



Analysis of Impact on Risk Weights in Proposed U.S. Capital Requirements

Introduction

On July 27, U.S. banking regulators issued a request for comment on their proposed changes to capital regulations slated to take effect in July 2025. This sweeping change will update the guidance provided in the 2017 international banking regulations, in accordance with the Basel III finalized proposals.

In this article, we summarize both the U.S. proposal and the Basel III finalized regulations to highlight the most significant impacts they pose for financial institutions within the affected category. This group includes any bank with more than \$100 billion in assets or with significant trading activity, equating to an estimated 37 banks in total. These FIs will be required to update their capital calculations to comply with the proposal and to reflect the new capital amount they will be expected to hold on their balance sheet.

Note: The purpose of this article is to discuss the US request for comments in comparison to the international proposal and current US banking requirements for commercial lending. It will not address the AOCL changes that do not impact the pricing of commercial credit products within Q2 PrecisionLender.

In addition to the technical aspects of the proposal, the new capital requirements could impact two items within the market. First, some banks will have to evaluate the cost benefit of crossing the \$100 billion threshold and decide how they would approach pricing new deals. Most FIs that utilize Q2 PrecisionLender can calculate both economic (Advanced Internal Rating Based method, or "AIRB") and regulatory capital (standardized).

Second, while regulators state that "requirements under the proposal would generally be consistent with international capital standards issued by the Basel committee, commonly known as the Basel III reforms" (B3F), they do identify one difference – under the U.S. proposed regulations, the use of internal models (such as AIRB) to measure credit risk would be removed.

Furthermore, the U.S. proposed regulations do not introduce the FIRB approach within B3F. We'll explain more about this within.

What is the Advanced Internal Rating Based Method (AIRB) and why is it so useful?

The AIRB method was introduced in the Basel II regulations several years ago and uses risk factors such as Probability of Default (PD) categorized by risk ranking, Loss Given Default (LGD) on collateral, and Usage Given Default (UGD). Currently, only category I and II banks (generally defined as banks with assets over \$700 billion) can use these advanced methods in reporting capital levels. The use of these models to determine regulatory inputs often results in lower capital requirements for more credit worthy borrowers and/or loans with stronger collateral.

B3F continues to permit the use of AIRB, although it does restrict its use for: corporations with revenues over \$500 million euros (about \$550 million USD); banks; and cases in which the regulatory authorities believe an institution cannot properly determine LGD.

For those specific categories mentioned above, a new standard is permitted, called the Foundational Internal Rating Based method (FIRB), where certain prescribed formulas must be used to determine LGD. B3F also sets floors on LGD used in AIRB and floors on risk weighted assets (RWA) calculated using that method.

Q2 PrecisionLender's view is that the use of AIRB provides banks the ability to price according to the borrower's risk—unlike a standardized approach for capital, which is agnostic to the borrower's characteristics for capital. For example:

- For borrowers with stronger PDs and LGDs, their capital requirement is lower. This usually results in a lower cost of capital for the borrower, and thus a lower price. This is fundamental to risk-adjusted pricing.
- Conversely, a weaker borrower would require more capital under the AIRB method and thus require high pricing premiums to offset the additional capital hold. Furthermore, because additional capital levels are required, financial institutions tend to monitor exposure levels within those PD categories.

While the use of loan loss reserves, as prescribed by Basel, or Current Expected Credit Losses (CECL) does provide some differentiation based on risk, it should be noted that the level of difference often does not account for the unexpected risk component of loan pricing.

Additionally, if the U.S. proposal is enacted as published, it will not restrict how capital is measured in loan pricing. As a result, banks could still utilize a risk-adjusted pricing approach to determine price for borrowers. That said, they would have to recalculate and value those loans when they report to regulators.

B3F Standardized Approach and U.S. Proposed Regulations

The sections below compare standardized methodology between the U.S. proposal and B3F. For simplicity, we do not consider the nuances of small to medium-sized enterprises (SME or corporations, partnerships, and individually owned companies) with under \$50 million in revenue.

Overall, the U.S. proposal and standardized B3F are similar aside from some minor adjustments. The basis is a risk weight (RW) that is applied against the Exposure at Default (EAD) of a loan to determine the risk weighted assets. As a result, the borrower's unique characteristics are put aside in favor of utilizing "buckets" of exposure classes. The RW is generally between 0% and 150%.

Credit Risk Weights by Exposure Type

Lending to Sovereigns and Public Service Entities

- For sovereign entities rated AA- or above (most major industrial countries, except Japan) both B3F and the U.S. proposal dictates a 0% RW.
- For Public Service Entities (PSE, state, territory, or municipal), B3F set the AA- and above rated at a RW of 20%, BBB- and above at 50%, and B- and above at 100%.
- The U.S. proposal leaves these entities at their current RW requirements, which for general obligations of PSEs is 20%, and revenue obligations is 50%.
- For debt of government sponsored enterprises, the RW generally remains at 20% under the new proposal.

Defaulted Loans and High-Volatility CRE (HVCRE)

- HVCRE lending is at 150% for both B3F and the U.S. proposal (same as currently applied).
- Acquisition, Development, and Construction loans (ADC) that are not HVCRE or presold construction are at 100%.
- Defaulted loans (generally defined as loans that are delinquent 90 days or longer) are at 150% for both. However, the U.S. proposal includes a provision that if a corporation or other borrowing entity has one loan in default, then all their loans are considered in default regarding RW.

Lending to Financial Institutions

There are some differences between the U.S. proposal and B3F for lending from one bank to another or to supervised financial institutions. B3F permits greater use of external ratings to differentiate RW, while the U.S. proposal does not. However, both allow the differentiation of banks into three grade levels:

- **Grade A** – Investment-grade institutions and those that exceed well capitalized requirements.
- **Grade B** – Speculative-grade institutions (not rated BBB- or above) and those that exceed adequate capitalized requirements.
- **Grade C** – All other institutions.

The U.S. proposal sets RW at 40%, 75%, and 150% for Grade A, B, and C. B3FI sets somewhat higher values of 50%, 100%, and 150%.

Both proposals have the same lower RW for short-term (3 months and under) self-liquidating obligations.

Corporate and Consumer

Perhaps the lending categories of greatest interest to most banks are corporations and consumers. The U.S. proposal has defined a “retail” category comprised of traditional non-real estate consumer loans and SME borrowers. There are several categories for real estate lending, the primary ones in which LTV plays a role in the determination of RW. Finally, any borrower that doesn’t fit into the categories listed in the U.S. proposal is considered to fall under the corporation RW.

Real Estate – Residential

Residential real estate is divided into two subcategories:

- **Category 1** – Dependent on cash flow generated by the property (income producing).
- **Category 2** – Not dependent.

The current regulations on first lien 1-4 family residential loans not guaranteed by a government agency (FHA or VA) and meeting regulatory definitions (not in default, properly underwritten, etc.) is 50%. The new proposal bases the RW on the current LTV, where loans with lower LTV (greater collateral value) receive an RW as low as 40% and those with LTV ratios over 100% max out at 90%. The B3F RWs for these loans range from 20-70%.

However, the new proposal also states that these loans cannot be significantly dependent on the cashflow generated from the property. And for multifamily loans with original value of \$1 million or under and meeting regulatory definitions, the current RW is 50% after one year, assuming timely payments of principal and interest — otherwise it is 100%.

The new proposal for residential loans materially dependent on the cashflow being generated by the property varies RWs based on LTVs. For this instance, the U.S. proposal and B3F have a similar structure aside from the U.S. proposal’s higher RW requirements.

Note: Multifamily loans with a value above \$1 million or not meeting the statutory requirements would be included in residential loans materially dependent on property cashflows.

The table below shows the RW requirements based on LTV.

U.S. Proposed Risk Weight Table for Residential Real Estate

LTV	LTV <=50%	50%< to <=60%	60%< to <=80%	80%< to <=90%	90%< to <=100%	> 100%
RW not materially dependent on property cash flows	40%	45%	50%	60%	70%	90%
RW materially dependent on property cash flows	50%	55%	65%	80%	95%	125%

Basel III Finalized Risk Weight Table for Residential Real Estate

LTV	LTV <=50%	50%< to <=60%	60%< to <=80%	80%< to <=90%	90%< to <=100%	> 100%
RW not materially dependent on property cash flows	20%	25%	30%	40%	50%	70%
RW materially dependent on property cash flows	30%	35%	45%	60%	75%	105%

The U.S. proposal does mention the possibility of a 50% RW on low- and moderate-income housing, regardless of LTV. Regulators are asking for comment on an option where there would only be a slight modification of the present regulations regarding residential lending.

Also, if a bank holds both a first and second lien position on residential real estate, the combined total is treated as if it is a first lien and subject to the ratios above. The LTV would then reflect the total amount outstanding.

Real Estate – Commercial

Like residential, commercial real estate is also separated into two subcategories:

- **Category 1** – Where payment is materially dependent on the property cashflow (income producing).
- **Category 2** – Where property cashflow is not a significant factor (Often owner occupied).

Category 1

The income-producing CRE is dependent on the LTV, and both the U.S. proposal and B3F have the same recommended RW. The table below shows these values.

Risk Weight Table for Commercial Real Estate Exposures
(Repayment is materially dependent on cash flows generated by property)

	LTV ≤ 60%	60% < LTV ≤ 80%	LTV > 80%
Risk Weight	70%	90%	110%

Category 2

For CRE that is not materially dependent on the property’s cashflow, both the U.S. proposal and B3F use the same method. The RW on a loan based on this type of property is the same as the borrowing entity, except when the collateral LTV is 60% or less. In that case, the RW is the lower of the borrower’s RW or 60%

Examples:

1. If the borrower has a RW of 65% and the LTV is 55%, the RW used on the asset is 60%.
2. If the borrower has a RW of 65% and the LTV is 80%, the RW used on the asset is 65%.

Risk Weight Table for Commercial Real Estate Exposures
(Repayment is NOT materially dependent on cash flows generated by property)

	LTV ≤ 60%	LTV > 60%
Risk Weight	Lesser of 60% risk weight or the risk weight applicable to the borrower	Risk Weight applicable to the borrower

Retail Exposure

As stated by the regulators, “the proposal would introduce a new definition of retail exposure, which would include an exposure to a natural person or persons, or an exposure to a small or medium-sized entity (SME) ... SME in the definition of a retail exposure provides a benefit for small companies, such as smaller limited liability companies, which may have characteristics more similar to those of a natural person than of a larger corporation.”

The proposal further notes that retail is “exposure that would not otherwise be a real estate exposure.” This exposure type is further differentiated into three categories:

1. Regulatory retail
2. Transactor
3. Other retail

Regulatory retail is comprised of most types of non-real estate credit offered to individuals and SME borrowers, including lines of credit, credit cards, and term loans or leases. There is a \$1 million limit on the total outstanding credit inclusive of new credit and existing credit, including both on and off-balance sheet exposure. Our current interpretation excludes real estate loans from this limit.

Note: *Off-balance sheet exposure would be weighted by credit conversion factors (CCF).*

The definition of regulatory retail, so far, is similar to the one used in B3F. However, there is an additional cap on the outstanding credit of 0.2% of the organization’s total eligible retail exposure, subject to the \$1 million exposure limit. This 0.2% limit is not part of B3F.

Example:

- A banking organization has, net of defaulted loans, \$1 billion of retail exposure.
- Additionally, the total amount of credit provided to various clients that each have loan exposures over \$1 million totals \$550 million.

The cap of 0.2% is applied to the remaining \$450 million. As a result, the limit of regulatory exposure per client equals \$900,000.

- Loans that have total exposure under \$900,000 would receive an RW of 85%. There is a separate condition that would address lines of credit or credit card in which the borrower pays the full amount due each month for the previous 12 months. In that case, these lines would have an RW of 55%. It’s not clear if this means a line of credit that has no balance during the past year would be eligible for the 55% RW on the adjusted off-balance sheet portion.
- The portion of loans equal to or under \$1 million (but above \$900,000 in this example) would be considered “other retail” and subject to the RW of 110%.
- Retail borrowers (mainly SMEs) with credit above \$1 million would also have an RW of 110%.

It should be noted that in the B3F proposal, most non-real estate loans to SMEs would have an RW of 85%. If borrowers meet the retail definition of equal to or under \$1 million, the B3F RW is 75% in comparison to the U.S. proposed 85%. Finally, under current regulations, most SME loans are at 100% RW, below the 110% proposed for total loans outstanding over \$1 million.

Corporate Exposure

For borrowers that don't fit into any of the categories above, the U.S. proposal classifies them as corporate exposure. There are several subcategories under the corporate umbrella:

1. **Investment grade** – Corporations that are rated BBB- or above by a recognized rating agency and have publicly traded securities have an RW of 65%. The B3F requirements vary based on the rating but generally are set from 20-75% for investment grade. There is also an alternative method that uses the same 65% factor as the U.S. proposal.
2. **Non-investment grade** – Corporations not in default or exposed to a subordinated debt instrument would have an RW of 100%. This is basically the same as B3F that is currently used.
3. **Qualifying central counterparties** – RW of 2 or 4%.
4. **Project finance** – RW is set at 130% prior to the operational phase, the same as B3F. Once it's in the operational phase, the RW declines to 100%.
5. **Non-real estate in which repayment is materially dependent on the project's cashflows** – RW is set at 100%, if the loan is not in default.

Determination of exposure at default for off-balance sheet commitments

Under current regulations, exposures such as the unfunded component of lines of credit or construction loans have a CCF of 20% for commitment with an original maturity of one year or less, and 50% otherwise. For uncommitted or cancelable at any time, the CCF is 0%. Both the U.S. proposal and B3F will change the committed CCF to 40% regardless of term. They will also change commitments that are unconditionally cancelable at any time to 10%.

Operational Capital

The second component of capital is operational risk, defined by both the new proposal and current regulations as "the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events." Under the current standardized approach, operational capital is reserved for CAT I and CAT II financial institutions, with the proposed U.S. regulations financial institutions over \$100Bn would be required to include operational capital in reporting.

Currently, large banks need to measure this risk using advanced measurement approaches (AMA). For all banks affected by the proposal, the AMA methodology is unique for each institution, as they are internal models. The proposal would replace the AMA approach with a standardized view of operational market risk capital.

The standardized approach is based on a business indicator comprised of three components. The business indicator is then multiplied by a factor ranging from 12% to 18%, as determined by the indicator size and adjusted by an internal loss multiplier.

The Business Indicator

1. The **interest component** of the business indicator is the greater of net interest income or 2.25% of interest-earning assets (or in the case of loan pricing, the amount of loan outstanding) plus any dividends on securities.
2. The **service component** is the maximum of fees or fee expenses plus the maximum of other operating income or other operating expenses.
3. The **financial component** relates to trading revenues and the absolute of net profits or loss on assets not held for trading.

The business indicator should be derived by utilizing a 12-quarter average of the financial components above. The purpose of the trailing three-year metric is to capture the changes in the structure of the financial institution and normalize the impact of large one-time items.

The Business Indicator Component

The component is derived from the three aspects of the business indicator defined above. The calculation increases as the business indicator increases as the rate applied increases. The rates for the business indicator component are:

- (a) 12 percent per unit of business indicator for levels of business indicator up to \$1 billion;
- (b) 15 percent per unit of business indicator for levels of business indicator above \$1 billion and up to \$30 billion; and
- (c) 18 percent per unit of business indicator for levels of business indicator above \$30 billion.

Internal Loss Multiplier

The business indicator component could then be adjusted upwards by what the proposal calls the “internal loss multiplier.” This is a logarithmic function involving 15 times the ten-year average annual operational loss over the business indicator component. The “internal loss multiplier” cannot be less than 1.

Market Risk and Transition Provisions

Another element of capital involves the investment security portfolio, particularly the trading portfolio and derivative positions. The market risk section of the U.S. proposal details methods on the calculation of this type of capital, such as internal models. The standardized capital portion also discusses a new proposal on capital for investments. Finally, a major part of the proposal is how “accumulated other comprehensive income” is applied to capital ratios, which has gained importance since the events of March 2023.

Our goal in this article is to focus on capital that would affect loan pricing. As such, we will not discuss currency mismatch, guarantee substitution, and several other topics included in the proposal.

Any change in capital is proposed to begin with a transition period starting in July 2025, with full implementation by June 2028. Since there is an initial request for comments and the actual regulations aren’t expected to take place until some point in 2024, Q2 PrecisionLender is not taking any actions to alter its solutions for U.S.-based clients at this time. However, we are analyzing what actions may be necessary and have already worked with some international clients affected by the B3F regulations.

If you have further questions on applying the proposed capital regulations to loan pricing, please contact Steven Collum (steven.collum@q2.com).

What Is the Impact?

The main question is how much more capital the standardized method will require over the AIRB method. Unfortunately, there is no simple answer for that. AIRB is dependent on the Probability of Default (PD) and the Loss Given Default (LGD). The standardized method uses neither, although for some products, Loan to Value (LTV) does play a role. And while LTV and LGD are related, conversion from one to the other primarily involves an assumption on recovery rate for the collateral backing the loan.

Some perspective, using the U.S. proposals:

Ignoring any other factors, at a 60% LTV, recovery rates of 50% and 35% result in LGDs of approximately 16% and 42%, respectively. At 80% LTV, these same recovery rates result in LGDs of 38% and 56%, respectively.

Most non-real estate commercial loans are at an RW of 100% using the standardized approach. However, those with a collateral LTV at or under 60% would be at an RW of 60%. Commercial loans materially dependent on property cashflow are generally at an RW of 90%, while those at or below 60% LTV would be at 70%. Similarly, residential income producing type loans have an RW of 65% that then drops to 55% or less for LTVs at or under 60%.

The table below shows the effective risk weight for a combination of PDs and LGDs for non-SME (and HVCRE) commercial loans using the AIRB formulas. This is for a 12-month loan with maturity adjustment floored at 12 months. We have highlighted the combinations in light gray in which the AIRB-generated RW would be below the standardized RW of 100%, while the combinations in that generate an RW below 60% are highlighted in darker gray. Except for loans with a very high PD, most of the table has either a light gray or dark gray background. For an extremely strong borrower with a good collateral position (low LGD), the difference in likely required capital is significant.

Current Advanced Internal Rating Based (AIRB) Risk Weights
(Life of Loan, 12-month term)

PD/LGD	Risk Weight						
	10.00%	15.00%	20.00%	25.00%	35.00%	40.00%	50.00%
0.20%	7%	11%	14%	18%	25%	28%	35%
0.50%	12%	18%	25%	31%	43%	49%	61%
0.75%	15%	23%	30%	38%	53%	61%	76%
1.00%	17%	26%	35%	43%	60%	69%	86%
1.25%	19%	28%	38%	47%	66%	76%	95%
2.00%	23%	34%	45%	56%	79%	90%	113%
5.00%	31%	47%	62%	78%	109%	124%	155%

The next table shows the RW for the first month of a 60-month loan with a 180-month amortization. Since the U.S. proposal is meant for capital reporting at a single point in time, longer term loans will generally have higher capital requirements under AIRB due to the maturity adjustment feature, while under the standardized method, maturity has no effect.

In this situation, using a standardized measure for loans with higher LGDs (which likely indicates higher LTVs) or weaker credit worthy borrowers (higher PDs), could result in lower capital requirements than AIRB. For higher credit borrowers or loans with stronger collateral, the standardized method will likely raise capital requirements.

U.S. Proposed Risk Weights (First Month)

(60-month term)

PD/LGD	Risk Weight						
	10.00%	15.00%	20.00%	25.00%	35.00%	40.00%	50.00%
0.20%	11%	16%	22%	27%	38%	43%	54%
0.50%	17%	26%	34%	43%	60%	68%	85%
0.75%	20%	30%	40%	50%	70%	81%	101%
1.00%	22%	34%	45%	56%	78%	90%	112%
1.25%	24%	36%	48%	60%	84%	97%	121%
2.00%	28%	42%	55%	69%	97%	111%	139%
5.00%	36%	54%	72%	90%	126%	144%	180%

Finally, since we support loan pricing solutions, we also examined the likely capital needs over the entire life of the loan. The next table shows the difference in capital over the entire 60 months, not just the first month, for the above loan. Similar to the table above, it shows AIRB RWs, and the shading indicates where those RWs are either below 100% (light gray) or 60% (dark gray).

U.S. Proposed Risk Weights (Life of Loan)

(60-month term)

PD/LGD	Risk Weight						
	10.00%	15.00%	20.00%	25.00%	35.00%	40.00%	50.00%
0.20%	16%	24%	32%	39%	55%	63%	79%
0.50%	23%	35%	46%	58%	81%	93%	116%
0.75%	27%	40%	54%	67%	94%	107%	134%
1.00%	29%	44%	58%	73%	102%	117%	146%
1.25%	31%	47%	62%	78%	109%	124%	155%
2.00%	35%	52%	69%	86%	121%	138%	173%
5.00%	42%	64%	85%	106%	148%	169%	212%

We did not account for the effects of operational capital that would be used in both methods, and thus would likely cancel each other out. What is shown is that the removal of the AIRB option will result in higher capital requirements for loans. Since capital represents the denominator in the ROE ratio, maintaining the same level in the future means raising the numerator at an equal percentage as the increase in capital. The numerator, which is generally after-tax income, will thus necessitate higher loan interest rates or fees.