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Regulating Moral Hazard: The True Risk of Dodd-Frank's Risk Retention Requirement

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REGULATING MORAL HAZARD: THE TRUE RISK OF DODD–FRANK’S RISK RETENTION REQUIREMENT

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I. INTRODUCTION

There is little doubt that complex and misunderstood financial products caused the 2008 Financial Crisis.¹ These products promised increased return with little risk.² From the investor’s limited perspective, it was a win-win.³ Asset-Backed Securities (ABSs) and Collateralized Debt Obligations (CDOs), as these products are known, were subsequently targeted for regulation by the

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¹ *Crash Course: The Origins of the Financial Crisis*, *ECONOMIST* (Sept. 7, 2013), <http://www.economist.com/news/schoolsbrief/21584534-effects-financial-crisis-are-still-being-felt-five-years-article>.

² *See id.*

³ *See id.*

Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd–Frank).⁴

Dodd–Frank was implemented in response to the Great Recession as a means to curb abuses on Wall Street.⁵ The Act mandated broad reform of the financial system, and in particular, required regulators to promulgate rules controlling the complex structure of ABS.⁶ Dodd–Frank required securitizers to retain a portion of the credit risk associated with ABS.⁷ The goal was to curb moral hazard⁸—the market failure commonly blamed for the Financial Crisis.⁹ If moral hazard decreases, regulators believe ABSs will be less likely to cause catastrophic failure in the financial system.¹⁰

However, there is reason to believe Dodd–Frank may “not adequately address” the moral hazard problem.¹¹ In Part I, this Article will set forth the nuts and bolts of ABS, identify risks associated with ABS, and describe Dodd–Frank’s solution to the systemic problems associated with ABS.¹² Part II will critique Dodd–Frank and the Agencies’¹³ solution to the moral hazard problem.¹⁴

⁴ Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (codified as 12 U.S.C. § 5301 (2012)) [hereinafter Dodd–Frank Act].

⁵ See *id.* The preamble to Dodd–Frank states its purpose is “[t]o promote the financial stability of the United States by improving accountability and transparency in the financial system, . . . to protect consumers from abusive financial services practices, and for other purposes.” *Id.* “Dodd–Frank will prevent the excessive risk-taking that led to the financial crisis.” *Wall Street Reform: The Dodd–Frank Act*, WHITE HOUSE, <https://www.whitehouse.gov/economy/middle-class/dodd-frank-wall-street-reform> (last visited Nov. 17, 2015).

⁶ See Dodd–Frank Act §§ 941–46.

⁷ *Id.* § 941.

⁸ See Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237, 254 (1996) (explaining a detailed description of moral hazard in numerous contexts). At a basic level, “[w]hat moral hazard means is that, if you cushion the consequences of bad behavior, then you encourage that bad behavior.” *Id.* at 238. See also Luis A. Aguilar, *The Need for Effective Regulation of the Asset-Backed Securities Market*, U.S. SEC. & EXCH. COMM’N (Aug. 28, 2013), <http://www.sec.gov/News/PublicStmnt/Detail/PublicStmnt/1370539794553>.

⁹ See Ryan Bubb & Prasad Krishnamurthy, *Regulating Against Bubbles: How Mortgage Regulation Can Keep Main Street Safe from Themselves*, 163 U. PA. L. REV. 1539, 1545 (2015); see also Gilles Chemla & Christopher A. Hennessy, *Skin in the Game and Moral Hazard*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (May 23, 2012), <http://corpgov.law.harvard.edu/2012/05/23/skin-in-the-game-and-moral-hazard/> (“[O]riginators operating in unregulated markets fail to internalize the costs they impose on investors if they utilize a common ABS structure (e.g., zero retentions) rather than credibly signaling positive information to the market via higher retentions.”).

¹⁰ See Bubb & Krishnamurthy, *supra* note 9, at 1606–07.

¹¹ Edward F. Greene, *Dodd–Frank and the Future of Financial Regulation*, HARV. BUS. L. REV. (Oct. 12, 2011), <http://www.hblr.org/?p=1728>.

¹² See *infra* Part I.

¹³ The “Agencies” refers to the agencies that were delegated authority by Dodd–Frank to promulgate risk retention rules. *Six Federal Agencies Jointly Approve Final Risk Retention Rule*, FED. RES. (Oct. 22, 2014), <https://www.federalreserve.gov/newsevents/press/bcreg/20141022a.htm>. These agencies are the Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Securities and Exchange Commission, the

Finally, Part III proposes a narrowly tailored method for reducing moral hazard via a precise risk retention requirement.¹⁵

II. BACKGROUND

A. Asset-Backed Securities

ABS is a broad category encompassing CDO.¹⁶ ABSs are created by bundling a pool of assets together and then securitizing them.¹⁷ Securitization transforms these relatively illiquid assets into readily tradable securities¹⁸ that allocate future cash flows and the risk of default from the assets to investors.¹⁹ The underlying assets can be nearly anything that provides stable cash flow, commonly including credit card loans, auto loans, residential mortgages, commercial mortgages, bonds, and credit tenant leases.²⁰ ABS could also theoretically consist of less-traditional assets such as “music royalties” and “tobacco settlement” awards.²¹ However, in practice, assets are usually only securitized if there is a ready market for the ABS in order to justify the costs of monitoring the assets and ensuring trading liquidity.²²

Department of Housing and Urban Development, and the Federal Housing Finance Agency. *Id.*

¹⁴ See *infra* Part II.

¹⁵ See *infra* Part III.

¹⁶ See ECONOMIST, *supra* note 1.

¹⁷ *Asset-Backed Securities*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/spotlight/dodd-frank/assetbackedsecurities.shtml> (last updated Oct. 23, 2014). The SEC defines ABS as:

[A] security that is primarily serviced by the cash flows of a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a finite time period, plus any rights or other assets designed to assure the servicing or timely distributions of proceeds to the security holders.

¹⁷ C.F.R. § 229.1101(c) (2016).

¹⁸ Richard E. Mendales, *Collateralized Explosive Devices: Why Securities Regulation Failed to Prevent the CDO Meltdown, and How to Fix It*, 2009 U. ILL. L. REV. 1359, 1367 (2009).

¹⁹ See Erik F. Gerding, *Code, Crash, and Open Source: The Outsourcing of Financial Regulation to Risk Models and the Global Risk Crisis*, 84 WASH. L. REV. 127, 130 (2009). Ultimately, “securitization thus carves up the risk associated with mortgages and other securitized assets into slices, which are then spread among investors.” *Id.*

²⁰ Tarun Sabarwal, *Common Structures of Asset-Backed Securities and Their Risks*, 4 CORP. OWNERSHIP & CONTROL 258, 258 (2006) (“An asset-backed security is a security that is collateralized, (or backed,) by some financial asset, such as receivables on credit cards, automobile loans, home equity loans, student loans, and so on. In principle, an asset-backed security can be created from almost any stream of receivables.”); see also FRANK J. FABOZZI & LAURIE S. GOODMAN, *INVESTING IN COLLATERALIZED DEBT OBLIGATIONS* 131 (2001) (“The most efficient structure for any ABS typically parallels the cash flow characteristics of its underlying collateral.”).

²¹ Sabarwal, *supra* note 20, at 258.

²² *Id.*

Perhaps the most well-known form of ABS is the Mortgage-Backed Security (MBS).²³ Indeed, MBSs dominated media coverage in the wake of the 2008 economic downturn (the Financial Crisis),²⁴ placing the acronym in the common vernacular.²⁵ These securities were broadly painted as the root of all evil—the cause of the collapse of the financial markets.²⁶ As a result, the MBS market decreased following the Financial Crisis,²⁷ but the resilient security has since rebounded.²⁸ As it turns out, the widespread benefits of MBSs (and for that matter, any ABS) cannot be ignored, even if they are susceptible to abuse when left unchecked.²⁹

The federal government originally sponsored MBS through the Federal National Mortgage Association (Fannie Mae) beginning in 1938; at that time, Fannie Mae was the only mortgage securitizer.³⁰ Today, private parties primarily securitize MBS; these MBSs are known as “private label” securities.³¹ The Government National Mortgage Association (Ginnie Mae) is the only government-backed securitizer.³² Ginnie Mae’s MBSs are considered the “gold standard” because its guarantees are backed by the “full faith and credit of the federal government.”³³ Thus, for investors, Ginnie Mae MBSs pose little risk.³⁴

The rest of these private label MBSs, and indeed all ABSs, are cause for greater consternation. Private label ABSs are not backed by government guarantees, but may carry *private* guarantees such as ABS insurance.³⁵ Nevertheless,

²³ See generally Bubb & Krishnamurthy, *supra* note 9, at 1541.

²⁴ See, e.g., Press Release, FED. RES. (Dec. 30, 2008), <http://www.federalreserve.gov/newsevents/press/monetary/20081230b.htm> (announcing the Federal Reserve’s plan to purchase MBSs to prop up the cratering housing and financial markets).

²⁵ See generally Bubb & Krishnamurthy, *supra* note 9, at 1541.

²⁶ See, e.g., Chris Isidore, *The Accounting Rule You Should Care About*, CNN MONEY (Oct. 1, 2008, 8:35 PM), http://money.cnn.com/2008/10/01/news/economy/mark_to_market/?postversion=2008100120.

²⁷ See *Statistics*, SIFMA, <http://www.sifma.org/research/statistics.aspx> (last updated Nov. 4, 2016) (follow “US Mortgage-Related Issuance and Outstanding” link).

²⁸ See *Statistics*, SIFMA, <http://www.sifma.org/research/statistics.aspx> (last updated Nov. 1, 2016) (follow “US ABS Issuance and Outstanding” link) (reporting total ABS issuance in 2014 is around 64% of 2007 levels and has generally increased in recent years).

²⁹ See *infra* Part I(C).

³⁰ Mendales, *supra* note 18, at 1364.

³¹ *Id.* at 1367. At the height of the housing bubble in 2006, Ginnie Mae MBSs accounted for only 4% of the MBS market, Fannie Mae and Freddie Mae MBSs accounted for 40%, and private label MBSs accounted for the remaining 56%. Richard J. Rosen, *The Role of Securitization in Mortgage Lending*, FED. RES. BANK CHI., Essay No. 244, Nov. 2007, at 2.

³² Mendales, *supra* note 18, at 1366.

³³ *Id.*

³⁴ See *id.*

³⁵ See Diana Hancock & Wayne Passmore, *An Analysis of Government Guaranties and the*

these private guarantees are generally viewed with some skepticism, especially after the Financial Crisis.³⁶ In the event of default on the underlying assets, private guarantors are more restricted in their ability to raise capital to pay on guarantees;³⁷ in a “credit crunch,” the problem is magnified.³⁸ The federal government, however, has the ability to raise taxes in order to fulfill its guarantees.³⁹ Thus, for the ABS investor, federally-backed ABSs pose little downside risk, even if the assets themselves default; private label ABSs, with unreliable guarantees, are a riskier investment.

As a result, private label ABS investors need a way to determine the likelihood a private guarantor would need to step in and pay a guarantee.⁴⁰ In other words, these investors need to determine how likely an asset is to default. Credit rating agencies, such as Moody’s, Standard & Poor’s, and Fitch, provide credit ratings for ABSs to fill this role.⁴¹ These agencies analyze the underlying assets and assign a credit rating to the ABS based on the likelihood of asset default.⁴² Frequently, these ABSs are structured as a CDO.⁴³

B. Collateralized Debt Obligations

An ABS can be structured as a CDO, which is a type of structured financial instrument.⁴⁴ CDOs vary greatly in structure, but are generally defined as

Functioning of Asset-Backed Securities Markets 3 (Divs. of Research & Statistics & Monetary Affairs, Fed. Reserve Bd., Working Paper No. 46, 2010), <https://www.federalreserve.gov/pubs/feds/2010/201046/201046pap.pdf>.

³⁶ *See id.*

³⁷ *See generally id.* at 3–4 (comparing federal and private guarantees).

³⁸ *See* Sumit Agarwal et al., *The Asset-Backed Securities Markets, the Crisis, and TALF*, 34 *FED. RES. BANK CHI.: ECON. PERSP.*, No. 4, 2010, at 101. Here, the problem is self-compounding; if ABS assets default in large numbers, there are likely systemic problems that would also hinder a private guarantor’s ability to pay on its guaranties. *See generally* Hancock & Passmore, *supra* note 35, at 1–4.

³⁹ Hancock & Passmore, *supra* note 35, at 3 (“The government has a comparative advantage at providing catastrophic insurance because private providers of insurance that guarantee payment of principle and interest do not have the power of taxation.”) (footnote omitted).

⁴⁰ *See generally id.* at 3–4.

⁴¹ *See* Amanda J. Bahena, *What Role did Credit Rating Agencies Play in the Credit Crisis?*, U. IOWA CENTR. INT’L FIN. & DEV. (Mar. 2010), <http://www.colorado.edu/AmStudies/lewis/ecology/rolecreditagencies.pdf> (discussing how credit rating agencies’ conflicts of interest contributed to the Financial Crisis.).

⁴² The highest credit ratings are labeled “AAA” or “Aaa,” while the lowest grade assets are rated “B-” or “B3.” *Rating Agency Credit Scale*, QUADCAPITAL, <http://www.quadcapital.com/Rating%20Agency%20Credit%20Ratings.pdf> (last visited Nov. 21, 2015). “Investment grade” assets are those with credit ratings of “BBB-” or “Baa3” or higher. *Id.*

⁴³ *See* Joshua D. Coval et al., *The Economics of Structured Finance* 2 (Harvard Business School, Working Paper No. 09-060, 2008).

⁴⁴ *Id.* (“The essence of structured finance activities is the pooling of economic assets (e.g.,

“financial instrument[s] that [entitle] the purchaser to some portion of the cash flows from a portfolio of assets, which may include bonds, loans, mortgage-backed securities, or other CDOs.”⁴⁵ For illustration, the basic cash-flow CDO structure⁴⁶ in Figure 1 below shows the primary parties and transactions:

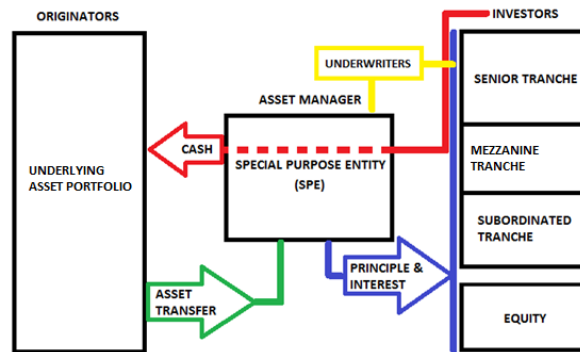


Figure 1

In the basic CDO outlined above, there are several distinct components, including the (i) underlying portfolio, (ii) special purpose entity (SPE), and (iii) tranches.⁴⁷

1. Underlying Portfolio

The underlying portfolio consists of assets investors purchase through the SPE.⁴⁸ As discussed above, these assets can take any number of forms with stable cash flow.⁴⁹ Two main measures are considered when constructing the un-

loans, bonds, mortgages) and subsequent issuance of a prioritized capital structure of claims, known as tranches, against these collateral pools.”)

⁴⁵ *Glossary*, U.S. DEPT. OF THE TREASURY, <https://www.treasury.gov/initiatives/financial-stability/glossary/Pages/Default.aspx> (last visited Nov. 23, 2015).

⁴⁶ See David Harper, *ABCs of CDO (CLO, CBO, CDO of ABS)*, YOUTUBE (Mar. 27, 2008), https://www.youtube.com/watch?v=Sac-qiZoU_0. There are many other types of CDOs that are sometimes categorized based on the securitizer’s motivation for creating the CDO, the type of underlying portfolio, and the risk transfer method. *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* Special Purpose Entities are also known as “Special Purpose Vehicles” (SPV). *Special Purpose Vehicle/Entity – SPV/SPE*, INVESTOPEDIA, <http://www.investopedia.com/terms/s/spv.asp> (last visited Oct. 21, 2016).

⁴⁹ See *supra* Part I(A) and accompanying text.

derlying portfolio—default probability and default correlation.⁵⁰ The probability of default (default probability)⁵¹ on the underlying assets is the central consideration when compiling the underlying portfolio. These underlying assets represent varying degrees of risk based on default probability,⁵² which their credit ratings capture.

The related concept, “default correlation,” indicates the “extent to which defaults are correlated across the underlying assets.”⁵³ Low default correlation indicates that if an underlying asset defaults, there is a low probability of simultaneous default on the other underlying assets.⁵⁴ In order to properly tranche according to default probability, as discussed below, default correlation should be low.⁵⁵ As a result, CDOs are usually structured to reduce default correlation within the underlying portfolio.⁵⁶

2. *Special Purpose Entity (SPE)*

The SPE is a trust or organization that holds and manages the underlying assets, pays principal and interest to investors, and manages credit swaps.⁵⁷ The SPE can employ a manager to either actively or passively manage the underlying asset portfolio and tranche payments.⁵⁸ In this way, the SPE and its manager act as intermediaries between the underlying portfolio and tranches.⁵⁹

3. *Tranches*

When an investor invests in a CDO, she is investing in a particular tranche of that CDO.⁶⁰ There can be any number of tranches⁶¹ in a CDO, with each

⁵⁰ See Sanjiv R. Das, Laurence Freed, Gary Geng, & Nikunj Kapadia, *Correlated Default Risk*, *CFA DIGEST* (July 2006), http://web-docs.stern.nyu.edu/salomon/docs/Kapadia_1.pdf.

⁵¹ Jaime Frade, *Credit Risk Modeling: Default Probabilities* (Dec. 28, 2008), http://stat.fsu.edu/~jfrade/HOMEWORKS/STA5168/FRADE_STA5168_paper.pdf (describing different methodologies for calculating default probability).

⁵² Credit ratings represent risk. See *supra* Part I(A).

⁵³ Coval et al., *supra* note 43, at 8.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ See generally *id.* at 5–8.

⁵⁷ See David Harper, *Collateralized Debt Obligation (Balance Sheet CDO)*, YOUTUBE (Mar. 18, 2008), <https://www.youtube.com/watch?v=WMwAyDnKjyk>; see generally Paul N. Watterson, Jr., *The Evolution of CDO Squared*, 11 J. STRUCTURED FIN. 1, 2 (2005) (describing common CDO structure).

⁵⁸ See CHARLES S. TAPIERO, *RISK FINANCE AND ASSET PRICING* 377 (2010).

⁵⁹ *Id.*

⁶⁰ Yim T. Lee, *Impact of CDO Tranches on Economic Capital of Credit Portfolios*, FIN. INNOVATION, <http://www.finance-innovation.org/risk09/work/1356573.pdf> (last visited Oct. 25,

tranche representing different credit risks and expected returns.⁶² The senior debt tranches carry the highest credit ratings (AAA-rated), while the subordinated debt tranches carry lower credit ratings—often, the lowest tranches will be rated as “junk.”⁶³ Just below the subordinated debt tranches rests the equity tranche.⁶⁴ The senior tranches pay the lowest returns while the subordinated tranches pay higher returns to compensate for greater risk.⁶⁵

The hierarchal nature of tranching is central to the CDO structure and gives rise to a “waterfall” payment sequence.⁶⁶ The waterfall first allocates cash flow from the underlying portfolio to the senior tranche until it is fully paid; then cash is allocated to any subordinated tranches in descending order.⁶⁷ As a result, the lowest tranche, i.e., the equity tranche, is the first to bear any defaults on the underlying assets.⁶⁸ Defaults are attributed to the tranches in ascending, “reverse-waterfall” fashion.⁶⁹ Thus, if there are enough defaults such that the equity tranche receives no payment while default continues, then the subordinated debt tranche will incur any additional losses arising from additional defaults until the subordinated debt tranche receives nothing; this pattern will continue up the tranche hierarchy.⁷⁰ In this way, the senior tranche is the most insulated from defaults in the underlying portfolio, while the equity tranche bears the greatest risk of nonpayment.⁷¹

2016). Many investors consider these tranches to be fixed-income securities because their interest rates are defined at the time of investment (unless the assets default). *Id.*

⁶¹ Cf. NATIONAL BUREAU OF ECONOMIC RESEARCH, HOUSING AND THE FINANCIAL CRISIS 153–54 (Edward L. Glaeser & Todd Sinai eds., 2013) (charting the average number of tranches in a MBS CDO between 2001 and 2006).

⁶² Jon Ogg, *CDOs and the Mortgage Market*, INVESTOPEDIA (Oct. 14, 2016, 2:00 PM), <http://www.investopedia.com/articles/07/cdo-mortgages.asp>.

⁶³ *Id.* “All CDOs make use of tranching to place their debt and equity obligations in strict seniority to one another—from the most senior tranche, typically rated AAA, to the unrated equity tranche.” Douglas Lucas, *The Evolving CDO Market*, 23 CFA INST. 42, 43 (2006).

⁶⁴ See *Collateralized Debt Obligations (CDOS)*, FINCAD, <http://www.fincad.com/resources/resource-library/wiki/collateralized-debt-obligations-cdos> (last visited Nov. 6, 2016).

⁶⁵ *Collateralized Debt Obligations*, BARBICAN CONSULTING, http://www.barbicanconsulting.co.uk/collateralised_debt_obligations (last visited Nov. 6, 2016) [hereinafter *Collateralized Debt Obligations*].

⁶⁶ See JOHN C. HULL, FUNDAMENTALS OF FUTURES AND OPTIONS MARKETS 186–87 (9th ed. 2014).

⁶⁷ See *id.*

⁶⁸ *Collateralized Debt Obligations*, *supra* note 65.

⁶⁹ See HANDBOOK OF FINANCIAL INTERMEDIATION AND BANKING 45 (Anjan V. Thakor & Arnaud W.A. Boot eds., 2008); see also *Collateralized Debt Obligations*, *supra* note 65. The level of defaults that can occur in the underlying portfolio before a particular tranche is affected is called the “attachment point.” *Collateralized Debt Obligations*, *supra* note 65.

⁷⁰ See *Collateralized Debt Obligations*, *supra* note 65.

⁷¹ *Tranche*, THE INFO LIST, <http://www.theinfoalist.com/php/SummaryGet.php?FindGo=Tranche>

C. Benefits of CDOs

CDOs can be much more complex than the above diagram indicates. For example, a CDO can be a CDO of a CDO—known as a CDO Squared.⁷² Infinite other iterations can be imagined, which begs the question: Why have CDOs? Many feel CDOs are too complicated for investors to effectively analyze their risk, including Warren Buffett, who famously observed that a CDO may contain up to 750,000 pages that an investor must read in order to understand the instrument.⁷³ However, others insist CDOs offer unparalleled advantages to many investors.⁷⁴

Broadly speaking, securitization serves several purposes to the individual investor: improving asset liquidity through standardization, access to otherwise unavailable assets, and diversification.⁷⁵ In other words, an investor can trade an asset that has been securitized (i.e., an ABS) more easily than the asset itself, making the asset more liquid when securitized.⁷⁶ The ease of access to these assets permits investors to diversify their portfolios beyond traditional investments.⁷⁷

Since CDOs are a type of ABS,⁷⁸ CDOs also offer investors liquidity and diversification.⁷⁹ In addition, the tranche feature of CDOs allows for flexible risk/return profiles,⁸⁰ making CDOs attractive to a wide range of investors.⁸¹

e (last visited Nov. 6, 2016).

⁷² See *Collateralized Debt Obligations*, *supra* note 65. In a CDO Squared, the underlying assets of a CDO are other CDO tranches. *Id.*

⁷³ Nicholas Varchaver, *What Warren Thinks...*, FORTUNE (Apr. 14, 2008, 10:23 AM), http://archive.fortune.com/2008/04/11/news/newsmakers/varchaver_buffett.fortune/index.htm?postversion=2008041410.

⁷⁴ See *Collateralized Debt Obligations*, *supra* note 65.

⁷⁵ See *id.*; see also ANDRA GHENT & ROSSEN VALKANOV, ADVANTAGES AND DISADVANTAGES OF SECURITIZATION: EVIDENCE FROM COMMERCIAL MORTGAGES (2013), http://www.vgsf.ac.at/fileadmin/user_upload/P/SSRN-id2152703.pdf; Emil Lee, *Securitization Simplified*, THE MOTLEY FOOL (June 27, 2007), <http://www.fool.com/investing/value/2007/06/27/securitization-simplified.aspx>.

⁷⁶ See *How Does Securitization Increase Liquidity*, INVESTOPEDIA (Apr. 21, 2015, 8:11 AM), <http://www.investopedia.com/ask/answers/042115/how-does-securitization-increase-liquidity.asp>.

⁷⁷ See *Asset-Backed Security—ABS*, INVESTOPEDIA, <http://www.investopedia.com/terms/a/asset-backedsecurity.asp> (last visited Nov. 11, 2016).

⁷⁸ *What Is the Difference Between a Debt Obligation (CDO) and an Asset Backed Security (ABS)?*, INVESTOPEDIA (Apr. 7, 2015, 1:11 PM), <http://www.investopedia.com/ask/answers/040715/what-difference-between-collateralized-debt-obligation-cdo-and-asset-backed-security-abs.asp>.

⁷⁹ See *Collateralized Debt Obligations*, *supra* note 65.

⁸⁰ See *id.*

⁸¹ See *id.*

D. Dodd–Frank Reform: Risk Retention Requirement

The financial crisis left regulators wondering how the crisis could have happened and how they could prevent another crisis. Of course, there is no simple answer, but people quickly realized that CDOs and moral hazard were largely to blame.⁸² A few years later, in 2010, Congress passed Dodd–Frank with the hope that it would reign in the abusive and predatory behavior of financial institutions.⁸³

Central to Dodd–Frank’s ABS reform is its “[R]isk [R]etention [R]equirement.” The Risk Retention Requirement generally requires any “securitizer”⁸⁴ of an “asset backed security”⁸⁵ to retain at least 5% of the credit risk associated with most ABSs.⁸⁶ Indeed, not all ABSs are subject to the Risk Retention Requirement.⁸⁷ For example, qualified residential mortgages are exempt from the 5% Risk Retention Requirement.⁸⁸ At a high level, the Risk Retention Requirement seems straightforward; however, Dodd–Frank fails to explain exactly *how* the 5% must be retained.⁸⁹ For that, federal agencies need to fill in the blanks.⁹⁰

Dodd–Frank charged six federal agencies⁹¹ with implementing the standards set forth in the Act.⁹² The Agencies drafted several iterations of a joint rule, eventually issuing a “Final Rule” embodying the Risk Retention Requirement,

⁸² See generally ROBERT A. JARROW, RETHINKING THE FINANCIAL CRISIS: THE ROLE OF ABS, CDS AND CDOs IN THE CREDIT CRISIS AND THE ECONOMY (Alan s. Blinder et al. eds., Russell Sage Foundation 2011), <http://www.russellsage.org/sites/all/files/Rethinking-Finance/Jarrow%20ABS%20CDS%20CDO%202.pdf>.

⁸³ See *supra* note 5 and accompanying text.

⁸⁴ 15 U.S.C. § 78o-11(b)(1) (2012) (defining “securitizer” as “(A) an issuer of an asset-backed security, or (B) a person who organizes and initiates an asset backed securities transaction by selling or transferring assets, either directly or indirectly, including through an affiliate, to the issuer”).

⁸⁵ *Id.* (defining “asset-backed security” as “a fixed-income or other security collateralized by any type of self-liquidating financial asset (including a loan, a lease, a mortgage, or a secured or unsecured receivable) that allows the holder of the security to receive payments that depend primarily on cash flow from the asset”).

⁸⁶ Dodd–Frank Act § 15G(c) (2012).

⁸⁷ *Id.*

⁸⁸ See *id.*

⁸⁹ Dodd–Frank itself leaves open the possibility of either horizontal or vertical risk retention slices. See *id.* § 941.

⁹⁰ See *id.* § 941(b).

⁹¹ These agencies are the Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Securities and Exchange Commission, Secretary of Housing and Urban development, and the Federal Housing Finance Agency. *Id.*

⁹² *Id.*

effective February 23, 2015.⁹³ The Final Rule fills gaps left by Dodd–Frank and articulates clear options for satisfying the Risk Retention Requirement.⁹⁴

The Final Rule specified several ways in which the Risk Retention Requirement could be met: vertically, horizontally, or a combination of both.⁹⁵ If the risk is retained vertically, the securitizer must retain at least 5% of each tranche⁹⁶—imagine a “Vertical Slice”⁹⁷ through the tranches in Figure 1 above. Alternatively, the Final Rule permits the securitizer “to satisfy its risk retention obligation exclusively through the horizontal option by retaining a first loss eligible horizontal residual interest in the issuing entity in an amount equal to no less than 5[%] of the fair value of all ABS interests.”⁹⁸ The horizontal option or “Horizontal Slice”⁹⁹ also allows the securitizer to set up and maintain a cash reserve account in an amount equal to the value of the risk that would have otherwise been horizontally retained.¹⁰⁰ Finally, the securitizer can meet the Risk Retention Requirement by combining the horizontal and vertical options.¹⁰¹ By allowing risk to be retained in various ways, the Agencies hope securitizers will be able to retain risk “in a manner that is compatible with current practices in the securitization markets.”¹⁰²

Additionally, securitizers are prohibited from transferring their retained risk for varying periods. For most ABSs, securitizers are generally only required to retain risk for two years after the date the securitization closes.¹⁰³ A

⁹³ Credit Risk Retention, 79 Fed. Reg. 77, 602 (Dec. 24, 2014) (codified at 17 C.F.R. § 246 (2016)).

⁹⁴ *See id.*

⁹⁵ 17 C.F.R. § 246.4(a) (2016). The Final Rule collectively calls these the “Menu of Options.” Credit Risk Retention, 79 Fed. Reg. 77602, 77612 (Dec. 24, 2014) (codified at 17 C.F.R. § 246 (2016)).

⁹⁶ 17 C.F.R. § 246.4(a)(1).

⁹⁷ Credit Risk Retention, 79 Fed. Reg. 77602, 77606 (Dec. 24, 2014) (codified at 17 C.F.R. § 246 (2016)).

⁹⁸ *Id.* at 77,615. If the equity tranche represents less than 5% of the fair market value of the entire security, then the next most subordinated debt tranche must be retained until the 5% level is reached. *Id.*

⁹⁹ *Id.* at 77,651.

¹⁰⁰ 17 C.F.R. § 246.4(b). “In lieu of holding all or part of its risk retention in the form of an eligible horizontal residual interest, the final rule will allow a sponsor to cause to be established and funded, in cash, an eligible horizontal cash reserve account, at closing, in an amount equal to the same dollar amount . . . as would be required if the sponsor held an eligible horizontal residual interest.” Credit Risk Retention, 79 Fed. Reg. 77602, 77,615 (Dec. 24, 2014) (codified at 17 C.F.R. § 246 (2016)).

¹⁰¹ 17 C.F.R. § 246.4(a).

¹⁰² Credit Risk Retention, 79 Fed. Reg. at 77,616.

¹⁰³ *Id.* at 77,753. The exception, however, is that the securitizer may transfer their retained risk once unpaid principal on the underlying assets is reduced to 33%. *Id.*

residential MBS (RMBS) securitizer, on the other hand, is subject to risk retention for five years.¹⁰⁴ These restrictions are commonly called “sunset provisions”¹⁰⁵ and recognize that default probability decreases with time, thereby obviating the need for perpetual risk retention.

II. ANALYSIS

Do Dodd–Frank and the Final Rule adequately address the CDO moral hazard problem? This Article finds Dodd–Frank and the Final Rule miss the mark because: A) the Final Rule gives securitizers too much flexibility to retain reduced levels of risk, and B) Dodd–Frank’s 5% requirement is far too low to meaningfully reduce moral hazard.

A. “True Risk” Retained as Permitted by the Joint Final Rule

Conventional analysis of the financial crisis usually centers on the moral hazard problem posed by mortgage securitization.¹⁰⁶ Securitization lends well to a moral hazard analysis.¹⁰⁷ Indeed, Dodd–Frank’s Risk Retention Requirement was enacted on that basis.¹⁰⁸ Moral Hazard applies in any situation where “one party gets involved in a risky event knowing that it is protected against the risk and the other party will incur the cost.”¹⁰⁹ For example, with a MBS CDO, the relevant parties are the originator, securitizer, and investor.¹¹⁰ The originator benefits from origination fees and the sale of the loan on the secondary market to a securitizer, ridding itself of all risk associated with the loan.¹¹¹ Similarly, the securitizer pools a collection of mortgages and issues them to investors, thereby transferring the risk and cash flow to the investors.¹¹² The securitizer earns a fee in the process, but may not retain any economic stake in the security’s performance—that is the moral hazard problem.¹¹³

The classic remedy for moral hazard is a requirement for parties to keep

¹⁰⁴ *Id.* Alternatively, an RMBS securitizer may transfer their retained risk once the unpaid principal balance on the underlying mortgages is reduced to 25% of the original balance. *Id.*

¹⁰⁵ *Id.* at 77,669–70.

¹⁰⁶ RYAN BUBB & ALEX KAUFMAN, SECURITIZATION AND MORAL HAZARD: EVIDENCE FROM CREDIT SCORE CUTOFF RULES 1 (Federal Reserve Bank of Boston Discussion Papers 2011).

¹⁰⁷ *Id.*

¹⁰⁸ See *supra* note 8 and accompanying text.

¹⁰⁹ *Definition of ‘Moral Hazard,’* THE ECONOMIC TIMES, <http://economictimes.indiatimes.com/definition/moral-hazard> (last visited Dec. 6, 2015).

¹¹⁰ Aguilar, *supra* note 8.

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

“skin in the game.”¹¹⁴ If securitizers are required to retain an economic interest (and associated risk) in their securities, they are incentivized to create “good” securities that are less likely to lose money. Dodd–Frank forces securitizers to keep skin in the game through the Risk Retention Requirement.¹¹⁵

However, the Final Rule gives securitizers different methods to keep skin in the game, and all ways are not created equal.¹¹⁶ A securitizer retaining a Horizontal Slice retains greater overall risk, or “True Risk,”¹¹⁷ than a securitizer retaining a Vertical Slice.¹¹⁸ In both instances the securitizer retains 5% of the total value of the security.¹¹⁹ However, the Vertical Slice carries less True Risk, as the following example will show.

In a very basic CDO, imagine three tranches—senior debt (AAA-rated), subordinated debt (AA-), and equity (unrated). The senior tranche constitutes 90% of the underlying portfolio’s asset value, the subordinated tranche is 6%, and the equity tranche is 4%.¹²⁰ Further, assume that the probability a tranche will not experience defaults is 40% for the equity tranche, 95% for the subordinated debt tranche, and 99% for the senior debt tranche. Now, compare the “Risk Adjusted Value”¹²¹ of the retained interest in the Vertical and Horizontal Slice scenarios.

If the securitizer retains a 5% Vertical Slice, the securitizer will retain 4.5% of the senior debt tranche, 0.3% of the subordinated debt tranche, and 0.2% of the equity tranche.¹²² The Risk Adjusted Value relative to the entire underlying portfolio of the securitizer’s retained interest for each tranche is as follows: senior debt tranche=4.455%; subordinated debt tranche=0.28%; equity tranche=0.08%.¹²³ These values total 4.815%. This means that the securitizer can expect to keep 4.815/5 of its retained vertical interest, or 96.3% of its total retained interest after accounting for defaults but before adjusting upward for

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ See Credit Risk Retention, 79 Fed. Reg. 77,602 (Dec. 24, 2014) (to be codified at 17 C.F.R. § 246 (2016)).

¹¹⁷ *Id.* “True Risk,” as used in this Article, means the risk retained after accounting for the likelihood of no defaults in each tranche retained.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.* The equity tranche would thus have an “attachment point” at 0.0%, the subordinated tranche at 4%, and the senior tranche at 6%.

¹²¹ *Id.* “Risk Adjusted Value,” as used here, means the value of the retained interest after deducting for expected defaults, but with no corresponding upward adjustment for expected return. This measure is helpful for determining total risk across tranches of a retained interest.

¹²² *Id.* These figures are calculated by multiplying (0.05) times the size of each tranche.

¹²³ Multiply the probability of no default for each tranche by the securitizer’s retained interest for each tranche to arrive at these figures.

expected return.

Contrast this to retaining a Horizontal Slice of the same CDO. The securitizer would retain the entire equity tranche—4% of the underlying portfolio—plus an additional 1% of the subordinated debt tranche. The Risk Adjusted Value relative to the entire underlying portfolio for the securitizer's retained interest of the equity tranche is 1.6% and 0.95% of the subordinated debt tranche.¹²⁴ The sum of these figures is 2.55%, which means that the securitizer can expect to keep 2.55/5, or 51% of its retained horizontal interest before upward adjustments for expected return.

The preceding example ignores expected return altogether, and instead highlights the vastly different risk profiles of horizontally and vertically retained interests. Of course, it is axiomatic that riskier investments have the potential for a higher return; hence, a securitizer retaining a Horizontal Slice has greater upside potential than were it holding a Vertical Slice. However, from a moral hazard perspective, return on investment is irrelevant—all that matters is the risk of losing skin in the game.¹²⁵ Thus, the example isolates the True Risk associated with both retention methods for purposes of comparing any reduction in moral hazard between the two options.

The example shows that a horizontally retained interest can be *substantially* riskier than a vertically retained interest. Here, the Horizontal Slice envelops over thirteen times more lost value (i.e., value lost by adjusting for risk) than the Vertical Slice.¹²⁶ Such comparisons are not unique to this example. Indeed, the horizontal interest is necessarily riskier than the vertical interest in a CDO. This is the natural result of tranching, where the Horizontal Slice encompasses a much greater proportion of high-risk investments.

This mismatch in the True Risk retained between retention methods is evidence that the Risk Retention Requirement, as implemented by the Final Rule, is an imprecise means for curbing moral hazard. Risk retention requirements are a common remedy for moral hazard, but the Final Rule permits differing levels of True Risk retention under the umbrella of the 5% requirement. As illustrated above, the vertical and horizontal retention methods represent different True Risk retained by the securitizer, making the 5% requirement a poor, and seemingly arbitrary, standard.

Nevertheless, the Final Rule touts the flexibility offered by the menu of options. The Final Rule offers an efficient market justification for continuing historical market practices, stating, “the flexibility sponsors have to design how

¹²⁴ See *supra* note 123 and accompanying text.

¹²⁵ See *supra* Part II(A) and accompanying text.

¹²⁶ Compare the Horizontal Slice's reduction in value after adjusting for risk (49%) with the Vertical Slice's lost value (3.7%). Notice that $49/3.7=13.243$.

they hold credit risk will allow them to calibrate and adjust their selections for each transaction according to changing market conditions.”¹²⁷ Likewise, the Agencies recognize that:

This approach allows sponsors to minimize costs by selecting a customized combination of vertical and horizontal risk retention that suits their individual situation[s] and circumstances, including relative market demand for the various types of interest that may be retained under the rule . . . [and] would implement risk retention in the broadest possible manner such that sponsors may choose the combination of vertical and horizontal risk retention that they view as optimal.¹²⁸

Ultimately, the Final Rule’s attempt “to balance the goals of risk retention (reduction of the moral hazard problem and better underwriting) with the need to facilitate the efficient deployment of capital”¹²⁹ gives securitizers too much flexibility. Retention requirements based on True Risk retained would still afford securitizers flexibility (i.e., whether vertical, horizontal, or a combination thereof) while more precisely forcing securitizers to internalize risk.¹³⁰

B. Financial Institutions Retained Significant Risk Prior to the Financial Crisis

Even if a regulation is precisely tailored to True Risk, there is substantial doubt whether 5% is sufficient to curb moral hazard associated with ABS. A growing body of research shows that many securitizers retained much more than 5% of their securities’ risk leading up to the Financial Crisis.¹³¹ Indeed, most MBS securitizers retained over 20% of the risk associated with their securities.¹³²

It begs the obvious question: if risk retention levels of 20% could not prevent the Financial Crisis, why would 5% be enough? There are two probable

¹²⁷ Credit Risk Retention, 79 Fed. Reg. 77,601, 77,719 (Dec. 24, 2014) (to be codified at 17 C.F.R. § 246 (2016)).

¹²⁸ *Id.* at 438.

¹²⁹ *Id.* at 437.

¹³⁰ *See id.*

¹³¹ *See* Isil Erel et al., *Why Did Holdings of Highly Rated Securitization Tranches Differ So Much Across Banks?* (Charles A. Dice Ctr. for Research in Econ., Working Paper 2012-27, 2012). The first research paper to estimate CDO holdings by major financial institutions was published in December, 2012. *Id.* Bubb & Krishnamurthy published their related article in 2015. *See* Bubb & Krishnamurthy, *supra* note 9.

¹³² Bubb & Krishnamurthy, *supra* note 9, at 1581. It is important to note that the securitizers may have hedged their risk, which is not accounted for in the 20% figure. *Id.* at 1583. As a result, the net risk retained is probably lower than 20% for most securitizers. *See id.*

explanations.¹³³ The first possibility is that securitizers may have hedged most of their retained risk leading up to the crisis, ultimately leading to net risk retention of less than 5%.¹³⁴ Alternatively, it is conceivable that risk retention levels leading up to the crisis were still too low to curb moral hazard, which makes Dodd–Frank’s 5% *much* too low.¹³⁵ For the reasons below, retained risk should be greater than the 20% market practice leading up to the Financial Crisis.

There is strong evidence that most securitizers hedged relatively little against their retained risk.¹³⁶ Erel et al., found that bank holdings of MBSs leading up to the Financial Crisis were strongly correlated with a bank’s securitization activity, and hence could be used to estimate the amount of risk retained directly from its own securitizations.¹³⁷ Based on this correlation, Bubb & Krishnamurthy discovered that financial institutions posted huge losses associated with mortgage-related assets, which led to the conclusion that large financial institutions hedged relatively little against their retained risk preceding the Financial Crisis.¹³⁸ Only a few financial institutions, including Goldman Sachs, hedged significantly.¹³⁹ However, Erel et al., and Bubb & Krishnamurthy’s evidence indicated most financial institutions retained significantly more than 5% of the net risk associated with their MBS.¹⁴⁰

The best explanation is often the simplest. The fact that moral hazard was not curbed by higher levels of risk retention preceding the Financial Crisis likely means that parties retained insufficient risk. The market still failed despite most large financial institutions retaining about 20% of the net risk they securitized.¹⁴¹

¹³³ Another possibility is simply that moral hazard was not implicated in the Financial Crisis. Indeed, some scholars reject the moral hazard theory. *See, e.g.*, Adam J. Levitin & Susan M. Wachter, *Explaining the Housing Bubble*, 100 GEO. L.J. 1177 (2012); Bubb & Krishnamurthy, *supra* note 9. However, the debate remains unsettled and is beyond the scope of this Comment. This Comment will assume moral hazard played a significant role in the Financial Crisis, as Dodd–Frank reflects.

¹³⁴ *See, e.g., id.*

¹³⁵ *See* Bubb & Krishnamurthy, *supra* note 9, at 1540.

¹³⁶ *See* Bubb & Krishnamurthy, *supra* note 9, at 1583.

¹³⁷ *See* Erel et al., *supra* note 132, at 42.

¹³⁸ *See* Bubb & Krishnamurthy, *supra* note 9, at 1583. If financial institutions engaged in more hedging, one would expect losses on mortgage-related assets to be smaller. *See id.* Thus, the fact that losses to total MBS holdings were massive in the wake of the Financial Crisis means that financial institutions hedged relatively little against their mortgage-related assets (which were predominately securitized by the financial institutions bearing the loss). *Id.*

¹³⁹ *Id.* Goldman Sachs was the notable exception, which posted comparatively small losses resulting from credit default swaps with AIG. *See generally* Sarah Ng & Carrick Mollenkamp, *Goldman Fueled AIG Gambles*, WALL ST. J., <http://www.wsj.com/articles/SB10001424052748704201404574590453176996032> (last updated Dec. 12, 2009).

¹⁴⁰ *See* Bubb & Krishnamurthy, *supra* note 9. *See also* Erel et al., *supra* note 132.

¹⁴¹ *See* Erel et al., *supra* note 121. At least, in the MBS market. *Id.*

Assuming moral hazard is truly to blame, the only rational response is to impose higher risk retention requirements on securitizers.¹⁴² Dodd–Frank’s 5% Risk Retention Requirement appears entirely trivial when compared to prevailing market practices, which retain approximately 20% of the risk.¹⁴³

III. SOLUTION

In light of Dodd–Frank’s inadequacy and the Final Rule’s imprecise implementation of Dodd–Frank, this Article articulates a more appropriate standard geared toward reducing moral hazard within ABS CDO markets. First, the Agencies should require risk retention based on True Risk¹⁴⁴ in order to surgically combat moral hazard. Likewise, True Risk requirements could be tailored based on asset classes, recognizing the inherently different risk associated with different assets. The current option to retain Vertical or Horizontal Slices affords securitizers too much flexibility to reduce actual risk retained. Second, the minimum True Risk retained should be more than pre-Financial Crisis industry practices and should be net of hedged risk. Any hedged risk should be deducted from the True Risk retained in order to more fully align the securitizers’ interests with those of investors. Otherwise, securitizers could reduce or eliminate all retained risk, thereby making any risk retention requirement meaningless.¹⁴⁵ Assuming reducing moral hazard is the goal, this is the only logical solution.

IV. CONCLUSION

ABS fill an important role in modern finance. However, asset securitization—CDOs in particular—opens a Pandora’s Box of systemic concerns. Left unchecked, CDOs can lead to catastrophic market failure, as evidenced by the Financial Crisis. Such market failure, known as moral hazard, is inherently present in the securitization process.

Recognizing the significance of the moral hazard problem, Congress inserted a risk retention requirement in Dodd–Frank. The Risk Retention Requirement aims to reduce moral hazard by mandating that securitizers retain a small amount of credit risk associated with their ABS. Unfortunately, Congress and the Agencies failed to adequately address the moral hazard problem. The Agencies’ Final Rule permits too much flexibility and allows securitizers to retain significantly less True Risk than Dodd–Frank requires. Further, Dodd–

¹⁴² See generally *id.* (discussing moral hazard and its implications).

¹⁴³ *Id.*

¹⁴⁴ See *supra* Part II(A) and accompanying text.

¹⁴⁵ See 15 U.S.C. § 78o-11 (2012). It is important to note that Dodd–Frank *does* restrict hedging, but the point is important enough to reiterate under the proposed rule. *Id.*

Frank requires far too little nominal risk retention (5%), as evidenced by the Financial Crisis, which witnessed risk retention levels of 20%—four times higher than Dodd–Frank requires.

This Article’s solution addresses these deficiencies. First, any risk retention requirement should be based on True Risk. Second, securitizers should be forced to retain more than 20% of the risk associated with their securitizations, with limits on their ability to hedge against these risks. These changes would reduce the risk of another financial crisis by constraining irresponsible securitization arising from moral hazard.