



Regulatory Capital Estimation Tool: Some Observations

On September 24, 2012, the federal banking agencies released the “Regulatory Capital Estimation Tool,” intended to help community banking and thrift organizations estimate the overall impact on their capital levels of the proposed revisions to the U.S. regulatory capital rules that were published this past summer.¹

The tool will serve at least two purposes. The resulting estimates should provide a new source of quantitative information for a bank’s capital planning. They should also spur an assessment of the impact of the proposed rules and how the bank might provide a meaningful comment on the proposed rules. The comment period expires three weeks from today, on October 22, 2012.² The tool involves two of the three regulatory capital rules that the agencies proposed in June 2012: the Basel III Proposal, which addresses capital components and capital ratios, and the Standardized Approach Proposal, which sets forth risk weights for different asset classes.³

By design, the tool focuses on the capital issues most likely to affect community banks and do not attempt to capture many of the nuances in the proposed capital rules. Nevertheless, the issues that the tool covers have complexities that even the smaller banks must understand.⁴ The tool contains a set of spread sheets. When a bank⁵ enters its certificate number or RSSD ID number, the spread sheets are automatically populated with basic information from the bank’s balance sheet in the call report or FR Y-9C as of June 30, 2012. The bank then must input additional data on its capital and asset classes, and the tool will produce estimated capital ratios. While the tool applies some of the methodology of the capital proposals, the value of the resulting estimate will depend on the quality of the bank’s inputs, which in turn depend on the bank’s knowledge of the details of the specific rules in the proposals. For example, as we explain below, a bank will have to decide which of two qualitative sets of risk weights applies to its mortgage loans, and it will have to review its commercial real estate lending portfolio to determine which loans are “high volatility” and which are not.

If properly used, the tool can help a bank evaluate the two capital proposals. A bank may, however, need to collect many sets of inputs. This bulletin provides some background on each of the inputs but is not intended as a

¹ The tool may be found at <http://www.federalreserve.gov/bankinforeg/basel/basel3tools.htm>.

² For a detailed discussion of the proposed capital rules, please see our user guide, “The Banking Agencies’ New Regulatory Capital Proposals,” available at <http://www.mofo.com/files/Uploads/Images/120613-Banking-Agencies-New-Regulatory-Capital-Proposals.pdf>.

³ The Basel III Proposal may be found at 77 Fed. Reg. 52792 (Aug. 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-16757.pdf>. The Standardized Approach Proposal may be found at 77 Fed. Reg. 52888 (Aug. 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-17010.pdf>. The third proposal, the Market Risk Proposal, deals with market risk and is not included in the tool. See 77 Fed. Reg. 52978 (Aug. 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-16761.pdf>.

⁴ The proposed rules will not apply to bank holding companies subject to the Federal Reserve Board’s Small Bank Holding Company Policy Statement—i.e., most bank holding companies with less than \$500 million in total consolidated assets and that do not engage in significant off-balance sheet activities or have material amounts of debt or equity securities outstanding.

⁵ Throughout this alert we use the term “bank” in its collective sense to cover national banks, state member and non-member banks, federal and state savings associations, bank holding companies, and savings and loan holding companies.

thorough examination of all variables in the tool. We address first those related to the Basel III Proposal and then turn to the Standardized Approach Proposal.

Basel III Proposal

In order for the tool to provide estimated capital ratios, current capital components will have to be adjusted to reflect the changes in the Basel III Proposal. At the outset, the tool asks scoping questions relating to ten sets changes in the Basel III Proposal. Affirmative answers will require the bank to collect the responsive data. In order to answer the scoping questions and then to provide the appropriate input, a bank should understand the ten issues, as follows:

- **Qualifying minority interest.** The Basel III Proposal significantly restricts the use of minority interests in consolidated subsidiaries as capital at the parent. Only a subsidiary bank or foreign bank may issue minority interests that may qualify (after meeting certain prerequisites) as common equity tier 1 capital at the parent level. As in the current rules, there is a ceiling on minority interest at each level of capital, but it is a different ceiling than the percentage of parent capital. Roughly, under the Basel III Proposal, a minority interest must be reduced by the amount necessary to ensure that the subsidiary can meet all capital requirements, including the proposed conservation buffer.
- **Deferred tax assets (“DTAs”) that arise from operating loss carryforwards.** These assets must be fully deducted from common equity tier 1 capital. Once the Basel III Proposal takes effect, this data may become somewhat more complicated. The proposal describes this item as DTAs that arise from operating loss and tax credit carryforwards net of any related valuation allowances and net of deferred tax liabilities (“DTLs”). The proposal contains detailed rules about the netting of DTLs.
- **Deferred tax assets arising from timing differences.** This type of DTA⁶ may be included in common equity tier 1, subject to 10% and 15% thresholds. First, any amount of this type of DTA that exceeds 10% of a bank’s common equity tier 1 capital must be deducted from such capital. Second, the remaining amount of these DTAs is aggregated with other remaining amounts of mortgage servicing assets (“MSAs”) and significant investments in the capital of unconsolidated financial institutions in the form of common stock (each of which is subject to its own 10% ceiling). The aggregate amount that exceeds 17.65% of common equity tier 1 capital (after certain deductions)⁷ must also be deducted. The then-remaining amounts must be risk-weighted at 250%.
- **Investments in bank’s own capital instruments and reciprocal holdings.** This item conflates two different adjustments to capital. First, as to a bank’s investments in its own capital instruments, the bank must deduct not only the issued amounts that it has retained but also amounts that it has made a commitment to repurchase. The deduction is made from the tier of capital to which the instrument has been assigned. Second, with regard to reciprocal holdings, these holdings exist where, by formal or informal arrangement, two banks swap, exchange, or otherwise intend to hold each other’s capital. Such a crossholding is subject to the “corresponding deduction approach:” the crossheld capital instrument is deducted from the tier of capital to which the instrument would have been assigned if the bank had issued the instrument.
- **Securitization gains on sale.** This new rule requires the full deduction from common equity tier 1 capital of the after-tax amount of a securitization gain on sale. There is no counterpart for this deduction in the current capital rules. It is worth keeping in mind that a credit-enhancing interest-only strip

⁶ As with DTAs arising from operating loss carryforwards, the full description in the Basel III Proposal of this asset class is more complicated: DTAs arising from temporary differences that the bank could not realize through net operating loss carrybacks, net of any related valuation allowances and net of DTLs.

⁷ The Basel III Proposal explains that the 17.65% standard is necessary mathematically to give effect to the 15% principle.

(“CEIO”) may represent such a gain. The amount of a CEIO that does not constitute an after-tax gain-on-sale must be risk-weighted at 1,250%.⁸

- **Significant investments in other institutions’ common stock.** By “other institutions” the tool refers to investments in unconsolidated financial institutions. “Financial institution” is a broad term that covers all banks, foreign banks, credit unions, insurance companies, securities firms, commodity pools, covered funds (as defined in the Volcker Rule),⁹ employee benefit plans (other than those established by a bank for the benefit of its employees or those of an affiliate), companies predominantly engaged in one of six activities,¹⁰ any entity not domiciled in the United States that would be treated as one of the foregoing institutions if it were domiciled in the United States, and any other entity that a federal financial regulatory agency may designate. A “significant investment” is one in which a bank owns 10% or more of the issued and outstanding common shares of the unconsolidated institution. These investments are treated the same as DTAs arising from timing differences: the total amount above 10% of common equity tier 1 capital must be deducted from such capital, and any remaining amounts (together with the DTAs arising from timing differences and MSAs) that exceed 17.65% of common equity tier 1 capital must also be deducted. A similar risk weight of 250% applies to the remaining amount that is includable in common equity tier 1 capital.
- **Gains or losses from cash flow hedges for items not at fair value.** A bank must deduct from common equity tier 1 capital the unrealized gain on cash flow hedges included in accumulated other comprehensive income (“AOCI”), net of applicable tax effects that relate to hedging of items not recognized at fair value. Unrealized losses on similar hedges may be added to common equity tier 1 capital.
- **Non-significant investments.** These investments are those of 10% or less of the issued and outstanding common shares of an unconsolidated financial institution. The deduction is not a full deduction: a bank must deduct only the aggregate amount of its non-significant investments that exceed 10% of the bank’s common equity tier 1 capital (after other deductions from and adjustments to such capital). Once this calculation has been made, the deduction is based on the corresponding deduction approach, modified to reflect the fact that not all of these investments must be deducted from capital. That is, a bank will deduct the aggregate amount of these investments above the 10% ceiling proportionally from the tiers of capital to which the instruments constituting the investments would have been assigned if issued by the bank itself. The remaining, includable investments must be assigned the risk weight appropriate to the issuer.
- **Significant investments in the additional tier 1 instruments or tier 2 instruments of another financial institution.** These investments are deducted using the corresponding deduction approach. A bank must deduct these instruments from the capital category that would apply if the bank had issued such instruments itself.
- **Non-qualifying capital instruments subject to the transitional phase-out.** For banks with assets of less than \$15 billion—the predominant part of the population of banks for which the estimation tool was designed—trust-preferred securities and other hybrid instruments that were issued before May

⁸ Non-credit-enhancing interest-only strips are to be risk-weighted at 100%.

⁹ The Volcker Rule requires that a bank deduct its investments in covered funds from tangible equity. Regulations implementing the Volcker Rule are still in proposed form. The federal banking agencies will need to reconcile final Volcker Rule regulations with the Basel III Proposal. The agencies have committed that there will be no double deductions.

¹⁰ These activities include: (i) lending money, securities or other financial instruments, including servicing loans; (ii) insuring, guaranteeing, indemnifying against loss, harm, damage, illness, disability, or death, or issuing annuities; (iii) underwriting, dealing in, making a market in, or investing as principal in securities or other financial instruments; (iv) asset management activities (not including investment or financial advisory activities); and (v) acting as a futures commission merchant.

19, 2010, must be phased out of tier 1 capital over a ten-year period. This phase-out is notable since it is not required under the grandfathering provision in the Collins Amendment to the Dodd-Frank Act.

In addition to the ten scoping questions, the Basel III tab in the tool calls for information on three other issues, each of which reflects changes in the Basel III Proposal from the current rules.

- **Components of capital.** A major focus of the Basel III Proposal is to emphasize the importance of common stock as the fundamental form of capital. To this end, the proposal creates a new, higher tier of capital—common equity tier 1. This tier consists of common stock that meets thirteen criteria, retained earnings, AOCI, and common equity tier 1 minority interest (as adjusted above). Noncumulative perpetual preferred stock is no longer in the top tier of capital, but it is an element of the second tier, additional tier 1 capital, together with other instruments that satisfy fourteen criteria. The third tier, tier 2 capital, is largely similar to the current tier 2, although it also includes certain forms of preferred stock that do not qualify for inclusion in additional tier 1 capital.
- **Gains and losses related to changes in the fair value of liabilities that are due to changes in the bank's credit risk.** This category relates to unrealized gains and losses, and such gains and losses are treated in the same way as unrealized gains and losses from cash flow hedges for items not at fair value. That is, unrealized gains relating to changes in fair value will be deducted from common equity tier 1 capital, and unrealized losses will be added to common equity tier 1 capital.
- **Mortgage servicing assets.** Implicit in the discussions of DTAs arising from timing differences and significant investments in other institutions' common stock is the point that MSAs also are subject to the set of 10% and 15% thresholds. On a stand-alone basis, the amount of MSAs that exceeds 10% of common equity tier 1 capital must be deducted from that capital tier. Then, the remaining amount is aggregated with the remaining amounts of the other two asset classes, and the amount that exceeds 17.65% of common equity tier 1 capital must also be deducted. A statutory requirement from 1991 continues to apply and imposes a further limit that does not apply to the DTAs and significant investments. The requirement is that no more than 90% of the fair value of readily marketable MSAs may be included in regulatory capital. Accordingly, if the amount of MSAs that a bank deducts under both the 10% and 15% thresholds is less than 10% of the fair value of the MSAs, then an additional deduction is necessary in order to bring the deduction to 10% of that fair value.

Standardized Approach

The Standardized Approach Proposal substantially revises the risk weights for several asset classes and makes a few changes to the credit conversion factors (“CCFs”) for off-balance sheet exposures. The economic impact of these changes is difficult to assess, but the changes do require a bank to revisit its entire risk-weighting process. The tool sets forth seven scoping questions relating to the changes in the Standardized Approach, and affirmative answers will require a bank to generate the necessary inputs. Both for the purpose of responding to the scoping questions and in order to collect data, a bank should develop an understanding of the scoping questions and the underlying proposed rules, as follows:

- **Residential mortgage loans.** The Standardized Approach Proposal divides residential mortgage loans into several different risk-weighted categories (identified on the Standardized Approach tab), depending on the loan-to-value ratio (“LTV”) and whether the loan is Category 1 or Category 2. In order to qualify for Category 1 and generally lower risk weights, a loan must satisfy several conditions, some of which are self-evident but others of which are not:
 - The maturity of the loan is 30 years or less.

- The borrower is to make regular periodic payments that do not (i) result in an increase of the principal balance, (ii) allow the borrower to defer repayment of principal, or (iii) result in a balloon payment.
 - The underwriting standards take into account all of a borrower's obligations, including for mortgage obligations, principal, interest, taxes, insurance (including mortgage guarantee insurance), and assessments.
 - The standards must result in a conclusion that the borrower is able to repay the exposure using the maximum interest rate that may apply during the first five years after the closing date, and the amount of the loan at closing is the maximum possible principal amount over the life of the loan.
 - The interest rate on the loan may not adjust more than 2% in any twelve-month period and no more than 6% over the life of the loan.
 - For a first-lien home equity line of credit ("HELOC"), the borrower must be qualified using the principal and interest payments based on the maximum contractual exposure under the terms of the HELOC.
 - The borrower's income is well-documented and has been verified.
 - The loan is not more than 90 days past due or on non-accrual status.
 - The loan is not a junior lien loan.
- **Exposures that are characterized as High Volatility CRE.** The Standardized Approach Proposal presumes that a commercial real estate loan¹¹ is "high volatility" and accordingly is to be risk-weighted at 150% (a 50% increase from the charge under the current rules). However, a bank can avoid the increase and continue to use the existing 100% risk weight if a loan meets three conditions:
 - The LTV is less than or equal to the applicable maximum supervisory LTV in the regulator's real estate lending standards: 65% for an acquisition loan, 75% for development and 80% for construction.
 - The developer has contributed capital in the form of cash or unencumbered readily marketable assets or has paid development expenses out-of-pocket of at least 15% of the real estate's appraised "as completed" value.
 - The borrower contributed its capital before the bank has advanced funds. Additionally, such contributed capital or capital internally generated by the project must be contractually obligated to remain in the project throughout the life of the project. The life of the project concludes when the credit facility is converted to permanent financing or is sold or paid in full. The bank that provides the CRE loan may provide permanent financing, so long as the bank has applied its underwriting standards for long-term mortgage loans.
 - **Securitization exposures – does not include GSE pass-through securities.** Most securitization exposures have been risk-weighted according to credit ratings assigned by one of the national credit rating agencies. The Dodd-Frank Act eliminated that approach, and the regulators have

¹¹ A commercial real estate loan finances the acquisition, development, or construction of real property other than 1- to 4-family residential properties.

had to turn to a more complicated process, the Simplified Supervisory Formula Approach (“SSFA”). The SSFA is borrowed from the formula required under Basel II for advanced approaches banks, and, while simpler than that formula, is complex. The SSFA attempts to identify a bank’s true exposure to a securitization. There is an alternative: the Gross-up Approach (much like the current approach), but it is available only to a bank that is *not* subject to the rules in the Market Risk Proposal. If neither approach is used, the exposure must be risk-weighted at 1,250%. (The excluded GSE securities are to be risk-weighted at 20%.)

- **Equity exposures other than FRB/FHLB stock.** Under the Standardized Approach Proposal, risk weights for equity investments—other than equity exposures to investment funds— range from 0% to 600%, as follows:

| Exposure | Risk Weight |
|---|--------------------|
| Sovereigns, Bank of International Settlements, European Central Bank, European Commission, International Monetary Fund, multilateral development banks | 0% |
| Public sector entities, Federal Home Loan Banks, Farmer Mac | 20% |
| Community development, the effective portion of a hedge pair, non-significant equity exposures ¹² | 100% |
| Remaining portions of three asset classes after certain amounts have been deducted from common equity tier 1 capital: DTAs arising from timing differences, MSAs, significant investments in the capital of unconsolidated financial institutions | 250% |
| Equity in a publicly traded entity, the ineffective portion of a hedge pair | 300% |
| Equity in an entity that is not publicly traded | 400% |
| Equity in an investment firm that meets the definition for a “traditional securitization,” except that a regulator has discretion to determine that it is not a traditional securitization and that the bank has greater than immaterial leverage | 600% |

Investments in funds are treated separately. Risk weights are based on the risk weights of the investments by the fund, determined in one of three ways. Under the Full Look-through Approach, a bank would risk weight each asset owned by the fund and apply the risk weights to the bank’s proportional share of the assets. The Simple Modified Look-through Approach and the Alternative Modified Look-through Approach involve risk-weighting permissible investments under the fund’s prospectus and other offering documents. Some fund investments will have to be deducted from capital, see note 9 supra.

- **Commitments with an original maturity less than 1 year that are unconditionally cancelable.** These commitments will be the only types of commitments with a 0% conversion factor. Under the current rules, a commitment with an original maturity of one year or less need not be converted to the balance sheet. Under the Standardized Approach, however, a short-term commitment that is not unconditionally cancelable is converted at 20% to an on-balance sheet asset. (Long-term commitments must be converted at 50%.)
- **Collateralized transactions that would be applicable for the substitution approach.** Under the substitution approach, a transaction may be risk-weighted at the weight assigned to the collateral (to

¹² The non-significant equity exposures represent the includable amount after the deduction of the amount of such equities in excess of 10% of common equity tier 1 capital, although the deduction may not be solely from common equity tier 1 capital. See discussion of the deduction of non-significant equity exposures on p. 3.

the extent the collateral protects the bank), if the collateral is “financial collateral”¹³ and if the collateralization meets three prerequisites:¹⁴

- The collateral agreement is for at least the life of the exposure.
- The collateral is revalued at least every six months
- The collateral and the underlying exposure are denominated in the same currency (unless the collateral is gold).

The Standardized Approach tab in the tool also requests data on past-due and nonaccrual loans (other than 1- to 4-family residential mortgage loans). Such loans are risk-weighted at 150%, except for any collateralized or guaranteed portion, which may be risk-weighted under the rules for collateralized transactions and guarantees.

Conclusion

The tool that the regulators provided last week will generate estimates of capital adequacy that can help community banks assess the impact of the Basel III and Standardized Approach Proposals. The estimates will only be as good as the inputs that a bank provides, and gathering the necessary data will require a detailed understanding of the two proposals. Indeed, the value of the estimation exercise may lie less in the numerical results and more in a bank’s own efforts to apply particular proposed rules to its balance sheet.

¹³ Financial collateral includes cash on deposit at the bank, gold bullion, investment-grade long-term debt securities and short-term debt instruments (but not resecuritization exposures), publicly traded equities and convertible bonds, money market fund shares, and mutual fund shares with a price publicly quoted daily, and in which the bank has a perfected, first-priority security interest (or its equivalent outside the United States).

¹⁴ This input is “optional,” although in a sense all inputs are optional.

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