

SECURITIZATION AND POST-CRISIS FINANCIAL REGULATION

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There are few types of securities as internationally traded as those issued in securitization (also spelled securitisation) transactions. The post-financial crisis regulatory responses to securitization in the United States and Europe are, at least in part, political and ad hoc. To achieve a more systematic regulatory framework, this Essay examines how existing regulation should be supplemented by identifying the market-failure causes that apply distinctively to securitization and analyzing how they could be addressed. Among other things, the Essay argues that Europe's regulatory framework for simple, transparent, and standardised (STS) securitizations goes a long way towards addressing complexity as a cause of market failure, and that the United States should consider a similar regulatory approach.

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INTRODUCTION

There are few types of securities as internationally issued and traded as the debt securities—often called asset-backed securities (ABS) or, when specifically backed by mortgage loans, mortgage-backed securities (MBS)¹—issued in securitization transactions.² European investors commonly invest in ABS issued in U.S. securitization transactions,³ and vice versa.⁴

Securitization epitomizes the disintermediation of bank credit that is characteristic of the so-called shadow banking system.⁵ In a typical securitization transaction, a sponsor

¹ This Essay will use the broader term, ABS, to include MBS.

² In Europe, securitization is spelled securitisation.

³ Cf. Carol Bertaut et al., ABS Inflows to the United States and the Global Financial Crisis 5-7 (Nat'l Bureau of Econ. Research, Working Paper No. 17350, 2011), <http://www.nber.org/papers/w17350> [<https://perma.cc/V5HC-TTD2>] (describing the flow of funds from Europe into U.S. ABS).

⁴ See, e.g., Thomas Hale, *Lloyds Taps Overseas Appetite for British ABS*, FIN. TIMES (Oct. 14, 2015, 5:05 PM), <http://www.ft.com/cms/s/0/19d699e4-726f-11e5-bdb1-e6e4767162cc.html#axzz4GVbLdA65> [<https://perma.cc/R6GZ-FVWU>].

⁵ Steven L. Schwarcz, *The Governance Structure of Shadow Banking*:

will purchase a pool of loans or other rights to payment (financial assets) from firms, such as mortgage lenders, originating those assets (originators) and sell them to a special purpose entity (SPE).⁶ The SPE will issue securities to investors, repayable from the periodic financial asset payments. Securitization enables originators to multiply their available funding by selling off their loans for cash, from which they can make new loans. Otherwise the lenders would have to carry the loans on their books and recoup the principal over many years.⁷

It is generally agreed that securitization's abuses contributed to the global financial crisis (financial crisis).⁸ Repayment of ABS issued in certain highly leveraged securitization transactions, usually called "ABS CDO" transactions,⁹ was so "extremely sensitive to cash-flow variations" that, when "the cash-flow assumptions turned out to be wrong, many of these . . . [highly rated securities] defaulted or were downgraded."¹⁰ That, in turn, sparked a loss of confidence in the value of credit ratings and highly rated debt securities generally.¹¹

The regulatory responses to securitization in the United States and Europe are, at least in part, ad hoc political reactions to the financial crisis. Parts I and II of this Essay explain, and Part III compares and critiques these responses. Thereafter, Part IV of the Essay examines how existing regulation could be made more systematic by identifying the market-failure causes that apply distinctively to securitization and analyzing how they could be addressed.

I

U.S. REGULATORY RESPONSES

The U.S. regulatory responses to securitization are primarily embodied in the Dodd-Frank Act and in part embodied in the U.S. implementation of the Basel III capital

Rethinking Assumptions About Limited Liability, 90 NOTRE DAME L. REV. 1, 2 (2014).

⁶ See Steven L. Schwarcz, *What is Securitization? And for What Purpose?*, 85 S. CAL. L. REV. 1283, 1292–93 (2012).

⁷ See *id.* at 1295–98.

⁸ Steven L. Schwarcz, *Securitization, Structured Finance, and Covered Bonds*, 39 J. CORP. L. 129, 130 (2013).

⁹ The term ABS CDO refers to a securitization of collateralized debt obligations. Schwarcz, *supra* note 6, at 1285.

¹⁰ *Id.*

¹¹ Schwarcz, *supra* note 8, at 131.

requirements. These responses conceptually fall into four categories: increasing disclosure, requiring risk-retention, reforming rating agencies, and imposing capital requirements. As will be seen, there are strong parallels between the U.S. regulatory responses and the European regulatory responses. In part, that is because securitization is such a relatively new approach to financing that regulators throughout the world are attempting to learn from each other.¹² This represents the ultimate transnationalization of the law regarding debt.

A. Disclosure

Section 942(b) of the Dodd-Frank Act¹³ requires, for each issue of ABS,¹⁴ the disclosure of information regarding the financial assets backing each class (sometimes called “tranche”) of those securities.¹⁵ The U.S. Securities and Exchange Commission (SEC) is directed to promulgate rules expanding that disclosure requirement (e.g., standardizing data disclosure).¹⁶ Those rules have not yet been finally issued.

B. Risk-Retention

To attempt to address moral hazard resulting from the originate-to-distribute model of loan origination (under which lenders sell off their loans as they are made), thereby improving the quality of the financial assets underlying securitization transactions, Dodd-Frank Act section 941 requires securitizers—who are effectively originators or sponsors of the securitization¹⁷—to retain a portion of the

¹² Cf. Tamar Frankel, *Cross-Border Securitization: Without Law, but Not Lawless*, 8 DUKE J. COMP. & INT’L L. 255, 274–78 (1998) (arguing that the law of securitization is developing through a form of shared international *lex mercatoria*).

¹³ Dodd-Frank Wall Street Reform and Consumer Protection Act, 15 U.S.C. § 77g(c) (2012).

¹⁴ This requirement does not currently apply, although the SEC is still considering whether it should apply, to ABS issued in private placements under SEC Rule 144A. See 17 C.F.R. §§ 229, 230, 232, 239, 240, 243, 249 (2016); KIRKLAND & ELLIS, NOT SO FAST: THE SEC ADOPTS REG AB II 1 & app. C at 1 (2014) (stating that the 144A market is unaffected by the disclosure requirements in Reg. AB II).

¹⁵ Securitizers are also required to disclose fulfilled and unfulfilled repurchase requests across all trusts aggregated by them so that investors may identify assets with clear loan-underwriting deficiencies. Dodd-Frank Wall Street Reform and Consumer Protection Act § 943, 15 U.S.C. § 78o-7.

¹⁶ See 15 U.S.C. § 77g(d).

¹⁷ More technically, a securitizer is either an issuer of ABS or a person

credit risk (so-called “skin in the game”) for any financial asset (including mortgage loans, other than Qualified Residential Mortgages¹⁸) that the securitizer, through the issuance of an asset-backed security, transfers, sells, or conveys to a third party. For example, securitizers are required to retain at least 5% of the credit risk for non-qualified residential mortgage-loan assets that they transfer, sell, or convey through the issuance of an asset-backed security.¹⁹ The regulations prohibit securitizers from directly or indirectly hedging or otherwise transferring the credit risk they are required to retain with respect to an asset.²⁰

C. Rating-Agency Reform

To increase the reliability of credit ratings issued by rating agencies, section 943 of the Dodd-Frank Act requires the SEC to prescribe regulations requiring each nationally recognized statistical rating organization (NRSRO, the U.S. regulatory term for a rating agency) to include “in any report accompanying a credit rating . . . [a description of the] representations, warranties and enforcement mechanisms available to investors . . . and how the[se] differ from the representations, warranties and enforcement mechanisms in issuances of similar securities.”²¹ The Dodd-Frank Act also

who organizes and initiates a securitization transaction by selling or transferring financial assets either directly or indirectly, including through an affiliate, to the issuer of the ABS. 15 U.S.C. § 78o-11(a)(3).

¹⁸ Qualified Residential Mortgage (QRM) is a designation based on a borrower’s ability to repay the mortgage loan at origination, a verification of the borrower’s income, and certain other relevant considerations. 12 C.F.R. § 1026 (2016).

¹⁹ 15 U.S.C. § 78o-11(c)(1)(B).

²⁰ Dodd-Frank Act section 946 also requires the chairman of the Financial Services Oversight Council (FSOC) to study the macroeconomic effects of the risk-retention requirements, with emphasis placed on potential beneficial effects with respect to stabilizing the real estate market. This study shall include an analysis of the effects of risk-retention on real estate asset price bubbles, including a retrospective estimate of what fraction of real estate losses may have been averted had such requirements been in force in recent years; an analysis of the feasibility of minimizing real estate bubbles by proactively adjusting the percentage of risk-retention that must be borne by creditors and securitizers of real estate debt, as a function of regional or national market conditions; a comparable analysis for proactively adjusting mortgage origination requirements; an assessment of whether such proactive adjustments should be made by an independent regulator (or in a formulaic and transparent manner); and an assessment of whether such adjustments should take place independently or in concert with monetary policy.

²¹ Disclosure Required by Section 943 of the Dodd-Frank Act, 76 Fed. Reg. 4,489, 4,490 (Jan. 26, 2011) (to be codified at 17 C.F.R. pts. 229, 232, 240, 249).

significantly reduces reliance on rating agencies by banks and federal agencies.²²

D. Capital Requirements

Capital requirements are intended to protect firms against economic shocks. Capital requirements apply to securitization transactions by requiring investors in ABS to hold more capital than they would be required to hold for investments in other types of securities.²³ In general, the United States follows the Basel III capital requirements, which mandate higher capital requirements for investments in ABS.²⁴

The Federal Reserve and two other federal agencies²⁵ have also adopted a final rule combining the Basel III capital requirements and the Dodd-Frank Act framework to implement Basel III's liquidity coverage ratio (LCR) in the United States.²⁶ The LCR requires banks to maintain a minimum amount of high-quality liquid assets (HQLAs)—assets that can be easily and immediately converted into cash with little or no loss of value²⁷—to withstand a 30-day stress scenario; a bank's stock of HQLAs must be at least 100% of its total net cash outflows over the 30-day stress period. In defining what constitutes HQLAs and which HQLAs must be discounted for purposes of computing the 100% requirement, Basel III disfavors investments in ABS, disallowing some to qualify as HQLAs and discounting others as much as 50% for purposes of computing the 100% requirement.²⁸ The U.S. implementation of the LCR is even

²² See 15 U.S.C. § 78o-7.

²³ BASEL COMM. ON BANKING SUPERVISION, BASEL III DOCUMENT: REVISIONS TO THE SECURITIZATION FRAMEWORK (Dec. 11, 2014).

²⁴ Liquidity Coverage Ratio, 79 Fed. Reg. 61,440, 61,440 (Oct. 10, 2014) (to be codified at 12 C.F.R. pt. 249).

²⁵ The Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC).

²⁶ Liquidity Coverage Ratio, 79 Fed. Reg. at 61,440.

²⁷ *Id.*

²⁸ BASEL COMM. ON BANKING SUPERVISION, BASEL III: THE LIQUIDITY COVERAGE RATIO AND LIQUIDITY RISK MONITORING TOOLS ¶¶ 49–54 (2013). Even covered bonds are disfavored, being subject to a 15% discount. *Id.* ¶ 52(b). Covered bonds are similar to ABS, but there are some fundamental differences. Most notably, covered bonds are supported by a “dynamic” cover pool and have full recourse if their underlying financial assets turn out to be insufficient to pay them in full. See Schwarcz, *supra* note 8, at 142–44; Steven L. Schwarcz, *The Conundrum of Covered Bonds*, 66 BUS. LAW. 561, 566–68 (2011).

stricter.²⁹

II

EUROPEAN REGULATORY RESPONSES

The European regulatory responses to securitization conceptually fall into five categories: increasing disclosure, requiring risk-retention, reforming rating agencies, imposing capital requirements, and requiring certain due diligence. Except for adding due diligence requirements, these categories parallel the U.S. regulatory responses to securitization.

In discussing the European regulatory responses to securitization, I first will focus on the plan unveiled in late September 2015,³⁰ in which the European Parliament and Council proposed regulations laying down common rules on securitization and creating a European framework for simple, transparent, and standardised (STS) securitization.³¹ A primary goal of these EU-proposed regulations is to incentivize STS securitizations—in contrast to more opaque and complex securitization transactions—as an effective funding channel to the economy.³² To avoid confusion, the reader should be aware that although the STS securitization framework has many parallels to the so-called simple, transparent, and comparable (STC) securitization criteria

²⁹ Basel III allows countries to set stricter standards than those supplied by the Basel Committee. See BASEL COMM. ON BANKING SUPERVISION, *supra* note 28, ¶ 5. The U.S. implementation is stricter because it excludes certain types of ABS that would qualify as HQLAs, such as residential MBS and covered bonds. See DAVISPOLK, U.S. BASEL III LIQUIDITY COVERAGE RATIO FINAL RULE: VISUAL MEMORANDUM 15–16 (2014), <http://usbase13.com/docs/Final%20LCR%20Visual%20Memo.pdf> [<https://perma.cc/7GFN-BG4S>].

³⁰ *Proposal for a Regulation of the European Parliament and of the Council Laying Down Common Rules on Securitisation and Creating a European Framework for Simple, Transparent and Standardised Securitisation and Amending Directives 2009/65/EC, 2009/138/EC, 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012*, COM (2015) 472 final (Sept. 30, 2015) [hereinafter *EU-proposed regulations*].

³¹ The existing regulatory framework governing EU securitization is a hodge-podge that includes the Capital Requirements Regulation for banks, the Solvency II Directive for insurers, the UCITS and AIFMD directives for asset managers, legal provisions on information disclosure and transparency laid down in the Credit Rating Agency Regulation and in the Prospectus Directive, and other provisions on the prudential treatment of securitization in Commission legislative proposals such as the Bank Structural Reform and Money Market Funds. *Id.* at 4.

³² See Council Regulation 575/2013, 2013 O.J. (L 176) 1, 16 (stating that the primary purpose is ensuring the operation of vital services to the real economy while limiting the risk of moral hazard).

proposed in July 2015 by the Basel Committee on Banking Supervision and the Board of the International Organization of Securities Commissions (operating together as the Task Force on Securitization Markets),³³ the STS criteria are proposed as EU law.³⁴

A. Disclosure

By incentivizing STS securitizations, the EU-proposed regulations implicitly promote disclosure. Disclosure is much more likely to be effective for securitizations that are simple, transparent, and standardized than for more complex securitization transactions.³⁵

Chapter 3 of the EU-proposed regulations defines STS securitization.³⁶ Article 8 of Chapter 3 describes the simplicity requirement, which includes a true sale or similar transfer of the underlying financial assets.³⁷ Additionally,

³³ BASEL COMM. ON BANKING SUPERVISION & BD. OF THE INT'L ORG. OF SEC. COMM'NS, CRITERIA FOR IDENTIFYING SIMPLE, TRANSPARENT AND COMPARABLE SECURITIZATIONS (2015), <http://www.bis.org/bcbs/publ/d332.htm> [<https://perma.cc/A76M-GSXG>].

³⁴ Although a technical comparison of the STS and STC criteria is beyond this Essay's scope, my research assistant Dominic Lerario is writing an excellent research paper making such a comparison. See Dominic M. Lerario, The Basel Committee and the International Organization of Securities Commissions' "Criteria for Identifying Simple, Transparent and Comparable Securitizations": Not So Simple 5 (Jan. 12, 2016) (unpublished manuscript) (on file with author). Lerario notes that although "the uneven application and interpretation of just the STC criteria creates the potential for regulatory fragmentation, inconsistency and ultimately regulatory arbitrage, the prospect of a competing, albeit similar, STS framework multiplies these concerns." *Id.*; cf. Katie McCaw & Jonathan Walsh, Baker & McKenzie, *Where Are We in Developing a Definition of "High Quality Securitization"?*, LEXOLOGY (Apr. 28, 2015), <http://www.lexology.com/library/detail.aspx?g=da574ef3-239f-48c7-9473-4a7755ab3518> [<https://perma.cc/559H-XYZR>] ("The release of differing global, European and national proposals for . . . [high quality securitizations] appears to somewhat undermine the long-established (or at least, well-understood) hierarchical order around the global implementation of prudential regulation: EU legislation implements global policy; national rules transpose EU legislation. To reverse-engineer this natural order risks establishing an EU-wide (or national) regime for . . . [high quality securitizations] that is then subject to amendment as global principles are established. Given that the global investor community will be seeking a degree of comfort from the . . . [high quality securitizations] designation . . . , a single, globally-accepted definition of . . . [high quality securitizations], and the criteria that denote it, must be established.").

³⁵ The U.S. regulations contemplate only limited standardization, and they impose that as a requirement rather than as an incentive. See *supra* notes 16–18 and accompanying text (discussing standardizing data and disclosing such data).

³⁶ *EU-proposed regulations*, *supra* note 30, at 36.

³⁷ *Id.*

those financial assets must themselves meet simplicity requirements, including being homogenous, creditworthy (e.g., not in default, not from obligors that are insolvent or have adverse credit history or low credit scores), and not constituting already securitized financial assets.³⁸

Article 9 of Chapter 3 sets forth the standardization requirements.³⁹ Among other things, interest-rate risk and exchange-rate risk must be hedged and, other than to effect such hedging, the underlying financial assets cannot include or be buttressed by derivatives (as would be the case in a “synthetic” securitization).⁴⁰ The transaction documentation must clearly specify the obligations, duties, and responsibilities of the servicer and back-up servicer to ensure efficient and continuing servicing of the financial assets and must also include clear provisions facilitating the timely resolution of conflicts among different classes of investors.⁴¹

Article 10 of Chapter 3 sets forth the transparency requirements.⁴² Among other things, the originator or sponsor must provide investors a cash flow model and also provide them access to information on historical default, delinquency, and loss performance for substantially similar financial assets to those being securitized.⁴³ Also, a sample of the underlying financial assets shall be subject to external verification by an independent party.⁴⁴ I later discuss why these criteria for STS securitizations are sensible.⁴⁵

B. Risk-Retention

Article 4 of the EU-proposed regulations also creates, for

³⁸ *Id.*

³⁹ *Id.* at 38–39.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.* at 39.

⁴³ *Id.*

⁴⁴ Even securitizations engaged in by asset-backed commercial paper (ABCP) conduits can qualify as STS if the commercial paper has maturities not exceeding a year, the conduit provides investors with monthly data on all of its collections and liabilities, and the underlying financial assets are of the same asset type and have a weighted average life of no more than two years (with underlying financial assets having a life of more than three years). See *Finance Alert: European Commission Releases Proposals on Securitization*, KAYE SCHOLER (Oct. 6, 2015), http://www.kayescholar.com/in-the-market/publications/client_alerts/20151006-finance-alert-european-commission-releases-proposals-on-securitization [https://perma.cc/W33E-CMSP].

⁴⁵ See *infra* notes 57–58 and accompanying text.

most securitizations, a risk-retention requirement similar to the U.S. risk-retention requirement.⁴⁶ To avoid a recurrence of the allegedly flawed originate-to-distribute model, the originator or sponsor must retain an unhedged material net economic interest in the securitization of at least 5%.

C. Rating-Agency Reform

European regulators have sought to increase the transparency and accountability of rating agencies. Most significantly, they require rating agencies to disclose the fees charged to their clients.⁴⁷

D. Capital Requirements

The Basel III capital requirements, already discussed in the U.S. regulatory context,⁴⁸ also apply in Europe. As discussed, Basel III mandates higher capital requirements for investments in ABS. It also disfavors investments in ABS for purposes of satisfying its liquidity coverage ratio (LCR).

E. Due Diligence Requirements

Chapter 2 of the EU-proposed regulations imposes due diligence requirements for all securitizations, even STS securitizations.⁴⁹ These not only require standard pre-closing due diligence but also post-closing due diligence, including requiring investors⁵⁰ to perform regular stress tests on the cash flows and financial asset values supporting the underlying securitization exposures.⁵¹

III

CRITIQUING THE U.S. AND EUROPEAN REGULATORY RESPONSES

The responses of U.S. and European regulators are still ongoing. However, the contours of their regulatory approaches are apparent. In previous work, I have identified

⁴⁶ See *supra* subpart I.B.

⁴⁷ Commission Delegated Regulation (EU) 2015/1 of 30 September 2014, 2014 O.J. (L 2) 1, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0001&from=EN> [<https://perma.cc/8XJV-8A4Q>].

⁴⁸ See *supra* subpart I.D.

⁴⁹ *EU-proposed regulations, supra* note 30, at 29–30.

⁵⁰ This refers to institutional investors, which generally constitute the vast majority of investors in EU securitization transactions. See, e.g., MIGUEL SEGOVIANO ET AL., *SECURITIZATION: THE ROAD AHEAD* 21–23 (2015) (describing the securitization investor base in Europe and the United States).

⁵¹ *EU-proposed regulations, supra* note 30, at 29–30.

strengths and weaknesses in the regulation of securitization.⁵² I next build on that work in light of what we now know about the regulatory paths taken on both sides of the Atlantic, beginning by critiquing the conceptual categories.

A. Critique of Disclosure

Requiring increased disclosure in securitization transactions is unlikely by itself to be meaningful. Prior to the financial crisis, the risks associated with complex securitization transactions and their underlying financial assets, including subprime mortgage loans, were fully disclosed; but that failed to prevent the catastrophic collapse of the securitization markets.⁵³ The problem is that disclosure alone can be ineffective for highly complex securitization products. For example, the task of deciphering a prospectus, hundreds of pages long and full of detailed technical and legal phraseology, is usually burdensome even for the most sophisticated institutional managers—so they often over rely on credit ratings, especially if other financial institutions are investing in the same types of securities.⁵⁴

The EU's disclosure approach, tied to incentivizing STS securitizations, is more likely to be effective than the U.S. approach because of those transactions' relative standardized simplicity.⁵⁵ Nor should that standardized simplicity unduly restrict the economic utility of securitization.⁵⁶ In previous work, I have criticized attempts at government-imposed standardization for its inhibiting effect on financial innovation.⁵⁷ The STS approach, in

⁵² See Steven L. Schwarcz, *The Future of Securitization*, 41 CONN. L. REV. 1313, 1321 (2009) [hereinafter *The Future of Securitization*]; Steven L. Schwarcz, *The 2011 Diane Sanger Memorial Lecture—Protecting Investors in Securitization Transactions: Does Dodd-Frank Help, or Hurt?*, 72 LA. L. REV. 591, 598–602 (2012).

⁵³ This discussion is based in part on Steven L. Schwarcz, *Disclosure's Failure in the Subprime Mortgage Crisis*, 2008 UTAH L. REV. 1109 (2008).

⁵⁴ See *id.* at 1114.

⁵⁵ Nonetheless, at least one international law firm predicts that significant financial modeling will still be required for investors to understand STS securitizations. *Finance Alert: European Commission Releases Proposals on Securitization*, *supra* note 44.

⁵⁶ This Essay assumes that securitization can provide economic utility. As discussed, it can be an important means to generate capital. See *infra* note 58 and accompanying text.

⁵⁷ Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. 211, 240–41 (2009).

contrast, does not require standardization but merely rewards standardized simplicity—and it appears to contemplate a significant degree of market flexibility in achieving that simplicity. Furthermore, STS securitizations should encompass the basic types of securitization transactions that were originated in the 1980s and became economically significant during the 1990s, when the SEC described them as “becoming one of the dominant means of capital formation in the United States.”⁵⁸ Incentivizing these types of transactions appears sensible.

B. Critique of Risk-Retention

As mentioned, the intended purpose of risk-retention is to reduce moral hazard resulting from the originate-to-distribute model of loan origination, thereby improving the quality of the financial assets underlying securitization transactions.⁵⁹ It is unclear whether a legal risk-retention requirement will improve financial asset quality.

In my experience, the market itself has always mandated risk-retention. Prior to the financial crisis, for example, originators and sponsors of securitizations usually retained risk on the financial assets, typically mortgage loans, included in those transactions.⁶⁰ The problem, however, was that originators and sponsors, as well as investors, generally overvalued those assets.⁶¹ That is in part because of the irrational characteristic of asset-price bubbles: the unfounded belief that downside risk—in that case, the risk of home prices plummeting—will never be realized.⁶²

It is also unclear whether the originate-to-distribute model of loan origination actually caused morally hazardous behavior, thereby lowering mortgage-loan underwriting standards. In theory, separation of origination and ownership should not matter because ultimate owners should assess and value risk before buying their ownership

⁵⁸ Investment Company Act, Release No. 19105, 57 Fed. Reg. 56248, 56248 (Nov. 19, 1992) (provided in connection with the issuance of Rule 3a-7 under the Investment Company Act of 1940).

⁵⁹ See *supra* notes 16–18 and accompanying text.

⁶⁰ Ryan Bubb & Pradas Krishnamurthy, *Regulating Against Bubbles: How Mortgage Regulation Can Keep Main Street and Wall Street Safe—From Themselves*, 163 U. PENN. L. REV. 1539, 1547, 1881–83 (2015).

⁶¹ See *id.* at 1554.

⁶² See *id.* at 1546 (“[O]veroptimism about future house prices in a bubble leads market participants to underweigh the probability of default and blunts the incentive benefits of risk-retention.”). The most infamous example of a bubble may be the 16th century Dutch tulip bulb bubble.

positions.⁶³ If the originate-to-distribute model did not cause a lowering of underwriting standards, then risk-retention requirements may have little effect.⁶⁴

Risk-retention might not merely be insufficient but also dangerous, leading to a “mutual misinformation” problem. By retaining residual risk portions of certain complex securitization products they were selling prior to the financial crisis, securities underwriters may actually have fostered false investor confidence, contributing to the crisis.⁶⁵

C. Critique of Rating-Agency Reform

Much like the topic of disclosure, the Dodd-Frank Act authorizes the SEC to promulgate rules regulating the conduct and business of rating agencies, and yet the SEC has done relatively little in this area.⁶⁶ What has been done has not addressed the conflicts of interest inherent in the issuer-pays model, a model that some believe played an important role in the inflated investment-grade ratings awarded to complex securitizations prior to the financial crisis. In contrast, the EU-proposed regulations require the disclosure of those fees.⁶⁷ While that does not totally relieve the conflict of interest in the issuer-pays model, it may serve to mitigate the conflict or at least reduce the appearance of impropriety.

The Dodd-Frank Act also significantly reduces reliance on rating agencies by banks and federal agencies.⁶⁸ This misses the point somewhat. While reduced reliance on ratings may be beneficial in some respects, one should primarily seek to make credit ratings more reliable.⁶⁹

⁶³ Schwarcz, *supra* note 57, at 257 (arguing that even though lenders are better situated to make this evaluation than the ultimate owners, the latter should take steps to reduce, or to compensate for, any information asymmetry).

⁶⁴ Cf. Kevin Villani, *Risk-Retention Rules Set Up the Private Investor for Failure*, AM. BANKER (Aug. 29, 2011), <http://www.americanbanker.com/bankthink/QRM-qualifying-residential-mortgage-risk-retention-housing-private-investor-1041645-1.html> [<https://perma.cc/VK38-NK9S>] (arguing that lack of “skin in the game” was not responsible for financial firms’ “astronomical leverage”).

⁶⁵ See Schwarcz, *supra* note 57, at 241–42.

⁶⁶ Gretchen Morgenson, *The Stone Unturned: Credit Ratings*, N.Y. TIMES (Mar. 22, 2014), <http://www.nytimes.com/2014/03/23/business/the-stone-untuned-credit-ratings.html> [<https://perma.cc/96LF-7KUA>].

⁶⁷ See *supra* note 47 and accompanying text.

⁶⁸ See *supra* note 22 and accompanying text.

⁶⁹ Cf. SEC Announces Enforcement Results for FY 2015, U.S. SEC. &

D. Critique of Capital Requirements

As discussed, capital requirements apply to securitization transactions by requiring investors in ABS to hold more capital than they would be required to hold for investments in other types of securities. This Essay will not attempt to critique the general merits of capital requirements, merely their application to securitization transactions.⁷⁰

The requirement that investors hold more capital for investments in ABS has been subject to widespread industry criticism.⁷¹ Some criticize it as simply being “punitive” against securitization.⁷² Others contend the requirement is illogical, representing such a “very conservative tightening of capital standards” that investors in ABS will have to hold more regulatory capital than if they invested directly in the

EXCHANGE COMMISSION (Oct. 22, 2015)
<http://www.sec.gov/news/pressrelease/2015-245.html>
 [https://perma.cc/8JLU-ZKKT] (discussing the status of the enforcement action that the SEC brought against a major credit-rating agency in connection with the financial crisis).

⁷⁰ There is controversy over how to calibrate the optimal level of capital required to ensure stability without sacrificing efficiency within the financial system. See, e.g., Stephen Matteo Miller, *The Circle of Crisis and Capital*, U.S. NEWS & WORLD REP. (Mar 21, 2016, 1:30 PM), <http://www.usnews.com/opinion/economic-intelligence/articles/2016-03-21/keep-banks-capital-requirements-high-to-protect-against-financial-crises> [https://perma.cc/D5K6-UQ8P]. Such a system would be highly complex and nuanced, such as the Basel II capital adequacy requirements. Of course, those same requirements failed to prevent the financial crisis. The response by the Basel Committee on Banking Supervision and U.S. and European regulators was to ratchet up capital requirements. These reactions have been met with mixed responses by some and vigorous resistance by others. See, e.g., Victoria McGrane & Leslie Scism, *MetLife Suit Sets Up Battle Over Regulation*, WALL ST. J., (Jan. 14, 2015, 12:16 AM), <http://www.wsj.com/articles/metlife-to-challenge-systemically-important-tag-1421152441>.

⁷¹ Additional criticism has been voiced about the methodology for calculating the extra capital requirement. For example, the Simplified Supervisory Formula Approach (SSFA) establishes a method for calculating the applicable risk weights for different levels of securitization exposures, with more subordinated exposures requiring higher risk weights. BASEL COMM. ON BANKING SUPERVISION, *supra* note 23, at 27. Some are concerned over the complexity of calculating capital requirements under the SSFA. Others are concerned over the requirement that, in applying the SSFA, investors must consider certain information that may be burdensome to obtain, if not unavailable. If investors cannot consider that information, the regulator could impose up to a 1,250% risk weight. See *id.*

⁷² FRENCH BANKING FEDERATION, FRENCH BANKING FEDERATION RESPONSE TO THE BCBS 269 CONSULTATIVE DOCUMENT RELATIVE TO THE SECURITIZATION FRAMEWORK 6 (2014)
http://www.fbf.fr/fr/files/9WQCEM/FBF_response_BCBS_Securitization_framework_20140321.pdf [https://perma.cc/5BAE-RHJ5].

financial assets backing those securities.⁷³ Industry representatives therefore support “capital-neutrality,” requiring investors in ABS backed by first priority claims against financial assets to hold capital based on those underlying assets.⁷⁴

Whether or not there is merit to requiring investors to hold more capital for investments in ABS, the European STS framework allows investors in ABS that constitute STS securities to receive a 25% reduction in their capital surcharges.⁷⁵ This is intended as a reflection of the reduced risk associated with simple, transparent, and standardised securitizations.

E. Critique of Due Diligence Requirements

As discussed, the EU-proposed regulations require institutional investors in securitization transactions to perform certain pre-closing and post-closing due diligence.⁷⁶ In my experience, the required due diligence is similar to what investors, or other parties (such as trustees), normally perform in securitization transactions.⁷⁷ To that extent, these due diligence requirements could be viewed as paternalistic and unnecessary.⁷⁸ Nonetheless, such requirements could have value to help assure adequate due diligence during another investor “feeding frenzy” for securitization products, as occurred prior to the financial crisis.⁷⁹

⁷³ WILLIAM PERRAUDIN, *HIGH QUALITY SECURITISATION: AN EMPIRICAL ANALYSIS OF THE PCS DEFINITION31* (2014) http://www.riskcontrollimited.com/wp-content/uploads/2015/02/High_Quality_Securitisation.pdf [<https://perma.cc/SZ7X-DEVC>].

⁷⁴ See, e.g., FRENCH BANKING FEDERATION, *supra* note 72.

⁷⁵ Huw Jones & Francesco Guarascio, *EU to Ease Capital Rules for Banks, Insurers to Boost Economy*, REUTERS, (Sept. 30, 2015, 9:38 AM), <http://www.reuters.com/article/2015/09/30/us-eu-markets-regulations-idUSKCNORU16Q20150930> [<https://perma.cc/LE6K-SSUL>].

⁷⁶ See *supra* subpart II.E.

⁷⁷ See *The Future of Securitization*, *supra* note 52, at 1318 (“Parties to, and investors in, securitization transactions must always be diligent to recognize and try to protect against the possibility that the underlying financial assets might, as in the case of subprime mortgage loans, fail in unexpected ways.”).

⁷⁸ The only exception would be where investors fail to perform due diligence because of risk marginalization. See *infra* note 94 and accompanying text.

⁷⁹ See, e.g., SEGOVIANO ET AL., *supra* note 50, at 5 (depicting in Figure 1 the growth and collapse of securitized product issuance during 2003-2014); Suzanne Woolley, *What's Next, Securitized Bridge Tolls?*, BLOOMBERG BUS. WK. (Sept. 2, 1996, 12:00 AM), <http://www.bloomberg.com/news/articles/1996->

IV

RETHINKING THE REGULATORY FRAMEWORK

Even if such responses would otherwise constitute a complete regulatory framework, Part III has shown that the U.S., and to some extent, the European, regulatory responses to securitization may be insufficient. This should not be surprising; the post-crisis macroprudential regulation of finance⁸⁰ is itself insufficient. The European Central Bank Director General for Research summarized as follows the consensus reached at a recent Federal Reserve-sponsored conference: “Both monetary policy and macroprudential [regulatory] policy are not really very effective.”⁸¹ Part of the reason for this insufficiency is that the regulatory responses have been somewhat ad hoc, focusing on assembling a “toolbox” of regulatory “tools.”⁸²

This Essay next attempts to supplement these tools with a more systematic regulatory framework. In a macroprudential context, I have attempted to think through what it is about finance that could cause systemic market failures, which need regulation to correct. Subpart A below identifies these market-failure causes. Thereafter, subpart B examines which market-failure causes can apply distinctively to securitization and, in that context, analyzes how they could be addressed.

A. Identifying Market-Failure Causes

In a macroprudential context, I have argued that finance has at least five fundamental causes of market failures that need regulation to correct: complexity, conflicts, complacency, change, and a type of tragedy of the commons (which I will call the “4Cs and the TOC”).⁸³ Consider them in

09-01/whats-next-securitized-bridge-tolls [https://perma.cc/S3ZS-Y88T] (describing the race to securitize different assets and quoting a Managing Director at Moody’s as saying “When everybody wants to securitize, and everyone is willing to buy, and everyone thinks nothing will go wrong, there gets to be a feeding-frenzy atmosphere”).

⁸⁰ Macroprudential regulation refers to regulation intended to reduce systemic risk.

⁸¹ Binyamin Appelbaum, *Skepticism Prevails on Preventing Crisis*, N.Y. TIMES, Oct. 5, 2015, at B1, B3 (quoting Luc Laeven) (article also observing the “troubling reality” that “policy makers have made little progress in figuring out how they might actually” prevent another financial crisis).

⁸² Cf. Robert Hockett, Implementing Macroprudential Finance-Oversight Policy: Legal Considerations 12–13 (Jan. 20, 2013) (unpublished draft prepared for the International Monetary Fund) (on file with author) (discussing the “emergent macroprudential toolkit as currently constituted”).

⁸³ See Steven L. Schwarcz, *Regulating Financial Change: A Functional*

turn.

1. *Complexity*

The first “C” is complexity, which may well be the greatest challenge to the financial system in the 21st century.⁸⁴ Complexity causes at least three types of information failures. First, it can make disclosure insufficient to eliminate information asymmetry (although disclosure certainly remains necessary).⁸⁵ As discussed, the Dodd-Frank Act focuses heavily on disclosure as a solution.⁸⁶ Because disclosure is insufficient, that focus will be insufficient. Second, complexity makes understanding harder, which increases the chance of panics⁸⁷ and also, like the Delphic Oracle, makes people prone to see what they want to see. Finally, complexity heightens the risk of “mutual misinformation.”⁸⁸

2. *Conflicts*

“Conflicts” refers to classic principal-agent conflicts. Traditionally, this market failure is viewed as a potential conflict between a firm’s owners (shareholders) and senior managers.⁸⁹ In the United States, the Dodd-Frank Act attempts to remedy that.⁹⁰

In a complex financial world, however, the greater conflict risk may be intra-firm: between a firm’s senior managers and its more analytically informed secondary (or middle) managers, such as vice presidents and senior analysts.⁹¹ Regulation could help to solve this problem by

Approach, 100 MINN. L. REV. 1441, 1443–46 (2016).

⁸⁴ Cf. Manuel A. Utset, *Financial System Engineering*, 32 REV. BANKING & FIN. L. 371, 389–93 (2013) (identifying complexity as the core problem resulting in systemic market failures).

⁸⁵ See *id.* at 418–19.

⁸⁶ See *supra* subpart I.A.

⁸⁷ Cf. Ricardo J. Caballero & Alp Simsek, *Fire Sales in a Model of Complexity*, 68 J. FINANCE 2549, 2550 (2013) (arguing that complexity generates uncertainty, especially about counterparty exposure, which causes financial institutions to “retrench into a liquidity conservation mode” and possibly engage in fire sales of assets).

⁸⁸ See *supra* notes 64–65 and accompanying text.

⁸⁹ See Steven L. Schwarcz, *Controlling Financial Chaos: The Power and Limits of Law*, 2012 WIS. L. REV. 815, 822 (2012).

⁹⁰ See, e.g., Troy S. Brown, *Legal Political Moral Hazard: Does the Dodd-Frank Act End too Big to Fail?*, 3 ALA. C.R. & C.L. L. REV. 1, 71–77 (2012).

⁹¹ See Steven L. Schwarcz, *Conflicts and Financial Collapse: The Problem of Secondary-Management Agency Costs*, 26 YALE J. ON REG. 457, 458–59 (2009). This Essay uses several examples to illustrate the intra-firm conflict,

requiring systemically important firms to pay secondary managers under longer-term compensation arrangements. But the ability of these managers to work anywhere creates an international collective action problem, requiring effective regulation to be global to avoid prejudicing the competitiveness of firms subject to particular national rules.⁹²

3. *Complacency*

“Complacency” includes human irrationality, including the tendencies to over rely on heuristics, such as credit ratings, in order to try to simplify complexity; to see what we want to see in the face of uncertainty;⁹³ and to panic. I also use the term to include incentive failure: the human tendency to discount actual risk and to free-ride—failing to perform sufficient due diligence—that sometimes occurs when financial firms compete.⁹⁴

The information failure caused by complacency is difficult to correct. Human nature cannot easily be changed, and increasing complexity can increase irrationality.⁹⁵ Even incentive failure is hard to correct. Although regulation could require—perhaps for certain large issuances of complex securities—that a minimum unhedged position be held by a single sophisticated investor in each class of securities, regulatory attempts to limit risk dispersion would have tradeoffs: increasing the potential for regulatory arbitrage, impairing the ability of parties to achieve negotiated market efficiencies, and possibly even increasing

including the Value-at-Risk (VaR) model. VaR measures the probable losses to a securities portfolio given a certain level of risk. As the model became more widely accepted, firms began to compensate secondary managers for their ability to generate profits with low risk, as measured by VaR. Secondary managers therefore turned to products with low VaR profiles, such as credit default swaps which generate small gains and seldom experience losses. The secondary managers knew, but often did not inform their superiors, that when losses did occur they could be massive. *Id.* at 460.

⁹² See *id.* at 466–69 (observing that realigning secondary manager compensation with the long-term health of a firm faces a collective action problem: firms will be reluctant to employ a contingent or deferred compensation structure because doing so would put the firm at a competitive disadvantage in attracting talented managers, and therefore regulation may be necessary to overcome this impasse).

⁹³ Cf. *supra* notes 87–88 and accompanying text (observing that complexity makes understanding harder, which, like the Delphic Oracle, makes people prone to see what they want to see).

⁹⁴ I also refer to this as risk marginalization.

⁹⁵ See *supra* text following note 86; see also Schwarcz, *supra* note 89, at 821–22.

financial instability.⁹⁶

The information failure resulting from complacency will therefore be inevitable. I later examine ex post mitigative regulation that could reduce the harmful systemic consequences of market failures.⁹⁷

4. *Change*

This refers to the difficulty of regulating a constantly changing financial system. Existing regulatory approaches suffer from two time-bound flaws. One flaw is obvious: politics and human nature make financial regulation overly reactive to past crises, thereby unduly pinning regulation to the past. Policymakers and regulators are aware of, and have been trying to address, that flaw. But there is a less obvious, though arguably more fundamental, flaw: financial regulation is normally tethered to the financial architecture, including the distinctive design and structure of financial firms and markets, in place when the regulation is promulgated. This flaw unduly pins regulation to the *present*. Financial regulation must transcend that time-bound architecture because without continuous monitoring and updating—which rarely occurs because it is costly and subject to political interference—present-day regulation can quickly become outmoded.

5. *Tragedy of the Commons*

Systemic risk in part results from a type of tragedy of the commons. While the benefits of exploiting finite capital resources accrue to individual participants, the costs are distributed among many. Individual market participants therefore have little incentive to limit their risk taking in order to reduce the systemic danger to other participants in the financial system.⁹⁸ This is a tragedy of the commons

⁹⁶ Steven L. Schwarcz, *Marginalizing Risk*, 89 WASH. U. L. REV. 487, 516–17 (2012). Risk dispersion can create benefits such as reducing the asymmetry in market information and more efficiently allocating risks. This is accomplished by shifting risk on financial assets to investors and other market participants who are better able to assess risk. Risk dispersion can, however, also create market failures that cause market participants to misjudge or ignore potential correlations. A prime example is investors' mistaken belief that ABS provided an investment market that was uncorrelated with traditional debt markets. To investors' surprise, when ABS investments backed by subprime mortgage loans began defaulting, so did other ABS investments backed by other types of assets. *Id.* at 493–94.

⁹⁷ See *infra* note 108 and accompanying text.

⁹⁸ Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 206 (2008).

insofar as market participants suffer from the actions of other market participants; it is a more standard externality insofar as non-market participants (often called residents of Main Street, as distinguished from residents of Wall Street) suffer from the actions of market participants.

This market failure is not unique to securitization. Indeed, it is one of the fundamental reasons why the private sector does not adequately constrain systemic risk; the duty of managers of systemically important firms to shareholders is potentially misaligned with societal interests.⁹⁹ Regulators do not yet recognize this fundamental failure; even members of Dodd-Frank-mandated risk committees, regulated by the U.S. Federal Reserve, are only required to view the expected value of corporate risk taking from the standpoint of a firm's investors, largely ignoring systemic externalities.¹⁰⁰

To help correct this market failure, I have argued—in a broader financial context—that managers of systemically important firms should not only have their traditional corporate governance duty to investors but also a “public governance duty” to society, not to engage in excessive risk taking that could systemically harm the public.¹⁰¹

B. Addressing the Market-Failure Causes that Apply Distinctively to Securitization

Of the five fundamental market-failure causes identified, two—complexity and change—can have distinctive application to securitization. The others apply to securitization, but in no way that is substantively different from how they apply to finance more generally. I therefore focus below on complexity and change.

1. *Addressing ‘Complexity’*

Many European securitized products fared relatively well throughout the financial crisis, compared with more complex

Systemic risk represents risk to the financial system itself: the risk that a cascading failure of financial system components (e.g., markets or firms) undermines the system's ability to generate capital, or increases the cost of capital, thereby harming the real economy. *Id.* at 207–08.

⁹⁹ See Steven L. Schwarcz, *Misalignment: Corporate Risk-Taking and Public Duty*, 92 NOTRE DAME L. REV. (forthcoming Nov. 2016) (manuscript at 4–5), <http://ssrn.com/abstract=2644375> [<https://perma.cc/7CLQ-FUJ2>] (arguing that, from the perspective of systemic harm, corporate governance law misaligns the interests of firms and their investors, on the one hand, and the public on the other hand).

¹⁰⁰ *Id.* (manuscript at 4–5, 18 n.66).

¹⁰¹ *Id.* (manuscript at 27–28).

U.S. originated securitized products.¹⁰² The STS proposal implicitly recognizes this,¹⁰³ incentivizing STS securitizations by reducing regulatory capital requirements for investors in those securitizations. As mentioned,¹⁰⁴ I believe that makes sense because STS securitizations reflect the basic types of securitization transactions that became one of the dominant means of capital formation during the 1990s.

I have previously regarded attempts to standardize financial products as inefficient.¹⁰⁵ Innovation can be important in order to meet the needs of different parties. The STS proposal is a reasonable compromise because it is optional and does not prohibit experimentation and financial innovation.¹⁰⁶

¹⁰² See, e.g., EUROPEAN CENTRAL BANK & BANK OF ENGLAND, *THE IMPAIRED EU SECURITIZATION MARKET: CAUSES, ROADBLOCKS, AND HOW TO DEAL WITH THEM 3* (2014), https://www.ecb.europa.eu/pub/pdf/other/ecb-boe_impaired_eu_securitization_market_en.pdf [<https://perma.cc/LF8E-RN3Z>] (stating that European structured products performed “substantially better than US peers” and that, for the period between July 2007 and September 2013, the cumulative default rate was 1.5% for European structured products as compared to 18.4% for U.S. structured products).

¹⁰³ Richard Hopkin, Head of Fixed Income, AFME, Keynote address to ASIFMA Structured Finance Conference 2015 (Oct. 15, 2015), www.afme.eu/WorkArea//DownloadAsset.aspx?id=13306 [<https://perma.cc/9PAQ-X4PX>].

¹⁰⁴ See *supra* notes 57–58 and accompanying text.

¹⁰⁵ See Schwarcz, *supra* note 57, at 240 (arguing that mandated standardization would have unintended negative effects and increase uncertainty); Schwarcz, *supra* note 89 102, at 820 (“[T]he overall economic impact of standardization is unclear because standardization can stifle innovation and interfere with the ability of parties to achieve the efficiencies that arise when firms craft financial products tailored to the particular needs and risk preferences of investors.”).

¹⁰⁶ *But cf.* GLOB. FIN. MKTS. ASSOC., INT’L CAPITAL MKT. ASSOC., INST. OF INT’L FIN. & ISDA, *RESPONSE TO BCBS/IOSCO CONSULTATIVE DOCUMENT ON CRITERIA FOR IDENTIFYING SIMPLE, TRANSPARENT AND COMPARABLE SECURITISATIONS 19* (2015), <http://www.bis.org/bcbs/publ/comments/d304/giii.pdf> (“The requirement for historical data would mean it would be very hard for any new asset classes or even traditional asset classes in new jurisdictions to be treated as STC. This is a significant barrier to the development of securitisation markets and one which could have the opposite effect from that intended by the development of the STC regime as a whole.”). While this is discussing the separately proposed STC framework, see *supra* notes 32–33 and accompanying text discussing the relationship between the STS and STC frameworks, the criterion it criticizes is analogous to STS Transparency Criterion 1. See *EU-proposed regulations, supra* note 30, at 39 (“The originator, sponsor, and SSPE shall provide access to data on static and dynamic historical default and loss performance, such as delinquency and default data, for substantially similar exposures to those being securitised to the investor before investing. Those data shall cover a period no shorter than *seven years* for non-retail exposures and *five years* for retail exposures. The basis for claiming similarity shall be disclosed.” (emphasis added)).

This does not mean the STS proposal is perfect. Some critics are concerned that the ability of originators and sponsors to self-designate their securitizations as STS-compliant will distort the designation and motivate fraud.¹⁰⁷ Moreover, the fact that the STS proposal does not prohibit financial experimentation and innovation is a two-edged sword: such experimentation and innovation can sometimes increase efficiency, but it also permits the development of non-standardized complex securitization that could increase systemic risk. Ex ante regulation of securitization therefore should be supplemented by ex post regulation that mitigates systemic consequences.¹⁰⁸

2. Addressing 'Change'

In the financial crisis, the almost exclusive emphasis on bank regulation failed to adequately address the disintermediation created by securitization. Similarly, the regulation of securitization, especially in the United States, is primarily tied to the past and current financial architecture, where the primary financial asset underlying ABS is mortgage loans.¹⁰⁹ Witness the Dodd-Frank Act's preoccupation with regulating mortgage lending.¹¹⁰

¹⁰⁷ Keith Mullin, *STS Self-Certification? Barking Up the Wrong Tree*, INT'L FIN. REV. (Aug. 27, 2015), <http://www.ifre.com/sts-self-certification-barking-up-the-wrong-tree/21213725.fullarticle> [<https://perma.cc/9YBY-WLJ8>]. Self-designation is currently the only proposed method of STS designation. The potential for abuse of such designation may be mitigated by the requirement that investors undertake sufficient due diligence to determine "with regard to securitisations designated as STS, whether the securitisation meets the STS requirements laid down in" such regulations. See *EU-proposed regulations*, *supra* note 30, at 30. Some suggest that private sector independent third parties should oversee the STS designation. See, e.g., THE PCS SECRETARIAT, CERTIFICATION IN THE CONTEXT OF A REGULATORY FRAMEWORK FOR SECURITISATION 6 (May 13, 2015), http://pcsmarket.org/wp-content/uploads/publications/b415f/Certification_in_the_Context_of_a_Regulatory_Framework.pdf [<https://perma.cc/5LMS-MF2T>].

¹⁰⁸ See Iman Anabtawi & Steven L. Schwarcz, *Regulating Ex Post: How Law Can Address the Inevitability of Financial Failure*, 92 TEX. L. REV. 75, 102 (2013) (examining how ex post regulation can mitigate systemic consequences).

¹⁰⁹ See *supra* notes 18–20 and accompanying text.

¹¹⁰ The Dodd-Frank Act focused on a range of mortgage lending laws, including ability-to-repay rules, high-cost mortgage and homeownership counseling, modifications to mortgage servicing rules, modifications to the Equal Credit Opportunity Act, appraisals under the Truth in Lending Act, and loan originator compensation structures. CONSUMER FIN. PROT. BUREAU, THE CFPB DODD-FRANK MORTGAGE RULES READINESS GUIDE 4–9 (2015) http://files.consumerfinance.gov/f/201509_cfpb_readiness-guide_mortgage-implementation.pdf [<https://perma.cc/SF23-2469>]. Cf. *supra* notes 18–20 and accompanying text (discussing the focus on Qualified Residential

We cannot predict, however, the types of financial assets that in the future will underlie ABS. Rights to payment in the form of loans are typically significant asset categories. Any type of loan can include subprime borrowers if—as in a bubble¹¹¹—borrowers become enamored with investing in a particular type of asset and lenders believe that asset value will inevitably increase. As a parallel to the subprime mortgage lending that preceded the financial crisis,¹¹² consider the subprime margin lending that was a causal factor of the Great Depression.¹¹³

“Prior to the Depression, many banks engaged in margin lending to risky borrowers, securing the loans by shares of stock that the borrowers purchased with the loan proceeds.”¹¹⁴ The value of the stock collateral started out being at least equal to the amount of the loan, and banks assumed that the stock market, which had been continuously rising in value for some years, would continue to rise, or at least not decline, in value.¹¹⁵ “At the time, that assumption was viewed as reasonable.”¹¹⁶ “In August 1929, however, there was a (relatively) modest decline in stock prices, causing some of these margin loans to become under-collateralized.”¹¹⁷ Some banks that were heavily engaged in margin lending then lost so much money on the loans that they themselves became unable to pay their debts, including the debts they owed to other banks. As a

Mortgages and also the focus on studying the effects of risk-retention on real estate asset price bubbles).

¹¹¹ *Cf. supra* notes 61–62 and accompanying text (noting that a characteristic of bubbles is the irrational belief that the downside risk would never happen).

¹¹² Incongruously, it was Congress’ pressure on banks and mortgage lenders to enable home ownership that contributed to lower lending standards. Peter J. Wallison & Edward J. Pinto, *A Government-Mandated Housing Bubble*, FORBES (Feb. 16, 2009, 12:01 AM), http://www.forbes.com/2009/02/13/housing-bubble-subprime-opinions-contributors_0216_peter_wallison_edward_pinto.html [<https://perma.cc/F7ML-KEHB>].

¹¹³ See Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1356–57, 1359–60 (2011).

¹¹⁴ *Id.* at 1356; see also Markus K. Brunnermeier & Martin Oehmke, *Bubbles, Financial Crises, and Systemic Risk*, in 2B HANDBOOK OF THE ECONOMICS OF FINANCE 1221, 1226–27 (George M. Constantinides, Milton Harris & Rene M. Stulz eds., 2013) (detailing the history of stock and real estate bubbles in the run up to the Great Depression).

¹¹⁵ Anabtawi & Schwarcz, *supra* note 113, at 1406.

¹¹⁶ *Id.* at 1356.

¹¹⁷ *Id.* at 1356–57 (footnotes omitted).

result, defaults by these margin-lending banks adversely affected the other banks' ability to meet their obligations, starting a chain of bank failures.¹¹⁸

Just as we cannot always predict changes in the types of financial assets that will be securitized in the future, financial change can also evolve incrementally without critical recognition of the increasing risk. In examining the origin of the financial crisis, for example, Professor Judge argues that the myopic focus of market participants and regulators on the latest incremental developments prevented them from viewing the "big picture" and taking account of layered complexity and its attendant systemic risk.¹¹⁹

The lesson is that change can create failures that cannot be fully predicted. As a result, systemic consequences may be inevitable. Again, this means that ex ante regulation of securitization should be supplemented by ex post regulation that mitigates those consequences.¹²⁰

CONCLUSIONS

Because securitization's abuses contributed to the global financial crisis, its regulation is critically important. U.S. and, to a lesser extent, European post-crisis regulation of securitization is insufficient, however, because the post-crisis macroprudential regulation of finance is political and ad hoc. To achieve a more systematic regulatory framework, this Essay argues for supplementing existing regulation by trying to address the market-failure causes that apply distinctively to securitization.

Two fundamental market-failure causes—complexity and change—can apply distinctively to securitization. Europe's STS proposal goes a long way towards addressing complexity; the United States should consider a similar regulatory approach.¹²¹ However, because the STS proposal

¹¹⁸ *Id.* at 1357.

¹¹⁹ Kathryn Judge, *Fragmentation Nodes: A Study in Financial Innovation, Complexity, and Systemic Risk*, 64 STAN. L. REV. 657, 686–87 (2012) ("The incremental nature of the processes through which financial innovations become highly complex is critical to understanding how that complexity develops and why that complexity itself may not be subjected to close scrutiny . . .").

¹²⁰ See Anabtawi & Schwarcz, *supra* note 108 (analyzing how ex ante financial regulation should be supplemented by ex post regulation to mitigate systemic consequences). In a broader financial context, I have also analyzed how regulation could better address change by regulating the functions of finance, which remain more constant over time. Schwarcz, *supra* note 83.105

¹²¹ In the somewhat parallel STC context, see *supra* notes 32–33 and

does not—and to protect efficiency, should not—prohibit financial experimentation and innovation, complexity can still trigger systemic collapses. Similarly, because change cannot be fully predicted, it cannot be fully regulated; and it too, has the potential to trigger systemic collapses. For these reasons, ex ante regulation of securitization should be supplemented by ex post regulation that mitigates those consequences.

accompanying text, however, there is hearsay that some U.S. regulators might not want to allow preferential regulatory capital treatment for high-quality securitization transactions. See Anna Brunetti, *Basel/IOSCO Proposal Underwhelms ABS Industry*, REUTERS (July 24, 2015, 12:21 PM), <http://www.reuters.com/article/regulations-abs-idUSL5N1042VC20150724#tg1F2siqYShwUhRt.97> [https://perma.cc/G25E-TULE] (quoting Ian Bell, the head of the Prime Collateralised Securities secretariat, that “we have heard that the US representatives at the Basel Committee have already made it clear they have little appetite for a bifurcation of [capital] rules for STC and non-STC”).