounts of capital in relation to risk-weighted assets have been manipulated to provide excessively low figures [[Regulatory Consistency Assessment Programme \(RCAP\): Analysis of risk-weighted assets for credit risk in the banking book, July 2013](#)].

On the basis of a review of both of supervisory data and of banks' replies to a hypothetical portfolio exercise the study indicates substantial variation between banks in the risk weights for credit risk. Much of this variation is ascribed to differences in underlying risk due to variation among banks in the relative shares of different asset classes and in asset composition within asset classes. Nevertheless, a significant amount of the variation also reflected supervisory discretion at national level and differences in banks' choices under the Internal Ratings-Based (IRB) approach under which banks themselves estimate some or all of the figures for the determinants of the risk-weights – choices involving not only the options to banks under the IRB approach but also the specification and data used for the modelling.

Another frequent but related theme of the critics of Basel II and Basel III has been the excessive complexity of its rules. The complexity was highlighted in much discussed remarks last summer of Andrew Haldane, Executive Director, Financial Stability, Bank of England (Andrew Haldane and Victor Madouros, "The dog and the Frisbee", speech at the Federal Reserve Bank of Kansas City's 36th economic policy symposium, "The changing policy landscape, Jackson Hole, Wyoming, 31 August 2012).

In comparison with estimates based on risk-weighted assets, the leverage ratio of Basel III is at the opposite and simple end of the range of capital required in relation to banks' assets, i.e. the degree of leverage permitted to banks by regulation. This measure of banks' exposure is intended to be as far as possible consistent with that in financial accounts.

Thus on-balance-sheet exposures in the denominator are net of specific loss provisions and valuation adjustments. No account is permitted for reduction of such exposures by means of physical or financial collateral, guarantees, or other forms of credit risk mitigation (such as credit derivatives), and no allowance is made for the netting of loans of loans and deposits (i.e. the legal scope for offsetting positive and negative contracts with a counterparty which can reduce a bank's losses in the event of the counterparty's default). Securities financing transactions (a term which denotes mostly short-term secured financing of securities transactions through such instruments as repurchase and reverse repurchase agreements and margin lending) are measured as in financial accounts. Derivatives create two types of exposure: an on-balance sheet present value reflecting the fair value of the contract, which is to be measured according to accounting rules, plus an add-on to cover potential exposure calculated according to the Basel II framework. For both securities financing transactions and derivatives the regulatory netting rules of the Basel II framework are permitted.

Off-balance-sheet exposures include commitments such as liquidity facilities, direct credit substitutes, acceptances, standby and trade letters of credit, and unsettled securities transactions. Owing to the view of the Basel Committee on Banking Supervision that such exposures are a source of potentially significant leverage banks are to include them in the denominator of the leverage ratio at their full value. This implies that they will not benefit from credit conversion factors (i.e. factors used convert off-balance sheet exposures to their loan equivalent) of less than 100 per cent which are used in the estimation of off-balance-sheet exposures' contribution to a bank's risk-weighted assets for the purpose of setting capital requirements under Basel III. The only exception to this rule is commitments unconditionally cancellable at any time by the bank without prior notice to which credit conversion factors of 10 per cent apply.

Variants of the leverage ratio as a regulatory instrument are nothing new (Richard Dale, *The Regulation of International Banking*, 1984, chapter 5). Indeed, such ratios - sometimes in the form of their reciprocal, the gearing ratio - were a standard part of the regulatory armoury in economies with developed financial markets before the completion of the rules of Basel I in 1988. Banks in such jurisdictions were usually subject to rules as to the appropriate relation

between capital, on the one hand, and assets (or sometimes liabilities), on the other. However, there were differences among countries in the degree of prescriptiveness and, in cases where numerical levels were specified, in the way in which the ratios were estimated. Hong Kong SAR, Italy and Japan, for example, relied on regulatory guidelines as to capital adequacy together with monitoring rather than particular levels for the solvency ratio. In the case of European countries with more formal rules there were differences in the risk weights for different categories of asset. These variations in risk weights were associated with variations in the levels of the minimum leverage ratios or maximum gearing ratios in different countries.

The definitions of capital also varied, subordinated debt, for example, being included in capital in some jurisdictions but not in others. Moreover there were also differences in the degree to which banks were regulated on a consolidated basis for the purpose of setting the leverage or gearing ratios. This affected the way in which the rules for the ratios were applied to the constituent banking entities of holding companies.

In the United States federal regulators agencies long monitored capital in relation to risk assets and their quality, banks' growth experience and prospects, and management. Moreover there were distinctions between several different categories of capital (which in the case of "secondary" capital could include certain forms of debt). In 1983 a law directed the federal regulatory agencies to set specific minimum levels of capital for most banks, and the standard chosen was 5.5 per cent of assets. Commenting on this figure, a regulator of the Federal Reserve Bank of New York noted, "there was no magic in this number; it simply reflected the best guess at the time as to the maximum amount that a bank should leverage its capital" (Chester Feldberg, "The development and administration of key prudential policies", chapter 4 of Frederick Schadrack and Leon Korobow (eds.), *The Basic Elements of Bank Supervision*, 1993).

The pre-Basel I variation in national regulatory leverage ratios illustrates how the concept can shape into that of capital requirements in relation to risk-weighted assets, which has subsequently been the core of the quantitative rules for the requirements for banks' credit risk of Basel I, Basel II and Basel III.

One of the objectives of the original Basel capital framework was to bring under a set of more uniform rules such national variation in capital or solvency ratios for banks with major cross-border operations from the main countries with developed financial markets since the variation was believed in some cases to be subject to manipulation with the aim of conferring a competitive advantage on a country's banks. As the Basel framework came to be extended globally to a much larger group of banks, the number of options under its rules designed for banks of different levels of sophistication has also increased. With this development the objective of establishing "a level playing field" for competition among banks through Basel capital rules is given less emphasis, although it still figures in the review process for the implementation of Basel III at national level.

The overall level for the leverage ratio of 3 per cent now included in Basel III has been widely criticised as being too low. For example, pointing to the historical levels for the equity ratio of 13 to 16 per cent mentioned earlier, Hoenig believes that a figure well in excess of 3 per cent should be the starting-point for discussion of the appropriate figure for the ratio of tangible equity to assets with which he would like to replace the capital requirements of Basel III.

Another criticism has been that of the trade finance industry which maintains that the 100-per-cent credit conversion factor for converting trade-finance exposures such as letters of

credit to their on-balance-sheet equivalents takes insufficient account of the low credit risk of such exposures. Thus there is a danger that the current rules for the leverage ratio will lead to unjustifiably high costs for trade financing.

The position of the trade-finance industry as to the low-risk character of trade finance seems borne out by evidence collected in a series of surveys. The most extensive of these surveys have been two batches of statistical data assembled under the International Chamber of Commerce-Asian Development Bank Trade Finance Default Register and the International Chamber of Commerce Trade Finance Register. The second and larger of these batches of data, covering more than 11 million transactions of 14 international banks during 2005-2010, included the following findings:

- the average maturity of the transactions was 147 days;
- fewer than 3,000 defaults were observed for the total sample, i.e. 0.0003 or 3 in 10,000;
- and of these only 947 defaults out of 5.2 million transactions – or 2 in 10,000 - were observed during the crisis period, 2008-2010.

The new Basel document does not address these criticisms. Rather, the issues which the document treats involve clarification or elaboration of the original Basel III text [“Basel III: A global regulatory framework for more resilient banks and banking systems”, December 2010]. Thus it takes up the scope of consolidation for the exposures in the denominator of the leverage ratio, clarifies the treatment of derivatives and related collateral, increases the precision of the treatment of written credit derivatives and securities financing transactions, and sets out rules and templates for disclosures required regarding the leverage ratio.

Under the scope for consolidation exposures in the denominator are to be measured consistently with the capital in the numerator. This has implications for a bank’s investments in financial and non-financial firms and in securitisation entities, for which regulatory and accounting consolidation are not always the same.

On derivatives exposures the new Basel document elaborates the principles for their valuation. Collateral used in connection with such derivatives results in a grossing-up of exposures in the denominator of the leverage ratio. In the case of collateral received the rationale of the grossing-up is that, whereas the collateral reduces exposure to the counterparty providing it, it also increases the resources at the disposal of the bank which can use it to further leverage itself through on-lending. In the case of collateral provided grossing-up prevents a bank from reducing the exposures in the denominator of the leverage ratio through the removal of the collateral from its on-balance-sheet assets.

Written (sold) credit derivatives –which according to the document create an exposure analogous to that of loans - are to be included in exposures at their nominal value. However, since positions in credit derivatives are generally liquidated not through cash sales but – unlike loans - through offsetting derivative transactions, exposure for the purpose of the denominator of the leverage ratio can be reduced by the purchase of a credit derivative on the same reference name with the same seniority as to payments commitments so long as its remaining maturity is at least as great as that of the credit derivative.

Securities financing transactions are to be included in the denominator of the leverage ratio on a basis which recognises that secured lending in this form is an important source of leverage. There are different ways of calculating the exposure to securities financing transactions according to the role of the bank in the transaction (for example, as principal,

agent, or guarantor). The calculations take account of both the bank's exposure and the offsetting collateral.

Although the new document of the Basel Committee makes no concessions to the critics on the issues of the level of the leverage ratio or on trade financing, it reiterates the commitment of the Committee to monitor banks' leverage ratios during a transition period which has already started and will continue until the end of 2016. The monitoring will cover the appropriateness of the level of 3 per cent for the ratio. This monitoring will take place during a period when national regulators will probably introduce rules which adapt those of Basel III to perceived national requirements. The United States, for example, has announced that the leverage ratio for the countries' eight largest banks (JPMorganChase, Citigroup, Bank of America, Wells Fargo, Goldman Sachs, Morgan Stanley, Bank of New York Mellon, and State Street) will be 6 per cent – with a level of 5 per cent applying to the institutions' holding companies which include banking units not covered by the guarantees of the Federal Deposit Insurance Corporation.

It is worth recalling here from the discussion above of the use by national regulators of the leverage ratio during the period prior to Basel I, that the concept is not a rigid one but on the contrary susceptible to adjustments which are considered appropriate to national circumstances. Moreover the Basel capital framework sets regulatory minima and is soft international law, i.e. a set of non-mandatory rules and non-binding statements of intent. Soft international law commits countries responsible for drafting to implement the rules and statements in a form close to that agreed. The hope is that other countries will follow for reasons such as the prestige of being able to show that their regulatory regimes conform to international standards or the pressures exerted by financial markets on their banks. But this still leaves these countries with a significant measure of flexibility regarding the form of implementation.

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Basel III is a list of comprehensive reforms whose goal is to strengthen the regulation, supervision and risk management of the banking sector. This is just the definition of Basel III. However, in order to gain a complete understanding of the framework, we need to understand its history and origin. This committee was named the Basel Committee on Banking Supervision (BCBS). Its main aim was to enhance quality banking regulations and converge worldwide banking standards to improve the safety and efficiency of banks around the globe. Detail Analysis of Basel III Framework. Basel three framework is built upon Basel I and Basel II framework. The focus of Basel III is to promote greater resilience at an individual bank level so that the risk of system-wide shocks is reduced. Basel III builds on the previous accords, Basel I and II, and is part of a continuous process to enhance regulation in the banking industry. The accord aims to prevent banks from hurting the economy by taking more risks than they can handle. The Basel Committee. The BCBS was established in 1974 by the central bank Federal Reserve (The Fed) The Federal Reserve is the central bank of the United States and is the financial authority behind the world's largest free market economy. governors of the Group of Ten (G10) countries, as a response to disruptions in financial markets. The committee was set up as a forum where member countries can deliberate on banking supervisory matters. To understand Basel I, Basel II, Basel III, and Basel IV, we first need to talk about the organization creating these regulations. Image Source: Creative Commons. The Basel Committee on Banking Supervision (BCBS) was established in 1974. We will go into more details about the rules each of the three accords brought about with each summary below. Then we will talk about the possible rules that can come from Basel 4 in the future. You will see that the rules become stricter and more specific as the banking industry changes and evolves over the years. Basel III ratios for risk-weighted assets were strengthened. The Basel III Leverage Ratio was introduced. The equation is actually simple: divide capital (money) by total consolidated assets.