

Federal Reserve Bank of New York  
Staff Reports

Dodd-Frank One Year On: Implications for Shadow Banking

Tobias Adrian

Staff Report no. 533  
December 2011

This paper presents preliminary findings and is being distributed to economists and other interested readers solely to stimulate discussion and elicit comments. The views expressed in this paper are those of the author and are not necessarily reflective of views at the Federal Reserve Bank of New York or the Federal Reserve System. Any errors or omissions are the responsibility of the author.

## **Dodd-Frank One Year On: Implications for Shadow Banking**

Tobias Adrian

Federal Reserve Bank of New York Staff Reports, no. 533

December 2011

JEL classification: G01, G28

### **Abstract**

One year after passage of the Dodd-Frank Act (DFA), regulators proposed several of the rules required for its implementation. In this paper, I discuss some aspects of proposed DFA rules in light of shadow banking. The topics are risk-retention rules for securitized products and the impact of capital reforms on asset-backed commercial paper (ABCP) conduits. While the reform of securitization is resulting primarily from DFA, changes in accounting standards, together with the Basel capital reforms, have had important impacts on the economics of ABCP conduits.

Key words: shadow banking, regulation

---

Adrian: Federal Reserve Bank of New York (e-mail: [tobias.adrian@ny.frb.org](mailto:tobias.adrian@ny.frb.org)). This paper was prepared for the Pew Charitable Trust–New York University conference “Dodd-Frank: One Year On,” held in Washington, D.C., June 27, 2011. The paper has been published in the conference proceedings by the Centre for Economic Policy Research. The views expressed in this paper are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

## **Credit Risk Retention**

The securitization of credit and the funding of securitized products were at the heart of the shadow banking system. Prior to the financial crisis, underwriting standards in credit markets, and particularly in mortgage markets, deteriorated drastically. Mortgages without downpayment, with deferred or even negative amortization, or made to borrowers without verified income, were frequently originated. These poor underwriting standards have been linked to the ability to securitize risk. When originators of mortgages have the ability to securitize and sell the mortgages, a potential for moral hazard arises, as incentives between the underwriter/originator and securitizers on the one hand and the ultimate owner of asset backed securities (ABS) on the other hand are often not sufficiently aligned. The DFA requires credit risk retention by securitizers designed to reduce this moral hazard problem. The risk retention provisions are contained in Title IX of the Dodd-Frank Act, “Investor Protections and Improvements to the Regulation of Securities.” Thus, the aim of the rule is to protect investors from shoddy underwriting practices.

DFA section 941(b) requires a variety of regulatory authorities to jointly prescribe regulations that force securitizers to retain not less than five percent of the credit risk of any asset that they sell through the issuance of an ABS, and prohibit securitizers from directly or indirectly hedging or otherwise transferring the retained credit risk. The implementation of DFA’s credit risk retention is specified in a notice of proposed rule-making (NPR) issued in April 2011. My discussion of the credit risk retention applies to the proposed rule, which is subject to modifications before the issuance of the final rule.

The issuer must disclose the amount and form of retention to investors, and must provide material assumptions which justify the aggregate face amount of liabilities. A menu approach to risk retention is offered where vertical, horizontal, or a mix of vertical and horizontal tranches can be retained. “Vertical” retention refers to holding a portion of all tranches, while under “horizontal” retention the securitizer retains a first-loss tranche restricted to receive only scheduled principal. The NPR also allows for other forms of risk retention, such as a 50-50 split of a vertical and a horizontal slice (an L-shape).

As a consequence of the menu approach to the risk retention rule, the incentives to monitor underwriting standards by issuers of securitized products will vary according to the choice of the

risk retention. From an economic point of view, a horizontal slice usually provides the issuer with the strongest incentive to monitor underwriting standards. However, issuers might be compelled to choose a vertical slice or L-shaped risk retention, as these will generally require a lower funding cost. One potential advantage of the vertical slice is that, if the issuer services the loans underlying the security, the servicer's incentives might be better aligned with investors' interests. The vertical slice can also be more effective in circumstances where the equity tranche exceeds the 5 percent. In such a case, a vertical slice will at least provide some incentive to control risk for the losses in the equity tranche beyond the 5 percent. It is generally not clear that securitizers have the incentive to make the socially optimal choice of a risk retention tranche.

The rule also includes a "premium capture mechanism" that disallows securitizers from structuring interest only securities which transfer the full cash value to the equity tranche holder at the time of issuance. The premium capture mechanism prevents the structuring of the equity tranche in such a way that the incentive alignment is removed as cash flows are no longer sensitive to the credit quality of the underlying securities.

If the issuer of the security is a bank, the capital requirement applied to the retained risk is a key consideration for the economic rationale of securitization. The capital treatment for the retained risk is tightly linked to the accounting treatment. It is currently unclear whether a horizontal tranche will achieve true sale treatment under accounting rules. If true sale is not achieved, incentives for securitizations by banks are vastly reduced. Consequently, non-bank entities such as real estate investment trusts (REITS), finance companies or others might play a more important role in securitization markets.

The credit risk retention rules are designed to align incentives of securitizers with the ultimate owners of the securities. Credit risk retention has long been market practice in ABS markets. The historical track record suggests that the market will function properly with the risk retention requirements, and will be able to provide liquidity to loan securitizations. The rules recognize that the guarantees provided by Fannie Mae and Freddie Mac lead them to retain 100 percent of the credit risk of the mortgages they securitize, and because this guarantee is currently backed by financial support from the government, the proposed rules do not require these government-sponsored enterprises to retain additional risk.

An important aspect of the credit risk retention rules are exemptions for “Qualified residential mortgages” (QRM).<sup>2</sup> QRMs are securitizations backed entirely by high-quality mortgages. The DFA requires QRMs to feature underwriting and product features that are associated with lower default risk based on historical data. The proposal currently defines QRMs as closed-end, first-lien mortgages used to purchase or refinance one- to four-family properties, with tight restrictions on debt to income ratios and borrower credit histories, and a maximum loan to value ratio of 80 percent.<sup>3</sup>

### **Consolidation of ABCP Conduits**

The asset backed commercial paper market (ABCP) market was one of the first markets of the shadow banking system to collapse during the financial crisis. ABCP is issued by qualifying special purpose entities (SPEs) such as ABCP conduits, or by structured investment vehicles (SIVs). These conduits hold loans and securities, including mortgages, and issue commercial paper. The commercial paper is secured by the assets of the conduit, and most conduits get 100 percent liquidity backup lines from commercial banks. The backup lines effectively insure that investors can be repaid at par when the commercial paper matures. The conduit is structured as a bankruptcy remote SPE from the bank that provides the line of credit.

Banks used ABCP conduits to increase return on equity (ROE). By moving loans, mortgages, or securitized products off balance sheet into a conduits or SIVs, only a capital charge for the backup liquidity line was required. Because the liquidity line benefited from official backstops such as the discount window and deposit insurance, the cost of capital did not fully reflect the risk transfer from the balance sheet to the conduit. As a result, the reduction in capital charges yielded an increase in return on equity. However, through the liquidity line, the bank retained exposure to the off balance sheet vehicles. Indeed, in the second half of 2007, many banks effectively consolidated

---

<sup>2</sup> See Vice Chair Janet L. Yellen’s speech at the 2011 Federal Reserve Bank of Cleveland Policy Summit, Cleveland, Ohio, June 9, 2011 for further elaboration of QRMs.  
<http://www.federalreserve.gov/newsevents/speech/yellen20110609a.htm>

<sup>3</sup> QRMs cannot feature negative amortization, interest-only payments, or the potential for large interest rate increases. The maximum loan-to-value ratio is 80 percent for purchase mortgages, with no junior lien at closing; 75 percent on rate and term refinance loans; and 70 percent on cash-out refinance loans.

assets from conduits and SIVs on balance sheet. From a regulatory point of view, the problem with the off balance sheet funding via ABCP was that discount window and deposit insurance guarantees were extended indirectly and sometimes implicitly via the liquidity line to the conduit.

The credit risk retention rules as proposed in the NPR based on DFA section 941(b) specifically apply to ABCP conduits. The sponsors of conduits have to hold a minimum five percent horizontal tranche of the conduit on balance sheet. This rule has implications for capital requirements, and is closely tied to accounting treatment.

DFA section 165 prescribes enhanced prudential standards for systemically important financial institutions (SIFIs), defined as bank holding companies (BHCs) with \$50 billion or more in assets as well as any nonbank financial company designated by the Financial Stability Oversight Council (FSOC). The prudential standards are to be established by the Board of Governors of the Federal Reserve, and have to include (i) risk-based capital requirements and leverage limits, (ii) liquidity requirements, (iii) overall risk management requirements, (iv) resolution plans and credit exposure report requirements, and (v) concentration limits. The risk based capital requirements and liquidity requirements for BHCs are developed in conjunction with the Basel Committee for Bank Supervision (BCBS). Key aspects of the capital reform of the Basel Committee include the increase of the quality and quantity of capital, particularly emphasizing the share of common equity in regulatory capital; an increase in the risk coverage to include off-balance sheet exposures and derivatives related exposures, and the adoption of liquidity requirements.

The inclusion of off balance sheet activities in computing capital requirements is required by section 165(k) of the DFA (subject to some exemptions).<sup>4</sup> The term “off-balance sheet activities” is defined by DFA to mean an existing liability that is not on the balance sheet, but may move on-balance sheet upon the occurrence of some future event. The definition explicitly includes standby letters of credit, repos, interest rate swaps and credit swaps, among others.

The capital treatment of off balance sheet vehicles is also tightly linked to accounting treatments. On June 12, 2009, the Financial Accounting Standards Board (FASB) issued Financial Accounting Standards (FAS) 166 and FAS 167. FAS 166&167 removed the concept of a qualifying

---

<sup>4</sup> It should be noted that the NPR for implementation of section 165(k) has not yet been issued.

special purpose entity from generally accepted accounting principles (GAAP) and altered the criteria under which special purpose entities, like mortgage-backed securities (MBS) trusts, must be included in the issuer's, controlling-class holder's, or servicer's consolidated financial statements. FAS 166 contains rules which govern whether a transaction qualifies for sale treatment. FAS 167 specifies principles for the accounting for qualified special purpose entities.

Federal banking agencies announced the risk-based capital rule related to FASB's adoption of the Statements of FAS 166&167 in January 2010, effective March 2010. Banking organizations affected by the new accounting standards are generally subject to higher risk-based regulatory capital requirements. The rule better aligns risk-based capital requirements with the actual risks of certain exposures. The adoption of FAS 166&167 eliminates the exclusion of most ABCP programs from risk-weighted assets, effectively consolidating conduits on balance sheet. In cases where the bank sponsors the conduit and provides backup liquidity to a conduit, it must consolidate the loans or securities of the conduit onto its balance sheet, resulting in increased risk-based and leverage ratio capital requirements as well higher loan loss reserves. In addition to the consolidation of bank sponsored conduits, capital rules also significantly increase liquidity and capital requirements for bank backup lines of credit to independent entities such as multiseller conduits. However, if the bank provides backup liquidity to a conduit sponsored by a third-party, it can use an internal-model based approach (IAA) of the securitization framework.