

**Meeting Between Federal Reserve Board Staff
and Representatives of Royal Bank of Canada (RBC)
and Orrick, Herrington & Sutcliffe LLP (Orrick)
September 8, 2010**

Participants: Thomas Boemio, Steven Merriett, Anna Lee Hewko, Molly Mahar, Kieran Fallon, April Snyder, Benjamin McDonough, and Flora Ahn (Federal Reserve Board)

Eric Wise, Roger Pellegrini and John Rhineland (RBC); and Scott Stengel and John Pitts (Orrick)

Summary: Staff of the Federal Reserve Board met with representatives of RBC and Orrick. RBC's and Orrick's representatives presented their overall views on risk retention requirements and the potential interplay among the requirements, accounting standards, and expected proposed capital standards from the Basel Committee (Basel III). A copy of the handout provided by RBC and Orrick at the meeting and used as the basis for the discussion is attached below.

Among other matters discussed during the meeting were: the value of securitization to credit markets; the interaction among risk retention, accounting standards for consolidation with respect to securitizations, and related regulatory capital requirements; whether regulatory accounting standards may be contemplated; the potential impact of risk retention requirements on the securitization market generally; the different forms that risk retention may take; the difficulties in implementing the risk retention requirements and measuring credit risk for purposes thereof; the appropriate balance of risk retention between securitizers and originators; and the distinction between assets originated and assets purchased.

Attachment

Dodd-Frank Wall Street Reform and “BIS 3” Discussion

September, 2010

As a variety of rules and regulations are being considered and drafted, it is important to contemplate the effects and benefits of the other proposals

Observation:

- The amount and scope of the proposed changes makes it difficult to pinpoint the broader and specific effects on securitization and the economy
 - Borrower and lender behaviors will almost certainly change as a result
 - Intended and unintended consequences will follow

Tools for regulators:

- Re-introduction of Regulatory Accounting Principles
- Through rule-making introduce 'safety valves'
 - Check-in studies
 - Re-calibration authority
 - Explicit regulatory coordination (domestically and globally)
- Explicit consideration of other regulation to reduce overlap and/ or additive requirements
- Exception authority
 - Reduce or eliminate risk retention where the originator is adhering to GAAP

Observations:

- Risk retention regulations should explicitly accommodate scenarios where assets are consolidated and risk has been transferred due to:
 - Binary nature of GAAP sale and consolidation guidance
 - Regulatory capital based on GAAP
 - Risk retention impact on consolidation and sale
- The standards setting process (drafting the rules and regulations) needs to be harmonized with other regulatory initiatives in an effort to minimize the risk of defaulting to the least common denominator (i.e. capital requirement becomes the highest level coming from all the different regulations)

Careful consideration should be given to regulation to allow securitization to play an important role in our economic recovery and capital markets

- Dodd-Frank creates a more expansive framework in terms of lender regulation
 - More lenders are likely to be regulated going forward
 - Credit extension will be more highly regulated
- Lenders will have to consider both regulatory and economic capital requirements

Considerations:

- Interaction between risk retention and the related balance sheet treatment
 - Proposed risk-retention framework could significantly impede the ability to de-recognize a portion of the asset transferred and non-recourse liabilities not retained (note: GAAP sale and consolidation standards are binary and do not reflect degrees of risk or recourse)
 - Regulatory capital contemplates capital based on GAAP assets and liabilities *plus* certain off balance sheet activities
 - On balance sheet treatment requires substantially more amounts of capital despite no change in economic exposure:
 - Appropriately risk adjusted for “risk adjusted assets” purposes (e.g. sales with recourse)
 - Leverage ratio imposes much greater capital standards (note: BIS 3 capital may be both higher due to new calibration and more expensive due to composition of eligible Tier 1 and tier 2 capital) when compared to similarly structure sale and off-balance sheet transactions
 - Proposed liquidity requirements for certain types of securitizations can trigger double-counting which would materially increase the cost of securitizations (and similar products) that utilize contingent credit/ liquidity facilities
 - Proposed GAAP relating to the fair value for loan assets could require even more amounts of capital to accommodate ‘peak exposure’ type measures
- Potential for differences in capital standards between those contemplated in Dodd-Frank and those in BIS 3
 - Required capital levels
 - Composition of capital
 - Allowable leverage
 - Liquidity standards
- Within Dodd-Frank, there are other standards and rules that may impact securitization on an incremental basis
 - Rating agency reform
 - Affiliate provisions
 - Volcker rule
 - Disclosure requirements
- External to Dodd-Frank, there are other provisions that could impact securitization
 - SEC initiatives (Reg AB, 17g-5)
 - GAAP exposure drafts (FV, convergence, etc.)

The Dodd-Frank risk retention provisions as a response to the financial crisis are understandable when considered in isolation

Credit Risk Retention:

Purpose:

- Risk retention is meant to better align the interests of asset originators/ securitizers with investors through a retained economic interest in the securitization transaction

Rule-making:

- Directs the agencies to require risk retention - generally equal to 5% of the credit risk of the securitization (including duration and form of risk retention)
- Contemplates several important exceptions that either eliminate the retention requirements or permits lower or different requirements
 - Qualified residential mortgages, other "well-underwritten assets", commercial mortgages and government programs (not including the mortgage agencies)

Risk management:

- Agencies are generally required to differentiate among asset classes (including separate underwriting standards)
- Agencies are generally required to prohibit securitizers from directly or indirectly hedging the retained credit risk

Competing proposals:

- Pending SEC and FDIC proposals on risk retention differ from the Dodd-Frank provisions

Initial observations:

- While flexibility exists within Dodd-Frank to prudently "calibrate" risk retention, implementation will ultimately be a critical variable in terms providing a viable path to re-starting the securitization market
- Implementation is a complex issue that requires careful consideration to rebuild a prudent securitization market
- Within the "risk retention" rules, establishing standards is an important starting point:
 - How will risk be measured?
 - Will units of risk be comparable (loan equivalent units, economic capital, etc.) across asset classes, transaction structures and retained exposures?
 - If securitization assets are consolidated, does required capital provide an offset to risk retention requirements?
- In the context of the risk retention rules, consideration should be given to alternatives that allow regulated institutions to risk manage their retained exposure as well as re-cycle their capital and balance sheet

The fundamental principles of BIS 3 are sound, but the calibration of the standards could have a substantial impact on securitization

BIS 3 Principles:

Capital levels:

- To increase the safety of banks, BIS 3 tracks to higher capital levels

Capital composition:

- In an effort to provide a stronger capital base in the face of a another systemic crisis, BIS 3 proposes that a greater proportion of capital be comprised of permanent or “near-permanent” capital (e.g. common stock)

Pro-cyclicality:

- To defend against lower reserve levels coming out of times of prosperity, BIS 3 introduces the notion of reserving through an economic cycle

Leverage ratio:

- To keep bank and systemic leverage in check, BIS 3 contemplates a global leverage ratio to cover both on- and off-balance activities and instruments

Liquidity standards:

- In an effort to harmonize liquidity risk management, BIS 3 introduces short and longer term liquidity metrics that establish minimum levels of “bank liquidity” as well as the profile of bank liabilities

Observations:

- There are a number of challenging aspects to BIS 3 when it comes to securitization
 - The calibration and interaction of each of these sub-components (e.g. 100% pre-funding of commitment with short-term, narrowly defined, unencumbered high-quality assets, double-counting that arises due to the interaction of the Leverage Ratio and the Liquidity Coverage Ratio, etc.)
 - The possibility/ probability of asymmetric implementation
 - The lack of safety valves in the rules and contemplated transition
 - The expedited timeline for rule-writing

Considerations:

- As the effects of Dodd-Frank risk retention are evaluated and better understood, BIS 3 stands as another pillar to the securitization framework that could either provide complementary regulation or alternatively serve to undermine the goals and objectives associated with promoting a safer securitization market

Securitization is a very effective tool that can play an important role in the economic recovery by helping credit flow efficiently

Securitization review:

- Securitization is designed to improve the liquidity of asset portfolios by transforming the assets into a security that is attractive to investors
- The vast majority of the securitization market has provided enormous benefit to:
 - *Consumers/ borrowers*: lowers the cost of credit and increases the availability of credit
 - *Originators*: by lowering origination costs and providing a venue to pool assets, capture economies of scale and transfer assets/ asset exposure into a form to satisfy 3rd party investor demand
 - *Intermediaries*: by providing a key product to bring investors and issuers together as it relates to 'real economy' assets (e.g. credit cards, auto loans, trade receivables, etc.)
 - *Investors*: by providing a product and risk alternatives to participate in different asset classes in a form that is more liquid than whole loans
- Over the years, securitization evolved to accommodate an increasing number of asset classes and a growing and broader investor base, but at its core still relies on:
 - Sound and consistent origination and collection practices
 - Legal isolation, diversified asset portfolios and credit enhancement
 - Efficient cost and risk allocation for all constituents (borrowers, originators, intermediaries and investors)

Observations:

- Securitization serves to connect asset originators with credit buyers thus promoting an efficient flow of credit within the economy
- While certain securitization transactions were in the middle of the financial crisis, it is important to recognize that securitization was not the cause of the crisis (with many asset classes performing at or above expectations)
 - unregulated asset originators
 - technical dislocations in the cash in derivative markets translating in to MTM losses (creating a divergence in the relationship of unrealized losses to realized losses)
 - GAAP based metrics not designed to measure economic exposure
 - Opaque leverage and correlation measures

Considerations:

- Much of the securitization market delivered very important benefits to a large number of individuals and corporations throughout the financial crisis – preserving the benefits of securitization will help with the cost and availability of credit
- It is important to consider many of the other proposed improvements in the securitization market as the risk retention rules are being evaluated
 - Reg AB II
 - Rating Agency Reform
 - Consumer Protection Agency
 - US GAAP

The additive effects of the two proposals (“BIS 3”) are clearly evident in traditional banking businesses that performed well through the crisis

- The summary sheet brings together the results computed on the detail sheets
 - The left column computes the cost of regulatory compliance under the currently applicable Basel rules (assumes Basel II)
 - The right column describes the costs implied by the proposals under review
 - There are various elements that contribute to the increases
 - They're broken out by Tier 1 capital, leverage ratio and liquidity coverage ratio, with the costs totaled
- The additive effects illustrated in this analysis is comparable to other traditional high quality lines of business that performed very well throughout the crisis
 - Vanilla senior securitization (prime RMBS warehousing, trade receivables, prime credit cards, auto loans, student loans etc.)
 - Municipal finance activities
 - Medium enterprise lending

Basel Capital Proposal Quantitative Example

\$100M A-rated Undrawn Corporate Commitment
Summary of implied costs

	Current	Proposed	Description
Tier 1 Capital			
Total Capital \$	\$4.52	\$6.18	Increased PD per Procyclicality proposal
Capital Cost %	12%	18%	Narrowing definition of Tier 1 Capital
Tier 1 Capital Cost bps	54.3	111.2	
Leverage Ratio			
Add'l Capital for Undrawn Portion \$	\$0.00	\$0.00	Undrawn amounts included in leverage ratio
Add'l Capital for HQ Assets \$	\$0.00	\$0.68	HQ Assets from liquidity ratio hit leverage ratio
Total Add'l Capital \$ (above Tier 1)	\$0.00	\$0.68	
Capital Cost %	12%	18%	
Leverage Ratio Capital Cost bps	0.0	12.2	
Liquidity Ratio			
Liquidity Reserve above Tier 1 \$	\$5.48	\$102.35	High Quality Assets required for 100% reserve
Cost of 1 yr Debt	0.50%	0.50%	
Liquidity Ratio Debt Cost bps	2.7	51.2	
Total Regulatory Cost of Lending	57	175	

Appendix

The cost of Tier 1 Capital is impacted by both adjustments for pro-cyclicality and the narrowing of the composition

- The "Tier 1" sheet details the computation of tier 1 capital under the current regime (left column) and under the proposed rules (right column)
- The first element of additional cost to identify on this sheet is the increase in PD (probability of default) which is implied by the efforts to combat procyclicality.
 - These proposals seek to increase the probabilities of default used in the capital calculation from a projection of the next year's rate to the highest annual rate observed through economic cycles
 - This in turn increases the RAA attributable to the position, and therefore the amount of capital and its cost
- The second element of increased cost to identify on this sheet results from the narrowing of the definition of acceptable Tier 1 capital instruments
 - The proposal suggests that essentially only common stock would be counted as Tier 1 capital
 - As a result, the cost of generating Tier 1 capital is projected to increase significantly
 - Internal estimates project cost increases of as much as 50%
 - this is reflected in the "Cost of Tier 1 Capital" cells in this sheet

Basel Capital Proposal Quantitative Example

\$100M A-rated Undrawn Corporate Commitment Tier 1 Capital Ratio Analysis

	Current	Proposed
PD	0.09%	0.17%
EAD	75%	75%
LGD	60%	60%
Maturity	5	5
R	0.235	0.230
b	0.253	0.219
K	0.048	0.066
Undrawn Commitment	\$100	\$100
RAA	45%	62%
RAA \$	\$45.24	\$61.76
Tier 1 Capital	10%	10%
Attributed Capital	\$4.52	\$6.18
Cost of Tier 1 Capital	12%	18%
Total Capital Cost (\$)	\$0.54	\$1.11
Total Capital Cost (bps)	54.3	111.2

Increased PD to address procyclicality

Increased Tier 1 capital cost due to narrowed definition

The calibration and boundaries of the Leverage Ratio could have a very substantial impact on the cost of providing credit

- The "Leverage" sheet details the computation of the leverage ratio under the current regime (left column) and under the proposed rules (right column).
- The first element of additional cost to identify on this sheet is the inclusion of undrawn commitments to the "Exposure Measure"
 - Under current rules, undrawn commitments are not included in the leverage ratio exposure measure
 - Including this value as an exposure greatly increases the amount of capital needed to meet the ratio's requirements
 - To complicate matters, even the requirement is as yet undefined, and as such the "Leverage Ratio Target" remains a variable input in this sheet
 - This example assume a proposed 33x leverage ratio
- The second element of increased cost to identify on this sheet is generated by the liquidity coverage ratio (see below)
 - As a result of the need to purchase a much higher buffer of "high quality assets" to meet the liquidity coverage ratio, the exposure measure of the leverage ratio is itself greatly increased by the value of the high quality assets purchased
 - Again, this increases the amount of equity that must be raised and therefore the costs
 - Calculation of additional required capital is an iterative process with interdependencies between ratios

Basel Capital Proposal Quantitative Example

\$100M A-rated Undrawn Corporate Commitment Leverage Ratio Analysis

leverage ratio = capital measure / exposure measure

	Current	Target
	5%	3%

	Current	Proposed
PD	0.09%	0.17%
EAD	75%	75%
LGD	60%	60%
Maturity	5	5
R	0.235	0.230
b	0.253	0.219
K	0.048	0.066
Undrawn Commitment	\$100	\$100
RAA	45%	62%
RAA \$	\$45.24	\$61.76
Tier 1 Capital	10%	10%
Tier 1 Capital	\$4.52	\$6.18
Add'l reqrd capital for HQA and Leverage	\$0	\$0.68
Capital Measure	\$4.52	\$6.86
Undrawn Commitment	\$0	\$100
Additional Stock of High Quality Assets	\$5	\$102
Exposure Measure	\$5	\$202
Leverage Ratio	82.62%	3.39%
Cost of additional required capital (\$)	\$0.00	\$0.12
Cost of additional required capital (bps)	0.0	12.2

Undrawn commitments now included

HQ Assets from liquidity ratio hit the leverage ratio

The Liquidity Coverage Ratio further amplifies the problems associated with the interaction of the two proposals

- The "Liquidity" sheet details the computation of the liquidity coverage ratio under the current regime (left column) and under the proposed rules (right column)
 - Note that for the purposes of this calculation, undrawn commitments are fully included in the cash outflows
 - Also note that these high quality assets impact the leverage ratio above, as previously described
- The first element of additional cost to identify on this sheet is the need to purchase high quality assets (HQA) to more than fully pre-fund undrawn commitments. Stock of high quality assets is at least as great as the cash outflows projected in the next 30 days.
 - If we assume that we fund the high quality assets with 1 year debt, each month, across a portfolio of like positions, 1/12th of that debt could be projected to come due
 - Therefore, 1/12th of the debt amount needs to be included in the net cash outflows portion of the ratio as "Debt issuance maturing under 30 days"
 - This further increases the amount of high quality assets needed, and the debt that needs to be raised, and so on

Basel Capital Proposal Quantitative Example

\$100M A-rated Undrawn Corporate Commitment Liquidity Ratio Analysis - Interpret requirement as full funding

Assume Tier 1 capital forms the equity component of the capital structure
Assume long term debt raised to fund the remaining liquidity requirement

	Current \$	Current %	Proposal \$	Proposal %
Commitment	\$100.0		\$100.0	
HQA Funded by Tier 1 Capital	\$4.52	4.5%	\$6.9	6.9%
HQA Funded by Debt	\$5.48	5.5%	\$102.4	102.4%
Stock of High Quality Assets			\$109.2	
Debt issuance maturing under 30 days			\$8.5	
Commitment			\$100.0	
Net Cash Outflows			\$108.5	
Liquidity ratio (HQA/Outflows)				100.6%
1yr debt cost	\$0.03	0.50%	\$0.51	0.50%
Debt cost (bps on Commit)		2.7		51.2

HQ Assets must be purchased to meet net cash outflows

Portion of debt used to fund HQ Assets hits ratio