

RATING DEPENDENT REGULATION OF INSURANCE

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Solvency regulation lies at the heart of insurance regulation and, at least for now, credit ratings lie at the heart of solvency regulation. Insurance regulators in the United States have used credit ratings extensively to determine what types of investments insurance companies can make and to determine how risky insurers' investments are. Because the insurance regulation system has been so dependent on ratings, high ratings allowed insurers in several different contexts to invest in novel financial products. When these products suffered rating downgrades and losses, the insurers suffered results ranging from stressful (the life insurance industry's need to raise billions of dollars in additional capital) to disastrous (the collapse of AIG and the entire bond insurance industry). Indeed, the latter set of events presented a serious challenge to the conventional wisdom that insurers do not pose systemic risk.

Complete removal of credit ratings or analogous private credit assessments from insurance regulation is difficult for both political and substantive reasons. This Article suggests an alternative approach: a "seasoning requirement" for credit ratings on novel products, under which credit ratings on novel products would not be given regulatory effect for some period of time, perhaps one economic cycle. Given that many novel financial products failed immediately in the recent downturn, a seasoning requirement would have avoided the most serious drawbacks of rating-dependent regulation while presenting much less significant political, theoretical, and practical challenges than approaches that rely on completely eliminating dependence on credit ratings or analogous measures.

I. INTRODUCTION

The apparent failure of credit ratings on novel products and insurance regulators' response to that failure highlights the limits of regulators' will and desire to wean themselves from credit ratings, as well as the limits of capital regulation itself. After an overview of the

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background, this Article surveys the regulatory response as of early April 2011 to the perceived failure of ratings in the recent financial crisis, identifying a persistent conflict between insurance regulators – who want to rely heavily on credit ratings – and rating-agency reformers, who want to eliminate rating-dependent regulation. The National Association of Insurance Commissioners apparently intends to retain rating-dependent regulation, at least in some form, while the Dodd-Frank Wall Street Reform and Consumer Protection Act, enacted in July 2010, directs federal regulators to eliminate their reliance on ratings. . Absent a Congressional takeover of this historically state-dominated area, the conflict is likely to persist, and so is a high level of rating-dependent in the insurance industry. This is important, not least because insurers are arguably the most important single segment of investors in credit-rated instruments: As of mid-2010, insurers owned about half the dollar value of corporate bonds outstanding in the United States.¹

The Article then turns to some specific areas in which ratings are perceived to have failed – ratings on exposures taken by AIG and bond insurers, and ratings on residential mortgage-backed securities held by life insurance corporations. In the former case, rating failure led to systemic risk. In the latter, it led to a “rule bailout” – a change in the rules in the midst of a financial crisis undertaken in response to industry requests to aid its position. Both have implications for the broader debate beyond rating-dependent regulation – the broad-ranging consequences of the AIG and bond insurer failures challenge the premise that insurers do not pose systemic risks. The rule bailout illustrates important fundamental limits on capital regulation that should be taken into account in designing capital requirements. Apart from these broader lessons, these situations have implications for rating-dependent regulation of insurance. In both cases, regulators’ practice of giving immediate effect to ratings on novel products contributed to the problems.

A seasoning period—a period in which ratings on a new product are not given regulatory effect – is a measured approach to addressing the problems with rating-dependent regulation. It recognizes regulators’ and regulated parties’ interests in rating reliance and the adequacy of most ratings for regulatory tasks, while avoiding the most serious problems that rating-dependent regulation apparently has produced.

¹ Federal Reserve Board, Federal Reserve Statistical Release Z.1, “Flow of Funds Accounts of the United States,” June 10, 2010.

II. WHAT IS SOLVENCY REGULATION AND WHY DOES THE INSURANCE INDUSTRY NEED IT?

Insurance works because people believe insurers' promises to pay. When insurers become insolvent, those promises are likely to be broken, undermining the purpose and function of the industry. Solvency regulation can in principle reduce the harm from insurer insolvencies, both by reducing the number of insolvencies and mitigating the effects of insolvencies that do occur.

A. OVERVIEW OF INSURANCE SOLVENCY REGULATION

Solvency regulation lies at the heart of insurance regulation.² The 1794 statute establishing the first U.S. insurer organized as a stock corporation limited the new company to investment in specified government bonds. Massachusetts adopted a general financial reporting requirement for insurers, aimed at helping customers avoid companies at risk of insolvency, in 1818,³ and NAIC's first mission after its creation in 1871 was to work on nationally uniform standards for financial reporting to state commissioners.⁴ Rules for reserves to cover policy losses followed by the 1870s,⁵ and solvency-related limits on investments began to appear as early as 1906.⁶ Increases in the stringency of solvency regulation typically

² See EMMETT J. VAUGHAN & THERESE VAUGHAN, *FUNDAMENTALS OF RISK AND INSURANCE* 106 (10th ed. 2008) ("Clearly, a primary focus of insurance regulation is on insurer solvency. Indeed, it has been argued that this should be the primary function of regulation."); ALBERT H. MOWBRAY ET AL., *INSURANCE: ITS THEORY AND PRACTICE IN THE UNITED STATES* 519 (6th ed. 1969) ("The prime purpose of governmental supervision [of insurance] is *solvency*, the continuing financial ability of insurers to meet their contractual obligations.") (emphasis in original).

³ See KENNETH J. MEIER, *THE POLITICAL ECONOMY OF REGULATION: THE CASE OF INSURANCE* 51 (1988).

⁴ Martin F. Grace & Robert W. Klein, *The Future of Insurance Regulation: in THE FUTURE OF INSURANCE REGULATION IN THE UNITED STATES* 1., 32 (Martin F. Grace and Robert W. Klein eds., 2009).

⁵ See MEIER, *supra* note 3, at 56.

⁶ *Id.* at 58 (describing New York's adoption of investment limits in response to 1906 Armstrong Report). The first investment limits for insurance companies appeared even earlier: The 1794 Pennsylvania statute establishing the first insurance stock corporation in the United States required the insurer to invest only in government bonds, but this requirement may have had to do with shoring up

followed high-profile insolvency episodes, such as the mass failure of insurers after the 1871 Chicago Fire and 1872 Boston Fire.⁷

Solvency regulation as currently constituted includes several interlocking areas.⁸ Insurers are required to file quarterly and annual reports on their financial condition to regulators, using specially prescribed statutory accounting standards to do so. Insurance regulators scrutinize these financial statements using special tools⁹ and confidential financial tests, and additionally conduct periodic on-site inspections of insurers' operations. Insurers are required to maintain reserves to pay claims and, in addition, are required to meet capital requirements intended to make sure that the insurer has a financial cushion against various misfortunes, such as greater-than-expected insurance losses and adverse interest rates moves. Solvency regulation attempts to limit the negative effects of insolvency by requiring prompt regulatory action to close insolvent insurers before their problems deepen and by providing for state-level guarantee funds to compensate disappointed policyholders for at least a portion of their insolvency-related losses.

Insurers invest the premiums they receive in order to be able to pay claims and make profits, and insurer investment activities are central to solvency regulation. The likelihood of investment losses figures into the size of the required capital cushion and state investment laws outright forbid investments that are judged too risky.¹⁰ Currently, credit ratings are used extensively in both contexts, as described below.

B. JUSTIFICATION FOR SOLVENCY REGULATION

Manufacturing firms, restaurants, and law firms are not subject to solvency regulation. One might assume that insurers generally wish to remain in business and thus have strong incentives to remain solvent on their own. Why should insurers be regulated for solvency?

When phrased in economic terms, the answer usually is put in

shaky post-Revolution public finances than protecting the company's solvency.

⁷ *Id.* at 52.

⁸ See generally VAUGHAN & VAUGHAN, *supra* note 2, at 106-09; Grace & Klein, *supra* note 4, at 38-40.

⁹ The "Financial Analysis Solvency Tools" developed by NAIC are one example. See Martin Eling & Ines Holzmüller, *An Overview and Comparison of Risk-Based Capital Standards*, 26 J INS. REG. 31, 34 (2008).

¹⁰ See Daniel Schwarcz, *Regulating Insurance Sales or Selling Insurance Regulation?: Against Regulatory Competition in Insurance*, 94 MINN. L. REV. 1707, 1736 (2010), *Id.* at 1736 & n.131.

terms of “information asymmetries” (the insurer knows better than the policyholder whether it is solvent, particularly if policyholders are on the whole unsophisticated)¹¹ exacerbated by an “inverted production cycle” (the insurer can collect premiums for a long time before enough claims materialize to reveal that the firm is insolvent).¹² These characteristics combine with a “collective action problem” (a large group of policyholders is in a poor position to negotiate with the insurer the level of risk of insolvency the policyholders will tolerate for any given premium level).¹³ Solvency regulation can, in principle, address this issue by requiring management to hold enough capital to reduce the risk of insolvency to the point to which the policyholders would reduce it if they were capable of effectively representing their interests.¹⁴

The point might also be phrased in historical terms: Unregulated insurers apparently have shown a tendency to go bust and disappoint policyholders, suggesting that unregulated markets don’t function optimally. No matter how the justification is phrased, solvency regulation historically has been based on consumer protection, broadly construed.¹⁵

¹¹ See Grace & Klein, *The Future of Insurance Regulation*, *supra* note 4, at 26

¹² See *id.* at 27; GUILLAME PLANTIN & JEAN CHARLES ROCHET, WHEN INSURERS GO BUST, 42, That in turn means that the managers of firms that are getting into trouble have a window of opportunity to employ risky strategies to try to return to survival, even though these strategies have a high probability of imposing large losses on policyholders by increasing the consequences of insolvency. *Id.* at 44-45. Shareholders would not be expected to police such behavior because they have no incentive to care about how much the policyholders receive if the shareholders are wiped out. *Id.* at 56.

¹³ See Grace & Klein, *supra* note 4, at 26; PLANTIN & ROCHET, *supra* note 12, at 57.

¹⁴ Economists (and regulators) stress that the goal of solvency regulation is not to reduce defaults to zero. See, e.g., Grace & Klein, *The Future of Insurance Regulation*, *supra* note 4, at 28 (goal is to “minimize the social cost of defaults”).

¹⁵ See, e.g., Patricia Munch & Dennis E. Smallwood, *Solvency Regulation in the Property-Liability Insurance Industry: Empirical Evidence*, 11 BELL. J. ECON. 261, 261 (1980) (“The rationale for solvency regulation is to protect the interests of policyholders, third-party liability claimants and other firms (to whom the obligations of an insolvent firm are shifted by guaranty fund arrangements).”). The recently enacted Dodd-Frank Wall Street Reform and Consumer Protection Act can be seen as affirming this. The Act does recognize the possibility that an insurer, together with its affiliates, could become systemically significant and thus suitable for regulation as a “nonbank financial company supervised by the Board of Governors,” see 31 U.S.C. § 313(c)(1)(C) (added by § 502 of Dodd-Frank), but it shows great solicitude for the importance of consumer protection. One of the

Indeed, an industry representative recently testified to Congress that solvency is “the most important consumer protection of all.”¹⁶

Historically, the justification for insurance solvency regulation has *not* been that insurers’ activities create “systemic risk,” a term that has no universally accepted meaning but that will be defined broadly here as the imposition of significant costs on actors that are not owners or creditors of the firm via effects of insolvency on the financial system as a whole. Insurance companies have not been seen as posing systemic risk the way that banks (or investment banks in the “shadow banking” system) have done.¹⁷ The financial crisis has changed this perception to some extent, as discussed in Part III, below.

Despite its venerable age, solvency regulation has been criticized. Some authors conclude that if consumers are fully informed of the risk of insolvency, then insurers will retain sufficient capital. This suggests that disclosure rather than a prescriptive capital requirement is the appropriate policy.¹⁸ It is also argued that regulatory costs fall heavily on smaller,

main purposes of the Act’s insurance-related provisions is to authorize the negotiation of international agreements regarding prudential measures with respect to the business of insurance, *id.* § 314(a), and it limits the agreements it covers to those that achieve “a level of protection for insurance or reinsurance consumers that is substantially equivalent to the level of protection achieved under State insurance or reinsurance regulation.” *Id.* § 313(r)(2)(B).

¹⁶ *Regulatory Restructuring: Enhancing Consumer Financial Products Regulation: Hearing Before the H. Comm. on Financial Services*, 111th Cong. 55-57 (2009) (statement of Gary E. Hughes, Executive Vice President. & General Counsel, American Council of Life Insurers).

¹⁷ *See, e.g.*, MARKUS BRUNNERMEIER, ET AL., *THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION* 26 (2009) (classifying insurance companies as “non-systemic large” entities that “need full micro-prudential regulation, but no additional macro-prudential regulation.”); Schwarcz, *supra* note 10, at 1736; Richard Herring & Til Schuermann, *Capital Regulation for Position Risk in Banks, Securities Firms, and Insurance Companies*, in *CAPITAL ADEQUACY BEYOND BASEL: BANKING, SECURITIES, AND INSURANCE* 15, 23 (Hal S. Scott ed. 2005) (“[T]here has been no evidence of the failure of an insurance company being a significant source of systemic risk.”); Scott E. Harrington, *Capital Adequacy in Insurance and Reinsurance*, in *CAPITAL ADEQUACY BEYOND BASEL*, 87, 92 (Hal S. Scott ed. 2005) (“It generally is agreed that systemic risk is relatively low in insurance markets compared with banking, especially for nonlife insurance.”); JONATHAN R. MACEY ET AL., *BANKING LAW AND REGULATION* 112-14 (3d ed. 2001).

¹⁸ *See* Ray Rees et al., *Regulation of Insurance Markets*, 24 *GENEVA PAPERS ON RISK AND INS. THEORY* 55, 56, 67 (1999); *see also* Eling & Holzmüller, *supra*

specialized insurers¹⁹ and that any reduction in insolvencies due to regulation arises from the fact that these costs reduce the number of small firms in the market. Still other authors criticize the specific measures of insolvency risk that U.S. regulators have adopted.²⁰ While these criticisms are interesting and provocative, evaluating them is beyond the scope of this Article. The Article proceeds on the assumption that it is unlikely that the immediately foreseeable future will bring a revision of the consensus view among policymakers that solvency regulation of insurance is appropriate.

C. THE INSTITUTIONAL SETTING OF SOLVENCY REGULATION:
STATES AND THE NAIC

Insurance in the United States historically has been and currently is regulated at the state level.²¹ Generally, state insurance regulators are

note 9, at 32. The Geneva Papers on Risk and Insurance are published by The Geneva Association, which describes itself as the “leading international ‘think tank’ of the insurance industry.” The Geneva Association, http://www.genevaassociation.org/About_Us/Introduction.aspx, (last visited Oct. 14, 2010).

¹⁹ Anton van Rossum, *Regulation and Insurance Economics*, 30(1) GENEVA PAPERS ON RISK AND INS. 43 (2005). One older study of capital requirements, which apparently examined the effect only of fixed, absolute capital levels, generated results that the authors interpreted as supporting the proposition that “[m]inimum capital requirements appear to reduce insolvencies by reducing the number of small, domestic firms.” Munch & Smallwood, *supra* note 15, at 261.

²⁰ See, e.g., Steven W. Pottier & David W. Sommer, *The Effectiveness of Public and Private Sector Summary Risk Measures in Predicting Insurer Insolvencies*, 21 J. FIN. SERV. RES. 101, 114 (2002) (finding the NAIC’s risk-based capital ratios and financial analysis solvency tools (FAST) to be worse at predicting insolvency than capital adequacy ratios and ratings produced by the private credit rating agency A.M. Best, which specializes in insurance).

²¹ In *Paul v. Virginia*, 75 U.S. 168, 183, (1868), decided shortly after the birth of state-level insurance regulation, the Supreme Court decided that the federal government lacked authority to regulate insurance. The Court reversed its position in *United States v. South-Eastern Underwriters Ass’n*, 322 U.S. 533, 553 (1944). In 1945, Congress adopted the McCarran-Ferguson Act, which affirmed the primacy of state regulation by declaring “the continued regulation and taxation by the several States of the business of insurance is in the public interest, and that silence on the part of Congress shall not be construed to impose any barrier to the regulation or taxation of such business by the several States.” 15 U.S.C. § 1011. See Susan Randall, *Insurance Regulation in the United States: Regulatory Federalism and the National Association of Insurance Commissioners*, 26 FLA. ST.

given authority over insurers' ability to incorporate or conduct business in the state in question, and are charged with enforcing requirements created by state statutes, which typically include minimum capital levels.²² Primary responsibility for insurer capital regulation is delegated to the state in which the insurer is domiciled, with nondomiciliary states typically staying their hands unless the domiciliary state is falling down on the job.²³ It is said that state insurance regulators in the United States typically discharge their responsibilities via a rules-based, rather than a principles-based, approach.²⁴

The Dodd-Frank Act does not expressly change the federal-state balance of power. Although the Act creates a new Federal Insurance Office within the Department of the Treasury,²⁵ it expressly provides that nothing in the provisions establishing and granting authority to the Office "shall be construed to establish or provide the Office or the Department of the Treasury with general supervisory or regulatory authority over the business of insurance."²⁶ The Act does contemplate international harmonization of prudential standards via bilateral or multilateral agreements,²⁷ but specifically saves state capital and solvency standards from being preempted by such agreements (or otherwise) unless the state standards discriminate against non-U.S. insurers.²⁸ In other words, it

U. L. REV. 625, 629-34 (1999), for an account of these events.

²² Grace & Klein, *supra* note 4, at 38.

²³ *Id.* at 39.

²⁴ *Id.* at 38.

²⁵ The Dodd-Frank Act adds new sections 313 and 314 to Title 31 of the U.S. Code. See H.R. 4173, Dodd-Frank Wall Street Reform and Consumer Protection Act § 1, 31 U.S.C. § 313-14. Section 313(a) establishes the Federal Insurance Office within the Department of the Treasury, 31 U.S.C. § 313(a), authorizes the Office to monitor the insurance industry and advise the Financial Stability Oversight Council, *id.* § 313(c)(1)(A), (c)(1)(C), (c)(3), and directs the Office to report annually to Congress on the industry, *id.* § 313(n).

²⁶ *Id.* § 313(k).

²⁷ See *id.* § 314(a) (authorizing the Secretary of the Treasury and the U.S. Trade Representative to negotiate "covered agreements"); *id.* § 313(r)(2) (defining a "covered agreement" as "a written bilateral or multilateral agreement regarding prudential measures with respect to the business of insurance or reinsurance that" is international and "relates to the recognition of prudential measures with respect to the business of insurance or reinsurance that achieves a level of protection for insurance or reinsurance consumers that is substantially equivalent to the level of protection achieved under State insurance or reinsurance regulation.").

²⁸ See *id.* § 313(j)(1)(D) (as added by Dodd-Frank) (no preemption of "any State insurance measure covering the capital or solvency of an insurer, except to

appears that a state may maintain whatever capital and solvency regime is in place as long as the state treats non-U.S. insurers subject to international solvency agreements the same as it treats insurers domiciled in the state.

Although the state legislatures and insurance regulators have the final say in most areas of insurance regulation, that does not mean that there are 50 different, independent versions of each regulatory requirement. States coordinate their regulatory efforts – at least to some extent – through the National Association of Insurance Commissioners (NAIC), a voluntary association of the insurance commissioners of the 50 states, the District of Columbia, and the U.S. territories.²⁹ The NAIC has had an important role in proposing uniform rules and standards ever since its formation in 1871.³⁰ In general, the history of the NAIC reflects the tension between state regulators’ desire to preserve a state-centric regulatory system and the desire to minimize unnecessary contradiction and duplication in regulating an increasingly national and international industry.³¹

One result of this ongoing tension is a regulatory system that is more uniform in some areas than in others. Solvency regulation is an area where substantive standards are “relatively uniform,”³² largely because state insurance regulators use the risk-based capital framework that the NAIC has developed.³³ Although the state of domicile has primary regulatory responsibility for the financial condition of any given insurer, the use of a common capital regulation framework reduces state-by-state variation in how that responsibility is carried out. One important solvency-related area in which the NAIC’s efforts have not brought about uniformity is in state investment laws, as discussed in Part II.B, below.

The NAIC is involved not just in setting standards for insurance

the extent that such State insurance measure results in less favorable treatment of a non-U.S. insurer than a U.S. insurer.”); *see also id.* § 313(f)(1) (state insurance measures preempted only if Director determines that measure results in less favorable treatment of a non-U.S. insurer “domiciled in a foreign jurisdiction that is subject to a covered agreement” than a U.S. insurer admitted in the state *and* “is inconsistent with a covered agreement.”).

²⁹ Randall, *supra* note 21, at 629.

³⁰ *Id.* at 631-32; *see also* Paul Walker-Bright, *Reed Smith LLP on the Potential for Future Regulation of Insurance in Light of AIG, Inc.’s Financial Collapse*, 2008 LEXISNEXIS EMERGING ISSUES 3091..

³¹ *See generally* Randall, *supra* note 21, at 634-40.

³² Grace & Klein, *supra* note 4, at 2.

³³ Therese M. Vaughan, *The Economic Crisis and Lessons from (and for) U.S. Insurance Regulation*, 9 (unpublished working paper) (on-file with NAIC Journal of Insurance Regulation).

companies, but also in oversight of the insurers' operations. The NAIC's Financial Analysis Division carries out ongoing oversight of all "nationally significant insurers" and reports unusual findings to a college of regulators, the Financial Analysis Working Group.³⁴ The Working Group, which has 16 members who have been described as among "the most experienced financial regulators in the system of U.S. insurance regulation," reviews companies that have been identified by the Financial Analysis Division and discusses such companies' status with the primary regulator.³⁵ It is said that the NAIC uses this process to address problems created by some states which tend to be lax in regulating their home insurers. NAIC's coordination of solvency oversight can help nudge the domiciliary state to move if it is not being stringent enough.³⁶

Since 1990, the NAIC has attempted to promote a minimum level of regulatory effectiveness in all states by running an accreditation program. A NAIC accreditation team reviews each state's laws, regulations, and operations every five years, and makes suggestions along with recommendations to the other states, who decide whether the state's accreditation should be continued.³⁷ It appears that all 50 states and the District of Columbia are now accredited under this program.³⁸

III. CREDIT RATINGS IN U.S. INSURANCE REGULATION

As an NAIC working group recently concluded, "[r]atings are used extensively in insurance regulation," and such reliance is "often required by statute."³⁹ This Part surveys the current role of credit ratings in U.S.

³⁴ *Id.* at 10.

³⁵ *Id.*

³⁶ Grace & Klein, *supra* note 4, at 39.

³⁷ Vaughan, *supra* note 33, at 11; Grace & Klein, *supra* note 4, at 39 (in addition to state-level financial monitoring, NAIC reviews insurer financial reports for larger companies that write business in a significant number of states).

³⁸ See VAUGHAN & VAUGHAN, *supra* note 2, at 109 (as of 2007, all states but New York were accredited); Press Release, New York State Ins. Dep't, Sept. 22, 2009 (announcing accreditation of New York), available at <http://www.ins.state.ny.us/press/2009/p0909221.htm>. The fact that New York, which historically has been viewed as one of the most sophisticated state regulators, was unaccredited for so long has been interpreted by some as evidence of deficiencies in the accreditation program itself. See Randall, *supra* note 21, at 663-64.

³⁹ NAIC RATING AGENCY WORKING GROUP, EVALUATING THE RISKS ASSOCIATED WITH NAIC RELIANCE ON NRSRO CREDIT RATINGS – FINAL REPORT

insurance regulation.

A. CREDIT RISK, CREDIT RATINGS, AND CAPITAL REQUIREMENTS

Insurers face both fixed and risk-based capital requirements. Each state has a fixed capital requirement for insurers; the requirements range from \$500,000 to \$6 million.⁴⁰ These numbers suggest that the fixed-capital requirements are significant only for the smallest insurance companies.

The more important capital requirements are the risk-based capital requirements that follow the NAIC framework introduced in the 1990s.⁴¹ The system, which is designed to force insurers that take greater risks to hold more capital, is composed of two elements:⁴² The first is a risk-based capital formula, which establishes the minimum capital level, and the second is a model law that authorizes the state insurance regulator to take specific action when an insurer's capital falls below prescribed levels.⁴³ Under current NAIC rules, credit ratings determine the amount of capital insurers must hold.

1. Overview of the Risk-Based Capital Framework

In general outline, an insurer's risk-based capital (RBC) requirement is computed by (1) attempting to quantify "risk charges" and various risks the company faces; and (2) combining the resulting risk charges for the individual risks into a total capital requirement in a way that very roughly takes into account whether the risks are correlated or independent.

Different RBC formulas are used for different types of insurers – life, property and casualty, and health -- reflecting differences in the risks the insurers face. A life insurance company's risk-based capital is used as

OF THE RAWG TO THE FINANCIAL CONDITIONS COMMITTEE, 2 (2010) [hereinafter RAWG FINAL REPORT].

⁴⁰ Eling & Holzmüller, *supra* note 9, at 34.

⁴¹ See VAUGHAN & VAUGHAN, *supra* note 2, at 107 (RBC standards for life insurers introduced in 1992, for property and liability insurers in 1993, and for health insurers in 1997).

⁴² National Association of Insurance Commissioners, *Risk-Based Capital General Overview* (July 15, 2009), http://www.naic.org/documents/committees_e_capad_RBCoverview.pdf.

⁴³ NAIC MODEL LAWS, REGULATIONS, AND GUIDELINES 312-1, (2007)

an example.⁴⁴

Consider four risks that a life insurance company faces:⁴⁵ the risk of subsidiaries' loss due to defaults on their investments (affiliate risk), credit risk on the insurer's investments, interest rate risk, and insurance risk (the risk of greater-than-expected losses because of a need to pay out on policies). The losses are combined as follows:⁴⁶

$$\text{Affiliate Risk} + \sqrt{(\text{Credit Risk} + \text{Rate Risk})^2} + \text{Insurance Risk}^2$$

As the example shows, some risks are added directly and some are added in squares. This reflects an implicit decision to model the risks that are directly added as perfectly correlated, and those that are added in squares as independent.⁴⁷ The example therefore illustrates a determination that credit risk and rate risk are perfectly correlated with one another and independent of insurance risk. The risk arising from the combination of credit risk, rate risk, and insurance risk is considered perfectly correlated with affiliate risk. Insurance regulators have been taken to task over the years for this crude treatment of the correlation of risk.⁴⁸

Most risk charges are quantified by applying factors to items on the balance sheet.⁴⁹ For example, according to a document on the Society of Actuaries website, insurance risk in the example above is equal to total life insurance in force, less reserves (which cover the expected loss from policy payouts), multiplied by a factor determined by regulators.⁵⁰ Computation

⁴⁴ National Association of Insurance Commissioners, *supra* note 42, at 2.

⁴⁵ The risk-based capital formula takes account of other risks, *see id.* at 4, but they are omitted for ease of exposition.

⁴⁶ *Id.* at 4; Craig F. Likkell & Lloyd M. Spencer, Jr., *2004 Valuation Actuary Symposium Boston, Session 14 PD: Risk-Based Capital* (2004), http://www.soa.org/files/pdf/14_combo-valact04.pdf.

⁴⁷ *See* PLANTIN & ROCHET, *supra* note 12, at 34-37.

⁴⁸ *See, e.g.,* Lawrence J. White, *The NAIC Model Investment Law: A Missed Opportunity*, in *THE STRATEGIC DYNAMICS OF THE INSURANCE INDUSTRY: ASSET/LIABILITY MANAGEMENT ISSUES* 41, 41 (Edward I. Altman & Irwin T. Vanderhoof, eds. 1996).

⁴⁹ Nancy Bennett, Panel Discussion, *Use of Rating Agency Ratings in State Insurance Regulation*, RATING AGENCY (E) WORKING GROUP HEARING, Sept. 24, 2009, http://www.naic.org/committees_e_rating_agency_090924_hearing_panel1.htm.

⁵⁰ Fred Tavan, Society of Actuaries, *Risk-Based Capital*, (Feb 28, 2007), <http://www.soa.org/files/pdf/03-RMTF-RiskBasedCap.pdf>. According to the cited document, the factor is 0.1495% for the first \$500 million in risk and 0.0975% for

of the risk charge for the credit risk of insurer investments is described in detail in Part III, below.

2. Regulatory Action Under the Risk-Based Capital Framework

The second major component of the risk-based capital framework is a risk-based capital model law that authorizes the state insurance authorities to take action when the insurer's capital falls short of prescribed levels.⁵¹ Whether capital is impaired depends on a comparison of the company's actual capital⁵² to the minimum required risk-based capital derived from the formula discussed above. Conceptually, the insurer's capital is equal to assets minus liabilities; the rules elaborate on this concept in more detail.⁵³

The minimum risk based capital is also called the "authorized control level," and regulatory actions are keyed to actual capital as a percentage of authorized control level.

Table 1: Regulatory Actions Under NAIC Model Act 312⁵⁴

Percentage	of	Regulatory Action
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amounts above \$500 million.

⁵¹ National Association of Insurance Commissioners, *supra* note 42, at 1., There are two NAIC model laws; one that covers property-casualty insurers and life insurers, and one that applies to health insurance companies. *Id.*

⁵² Grace & Klein, *supra* note 4, at 39; Eling & Holz Müller, *supra* note 9, at 35 (insurer's "total available capital" is its "statutory capital and surplus").

⁵³ For life insurance companies, total adjusted capital is equal to unassigned surplus plus asset valuation reserve plus half of dividend liability. Bennett, *supra* note 49. The "asset valuation reserve" is an amount deducted from the total assets to reflect risks, including default risk. *Id.* "Surplus" is assets minus liabilities, and the "asset valuation reserve" is "assigned surplus." *Id.*

⁵⁴ See National Association of Insurance Commissioners, *supra* note 42, at 4-5.

Authorized Control Level	
>200%	No action.
150-200%	Company Action Level: Insurer must report to regulator on what contributed to the company’s condition. Insurer’s plan must contain proposals to correct the problems and provide projections of financial condition, both with and without the corrections, identifying assumptions underlying the projections and problems with the insurer’s business.
100-150%	Regulatory Action Level: Insurer must file an action plan, and state insurance commissioner must perform any examinations or analyses of the insurer’s business and operations that he or she deems necessary, and must issue appropriate corrective orders.
70-100%	Authorized Control Level: Regulator is <u>authorized</u> to take control of the insurer.
<70%	Mandatory Control Level: Regulator is <u>required</u> to take steps to place the insurer under control

3. Use of Credit Ratings in Assessing Credit Risk

Insurers of every type are subject to capital charges for credit risk.⁵⁵ The capital charge for a given fixed-income investment, such as a bond, note, or mortgage-backed security, is determined by multiplying the book value of the investment⁵⁶ by a “quality coefficient” designed to measure the investment’s riskiness.⁵⁷ Quality coefficients are based on the investment’s classification into one of six categories, NAIC-1 to NAIC-6, with NAIC-1 corresponding to the lowest credit risk and NAIC-6 the highest.

The default rule has been that insurers must file fixed-income

⁵⁵ See *id.* at 2 (“asset risk – other” is a capital charge for all insurer types); Bennett, *supra* note 49, at 7 (“asset risk – other” include the risk of investment defaults).

⁵⁶ Investments are carried at acquisition price unless “impaired” (meaning that the company does not anticipate that the instrument will perform as agreed). Impaired instruments are carried at market value. Bennett, *supra* note 49, at 8.

⁵⁷ Eling & Holzmueller, *supra* note 9, at 34.

securities they own with the Securities Valuation Office (“SVO”) of the NAIC, which assigns each security to one of the six categories and charges the insurer for this service. In 2004, however, the NAIC exempted from this requirement securities with ratings from recognized rating agencies, as discussed in more detail in Part IV.A.1 below.⁵⁸

The NAIC rating of a rated security is determined by its agency rating, according to fixed mapping between the two schemes, set out below. If the security is rated by just one agency, that agency’s rating is used.⁵⁹ If the security is rated by two agencies, the lower of the two ratings is used,⁶⁰ If the security is rated by more than two agencies, the security’s second-lowest rating is used.⁶¹

The upshot is that if a recognized rating agency chooses to issue a rating on a debt instrument, the capital charge is based on the agency’s rating.

Table 2: NAIC Classifications and Agency Ratings⁶²

⁵⁸ National Association of Insurance Commissioners, *Understanding the NAIC Filing Exemption (FE) Rule 1*, (Feb. 25, 2004), http://www.naic.org/documents/svo_FE_FAQ.pdf. The NAIC maintains a list of “approved rating organizations” (AROs) whose ratings count for regulatory purposes. The SEC also maintains a list of “nationally recognized statistical rating organizations” (NRSROs), which is probably more widely known. The NAIC’s AROs appear to be a subset of the SEC’s NRSROs. rating agencies that the SEC has designated “nationally recognized statistical rating organizations” (NRSROs). Compare NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, PURPOSES AND PROCEDURES MANUAL OF THE NAIC SECURITIES VALUATION OFFICE 36 (Dec. 31, 2009) (NAIC list of six approved rating organizations) with SECURITIES AND EXCHANGE COMMISSION, ANNUAL REPORT ON NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATIONS 3-4 (Jan. 2011) (SEC list of ten NRSROs).

⁵⁹ See National Association of Insurance Commissioners, *Request for Proposal Pertaining to Residential Mortgage-Backed Securities Owned by U.S.-Domiciled Companies*, 12 (Oct. 23, 2009) http://www.naic.org/documents/svo_rmbs_rfp_102309.pdf.

⁶⁰ See *id.*

⁶¹ See *id.*

⁶² Sholom Feldblum, *NAIC Property/Casualty Insurance Company Risk-Based Capital Requirements*, 83 PROCS. CAS. ACTUARIAL SOC’Y, 297, 304-05 (1996); Chris Evangel, Panel Discussion, *Use of Rating Agency Ratings in State Insurance Regulation* RATING AGENCY (E) WORKING GROUP HEARING, (Sept. 24, 2009) http://www.naic.org/committees_e_rating_090924_hearing_panell1.htm.

NAIC Class	Bond RBC Factor	Preferred Stock RBC Factor	Agency Rating Equivalent
Federal Government Bonds	0.0%	NA	
1: Highest Quality	0.3%	2.3%	AAA to A-
2: High Quality	1.0%	3.0%	BBB+ to BBB-
3: Medium Quality	2.0%	4.0%	BB+ to BB-
4: Low Quality	4.5%	6.5%	B+ to B-
5: Lower Quality	10.0%	12.0%	CCC+ to CCC-
6: In or Near Default	30.0%	30.0%	CC+ to D

B. RATING DEPENDENCE AND INVESTMENT LAWS

All states have laws that directly govern the types of investments insurers can make. Unlike capital requirements, which require only that insurers maintain a larger financial cushion for riskier investments, state investment laws directly govern investment – for example by authorizing only certain types of investments and forbidding all others, or by requiring that only a certain percentage of investments fall below a credit-rating threshold. State investment laws are also unlike capital requirements in that they are quite heterogeneous. As described below, different states impose very different requirements, despite an effort at NAIC to standardize these rules.

State requirements of the form “X investment is prohibited absent a rating higher than Y” are relatively uncommon, although they do exist, as described below. Ratings also come into play in some states in determining whether insurers have excessive exposure to risky assets or excessively concentrated portfolios. In aggregate, state investment laws give significance to a rating agency’s decision to issue a rating – particularly a high one.

1. NAIC’s Model Investment Laws

In 1991, the NAIC created a working group to devise a model law

governing all insurer investments.⁶³ Over the course of several years, the working group developed a proposal that was based on enumerating the specific types of assets an insurer could hold. This proposal ultimately became the Investments of Insurers Model Act (Defined Limits Version),⁶⁴ adopted by NAIC in 1996.⁶⁵ According to NAIC staff annotations, this version of the Model Act has been adopted in seven states and the District of Columbia.⁶⁶ According to contemporary accounts, insurers strongly resisted the Defined Limits Version, preferring a more open-ended investment law that did not enumerate permissible investments in detail, but instead permitted any investment that met a general standard of prudence.⁶⁷ This idea became the basis of the Investments of Insurers Model Act (Defined Standards Version),⁶⁸ adopted by NAIC in 1997.⁶⁹ The NAIC staff annotations indicate that Georgia, Missouri, and South Dakota acted in some respect on the Defined Standards Version of the

⁶³ See HOWELL E. JACKSON & EDWARD L. SYMONS, JR., *REGULATION OF FINANCIAL INSTITUTIONS* 446 (1999).

⁶⁴ NAIC MODEL LAWS, REGULATIONS, AND GUIDELINES 280-1, §§ 1-32 (1996) [*hereinafter* Model Investment Act (Defined Limits Version).]

⁶⁵ *Id.* § 32.

⁶⁶ *Id.* § State Adoption. According to the NAIC staff, the Defined Limits Version of the Model Investment Act has been adopted in Alaska, the District of Columbia, Illinois, Kentucky, Montana, New Jersey, South Carolina, and West Virginia.

⁶⁷ See Robert M. Ferm & Jon M. Moellenberg, *Recent Developments in the Public Regulation of Insurance Law*, 31 *TORT & INS. L.J.* 447, 460 (1996); Noreen J. Parrett & Steven M. Schindhelm, *Recent Developments in the Public Regulation of Insurance Law*, 32 *TORT & INS. L.J.* 553, 564-65 (1997); Mark R. Goodman, *Recent Developments in the Public Regulation of Insurance Law*, 33 *TORT & INS. L.J.* 681, 691 (1998).

⁶⁸ NAIC MODEL LAWS, REGULATIONS, AND GUIDELINES 283-1, §§ 1-19 [*hereinafter* Model Investment Act (Defined Standards Version)]. Section 4.B sets out the prudency standard in familiar language, providing that the board of directors “shall exercise the judgment and care, under the circumstances then prevailing, that persons of reasonable prudence, discretion, and intelligence exercise in the management of a like enterprise, not in regard to speculating but in regard to the permanent disposition of their funds, considering the probable income as well as the probable safety of their capital.” *Id.* at § 4.B. In keeping with the general push to take diversification into account in financial regulation, the Defined Standards Version expressly directs insurer boards of directors in Section 5.E to “consider ... [t]he extent of the diversification of the insurer’s investments.” *Id.* at § 5.E.

⁶⁹ *Id.* at § 19.

Model Investment Act.⁷⁰

The Defined Limits Version of the Act relies heavily on the NAIC's six-tier classification system to define permitted investments. It provides that insurers generally may hold only "rated" credit instruments,⁷¹ and restricts an insurer's holdings of "medium and lower grade investments" to specified fractions of the insurer's total admitted assets.⁷² "Medium and lower grade investments" are defined in terms of credit ratings.⁷³

The Defined Limits Version provides that property and casualty insurers may invest in investment pools that in turn invest only in obligations with NAIC-1 or NAIC-2 ratings, money market funds, or securities lending or repurchase transactions.⁷⁴

⁷⁰ *Id.* at § State Adoption.

⁷¹ *See* Model Investment Act (Defined Limits Version) § 3.A ("Investments not conforming to this Act shall not be admitted investments"); *id.* *Id.* at § 11 (subject to certain limitations, life and health insurers "may acquire rated credit instruments"); *id.* §§ 21, 24 (subject to certain limitations, property and casualty, financial guaranty, and mortgage guaranty insurers "may acquire rated credit instruments"). In turn, a "rated credit instrument" is defined as a credit instrument that meets one of the following tests: (1) "rated or required to be rated by the SVO"; (2) has a maturity of 397 days or less, and issued by an entity that is rated by the SVO or an NRSRO recognized by the SVO; (3) has a maturity of 90 days or less and is issued by an adequately capitalized bank; (4) is a share of a money market mutual fund; or (5) is a share of a class one bond mutual fund. *See id.* §§ RRR. Notably, the last two categories are implicitly rating-dependent. Money-market funds are required to invest in instruments that have high NRSRO ratings or the equivalent. 17 C.F.R. § 270.2a-7(c)(3)(i), (a)(10). SEC Investment Company Act Rule 2a-7. Class one bond mutual funds are required to "maintain the highest credit quality rating given by an NAIC ARO." NAIC PRACS. & PROCS. MAN., Part 6, § 2(b)(iii), at 201 (2009).

⁷² Model Investment Act (Defined Limits Version) §§ 10 (life and health insurers), 23 (property, casualty, and financial and mortgage guaranty insurers). NAIC-6 securities may make up only 1% of admitted assets; NAIC-5 and -6 securities together may make up only 3% of assets; "lower grade investments" may make up only 10% of assets, and "medium and lower grade investments" may make up only 20% of assets. *Id.*

⁷³ *Id.* § 1.BBB (stating that "Medium grade investments" are those rated NAIC-3); *id.* § 1.Z (stating that "Lower grade investments" are those rated NAIC-4, -5, and -6).

⁷⁴ *Id.* § 25.A. Recall that money-market funds themselves are required to invest only in instruments carrying certain ratings. 17 C.F.R. § 270.2a-7(a)(12)(i), (c)(3)

Although the Model Investment Act itself has not been widely adopted (in either version), it appears that every state has a law governing insurance-company investments.⁷⁵

2. Rating Dependence in State Insurance Investment Laws

Apart from the jurisdictions that have adopted the Model Investment Act (Defined Limits Version) – Alaska, the District of Columbia, Illinois,⁷⁶ Kentucky, Montana, New Jersey,⁷⁷ and West Virginia – a number of other states’ investment laws rely expressly on ratings.

This section presents the results of a survey of investment laws of several states that are particularly important to insurance regulation, specifically California, Connecticut, Massachusetts, Minnesota, New Jersey, and New York.⁷⁸ The purpose of the survey was to determine the extent of rating-dependent regulation in each state. Most state investment laws enumerate specified permitted types of investments and forbid all others, although some allow any “prudent” investments. Laws of the former type frequently include rating-based criteria for permitted investments. In addition, credit ratings are used to specify permitted investment-pool investments, aggregate exposure limits, and derivative counterparty exposures.

a. Direct Authorization

i. Corporate Debt

Most states do not impose direct rating requirements for

⁷⁵ *Id.* § State Adoption (indicating that every state has “related state activity” for the Model Investment Act).

⁷⁶ Illinois is the domicile of major insurance subsidiaries of Allstate, and is the site of the corporate headquarters of State Farm.

⁷⁷ It appears that New Jersey has adopted the Model Investment Act only in part. Its provisions are discussed in more detail in the text. Prudential Insurance is domiciled in New Jersey and its principal regulatory authority is the New Jersey Department of Banking and Insurance.

⁷⁸ The list of states was developed by reviewing the reports of the ten largest insurance groups in the United States and determining the principal regulator of each group’s major insurance subsidiaries. This list was supplemented by consulting with other academics to identify states that generally are considered important insurance regulators.

investments in corporate bonds, although there are some exceptions. One important exception is New York, whose investment laws for most non-life insurers⁷⁹ (including financial guaranty insurers) define permitted U.S. investments by credit rating, although the rules for life insurers generally do not.⁸⁰

Minnesota's general law for life insurers⁸¹ provides that investments in preferred stock⁸² and corporate bonds,⁸³ must meet minimum rating requirements. Certain large, well-capitalized life insurers are subject to a different requirement.

ii. Mortgage-Backed Securities

Mortgage-backed securities are an important exception to the general rules that states regulate the instruments in which insurers are permitted to invest. The Secondary Mortgage Market Enhancement Act ("SMMEA"),⁸⁴ enacted in 1984, has required state regulators to treat mortgage-backed securities that receive high credit ratings⁸⁵ as the

⁷⁹ The provision discussed applies to insurers other than life insurers, nonprofit medical/dental insurers, title insurers, and domestic charitable annuity societies. N.Y. INS. LAW §§ 1403(a), (c) (McKinney 2006).

⁸⁰ N.Y. INS. LAW § 1404(a)(2) (McKinney 2006) (permitting investment in obligations of U.S. institutions that are secured or that are "rated A or higher by a securities rating agency recognized by the superintendent" or insured by an insurer "with a Aaa rating from a securities rating agency recognized by the superintendent" or that "have been given the highest quality designation by the Securities Valuation Office of the National Association of Insurance Commissioners."). The rules for acquiring interests in loans secured by real estate, apparently including mortgage-backed securities, are not rating-dependent. *Id.* § 1404(a)(4). The statute does not clearly authorize purchases of ABS.

⁸¹ Minnesota is the domiciliary state for major insurance subsidiaries of The Travelers Group.

⁸² MINN. STAT. ANN. § 61A.28, subdiv. 6(b)(3) (West 2005) (forbidding investments in preferred stock "rated in the four lowest categories" established by the SVO).

⁸³ *Id.* subdiv. 6(e)(2) (West 2005)(permitting investments in bonds, obligations, and notes that are rated in the four highest categories by at least one NRSRO, or in one of the two highest categories by SVO). *Id.* subdiv. 6(f) (Non-investment grade obligations must meet an earnings test to be eligible for investment).

⁸⁴ PUB. L. 98-440, effective Oct. 3, 1984.

⁸⁵ 15 U.S.C. § 78c(1)(41).

equivalent of U.S. government obligations.⁸⁶ Because insurers are universally permitted to invest in U.S. government obligations, SMMEA has effectively required states to permit insurers to invest in high-rated mortgage-backed securities. Dodd-Frank repeals the provision of SMMEA that tied the preferential treatment of MBS to high credit ratings,⁸⁷ but the repeal does not go into effect until July 2012.⁸⁸

SMMEA did provide for a seven-year period in which states could affirmatively opt out of its requirement that high-rated MBS be treated the same as Treasury bonds.⁸⁹ It appears that ten states opted out of SMMEA's preemption provisions for insurance,⁹⁰ including two states that are major insurance regulators, Connecticut⁹¹ and New York.⁹²

Even states that did not opt out of SMMEA do have rules permitting insurer investment in specified mortgage-backed securities. These rules do not refer to ratings, and instead depend on characteristics of the mortgages themselves, such as loan priority, loan-to-value ratio, whether the mortgages are covered by mortgage insurance, and the amortization period of the loans.⁹³ In light of SMMEA's requirement that insurers be permitted to invest in high-rated mortgage-backed securities, it seems that these statutes expand the category of mortgage-backed securities in which insurers can invest.

⁸⁶ 15 U.S.C. §77r-1(a)(1)

⁸⁷ Dodd-Frank Wall Street Reform and Consumer Protection Act, PUB. L. 111-203, July 21, 2010. § 939(e).

⁸⁸ *Id.* §939(g).

⁸⁹ 15 U.S.C. § 77r-1(b).

⁹⁰ JASON H.P. KRAVITT ET AL., SECURITIZATION OF FINANCIAL ASSETS (2010) § 17.05 n.386.

⁹¹ CONN. GEN. ST. ANN. § 38a-102i. Connecticut permits insurers to make any investments that are "prudent in respect of the business of [the] insurance company and diversification considerations," *Id.* §38a-102(a), subject to limits on the percentage of assets that may be invested in the portion of mortgages that exceeds a 75% loan to value ratio. *Id.* § 38a-102c(f)

⁹² N.Y. INS. L. § 1401(c). New York permits insurers to invest in notes backed by first and second mortgages meeting specified loan-to-value thresholds. *See* N.Y. INS. LAW § 1404(a)(4).

⁹³ *See, e.g.,* MINN. STAT. ANN. § 61A.28, subd. 3; N.J. STAT. ANN. §17B:20-1(c); CAL. INS. CODE §§ 1177 (non-excess funds -- notes backed by insured mortgages), 1194.81-82 (excess funds -- notes backed by first or second mortgages that meet combination of loan-to-value, mortgage insurance, and amortization requirements); N.J. STAT. ANN. § 17B:20-1(c) (mortgages meeting combination of loan-to-value, agency guarantee, and amortization requirements).

*iii. Structured Products Other than
Mortgage-Backed Securities*

Minnesota and California have rating-based rules that expressly govern insurers' investments in structured or asset-backed securities.⁹⁴ Other states, such as Massachusetts,⁹⁵ have rating-dependent provisions that are drafted broadly enough to cover such investments, even if the term "asset-backed" or "structured" is not used. Still others, such as New York, permit insurers to invest in obligations with high ratings issued by "institutions" without defining that term.⁹⁶

iv. Non-U.S Investments

Ratings determine the eligibility of non-U.S. investments for insurer investment in New York,⁹⁷ Minnesota,⁹⁸ and New Jersey.⁹⁹

⁹⁴ MINN. STAT. ANN. § 61A.28, subdiv.. 8(b) (West 2005) (permitting investment in asset-backed arrangements in which at least 90 percent of the dollar value of the assets are eligible for direct investment or that have a rating in the top four categories from at least one NRSRO or in the top two categories from SVO); CAL. INS. CODE §1192.10(a)(3) (West 2005) (permitting asset-backed security investments that have ratings in one of three highest categories by at least one NRSRO and one of the two highest NAIC categories). Such investments are limited to 10% of an insurer's total admitted assets. *Id.* § 1192.10(b).

⁹⁵ *See* MASS. GEN. LAWS ch. 175 § 63(14G) (supp. 2010). Section 14G permits investment in obligations of U.S. and Canadian "institutions," as defined in §63A(1) subject to rating requirements. Section 63A(1) in turn defines "institution" as "a corporation, a joint-stock company, an association, a trust, a business partnership, a business joint venture or similar entity." This definition is broad enough to include typical structured products, which are issued by trusts. The specific rating requirement of Section 63(14G) is that the product initially be rated "at least BBB- or Baa3 or the equivalent thereof" by an NRSRO recognized by SVO and receive an initial or provisional rating of in the top two categories from SVO directly or via a filing exemption. *Id.* § 63(14G)((1)-(3). California likewise defines "institution" broadly to include business trusts. *See* CAL. INS. CODE § 1192 (West 2005) (authorizing investment in "interest-bearing obligations issued by a nonaffiliate institution"); *id.* §1196.1(f)(5) (defining "institution" to include "business trust"). *See infra* note 92 and note 113, (Although California does not impose a rating threshold on individual investments, it does limit aggregate investments in low-rated obligations of "institutions.").

⁹⁶ N.Y. INS. LAW § 1404(a)(2). (McKinney 2006).

⁹⁷ *See id.*, § 1404(a)(6) (permitting non-life insurers to make foreign investments "substantially of the same ... investment grades as those eligible for

b. Aggregate Exposure Limits

Even when state laws do not use ratings to specify permitted investments, they often require insurers' portfolios to satisfy rating requirements in the aggregate. For example, in Minnesota, insurers other than life insurers may invest only up to 15 percent of total admitted assets in noninvestment grade obligations,¹⁰⁰ which are defined in terms of ratings.¹⁰¹ California¹⁰² and Massachusetts¹⁰³ impose the same rating-based limits on aggregate holdings of medium- and low-quality investments as the Model Act. Connecticut limits the percentage of assets

investment under other provisions of this section"); § 1405(a)(7)(C)(i)(I) (permitting life insurers to make foreign investments in governments or institutions of countries "rated in one of the three highest rating categories by an independent, nationally recognized United States rating agency").

⁹⁸ MINN. STAT. ANN. § 61A.29, subdiv. 2(a) (West 2005) (requiring that sovereign debt have a rating in the top two categories from an NRSRO to be eligible for investment); *id.* subdiv. 2(b) (requiring that obligations of a foreign business entity have a rating in the four highest categories from an NRSRO "or by a similarly recognized statistical rating organization, as approved by the commissioner, in the country where the investment is made," or have a rating in the highest two categories from SVO); *id.* § 60A.11, subdiv. 14(a)(ii) (permitting life insurers to invest in obligations of non-U.S. banks only if the debtor bank "has a long-term deposit rating or a long-term debt rating of at least Aa2 as found in the current monthly publication of Moody's Credit Opinions or its equivalent.").

⁹⁹ See N.J. STAT. ANN. § 17B:20-1(e)(1)(a) (West 2006) (limiting investments to those in obligations of institutions or governments of jurisdictions "rated in one of the two highest categories by an independent, nationally recognized United States rating agency."); *id.* 17B:20-1(e) (A life insurer may invest up to 3% of aggregate assets in aggregate in countries that do not meet the rating standard).

¹⁰⁰ See MINN. STAT. ANN. § 60A.11, subdiv. 17(d) (West 2005).

¹⁰¹ See *id.* § 60A.11, subdiv. 10(i) (defining "noninvestment grade obligations" as "obligations which, at the time of acquisition, were rated below Baa/BBB or the equivalent by a securities rating agency or which, at the time of acquisition, were not in one of the two highest categories" established by SVO).

¹⁰² See CAL. INS. CODE § 1196.1(a)(6) (West 2005) *Compare id.* § 1196.1(a) with NAIC MODEL LAWS, REGULATIONS, AND GUIDELINES 280-1 § 10.B (2001). California law also provides that affiliated insurers may invest in "cash management pools" that hold corporate debt obligations, as long as the obligations have a maturity of less than one year and carry an NAIC-1 or NAIC-2 rating.

¹⁰³ MASS. GEN. LAWS ch. 175 § 63A(1) (West 1998) (defining "medium grade obligation" and "lower grade obligations" in terms of NAIC ratings); *id.* § 63A(2) (limits on investment in medium and lower-grade bonds).

that can be invested in “high yield obligations,”¹⁰⁴ as defined by ratings.¹⁰⁵

c. Concentration Limits

Most states’ laws prohibit insurers from investing more than a specified fraction of their assets in any one particular entity. For example, New York law prohibits insurers from investing more than 10 percent of admitted assets in securities of any one institution.¹⁰⁶ Here again, ratings may come into play. In New York, “mortgage-related securities” – defined by rating¹⁰⁷ -- are simply exempted from the concentration-limit rule.¹⁰⁸

d. Pool Requirements

Most states authorize insurers to participate in investment pools. Some insurance groups pool investments from multiple regulated insurance subsidiaries, presumably to exploit economies of scale. AIG’s securities-lending travails arose from such pooling activity.¹⁰⁹ Such insurance pools are often subject to rating-dependent regulation and often are required to invest only in instruments that the insurers contributing the funds could invest in.

New Jersey generally does not impose rating-dependent investment limits on property and casualty insurers, although it has adopted Section 25 of the Model Investment Act (Defined Limits Version), dealing with investment pools.¹¹⁰ Notably, it appears that New Jersey law generally

¹⁰⁴ CONN. GEN. STAT. § 38a-102c(c) (2007) (limiting high-yield investments to 10% of admitted assets).

¹⁰⁵ *Id.* § 38a-102b(c) (2007) (defining “high yield obligations” as those that “are not rated as investment grade by any nationally recognized United States rating agency” or NAIC).

¹⁰⁶ N.Y. INS. LAW § 1409(a) (McKineey 2006) (“[N]o domestic insurer shall have more than 10 percent of its admitted assets...invested in, or loaned upon, the securities...of any one institution.”). New York’s rating-based definition of a mortgage-related security parallels the federal definition. *Compare* 15 U.S.C. §78c(1)(41).

¹⁰⁷ *Id.* § 1401(a)(2) (“‘Mortgage-related security’ means an obligation that is rated AA or higher (or the equivalent thereto) by a nationally recognized securities rating agency” and meets other criteria).

¹⁰⁸ *Id.* § 1409(c) (10 percent limit does not apply to “mortgage-related securities” or securities issued or guaranteed by Fannie Mae or Freddie Mac).

¹⁰⁹ *See infra* note 269.

¹¹⁰ *See* N.J. STAT. ANN. §§ 17:24-28 to -36. (West 2007).

does not authorize property and casualty insurers to invest in corporate bonds or asset-backed securities other than mortgage-backed securities, which are not defined in terms of ratings.¹¹¹

e. Derivative Exposures

Ratings also play a role under New York law in defining the parties with whom insurers can enter into derivatives transactions. Insurers are prohibited from amassing derivative exposure of more than 3 percent to parties other than “qualified counterparties.”¹¹² “Qualified counterparties” are “qualified banks,” “qualified broker-dealers” and other counterparties “rated AA-/Aa3 or higher by a nationally recognized statistical rating organization” and approved by the Superintendent of Insurance.¹¹³ A “qualified bank” in turn is defined as one that is AA-rated.¹¹⁴ Although “qualified broker-dealer” is defined in terms of size and not rating,¹¹⁵ ratings also are relevant in that any derivative exposure to a counterparty is treated as an obligation of that counterparty,¹¹⁶ so that non-life insurers apparently can take derivative exposure only to counterparties meeting rating requirements according to the rules for investment in obligations of U.S. companies.

f. Non-Rating-Based Authorizations

State statutes often will authorize investments without regard to ratings. In addition to the common practice of permitting mortgage-backed security investments without regard to ratings described above, California,¹¹⁷ Connecticut,¹¹⁸ New Jersey,¹¹⁹ Massachusetts,¹²⁰

¹¹¹ *See id.*, § 17:24-1.

¹¹² N.Y. INS. LAW § 1410(f)(2)(A) McKinney 2006.

¹¹³ *Id.* § 1410(f)(3)(A).

¹¹⁴ *Id.* § 1410(f)(3)(C)(iv).

¹¹⁵ *Id.* § 1410(f)(3)(B).

¹¹⁶ *Id.* § 1410(f)(1).

¹¹⁷ *See* Cal. Ins. Code § 1192(a) (West 2005) (corporate bonds);

¹¹⁸ CONN. GEN. STAT. § 38a-102(a) (2010) (Insurers may make all such investments “as are prudent in respect of the business ... and diversification consideration.”)

¹¹⁹ N.J. STAT. ANN. § 17B:20-1(d) (West 2005) (authorizing New Jersey life insurers to invest in corporate bonds without regard to ratings). The law does not appear to specify any standard of creditworthiness for these investments. *See id.*

Minnesota,¹²¹ and New York¹²² all expressly permit certain types of investments without regard to rating. When ratings are not required for individual investments, the statute often provides that the insurer must make only “prudent”¹²³ or “sound”¹²⁴ investments.

g. Catch-all Provisions

Even when rating-dependent requirements limit insurer investments, state investment laws typically provide “catch-all provisions” that permit investments of relatively modest size in instruments that do not meet other requirements.¹²⁵

¹²⁰ MASS. GEN. LAWS ch. 175 § 63(7) (West 2010) (real-estate loans); *id.* § 63(14A) (corporate bonds). MassMutual and its two principal insurance subsidiaries, C.M. Life and MML Bay State Life, are domiciled in Massachusetts.

¹²¹ *See* MINN. STAT. ANN. § 60L.02 (West 2010) (requiring \$2 billion in admitted assets, NRSRO rating in one of the three highest categories, plus other criteria, for exemption eligibility)

¹²² New York is the principal regulator for the New York Metropolitan Life Insurance Company, as well as for insurance subsidiaries of AIG. N.Y. INS. LAW § 1405(a)(2) (McKinney 2010) (preferred stock); *id.* § 1405(a)(3) (obligations secured by real property); *id.* § 1405(a)(5) (obligations secured by personal property).

¹²³ CONN. GEN. STAT. § 38a-102(a) (insurers may make all such investments “as are prudent in respect of the business ... and diversification consideration.”); N.Y. INS. LAW § 1405(c) (requiring directors and officers to use “that degree of care that an ordinarily prudent person in a like position would use under similar circumstances” in making investments); *see* MINN. STAT. ANN. § 60L.04, subdvs. 1-2 (authorizing insurer exempt from default investment rules to “loan or invest its funds ... to the same extent as any other corporation or person under the laws of this state or the United States,” but requiring that board of directors “exercise the judgment and care ... that persons of reasonable prudence, discretion, and intelligence exercise in the management of a like enterprise”); *id.* § 60L.05(5) (establishing “the extent of the diversification of the insurer’s investments” as a criterion for evaluating prudence of investment). Connecticut is the domiciliary state for major insurance subsidiaries of The Travelers Group and The Hartford.

¹²⁴ CAL. INS. CODE § 1196(a) (West 2005). California is the domiciliary state for the major insurance subsidiaries of Farmers Group, Inc. (which are organized as inter-insurance exchanges under California law), as well as of a major insurance subsidiary of Allstate

¹²⁵ *See, e.g.*, MINN. STAT. ANN. § 61A.28, subdvs. 12; CAL. INS. CODE § 1210.

IV. THE FINANCIAL CRISIS AND THE FAILURE OF RATINGS ON NOVEL, UNSEASONED PRODUCTS

The way in which ratings were incorporated into the regulatory system made it possible for insurers to take on exposures to novel financial products such as subprime and Alt-A residential mortgage-backed securities and collateralized debt obligations. The capital requirements regime was built around agency credit ratings, and in many instances state investment laws directly required high ratings for insurer investment in novel instruments.

During the financial crisis that started in 2007, these products also suffered a high incidence of large credit-rating downgrades that can be described as unexpected, even unprecedented. Although it will always be possible to argue that the ratings did not “fail” in some sense, all the major credit rating agencies have conceded that their ratings on novel products did not perform as well as intended during the financial crisis.

Although the solvency-rated U.S. insurance industry reportedly fared better in the financial crisis starting in 2007 than the banking industry, the poor performance of formerly high-rated novel products did create some important problems for the industry. The underperformance of such products was quite important to the failure of the bond insurance industry and of AIG, although it can be argued that the latter case does not impugn the existing capital and investment requirements for regulated insurers as the fatal exposures were undertaken by an unregulated affiliate of the insurance companies. The poor performance of life insurers’ novel-product investments also put stress on that segment of the industry, leading to regulatory changes as described in Part IV, below.

A. Subprime and Alt-A RMBS and CDOs Are Novel

1. Subprime and Alt-A RMBS

Residential mortgage-backed securities (RMBS) are not particularly novel – the first private-label securitization dates to 1983 – but MBS backed by subprime and “Alt-A” mortgages extended to borrowers with poor credit are of more recent vintage. A 2007 study put it thus: “Until very recently, the origination of mortgages and the issuance of mortgage-backed securities was dominated by loans to prime borrowers conforming to underwriting standards set by the Government Sponsored

Agencies.”¹²⁶

One highly influential account, by Gary Gorton, describes subprime and Alt-A mortgages as reflecting a distinctive, novel security design for a distinctive purpose: enabling the lender to lend profitably to borrowers with poor credit risk.¹²⁷ He emphasizes the prepayment penalty and interest step-up features of subprime RMBS in describing such mortgages as effectively creating “compound options” on the underlying property for the lender, thereby increasing the lender’s exposure to home price appreciation.¹²⁸ Whether one accepts this specific explanation or not, secured lending based on collateral value rather than the borrower’s ability to repay has to increase the lender’s sensitivity to collateral price changes. Rating conclusions based on the history of prime RMBS thus were less relevant to these securities.¹²⁹

The scale of subprime and Alt-A issuance is certainly a novel phenomenon. As recently as 2001, subprime and Alt-A securitization totaled \$98.5 billion, as compared to \$1,087.6 billion for agency-backed securitizations and total mortgage origination of \$2,100 billion.¹³⁰ By 2006, subprime and Alt-A securitization was \$814.3 billion, as compared to \$904.6 billion in securitizations by government-sponsored entities, such as Fannie Mae and Freddie Mac.¹³¹ This reflected a massive expansion in the extent of subprime mortgage origination¹³² and a doubling in the

¹²⁶ Adam B. Ashcraft & Til Scheuermann, *Understanding the Securitization of Subprime Mortgage Credit*, 2 (March 2008) (unpublished manuscript) (on file with the Federal Reserve Bank of New York).

¹²⁷ Gary Gorton, *The Subprime Panic*, 4 (Yale Int’l Ctr. For Fin. , Working Paper No. 08-25, 2008)

¹²⁸ *Id.* at 5.

¹²⁹ See FINANCIAL CRISIS INQUIRY COMMISSION, FINANCIAL CRISIS INQUIRY REPORT 118 (2011) (“Moody’s did not even develop a model specifically to take into account the layered risks of subprime mortgages until late 2006, after it had already rated nearly 19,000 subprime securities”) *Id.* at 120-21 (describing evolution of Moody’s models). Although for of the ten members of the Financial Crisis Inquiry Commission dissented from the report in two separate dissent, none of dissenters contested the majority’s findings about ratings on subprime RMBS, and the dissent in which three of the four dissenting commissioners joined stated that one of the “ten essential causes” of the crisis was “failures in credit ratings and securitization.” *Id.* at 418.

¹³⁰ Ashcraft & Scheuermann, *supra* note 126, at 7 (jumbo originations, i.e. mortgages to prime borrowers that were too large to meet GSE guidelines -- and originations that were not securitized made up the difference).

¹³¹ *Id.* at 7

¹³² Jie He , Jun Qian & Philip E. Strahan. Credit Rating and the Evolution of

percentage of subprime mortgages that were securitized.¹³³ Although there is no universally accepted definition of a “subprime” mortgage, one estimate is that total *origination* of subprime mortgages increased from \$65 billion in the late 1990s to over \$600 billion in 2006, with subprime accounting for about a third of total mortgage volume in 2006.¹³⁴

2. Growth of the CDO Market

CDOs can be defined as structured finance securities in which the cash flows from a pool of assets are divided into senior and junior debt classes, called “tranches.”¹³⁵ The CDO market exploded in the years leading up to the crisis, with global CDO issuance going from \$157.4 billion in 2004 to \$551.7 billion in 2006.¹³⁶ The number of CDO tranches issued nearly doubled from 2005 (4,708 tranches) to 2006 (9,278 tranches).¹³⁷

B. EVIDENCE SUGGESTING THAT RATINGS ON RMBS AND CDOs FAILED

Structured products in general suffered a high rate of severe

the Mortgage-backed Securities Market, 6 (March 2010) (unpublished manuscript, on file with Boston College Department of Finance) (subprime origination increased from \$65 billion around the turn of the century to over \$600 billion in 2006). Subprime reportedly accounted for 13% of total mortgage origination in 2007. HAL S. SCOTT, *THE GLOBAL FINANCIAL CRISIS 2* (2009).

¹³³ SCOTT, *supra* note 132, at 3 (proportion of subprime mortgages securitized rose from 46% to 93% from turn of the century to 2006)/

¹³⁴ He, Qian & Strahan, *supra* note 132 at 6; SCOTT, *supra* note 132, at 2.

¹³⁵ Efraim Benmelech & Jennifer Dlugosz, *The Credit Rating Crisis* 6; (Nat'l Bureau of Econ. Research, Working Paper No. 15045); *see also* Dan Luo, Dragon Yong Tang & Sarah Qian Wang, A Little Knowledge is a Dangerous Thing: Data History, Model Uncertainty, and CDO (Mis-)Pricing 4 (November 15, 2008) (unpublished manuscript) (on file with the School of Economics and Finance, University of Hong Kong) *available at* www.fma.org/iamen/BayesianCDO.pdf (CDO issuance grew from \$17 billion in 1997 to over \$500 billion in 2006-07). Some commentators use a more general definition of CDO that would include non-tranched structures. “CDOs entail the use of securitisation techniques to create structured exposure to portfolios of multiple reference entities.” SATYAJIT DAS, *CREDIT DERIVATIVES, CDOs & STRUCTURED CREDIT PRODUCTS* 305-06 (3d ed. 2005).

¹³⁶ Benmelech & Dlugosz, *supra* note 135, at 7.

¹³⁷ *Id.* at 7.

downgrades in 2007 and 2008. 7.2% and 6.7% of tranches rated by Moody's were downgraded in 2007 and 2008 respectively, and the average downgrade was 4.7 and 5.6 notches.¹³⁸ This compares to an average rate of downgrade on structured-finance securities of 1-2% per year.¹³⁹ The majority of the downgrades were on securities backed by first mortgages, home equity loans (a category that apparently includes subprime loans), and CDOs of ABS.¹⁴⁰

One leading commentator puts it as follows: "Events since mid-2007 have demonstrated that the major [rating agencies] grossly underestimated the risk of loss associated with several types of structured financial products that lay at the heart of the financial crisis."¹⁴¹

1. RMBS

About 90% of rated RMBS value issued in the U.S. from 2003 to 2006 received AAA ratings, and 99.76% of rated issuance received investment-grade ratings.¹⁴² Between December 2007 and September 2008, these securities experienced an extraordinarily high downgrade rate. Adelino studies a sample covering 80% of RMBS issued in the U.S. between 2003 and 2007,¹⁴³ documenting the rapid growth of the market during this period.¹⁴⁴ Adelino does not distinguish between subprime/Alt-A and conventional RMBS. The proportion of AAA-rated securities that had been downgraded went from 0.5% to 16.2%, with equally dramatic increases in downgrades among the lower rating classes.¹⁴⁵ AAA-rated RMBS had not yet been hit by a high level of default at the time of Adelino's study, although there were a few defaults even in this category.¹⁴⁶ Nevertheless, the level of downgrades was significant. Ratings are designed to be stable through the credit cycle, so mass

¹³⁸ *Id.* at 24.

¹³⁹ *Id.* at 24.

¹⁴⁰ *Id.* at 25.

¹⁴¹ SCOTT, *supra* note 132, at 125.

¹⁴² See Manuel Adelino, *Do Investors Rely Only on Ratings? The Case of Mortgage-Backed Securities* 13, 42 tbl.1 (Nov. 24, 2009) (unpublished working paper) (on file with author).

¹⁴³ *Id.* at 10.

¹⁴⁴ *Id.* at 42 tbl.1 (RMBS issuance covered by sample increased for \$496.5 billion in 2003 to \$1,080.4 billion in 2006).

¹⁴⁵ *Id.* at 43 tbl.2.

¹⁴⁶ *Id.* at 43 tbl.3 (0.4% of 2006-issued AAA RMBS had defaulted by September 2008).

downgrades are themselves a sign of trouble. As Adelino points out, the 16% downgrade rate for AAA-rated RMBS issued between 2003 and 2006 contrasts with a historical one-year probability of downgrade on triple-A structured finance instruments is less than 1 percent.¹⁴⁷ By June 2009, Bank of America Merrill Lynch reported that over 64% of all AAA rated non-agency RMBS had been downgraded to below investment grade by at least one rating agency.¹⁴⁸

Ashcraft catalogues a series of what he describes as “honest mistakes” in rating RMBS, including underestimating the severity of the housing cycle and model error brought on by “the lack of comprehensive historical data,” particularly with respect to subprime mortgages, for which historical data was “largely confined to a relatively benign economic environment with very little data on periods of significant negative home price appreciation.”¹⁴⁹

2. CDOs

CDOs experienced a large number of severe downgrades in 2007 and 2008, accounting for 13% of structured-finance downgrades in 2007 and 22% in 2008.¹⁵⁰

The performance of ABS CDOs – CDOs where structured products such as CDOs and MBS make up the underlying pool of assets – is of particular interest because of ABS CDOs’ role in the collapse of monoline insurers. By January 2008, 17.35% of ABS CDOs insured by MBIA and Ambac had been downgraded at least once, with only 3.63% upgraded.¹⁵¹ Barnett-Hart’s examination of a different sample of ABS CDOs reveals that AAA tranches from 2005, 2006, and 2007 had been downgraded to average ratings of BBB, B-, and CCC+ respectively by June 2009.¹⁵²

Many CDOs were made out of RMBS – for example, around 70% of ABS CDOs insured by Ambac and MBIA had RMBS or home equity as

¹⁴⁷ *Id.* at 15.

¹⁴⁸ Letter from John Bruins and Andrew Melnyk, ACLI, to Lou Felice and Michael Moriarty, NAIC (Sept. 10, 2009) (on file with NAIC).

¹⁴⁹ Adam B. Ashcraft, Discussion of Alchemy of CDO Ratings, 56 J. OF MONETARY ECONOMICS 635, 637 (2009).

¹⁵⁰ Benmelech & Dlugosz, *supra* note 135, at 33 tbl.4.

¹⁵¹ *Id.* at 18.

¹⁵² Anna Katherine Barnett-Hart, The Story of the CDO Market Meltdown: An Empirical Analysis 24 fig.10 (Mar. 19, 2009) (unpublished A.B. honors thesis, Harvard College) (on file with Harvard College).

collateral¹⁵³ – and for those CDOs any errors in rating RMBS would have been compounded.¹⁵⁴

Because of the tranching structure common to CDOs, a critical aspect of CDO rating and pricing is the correlation of defaults among the underlying assets of the CDO. If raters rate the correlation too low, then the ratings will be too high. If market participants assess the correlation as too low, then the tranche prices will be too high. Default correlation, however, is difficult to estimate accurately because defaults are generally relatively rare events. It is widely believed that rating agencies and the market assessed CDOs assets' correlation as too low, resulting in over-rated and over-priced CDOs.¹⁵⁵ For example, a *national* decline in real-estate prices would result in a lot of homeowners defaulting on their mortgages at once (i.e., in a highly correlated fashion). Some researchers have argued that CDOs were inherently difficult for any market participant to evaluate because of limited data¹⁵⁶ and fundamentally flawed models,¹⁵⁷ so that ratings were more or less destined to be of low quality. More jaundiced observers point to the fact that one rating agency's model for CDOs based on corporate bonds assumed no correlation between companies in different industries.¹⁵⁸

3. Other Examples of Novel-Product Rating Failure

It is sometimes argued that the underlying problem with ratings on novel products in the financial crisis was a generally unanticipated national decline in house prices. Although this certainly contributed to the collapse of RMBS and CDO valuations, there are examples of rating failure on

¹⁵³ Benmelech & Dlugosz, *supra* note 135, at 15.

¹⁵⁴ See Ashcraft, *supra* note 149, at 638 (arguing that CDO investors did not “look through” credit ratings on RMBS to underlying collateral, instead “focusing on Monte Carlo simulations which took the CRAs’ view of nonprime RMBS as given.”).

¹⁵⁵ See, e.g., Luo et al., *supra* note 135, at 5.

¹⁵⁶ *Id.* at 2 (“Because defaults are rare and credit cycles take a long time to materialize . . . a short data history, say, five years of month[ly] observations, will significantly underestimate the tail distribution of the credit portfolio and default correlation.”).

¹⁵⁷ *Id.* at 3. Luo et al.’s comment about model error reflects their view that a very specific model change (to incorporate a “frailty factor”) is highly desirable. The authors’ point about short data histories survives and is independent of this very specific and contestable view about appropriate models. *Id.*

¹⁵⁸ Benmelech & Dlugosz, *supra* note 135, at 20.

specific novel products that are not tied to housing or real estate. For example, the market for CPDOs (“collateralized proportional debt obligation”), a novel product introduced in 2006, collapsed in 2007 after a wave of downgrades. The underlying asset for a CPDO is an index of corporate credit spreads and the product has no direct connection to real estate.¹⁵⁹ The rise and fall of collateralized bond obligations (CBOs) tells a similar story. Issuance of this product rose from approximately zero in 1994 to \$25 billion in 2000. By 2003, issuance was back to zero after a rash of downgrades. The CBO market had recovered to the \$3-\$5 billion level by 2007-08, suggesting the possibility that market participants had recovered confidence on ratings on this product.¹⁶⁰

C. LOSSES ON RMBS AND CDOs HARMED INSURERS

1. Financial Guaranty Insurers

The exposure of financial guaranty insurers such as Ambac and MBIA to ABS CDOs is a well-known part of the story of their downfall. Monoline insurers apparently took on a large proportion of the credit exposures created by high-rated CDO tranches. S&P estimated that FGI firms backed \$127 billion in CDOs with some subprime loan exposure.¹⁶¹ Gorton estimates that FGIs held 26% of AAA CDO tranches.¹⁶² The two largest bond insurers, Ambac and MBIA, had each sold CDS protection on around \$30 billion of CDO exposure by 2007.¹⁶³ These CDO exposures, which have been described as the “principal reason for Ambac’s significant losses” during the financial crisis, led to mark-to-market losses of \$5.9 billion in 2007 and \$4.0 billion in 2008 and created a \$10 billion liability

¹⁵⁹ John Patrick Hunt, *Credit Rating Agencies and the “Worldwide Credit Crisis”: The Limits of Reputation, the Insufficiency of Reform, and a Proposal for Improvement*, 2009 COLUM. BUS. L. REV. 109, 123 (2009) [hereinafter Hunt, *CRAs and the WWCC*].

¹⁶⁰ See Benmelech & Dlugosz, *supra* note 135, at 24, fig.6a.

¹⁶¹ SCOTT, *supra* note 132, at 5.

¹⁶² See Pamela Peterson Drake & Faith Roberts Neale, *Financial Guarantee Insurance and the Failures in Risk Management* 17 n.60 (May 2010) (unpublished working paper) (citing Gorton).

¹⁶³ Robert P. Bartlett, III, *Inefficiencies in the Information Thicket: A Case Study of Derivative Disclosures During the Financial Crisis* 5 (UC Berkeley Public Law Research Paper No. 1585953, Mar. 15, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1585953.

on the company's balance sheet.¹⁶⁴ By March 2010, MBIA had actually paid \$3.8 billion in claims on RMBS exposures and had a negative unassigned surplus, which prevented it from writing new business.¹⁶⁵

2. AIG

AIG had written CDS protection on \$61.4 billion on multi-sector CDOs with subprime housing exposure by 2007.¹⁶⁶ AIG suffered write-downs to its CDS portfolio totaling \$11 billion in 2007 and \$20 billion in the first nine months of 2008.¹⁶⁷ Under the CDS agreements, AIG was required to post collateral on account of the write-downs, and collateral calls in July and August 2008 totaled \$6 billion, or about 1/3 of the cash AIG had on hand as of July 1.¹⁶⁸ When AIG lost its AAA credit rating on September 15, 2008, this triggered a further \$20 billion in collateral calls under the agreements, plunging AIG into distress and leading to its government bailout the next day.¹⁶⁹

AIG also had cash difficulties arising from its securities lending program, because it received cash collateral in exchange for lending out high-quality securities and invested that cash in RMBS. When AIG's counterparties became concerned about AIG's situation, returned the lent securities, and demanded return of the cash collateral, AIG was not able to sell the RMBS, so that its cash was further drained, to the tune of \$3.3 billion through August 31, 2008.¹⁷⁰

3. Life Insurers

Life insurers held substantial amounts of non-agency RMBS -- \$145 billion as of year-end 2008.¹⁷¹

¹⁶⁴ *Id.* at 27.

¹⁶⁵ *Moody's Comments on MBIA's Fourth Quarter Earnings and Ongoing Litigations*, (Mar. 5, 2010), http://www.mbia.com/investor/ratings/Moodys_030510.pdf.

¹⁶⁶ William K. Sjostrom, Jr., *The AIG Bailout*, 66 WASH. & LEE. L. REV. 943, 959 (2009).

¹⁶⁷ *See id.* at 960.

¹⁶⁸ *Id.* at 961.

¹⁶⁹ *Id.* at 962.

¹⁷⁰ *Id.* at 962-63.

¹⁷¹ ACLI Letter, *supra* note 148, at 3.

D. RATING FAILURE, RATING AGENCY FAULT, AND THE IMPORTANCE OF SEASONING

The debate over whether rating agencies are at fault for poor-quality ratings, by committing a species of fraud or otherwise, focuses attention on whether agency ratings were as good as could be reasonably expected.¹⁷² But even if ratings were as good as could be expected, that does not necessarily mean that they were good enough for any and all purposes. If ratings on novel products are unreliable because of a lack of data on the products' performance and experience in modeling the products, then permitting an regulated insurer to invest in that product on the basis of the rating is a questionable decision, even if the rating agency did as well as it could have done or as well as the average or above-average investor could have done.

A corollary to this is that one would expect ratings to become more reliable over time with the accumulation of data and experience. Indeed, the major rating agencies already have comprehensively revamped their rating methodologies for RMBS and CDOs as a result of the crisis. It seems to make more sense to give regulatory effect to ratings after the end of an appropriate seasoning period than to do so immediately and without regard to whether ratings on the product have proven themselves reliable.

V. THE NAIC'S RATING AGENCY WORKING GROUP: FIXING RATINGS VERSUS REGULATING INSURANCE

The NAIC's risk-based capital framework and federal and state

¹⁷² See, e.g., *Anschutz Corp. v. Merrill Lynch & Co., Inc.*, 2011 WL 1134321 (N.D. Cal. March 27, 2011) (denying rating agencies' motion to dismiss negligent misrepresentation claims based on agencies' award of AAA ratings to auction-rate securities); *In re Bear Stearns Cos., Inc. Secs. Litig.*, 2011 WL 321142 (Feb. 1, 2011) ; *King County v. IKB Deutsche Industriebank AG*, 708 F. Supp. 2d 334 (S.D.N.Y. 2010) (denying rating agencies' motion to dismiss common-law fraud claims based on agencies' award of AAA ratings securities issued by Rhinebridge SIV (structured investment vehicle)); *Abu Dhabi Commercial Bank v. Morgan Stanley & Co.*, 651 F. Supp. 2d 155 (S.D.N.Y. 2009) (denying rating agencies' motion to dismiss common-law fraud claims based on agencies' award of AAA ratings to securities issued by Cheyne SIV (structured investment vehicle)); *California Public Employees' Retirement Sys. v. Moody's Corp.* (Cal. Super. Ct. May 24, 2010) (overruling rating agencies' demurrer to claim for negligent misrepresentation based on award of AAA ratings to Cheyne, Stanfield Victoria, and Sigma Finance SIVs (structured investment vehicles)).

investment laws have conferred an important gatekeeping role on credit ratings. In many cases, a recognized rating agency's decision to rate an investment product authorizes insurers to invest in that product.¹⁷³ This is important because insurers are responsible for a large fraction of fixed-income investment. Some rating-dependent rules rely on high ratings, as explained above, and thus may encourage ratings inflation. But all rating-dependent rules depend on the fact of receiving a rating, and none expressly distinguishes between ratings that are likely to be reliable and ratings that are less likely to be reliable.¹⁷⁴ This is curious, because the reliability of a rating ought to be as important for regulation as how high the rating is.

The apparent failure of ratings on a number of products¹⁷⁵ has led state insurance regulators to reexamine the role of ratings in their regulations. Although this reexamination was initially quite broad-ranging, it has narrowed significantly in scope. It now seems unlikely that the NAIC will abandon credit ratings completely. Credit ratings offer insurers and their regulators credit assessments at low cost, and historically ratings from the major agencies have enjoyed a fairly high degree of market acceptance. The insurers who foot the bill for regulatory credit determinations historically have liked the arrangement, citing its low cost. Regulators may not want the large, difficult and unrewarding task of making credit assessments on thousands of different financial instruments. Most importantly, there are no terribly appealing alternatives to rating-dependent regulation or something very much like it.¹⁷⁶

Against this backdrop, it is no surprise that the NAIC does not seem to be on a path to complete elimination of ratings from its regulations. The NAIC is not alone among regulators in its reluctance to follow that

¹⁷³ See discussion *supra* Part II.B.

¹⁷⁴ The fact that only ratings from approved agencies "count" under NAIC rules, *see supra* note 68, attempts to distinguish between reputable and nonreputable rating agencies, but no finer distinction appears in the NAIC rules. The rules do not contemplate the possibility that an agency might do a good job on some ratings and not others.

¹⁷⁵ See discussion *supra* Part III.

¹⁷⁶ Although the NAIC has replaced credit ratings on some structured financial products with outsourced assessments provided by private parties that are not rating agencies, *see discussion infra* Part IV.B.3, the new arrangement seems to exhibit many of the same benefits and potential problems as rating-dependent regulation. It is not too much of an exaggeration to say that the shift is better understood as a change in the *form* of rating-dependent regulation than as a move away from rating-dependent regulation to something else.

path to its end – for example, the SEC also tabled reforms of rating-dependent regulation until commanded by Congress to eliminate ratings.

Rating-agency reformers, by contrast, are often quite eager to eliminate credit ratings from regulation, pointing to the way in which ratings warp agencies' incentives and arguing that ratings are generally uninformative. (Indeed, the two largest rating agencies themselves voice agreement with the first statement, although not the second.) It seems that there is a persistent conflict between capital regulators and rating-agency reformers on this score.

The rating-agency reformers won out in the Dodd-Frank Wall Street Reform and Consumer Protection Act, which seems to require elimination of credit ratings from federal regulation, and which removes a number of federal statutory requirements that incorporate credit ratings into financial regulation¹⁷⁷ – including the provision of SMMEA that requires state insurance regulators to permit insurers to hold high-rated mortgage-backed securities¹⁷⁸. As one might anticipate, federal regulators are resisting this mandate. Even apart from that, state insurance regulators' reluctance to give up on rating-dependent regulation threatens to undermine the federal goal of improving rating agencies' incentives by eliminating rating-dependent regulation. The use of ratings in capital regulation threatens to become a source of tension in the ongoing struggle between state and federal authority in the regulation of insurance.

If regulators were to rely only on ratings on seasoned products – products in existence long enough for analysts to have a good sense of how the product is likely to perform under various economic conditions – that would accommodate the most important interests both of those who want to rely on credit ratings and of rating-agency reformers who want to minimize reliance on such ratings. Regulators and regulated parties could continue to rely on ratings for traditional products, preserving the low cost of the rating-dependent system and addressing any concerns regulators might have about being made responsible for routine credit determinations.

A seasoning requirement therefore is a feasible solution to the conflict between regulators and rating-agency reformers. A seasoning requirement also would mitigate the major problems with rating-dependent regulation. The worst-performing ratings have been on novel products, as one might expect given the agencies' lack of experience with them. And it is in the context of certifying novel products for acceptance that rating-dependent regulation has its worst effects on agency incentives for quality.

¹⁷⁷ PUB. L. 111-203 (July 21, 2010) §939.

¹⁷⁸ PUB. L. 111-203 (July 21, 2010) §939(e).

A. THE NAIC'S USE OF RATINGS: A CASE STUDY IN
REGULATORY OUTSOURCING

1. The "Filing Exempt" Rule

The NAIC adopted the "filing exempt" rule ("FE Rule"), effective January 1, 2004.¹⁷⁹ The Rule provides that bonds and preferred stock that have a current, monitored rating by an NRSRO do not have to be filed with the NAIC's Securities Valuation Office.¹⁸⁰ In effect, the Rule permits insurers to decide to delegate the SVO's credit assessment function to the credit rating agencies, at least for issues that the agencies decide to rate. If an insurer chooses to have the issue rated by the SVO, the insurer must pay a fee.¹⁸¹

Unsurprisingly, insurers prefer to use rating agencies: They use ratings from the rating agencies rather than the SVO for about 80% of their holdings,¹⁸² and SVO personnel confirm that insurers use SVO ratings primarily when the rating agencies do not issue ratings on the instrument in question.¹⁸³

It appears that the NAIC adopted the Rule in response to concerns that the SVO did not have the funding to conduct high-quality credit analysis for the entire universe of bonds held by insurers. An NAIC-commissioned 1998 report by KPMG Peat Marwick concluded that the "SVO has difficulty completing an in-depth analysis on the more complex non-rated issues that due to the large volume of submissions it receives, as well limited, qualified, trained staff available to perform the analyses."¹⁸⁴ The consultants found that there was "a need to either change the mission of the SVO and perform much less credit analysis, or to update its standards and dramatically increase its resources to improve the quality of credit analysis performed."¹⁸⁵

¹⁷⁹ National Association of Insurance Commissioners, *Understanding the NAIC Filing Exemption Rule*, *supra* note 58, at 1.

¹⁸⁰ *Id.*

¹⁸¹ *Id.* at 1-2.

¹⁸² See Evangel, *supra* note 61, at 11 (percentage computed by author).

¹⁸³ Interview with Chris Evangel, Managing Director, Sec. Valuation Office (June 29, 2010)

¹⁸⁴ PEAT MARWICK, KPMG, REPORT ON REVIEW OF DUE DILIGENCE PRACTICES AND PROCEDURES OF THE SECURITIES VALUATION OFFICE 2 (June 1998) [hereinafter SVO REVIEW].

¹⁸⁵ *Id.* at 2.

As between those two choices, KPMG recommended the former, arguing that there was “little opportunity for the SVO to add value by conducting detailed independent credit reviews where an NRSRO or insurance company has, or should have, already undertaken such analysis.”¹⁸⁶ For rated securities, KPMG recommended that the NAIC rely on the credit rating to assign the security to one of the six categories;¹⁸⁷ for unrated securities, KPMG recommended that the NAIC “accept the ratings assigned by insurers,”¹⁸⁸ at least as to insurers that “comply with a comprehensive set of credit rating criteria, credit rating procedures and related documentation.”¹⁸⁹ In 2000, the NAIC took one step in the direction the consultants recommended; it adopted a provisional exemption under which corporate and municipal securities that received high ratings from credit rating agencies no longer had to be filed with the SVO.¹⁹⁰ In 2004, with the adoption of Rule FE, the exemption became permanent and was expanded to all bonds and preferred stock rated by recognized rating agencies.¹⁹¹

2. Reexamination of Rating-Dependent Regulation in the Financial Crisis of 2007-09

The financial crisis and the attendant criticism of ratings provided an occasion for NAIC to reconsider whether to strengthen the role of SVO and reduce that of private credit rating agencies.¹⁹² In February 2009, the NAIC empaneled a Rating Agency Working Group (“RAWG”) to reexamine the use of private credit ratings in insurance regulation. The list of issues that RAWG was to address began with “the problems inherent in reliance on ratings.”¹⁹³ Observers expected that the SVO’s role would be upgraded significantly and that the NAIC might even go so far as to set up

¹⁸⁶ *Id.* at 3.

¹⁸⁷ *Id.* at 30.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ Chris Evangel, Statement and Testimony Before the NAIC’s Working Group Public Hearing, Nov. 18, 2010.

¹⁹¹ National Association of Insurance Commissioners, *Understanding the NAIC Filing Exemption Rule*, *supra* note 58, at 1. “Recognized” agencies in this context are those that the SEC has designated “nationally recognized statistical rating organizations.”*Id.*

¹⁹² Vaughan, *supra* note 33, at 14 (U.S. regulators “revisiting their reliance on rating agencies in the risk-based capital system”).

¹⁹³ RAWG FINAL REPORT, *supra* note 39, at 1.

its own credit rating agency.¹⁹⁴

The RAWG held a public hearing in September 2009 and produced a draft report in December 2009.¹⁹⁵ After receiving a significant number of comments and revising the draft, the RAWG presented its final report on April 28, 2010.¹⁹⁶ The RAWG summarized its recommendations to regulators as follows:

- “[E]xplore how reliance on ARO ratings can be reduced when evaluating new, structured, or alternative asset classes, particularly by introducing additional or alternative ways to measure risk;”
- “Consider alternatives for regulators’ assessment of insurers’ investment risk, including expanding the role of the NAIC Securities Valuation Office;” and
- “[T]ake[] into account” “the steps taken by the NRSROs in correcting the causes that led to the recent rating shortfalls.”¹⁹⁷

The final report’s recommendations reject the complete elimination of rating-dependent regulation recommended by some commenters and apparently embraced by Congress in the Dodd-Frank bill, stating that agency ratings “have a role in regulation.”¹⁹⁸ At the same time, the RAWG does express a commitment to reducing reliance on credit ratings, finding that “NAIC policy on the use of [credit] ratings should be highly selective.”¹⁹⁹

The RAWG’s specific proposals for changing the use of ratings focus on new and structured products. Consistent with this Article’s recommendation that regulators require a seasoning period before permitting regulatory use of ratings on novel products²⁰⁰, the Final Report recommends that the Valuation of Securities Task Force consider whether

¹⁹⁴ See Sean P. Carr, *NAIC Seeks to Form Its Own Rating Agency*, BESTWIRE, Oct. 20, 2008, at 1.

¹⁹⁵ NAIC RATING AGENCY WORKING GRP., EVALUATING THE RISKS ASSOCIATED WITH NAIC RELIANCE ON NRSRO CREDIT RATINGS – DRAFT FINAL REPORT 6 (Dec. 1, 2009) [hereinafter RAWG EXPOSURE DRAFT].

¹⁹⁶ RAWG FINAL REPORT, *supra* note 39.

¹⁹⁷ *Id.* at 1.

¹⁹⁸ *Id.* at 5.

¹⁹⁹ *Id.*

²⁰⁰ See *infra* Part VIII.

new investment products “should be ineligible for filing exemption and/or instead be subject to regulatory evaluation.”²⁰¹ For structured products, the recommendation is that the NAIC “develop[] alternative methodologies for assessing structured security risks,” and render structured products ineligible for filing exemption “where an alternative method is adopted.”²⁰² The merits of this approach are discussed more fully in Part ___, below.

The decision to focus on new and structured finance ratings in reforming rating dependent regulation apparently reflects recognition that municipal, corporate, and structured finance ratings are not fully comparable,²⁰³ and in particular that agency ratings are more reliable for traditional instruments such as corporate and municipal bonds. Accordingly, the Final Report recommends further study to confirm if use of ratings in solvency regulation should “differ for municipal, corporate and structured securities as general asset classes,”²⁰⁴ and the Report’s recommendations on municipal bonds contemplate retention of rating-dependent regulation in that context.²⁰⁵ The distinction also reflects the weight of opinion in the comment letters that the RAWG received.

Such a distinction makes sense not just in light of the immediate history of the performance of novel-product ratings in the financial crisis, but also from a theoretical standpoint. Scholarly treatment of rating agencies has emphasized the importance of reputational capital in giving agencies incentives to issue only high-quality ratings: Agencies arguably would not risk their reputations for high quality by producing low-quality ratings.²⁰⁶ But no agency has an existing reputation for high quality in rating novel products, so reputation should not be as effective in this context.²⁰⁷

²⁰¹ *Id.* at 6.

²⁰² *Id.* at 6. The Report also recommends that NAIC continue to “evaluat[e] the merit of an alternative method to determine the NAIC designations to structured securities, in addition to RMBS,” in an apparent reference to the special valuation method NAIC adopted for RMBS. *Id.* at 7.

²⁰³ See RAWG FINAL REPORT, *supra* note 39, at 2-3.

²⁰⁴ *Id.* at 4.

²⁰⁵ *Id.* at 4-5.

²⁰⁶ See, e.g., Fabian Dittrich, *The Credit Rating Industry: Competition and Regulation* 155-54 (July 13, 2007) (unpublished dissertation, University of Cologne); Steven L. Schwarcz, *Private Ordering of Public Markets: The Rating Agency Paradox*, 2002 U. ILL. L. REV. 1, 1-2; Gregory Husisian, Note, *What Standard of Care Should Govern the World’s Shortest Editorials?: An Analysis of Bond Rating Agency Liability*, 75 CORNELL L. REV. 411, 426-27 (1990).

²⁰⁷ Hunt, *CRAs and the WWCC*, *supra* note 159, at 112.

There is but lukewarm support for the idea of upgrading the SVO's role in the Final Report. A draft recommended that the NAIC "consider the possibility of establishing an SVO-like entity as a not-for-profit rating agency,"²⁰⁸ but the Final Report adds the critical qualification "where [rating agency] rating coverage is not adequate."²⁰⁹ Given that complaints about agency ratings have focused on reliability and quality, rather than "coverage," the Final Report's language seems to signal abandonment of the idea of an NAIC-sponsored rating agency. Enthusiasm for expanding SVO's role also appears to be waning even in areas that would not require NAIC to set up its own rating agency. For example, the draft report called on NAIC to use SVO in developing alternatives to ratings "if supportive of consumer protection objectives,"²¹⁰ but the Final Report omits this recommendation.

Momentum is against shifting against eliminating credit ratings in other respects as well. The December 2009 draft recommended that rating agency ratings "should no longer be used to set RBC [risk-based capital] for structured securities," in part because structured securities are vulnerable to market risk and are highly illiquid.²¹¹ The Final Report states instead that NAIC should "develop tools to better address market and liquidity risk in structured securities."²¹² The December 2009 draft of the Report grouped some recommendations under the heading "Eliminate or Modify the Filing Exempt Rule";²¹³ the Final Report's heading is simply "Modify the Filing Exempt Rule."²¹⁴

Although the RAWG's Final Report seems to reject complete elimination of credit ratings from the NAIC's rules, it does signal a desire to reduce the use of credit ratings. It states that NAIC's "policy on the use of ARO [credit] ratings should be highly selective"²¹⁵ and identifies ten issues for further study by the NAIC. As of early April 2011, units within NAIC have completed a number of such studies,²¹⁶ although it does not

²⁰⁸ RAWG EXPOSURE DRAFT, *supra* note 195, at 6.

²⁰⁹ RAWG FINAL REPORT, *supra* note 39, at 5. The Final Report also eliminates the term "SVO-like." *See id.*

²¹⁰ RAWG EXPOSURE DRAFT, *supra* note 195, at 5.

²¹¹ *Id.* at 7-8.

²¹² RAWG FINAL REPORT, *supra* note 39, at 6.

²¹³ RAWG EXPOSURE DRAFT, *supra* note 195, at 7.

²¹⁴ RAWG FINAL REPORT, *supra* note 39, at 6.

²¹⁵ RAWG FINAL REPORT, *supra* note 39, at 5.

²¹⁶ *See Proposed Methodology to Assess the Reliability of NRSRO Credit Ratings*, Memorandum from Bob Carcano, SVO, to Matti Peltonen, Chair, Valuation of Securities Task Force, Oct. 8, 2010; *Analysis of the Performance of*

appear that further action has been taken.

But even if the NAIC reduces reliance on credit ratings, it may not reduce its reliance on regulatory outsourcing in general: The NAIC does not seem interested in expanding the SVO's role, as discussed above. And in the one area where the NAIC has rejected reliance on ratings – credit assessments for mortgage-backed securities – the NAIC has continued to outsource credit determinations to private entities.²¹⁷ The next section takes up why the NAIC and other financial regulators may want to outsource responsibility for credit determinations.

B. WHY IS OUTSOURCED REGULATION SO POPULAR?

The NAIC and other financial regulators are reluctant to abandon rating-dependent regulation altogether, and to the extent NAIC is moving away from rating-dependent regulation, the substitute is to have credit risk assessed by private entities that are not rating agencies. This section proposes two explanations for financial regulators' desire to outsource credit-risk determinations.

1. The Desire for Rating-Dependent Regulation Transcends Insurance

The NAIC's experience fits into a broader pattern of regulatory desire to outsource regulatory decisions – in particular, to outsource them to rating agencies. Although the full extent of rating-dependent regulation has never been documented,²¹⁸ regulators have incorporated credit ratings in widely varying areas, including the basic capital rules for broker-dealers,²¹⁹ some capital rules for banks,²²⁰ deposit-insurance assessments,²²¹

NRSRO Credit Ratings and Implications of Default Statistics Associated with NAIC Designations, Memorandum from Bob Carcano and Wes Beal, SVO, to Matti Peltonen, Chair, Valuation of Securities Task Force, Oct. 10, 2010; Alternatives and Supplements to the Use of NRSRO Credit Ratings, Memorandum from Bob Carcano and Wes Beal, SVO, to Matti Peltonen, Chair, Valuation of Securities Task Force, Oct. 8, 2010.

²¹⁷ See discussion *infra* Parts VI.A & VI.B.

²¹⁸ The most comprehensive survey appears to be JOINT FORUM, BANK FOR INT'L SETTLEMENTS, STOCKTAKING ON THE USE OF CREDIT RATINGS (2009), available at <http://www.bis.org/publ/joint22.pdf>.

²¹⁹ See SEC Net Capital Rule, 17 C.F.R. § 240.15c3-1 (2010). It is worth noting that the major Wall Street banks were not covered by this particular rule in the period immediately leading up to the crisis. Instead, they had all opted into an

and limits on the permitted investments of national banks,²²² money market funds,²²³ and federal thrifts.²²⁴ Regulators also seem to use high credit ratings as a proxy for the absence of conflicts of interest: the Department of Labor has granted an exemption to ERISA conflict-of-interest rules that permits underwriters to sell structured securities to an ERISA plan to which the underwriter provides services – as long as the securities have high credit ratings and other requirements are met.²²⁵

Financial regulators other than NAIC have started to act to reduce their reliance on ratings since the beginning of the financial crisis, but progress has been fitful. For example, in summer 2008 the SEC proposed a three-part set of rules that would have sharply reduced the agency's reliance on credit ratings.²²⁶ The SEC tabled most of the reductions in 2009²²⁷ and adopting *new* rules embracing the use of credit ratings in 2010.²²⁸ Only in 2011 – after the Dodd-Frank Act ordered federal financial

alternative capital regulation system that was part of the “Consolidated Supervisory Entity” program. OFFICE OF THE INSPECTOR GEN., U.S. SEC. & EXCH. COMM’N, SEC’S OVERSIGHT OF BEAR STEARN’S AND RELATED ENTITIES: THE CONSOLIDATED SUPERVISED ENTITY PROGRAM iv-v (2008), *available at* <http://www.sec-oig.gov/Reports/Auditsinspections/2008/446-a.pdf>

²²⁰ See 12 C.F.R. Part 3 App. A §§ 3(a)(4)(iii), 3(b), 3(a)(2)(xiii)(C) (2010).

²²¹ See 12 U.S.C. § 1817(b)(1)(E)(i) (2006); 12 C.F.R. §§ 327.8(i), 327.9(d)(2) (2010).

²²² 12 C.F.R. §§ 1.2-1.3 (2010).

²²³ 17 C.F.R. § 270.2a-7 (2010).

²²⁴ 12 C.F.R. §§ 560.40(a)(1)-(2), 560.42 (2010).

²²⁵ Amendment to Prohibited Transaction Exemption (PTE) 2000-58, 67 Fed. Reg. 54,487 (Aug. 22, 2002).

²²⁶ References to Ratings of Nationally Recognized Statistical Rating Organizations, 73 Fed. Reg. 40,088 (proposed July 11, 2008); Security Ratings, 73 Fed. Reg. 40,106 (proposed July 11, 2008); References to Ratings of Nationally Recognized Securities Rating Organizations, 73 Fed. Reg. 40,124 (proposed July 11, 2008).

²²⁷ In October 2009, the SEC adopted a final rule removing some references to credit ratings from its rules, References to Ratings of Nationally Recognized Statistical Rating Organizations, 74 Fed. Reg. 52,358 (Oct. 9, 2009), but reopened the comment period on the other, more significant, proposed changes. References to Ratings of Nationally Recognized Statistical Rating Organizations, 74 Fed. Reg. 52,374 (Oct. 9, 2009). Separately, the SEC in May 2010 proposed – but has not adopted – a further rule that would eliminate reliance on ratings in determining whether asset-backed securities are “shelf eligible.” Asset-Backed Securities, 75 Fed. Reg. 23,328, 23,331 (proposed May 3, 2010).

²²⁸ See Money Market Reform Final Rule, 75 Fed. Reg. 10,060 (Mar. 4, 2010)

regulators to remove ratings from their rules – did the SEC once again take up proposals to remove ratings from its rules.²²⁹ Even those proposals, which were still pending as of early April 2011, would not repeal the use of credit ratings in some important areas, such as in calculating the net capital of smaller broker-dealers.²³⁰

2. A Political Explanation: Stakeholder Interests and Rating-Dependent Regulation of Insurance

The leading scholarly approach to understanding insurance regulation is to consider how the various stakeholder groups, including regulators themselves, interact to produce a policy result.²³¹ Rating-

(amending 17 C.F.R. § 270.2a-7). The SEC continued to define “Eligible Securities” as those that receive high credit ratings or that are of “comparable quality” to those receiving high ratings. 17 C.F.R. § 270.2a-7(a)(12), 75 Fed. Reg. at 10,110, and requires money-market fund boards to take action when rating agencies downgrade securities below certain levels. 17 C.F.R. § 270.2a-7(c)(7), 75 Fed. Reg. at 10,114. The SEC’s continuing reliance on credit ratings in this context has come in for academic criticism. *See* William A. Birdthistle, *Breaking Bucks in Money Market Funds*, 2010 WIS. L. REV. 1155, 1185-87 (describing SEC’s continued reliance on rating agencies in the Final Rule as “[p]erhaps the most curious decision of the SEC in response to all that has occurred in the past two years”). The SEC recently proposed eliminating the express references to credit ratings in its money-market rule. *See* References to Credit Ratings in Certain Investment Company Act Rules and Forms, 76 Fed. Reg. 12,896, 12,897 (March 9, 2011).

²²⁹ *See* References to Credit Ratings in Certain Investment Company Act Rules and Forms, 76 Fed. Reg. 12,896 (March 9, 2011); Security Ratings, 76 Fed. Reg. 8,946 (Feb. 16, 2011).

²³⁰ 17 C.F.R. § 240.15c3-1(a)(1), 240.15c3-1(c)(2) (defining net capital and providing that high-rated securities count more toward satisfying net-capital requirement than low-rated ones). The largest broker-dealers all have opted to use an alternative method for net capital that relies on internal models rather than credit ratings. *See* Charles Whitehead, *Destructive Coordination*, 96 CORNELL L. REV. 323, 343 n.107 (2011). This method continues to be used, although the SEC has been reexamining it in the wake of criticism since the financial crisis. *See* Mary L. Schapiro, Chairman, SEC, “Testimony Concerning the State of the Financial Crisis Before the Financial Crisis Inquiry Commission,” at 12-13 (Jan. 14, 2010).

²³¹ *See* MEIER, *supra* note 3, at 167 (“The political economy of insurance regulation results from a complex interaction of industry groups, consumer interests, regulatory bureaucrats, and political elites”); Randall, *supra* note 21, at 670-86 (explaining states’ authority over insurance industry and role of NAIC in

dependent regulation is fairly easy to understand under this approach, because the leading stakeholders – insurers and regulators – have strong incentives to prefer rating-dependent regulation.

The industry has an incentive to support rating-dependent regulation because it does not want to pay for the SVO to perform the function, as discussed above.²³² Certainly, it appears that insurers led the charge to water down the NAIC’s draft report calling for reduced reliance on credit ratings.²³³ Moreover, insurers may want to benefit from the liability shield of rating reliance: If regulators rely on the ratings, the argument goes, who could fault the industry for doing the same? One might also expect the industry to be more comfortable with the rating agencies’ private bureaucracies than the public bureaucracy of NAIC.

On the other hand, if the industry exerts a strong influence on the NAIC, as one leading study concludes,²³⁴ then why is it that insurers show so little interest in keeping the rating function within that organization, where it can be controlled? A partial answer may lie in the availability of rule bailouts, as discussed below. If the industry can change the rules in

terms of stakeholder preferences); Schwarcz, *supra* note 10, at 1715 (introducing framework in which industry as regulatory “buyer,” regulator as regulatory “seller,” and regulatory “regulator” would interact under conditions of regulatory competition).

²³² See *supra* Part IV. A.1 [describing industry reluctance to pay for SVO]

²³³ See NAIC PROCEEDINGS – SPRING 2010, at 10-38 to 10-45 (comment letters from American Council of Life Insurers expressing opposition to precipitous repeal of filing exempt rule and taking issue with RAWG draft report’s characterization of rating agency performance as overly negative). Another constituency for rating-dependent regulation in the SEC and NAIC cases is the regulated entities themselves. The Securities Industry and Financial Market Association opposed the SEC’s proposal to eliminate references to credit ratings in its Net Capital Rule for broker-dealers. See Fed. Reg. 52,377-78 nn.35-36 (Oct. 9, 2009); Fed. Reg. 52,379-81 (Oct. 9, 2009) (the money-market industry criticized the SEC’s move away from rating-dependent regulation). The Department of Labor’s reliance on ratings in the context of ERISA exemptions for structured products also appears to originate with an industry proposal. Exemptions Allowing Previously Prohibited Transactions Under ERISA and the I.R.C. of 1986, 55 Fed. Reg. 21455-01 (May 24, 1990).

²³⁴ Randall, *supra* note 21, at 669 (“[T]he history of the NAIC suggests . . . a systematic bias in favor of the industry.”); Schwarcz, *supra* note 9, at 1763 (“[I]n the aggregate, ordinary ‘monopolistic’ insurance regulation is more frequently subject to substantial regulatory capture that produces underregulation as opposed to excessive regulation.”).

midstream on an ad hoc basis²³⁵ when the rating agencies produce results insurers do not like, that reduces the value of paying to maintain the SVO function year in and year out.

State regulators have an incentive to support rating-dependent regulation because it permits them to avoid blame for poor credit determinations²³⁶ without sacrificing broader authority to set general policy.²³⁷ More fundamentally, no real alternative has emerged, as discussed below.²³⁸

The rating agencies themselves might be expected to support regulatory use of ratings, as this increases demand for their products.²³⁹ Indeed, it has been suggested that rating-dependent regulation is the basis of the rating agencies' business.²⁴⁰ In fact, the rating industry's position is more complicated. The largest rating agencies, Moody's²⁴¹ and Standard &

²³⁵ See *infra* Part IV.

²³⁶ See Geoffrey P. Miller & Gerald Rosenfeld, *Intellectual Hazard: How Conceptual Biases in Complex Organizations Contributed to the Crisis of 2008*, 33 HARV. J.L. & PUB. POL'Y 807, 839 (2010) (identifying "blame avoidance" as a persistent regulatory bias); Richard Scott Carnell, *Regulator's Incentives*, in MAKE MARKETS BE MARKETS 35, 37 (ROOSEVELT INST., ED. 2010) (identifying regulatory incentive to avoid blame by trying to ensure that problems become apparent during successors' tenure).

²³⁷ Compare Randall, *supra* note 21, at 684-85 (arguing that Congress has an incentive to leave insurance regulation in the hands of the states in the context of regulatory changes permitting greater financial services integration: "By preserving the existing regulatory structures, Congress may be able to take credit for modernizing financial services and enhancing the international competitiveness of U.S. firms while avoiding blame for the inevitable problems that will accompany the changes.").

²³⁸ See *infra* Part IV.B.3

²³⁹ See Thomas J. McGuire, Exec. Vice President and Dir., Moody's Corporate Dep't, Ratings in Regulation: A Petition to the Gorillas, Speech at Sec. & Exch. Comm'n (Apr. 28, 1995) (Moody's executive stating that "[f]rom a financial perspective, I believe that regulation has increased the revenues of the rating industry and contributed to the growth" of rating agencies).

²⁴⁰ See Frank Partnoy, *The Paradox of Credit Ratings*, in RATINGS, RATING AGENCIES AND THE GLOBAL FINANCIAL SYSTEM 65, 74 (Richard M. Levich et al. eds. 2001).

²⁴¹ See *Testimony of Raymond M. McDaniel, Testimony Before the Fin. Crisis Inquiry Comm'n*, 6 (June 2, 2010), available at <http://www.fcic.gov/hearings/pdfs/2010-0602-McDaniel.pdf> (stating that "Moody's has also continuously advocated for the elimination of the regulatory use of ratings"); McGuire, *supra* note 239, at 1 ("Moody's . . . recommends that use

Poor's,²⁴² take the position that regulators should *not* rely on credit ratings in their rules, while the next-tier rating agencies, Fitch²⁴³ and DBRS,²⁴⁴ are far more sympathetic to rating-dependent regulation. The suspicion arises that competitive position drives the rating agencies' views on this issue: Moody's and S&P seek to protect their position as market leaders, while the smaller agencies see regulatory recognition of their ratings as an opportunity to boost share.²⁴⁵

of ratings be phased out of financial regulation, such that the sole judge of the quality of rating opinions will again be the investors who bear the risks of fixed-income investment.”).

²⁴² Chris Atkins, Letter to the Editor from S&P Vice President of Communications, *Credit Ratings Agencies*, N.Y. TIMES, June 14, 2010, <http://www.nytimes.com/2010/06/15/opinion/1web15ratings.html> (“[W]e emphatically support legislative proposals that use of ratings should not be mandated through government regulation.”); Deven Sharma, Letter to the Editor from S&P President, *Why Rating Requirements Don't Make Sense*, WALL ST. J., Jan. 19, 2010 (“We support removing investor rating requirements and believe the market – not government mandates – should decide the value of our work.”).

²⁴³ See Fitch Ratings, Inc., *Submitted Statement of Fitch Ratings* (Sept. 24, 2009) reprinted in NAIC PROCEEDINGS – SPRING 2010, at 10-79 to 10-80 (“Ratings have been used constructively in many places in regulation, as they are an important common benchmark. From a regulatory point of view, the question of what would be used in place of credit ratings is rarely answered satisfactorily.”); *Reforming Credit Rating Agencies: Hearing Before the Subcomm. On Capital Mkts., Ins., and Gov't Sponsored Enters.*, 111th Cong. 17-18 (2009) (statement of Stephen W. Joynt (“[R]atings have been used effectively in regulation in many places as independent benchmarks – a position that has been supported by many market participants – and we continue to suggest an in depth case-by-case review of any removal to determine whether such a course of action is appropriate. The question of what would replace ratings also remains unanswered – or at least without a thorough understanding of the specific pros and cons, and unintended consequences.”)).

²⁴⁴ DBRS also seems to support rating-dependent regulation to a greater extent than Moody's and S&P. See Letter from Mary Keogh, Managing Director, Regulatory Affairs, DBRS to Richard Newman, Bob Carcano & Dan Daveline, NAIC (Jan. 6, 2010), reprinted in NAIC PROCEEDINGS – SPRING 2010, at 10-57 (“DBRS understands that the use of ARO credit ratings by the market increased over time due to the ARO's historical expertise in the field of credit analysis. This expertise was gained through the skills and experience of its credit analysts that takes years to build.”).

²⁴⁵ See Fitch Ratings, Inc., *supra* note 243, at 10-80 (“[I]f you eliminate the use of ‘NRSRO’ ratings in regulation, company and industry participants will likely develop or maintain their own guidelines and use credit ratings anyway. We

Whatever the agencies' motives, the leading agencies' opposition to rating-dependent regulation seems to have had little effect on insurance regulation specifically. Fundamentally, the agencies have little ability to control how their ratings are used.²⁴⁶ Moreover, despite general expressions of opposition to rating-dependent insurance regulation,²⁴⁷ the agencies' recent statements of support for changing the system seem tepid. Moody's statements in opposition to rating-dependent regulation in the recent NAIC proceeding were heavily qualified²⁴⁸ and S&P's more so,²⁴⁹ despite the agencies' strong contemporary statements to more general audiences opposing rating-dependent regulation in general.²⁵⁰

Consumers, for their part, generally show up as relatively weak stakeholders in studies of insurance regulation, due to their dispersion and the low salience and high complexity of insurance regulation issues.²⁵¹ Organized consumer groups do not appear to have had much impact on the use of credit ratings in insurance solvency regulation, although one such group expressed opposition to rating-dependent insurance regulation in the

believe they will default to the largest 'brand name' rating agencies (Moody's and S&P)".

²⁴⁶ Letter from Raymond W. McDaniel, President, Moody's Investors Serv. to Jonathan G. Katz, Secretary, Sec. & Exch. Comm'n (July 28, 2003), *available at* <http://sec.gov/rules/concept/s71203/moodys072803.htm> (rating's status as a 'public good' "led to their adoption by various authorities for certain public policy objectives.").

²⁴⁷ See McGuire, *supra* note 239, at 8 (NAIC's use of ratings in capital regulation "has inadvertently created a very pernicious set of economic incentives for the rating agency industry").

²⁴⁸ See David Teicher, *Written Statement of David Teicher, Managing Dir., Moody's Investors Serv. Before the NAIC Rating Agency Working Grp. Meeting*, Sept. 24, 2009, at 9 ("Moody's supports efforts to discontinue or limit the use of ratings in regulation . . . We also recognize, however, that in light of current market conditions, eliminating or reducing ratings-based criteria should be pursued judiciously . . .").

²⁴⁹ See Grace Osborne, *Written Statement of Grace Osborne, Managing Dir. and Lead Analytical Mgr. for N. Amm Ins. Ratings* Before the Meeting of the Rating Agency Working Grp. Of the NAIC, Sept. 24, 2009, at 6 ("[I]f regulators and policymakers choose to incorporate ratings in their rules as benchmarks, the use of additional benchmarks may also be warranted.").

²⁵⁰ See *supra* notes 214-15.

²⁵¹ See Randall, *supra* note 21, at 670-72; MEIER, *supra* note 3, at 139 (describing difficulty in creating a measure of the importance of consumer groups because of the paucity of such groups).

recent NAIC proceeding.²⁵²

A question that emerges from this analysis is why NAIC ever relied at all on SVO rather than the rating agencies. After all, the analysis above suggests that the balance of stakeholder interests seems to favor rating-dependent regulation overwhelmingly. One possible explanation is that the NAIC solvency program was born in the 1990s in response to a spate of highly publicized insolvencies,²⁵³ so that there was a high premium on demonstrating regulatory independence from industry at that time. As memory faded, the importance of showing independence decreased. NAIC's reliance on credit ratings simply hasn't attracted comparable attention in the current financial crisis,²⁵⁴ so no comparable need to take action arose.

3. A Substantive Explanation: The Need for a Measure of Credit Risk and the Absence of Compelling Alternatives

a. *The Need for a Measure of Credit Risk*

I have argued elsewhere that a pure measure of credit risk is appropriate in any "asset-by-asset" capital regulation system.²⁵⁵ An asset-by-asset system is one in which capital requirements are determined by combining the risks to which each of the regulated firm's assets are subject,

²⁵² Birny Birnbaum, *Testimony of Birny Birnbaum, Ctr. for Econ. Justice, Before the NAIC Rating Agency Working Grp.*, Sept. 24, 2009, at 1 ("[S]tate insurance regulators should not be delegating their regulatory responsibilities to private entities, particularly to private entities whose incentives are not aligned with those of the public function."). No consumer groups submitted comments in the NAIC's rating-agency proceeding. See NAIC PROCEEDINGS – SPRING 2010, at 10-37. Although a consumer-group representative participated in the September 24 public meeting, his comments focused exclusively on the RMBS revaluation proposal.

²⁵³ See Danielle F. Waterfield, *Insurers Jump on Train for Federal Insurance Regulation: Is It What They Really Want or Need?*, 9 CONN. INS. L.J. 283, 300-04 (2002) (describing proposals for federal regulation of insurance solvency in response to high-profile failures and such proposals' ultimate failure in response to opposition from industry and state regulators).

²⁵⁴ See *supra* Part III.C.2.

²⁵⁵ John Patrick Hunt, *One Cheer for Credit Rating Agencies: How the Mark-to-Market Accounting Debate Highlights the Case for Rating-Dependent Capital Regulation*, 60 S.C. L. REV. 749, 775-77 (2009) [hereinafter Hunt, *One Cheer*].

such as the current U.S. insurance and banking capital regulation regimes.

The reason is that there is at least some probability that a firm will not have to liquidate all its assets. That means that a measure of how well the assets will perform if held to maturity is needed, and that entails a measure of credit risk over the life of the assets. The argument may apply with even greater force to insurance companies than to banks, because insurance companies may be more exposed to the risk that an asset will not pay over the long term, and less exposed to the risk that it will have to be sold for a fire-sale price.

After all, “maturity transformation” – long-term lending funded by short-term borrowing – is central to the business model of commercial banks.²⁵⁶ And investment banks came to rely heavily on short-term borrowing, not necessarily to fund long-term, illiquid assets, but rather to fund short-term assets that were supposed to be liquid. When the market turned so that those were not liquid, disaster ensued.²⁵⁷

By contrast, the core business of an insurance company is transferring and pooling risk.²⁵⁸ If premiums are prepaid, this does not necessarily entail any short-term borrowing. That means that the risk that an insurance company will have to sell large quantities of assets is smaller. This is not to say that insurance companies face no liquidity risk at all. AIG faced a severe liquidity problem, not just in its parent company, but apparently also in its regulated life insurance subsidiaries.²⁵⁹ And it has been recognized for some time that life insurers that issue policies that accumulate large surrender values can become vulnerable to runs.²⁶⁰ But it seems that liquidity risk – the great villain of the recent crisis – is a larger concern for banks than for insurance companies.²⁶¹ That suggests that credit risk is a relatively bigger problem for an insurance company than a bank.

²⁵⁶ See XAVIER FREIXAS & JEAN-CHARLES ROCHET, MICROECONOMICS OF BANKING 4-5 (1997).

²⁵⁷ See GARY B. GORTON, SLAPPED BY THE INVISIBLE HAND: THE PANIC OF 2007 47-50 (2010) (describing how decreased willingness to accept structured debt as collateral led to asset sales, falling prices, and systemic insolvency).

²⁵⁸ See JEFFREY CARMICHAEL & MICHAEL POMERLEANO, THE DEVELOPMENT AND REGULATION OF NON-BANK FINANCIAL INSTITUTIONS 81 (2002).

²⁵⁹ See *supra* note 159 and accompanying text.

²⁶⁰ See VAUGHAN & VAUGHAN, *supra* note 1, at 274-75.

²⁶¹ See GUILLAUME PLANTIN & JEAN-CHARLES ROCHET, WHEN INSURERS GO BUST 2 (2007).

b. The Absence of Compelling Alternatives

Federal regulators working on alternatives to credit ratings for bank capital recently told the national media that the absence of strong alternatives to the ratings was a major obstacle to replacing private credit ratings.²⁶² Although replacing private credit ratings certainly does not appear impossible, each of the alternatives has practical, substantive, or political problems that apparently have not been carefully evaluated.

i. Alternative 1: Government Provision

One alternative is government provision of credit ratings. The regulator is supposed to regulate, so why not let it regulate? Observers have been making this point for a long time, and the idea has been gathering some momentum in academic circles recently.²⁶³

The recent NAIC experience described above is instructive here. The SVO effectively was a government credit rater, and it was perceived as underfunded and heavily reliant on private ratings. Even after the high-profile failure of many private credit ratings, there was little appetite to restore SVO's function. Of course, this case study just describes how events actually did unfold; it certainly does not prove that government credit raters can *never* receive stable, ample funding and do a good job without pressure from trying to please customers who buy or sell financial instruments. But the history, in combination with the stakeholder analysis above, suggests difficulties in creating and sustaining a high-quality government rater throughout market cycles. Indeed, cyclical rise and decline in regulatory vigor has been identified as a problem for financial regulation generally.²⁶⁴ It may be difficult for whoever is paying the bills

²⁶² See Michael R. Crittenden, *Financial Overhaul Stymies Top Regulators – New Law Might Need Altering Already, as Implementing Its Restrictions on the Use of Credit Ratings Stirs Concerns*, WALL. ST. J., Aug. 11, 2010, at C1 (quoting FDIC Chair Sheila Bair as saying “some of the more likely replacements . . . are far from perfect”).

²⁶³ See, e.g., Lawrence J. White, *The Credit Rating Industry: An Industrial Organization Analysis*, in RATINGS, RATING AGENCIES AND THE GLOBAL FINANCIAL SYSTEM 41, 41-42, 51-57 (Richard M. Levich et al. eds., 2002); Milosz Gudowski, *Mortgage Credit Ratings and the Financial Crisis: The Need for a State-run Mortgage Security Credit Rating Agency*, 2010 COLUM. BUS. L. REV. 245 (2010).

²⁶⁴ See, e.g., Erik F. Gerding, *The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation*, 38 CONN. L. REV. 393, 420-22 (2006)

to continue to see the benefit of replicating over 1 million credit ratings²⁶⁵ that are otherwise available free after the memory of the most recent crisis has faded.

*ii. Alternative 2: Self-Regulation and
“Dynamic Risk Modeling”*

A second alternative to rating agencies is self-regulation. This is the core of the Basel II banking regulation framework’s “advanced approaches,” which call for banks to develop internal credit ratings and which base the credit-risk portion of the capital charge on these ratings. Apart from the many criticisms that have been leveled against this approach in the context of banking,²⁶⁶ and apart from the fact that the continued viability of the Basel II framework is in some doubt, self-regulation is quite dubious as applied to the insurance industry. The fundamental justification for capital regulation is often said to be consumer protection.²⁶⁷ If the fox is going to put in charge of the henhouse, why bother?

Suggestions that the current system be replaced with dynamic risk-management approaches drawn from quantitative finance seem to fall into the same category.²⁶⁸ For example, Martin Grace and Robert Klein argue that the existing accounting-based approach is inappropriately “backward-looking” and argue that it should be replaced with a “forward-looking” approach based on such techniques. Because the present system is based on accounting numbers, it allegedly embodies a “static approach” based on

(describing deregulatory pressures imposed by upward stage of cycles of macroeconomic activity and investor trust); Richard Scott Carnell, *Regulator’s Incentives*, in MAKE MARKETS BE MARKETS (Roosevelt Inst. ed., 2010), 35, 36-37 (arguing that the “dynamics of interest-group politics” help explain why regulators fail to strengthen regulatory standards during an economic boom).

²⁶⁵ This is the number of credit ratings maintained by the two largest private credit rating agencies. See Sec. & Exch. Comm’n, *Annual Report on Nationally Recognized Statistical Rating Organizations* 9 (2009), <http://www.sec.gov/divisions/marketreg/ratingagency/nrsroannrep0909.pdf>.

²⁶⁶ See, e.g., Erik F. Gerding, *Code, Crash, and Open Source: The Outsourcing of Financial Regulation to Risk Models and the Global Financial Crisis*, 84 WASH. L. REV. 127, 186–89 (2009).

²⁶⁷ See *supra* notes 14-15 and accompanying text.

²⁶⁸ See Martin F. Grace & Robert W. Klein, *Insurance Regulation: The Need for Policy Reform*, in THE FUTURE OF INSURANCE REGULATION IN THE UNITED STATES 117, 118-19 (Martin F. Grace & Robert W. Klein eds., 2009).

“historic, reported” values and does not “look forward to consider how an insurer might fare under future scenarios.”²⁶⁹ They couple this argument with a call for “principles-based” regulation as practiced in the E.U., rather than the “rules-based” regulation that state regulators in the U.S. employ.²⁷⁰ Although this risk management approach enthralled Alan Greenspan,²⁷¹ its theoretical foundations have been attacked by Nicholas Taleb²⁷² and others.

Setting aside the theoretical debate, this kind of dynamic risk management approach seems inextricably tied to self-regulation. Certainly, Grace & Klein conclude that “[d]ynamic modeling is best performed by each insurer, using an internal model subject to regulatory review.”²⁷³ Given the complexity of such approaches, it is difficult to see how regulators could implement it without extensive reliance on the regulated parties’ judgments of risk.

iii. Alternative 3: Market-Based Regulation

Another leading alternative to rating-dependent regulation is market-based regulation. One might simply look at credit spreads – that is, at market prices – to assess credit risk.²⁷⁴ The problem here, as I have argued at length elsewhere,²⁷⁵ is that market prices result from the interaction of many different factors, not just credit risk. Credit risk cannot simply be read off a price chart. Although market prices undoubtedly can be useful inputs into any assessment of credit risk – whether performed by rating agencies, regulators, or someone else, market-based regulation is not an independent alternative to rating-dependent regulation.

²⁶⁹ *Id.* at 121–22.

²⁷⁰ *Id.* at 118, 120.

²⁷¹ See Alan Greenspan, Chairman, Fed. Reserve Bd., Remarks at the 2003 Conference on Bank Structure and Competition, (May 8, 2003) (“The use of a growing array of derivatives and the related application of more-sophisticated methods for measuring and managing risk are key factors underpinning the enhanced resilience of our largest financial intermediaries.”).

²⁷² NASSIM NICHOLAS TALEB, *THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE* 274–85 (2007).

²⁷³ Grace & Klein, *supra* note 240, at 127.

²⁷⁴ Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH U.L.Q. 619, 624–25 (1999).

²⁷⁵ Hunt, *One Cheer*, *supra* note 228, at 772–75.

*iv. Alternative 4: Private Providers That
Are Not Credit Rating Agencies*

A final alternative, one that NAIC has embraced in the context of RMBS as described in further detail below,²⁷⁶ is the idea of having credit assessments for regulatory purposes be provided by private entities that are not rating agencies. A threshold question is whether this is truly an “alternative” at all. After all, regardless of whether a credit rating agency such as Moody’s or a non-credit-rating-agency analytical organization such as PIMCO Advisory or BlackRock is performing the credit analysis, the regulator is outsourcing its decisions to a private third party.

Putting that question to one side, the decision to employ private non-agency credit assessors may respond to either or both of two criticisms of credit rating agencies and their ratings. First, credit ratings embody the agency’s determination in a single three-letter symbol on an ordinal scale. A “BBB” rating on an instrument tells the user only that the agency thinks that an instrument has more “credit risk” than an “A” instrument and less “credit risk” than a “BB” instrument. The rating does not give a quantitative estimate of any aspect of risk. Moreover, exactly what is captured in “credit risk” may vary from agency to agency. For example, Standard & Poor’s main credit ratings are based on the instrument’s probability of default, without taking into account how much the instrument is likely to lose if it does default. Moody’s ratings take both probability of default and loss in the event of default into account, but the firm does not specify how these factors are weighted in general.

Alternative risk assessments offer the possibility of quantitative and much more detailed estimates of credit risk. For example, such an assessment might state that there is a 40% chance of default and an expected 20% loss in the event of default. Or they might state that there is a 10% chance of a default resulting in a 60% loss and a 30% chance of a default resulting in a 7% loss.

Although these more precise and detailed assessments might well be useful, particularly in constructing numerical capital requirements, the difference between this type of assessment and what the rating agencies provide is superficial. There is no reason in principle why rating agencies cannot provide such information, and the agencies have started to offer separate “recovery ratings,” which reflect the likely severity of default, in addition to their main credit ratings on many instruments.

The second major reason for favoring alternative providers is that

²⁷⁶ See discussion *infra* Parts VI.A-B.

there may be some difference between an alternative provider and a credit rating agency that suggests that the alternative provider will do a better job. Certainly, some companies may produce better products than others, but it seems odd to assume *ex ante* that, say, PIMCO Advisory will do a better job than, say, Moody's without evidence to this effect unless there is a fundamental structural difference that supports that assumption.

The issuer-pays conflict might be such a difference. If alternative providers are paid by the regulator for high-quality ratings, then they don't face the conflicts of interest that raters that are paid by the rating by parties who want high ratings face. The importance of the issuer-pays conflict is a matter of continuing debate and will not be resolved here. But even if we assume that alternative providers have this advantage, it puts them in the same class as the SVO. They are paid by the regulatory system for their ratings, and in the context of insurance that means they are paid by the industry. Apart from the potential conflict of interest that introduces, reliance on alternative providers faces the same problem as reliance on the SVO: insurers are unlikely to continue wanting to pay for credit assessments when rating agencies are doing the job for free.

Even if one were to conclude that alternative private providers are better than rating agencies, there would still be a significant political-economy problem with regulatory reliance on them.

C. THE CONFLICT BETWEEN FINANCIAL REGULATION AND RATING-AGENCY REFORM

If regulators have a persistent desire to outsource credit risk assessment regulation to rating agencies or other third parties, then they would be expected to resist legislative mandates to eliminate such regulation. Indeed, there are already signs that regulators are resisting Dodd-Frank in this respect. The Acting Comptroller of the Currency, John Walsh, testified to Congress in February 2011 that "In [the] context of enhanced regulation that Dodd-Frank provides, the absolute prohibition against any references to ratings under Section 939A goes further than is reasonably necessary."²⁷⁷ Financial regulators' desire to outsource puts

²⁷⁷ John Walsh, Acting Comptroller of the Currency, Testimony Before the Senate Committee on Banking, Housing, and Urban Affairs, at 11 (Feb. 17, 2011). *see also* Crittenden, *supra* note 234 (quoting Comptroller of the Currency John Dugan as stating that "[i]t might be worth Congress taking a second look" at its expression of desire to remove private credit ratings from federal financial regulation).

them in conflict with rating-agency reformers, who focus on the perceived negative effects of rating-dependent regulation on the quality of the ratings themselves. Thus, Congress' effort to expunge private credit ratings completely is understandable, if precipitous: If regulators will not purge credit ratings themselves, someone needs to force them to do it or it will not happen.

But state insurance regulators' continued reliance on credit ratings stands to frustrate Congress's purpose to a substantial extent. If rating-dependent regulation gives agencies incentives to rate every product or to give inflated ratings, then retaining rating-dependent regulation for the huge insurer market in credit-risky securities retains those poor incentives to a large extent. The regulatory use of credit ratings stands to become another point of conflict in the ongoing debate over the proper roles of federal and state insurance regulators.

1. Why Rating-Agency Reformers Oppose Rating-Dependent Regulation

Even if ratings are the best available alternative for capital regulators, rating-dependent regulation may still be a problem because of its effect on the quality of credit ratings themselves. The idea is that because issuers or investors need particular credit ratings in order to satisfy regulatory requirements, there is a source of demand for agency ratings that has nothing to do with quality. In the legal academic literature, this line of argument dates to Frank Partnoy's 1999 article *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Rating Agencies*.²⁷⁸

The idea that rating-dependent regulation is an important force driving ratings toward low quality initially met with resistance, in particular from authors who believe that rating agencies have significant reputational capital that they would not be willing to risk by producing low-quality ratings.²⁷⁹ As the years have passed, the movement against rating-dependent regulation has gathered steam,²⁸⁰ and Section 939A of the Dodd-

²⁷⁸ Partnoy, *supra* 246, at 623-24.

²⁷⁹ See, e.g., Schwarcz, *supra* note 185, at 14-15; Dittrich, *supra* note 185, at 149-55.

²⁸⁰ See, e.g., Lawrence J. White, *Credit Rating Agencies & Regulation: Why Less Is More*, in MAKE MARKETS BE MARKETS 43 (Roosevelt Inst. ed., 2010); Christian C. Opp et al., *Rating Agencies in the Face of Regulation: Rating Inflation and Regulatory Arbitrage* (2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1540099 (presenting

Frank Wall Street Reform and Consumer Protection Act seems to embody a desire to eliminate federal regulatory agencies' dependence on credit ratings.²⁸¹ Section 939A requires "each Federal agency" to review their use of credit ratings within one year²⁸² and to "remove any reference to or requirement of reliance on credit ratings."²⁸³

Rating-dependent regulation may reduce rating quality not just because it independently reduces agencies' incentives to produce high-quality work, but also because regulatory reliance on ratings is likely to complicate or frustrate *other* efforts to improve rating-agency quality.

For example, the major premise of the 2006 Credit Rating Agency Reform Act is that increased competition will help rating-agency performance,²⁸⁴ but rating-dependent regulation may cause competition to be *bad* for the market. If issuers just need to get one or two²⁸⁵ ratings of a certain level to accomplish what they want to accomplish, then competition may take the form of jockeying to give inflated ratings – competition in laxity.²⁸⁶ Moreover, with rating-dependent regulation, it's not just *issuers* who demand high credit ratings. We would expect *investors* to demand them as well: Higher ratings help regulated investors such as insurance companies and banks in satisfying regulatory requirements, as we saw above.

From the standpoint of increasing rating quality, the argument for reducing regulatory dependence on agency ratings is certainly logical. But an important premise – that rating-dependent regulation is an important force driving rating-agency behavior – has never really been tested. Indeed, only recently have we started to see the first comprehensive surveys that allow us to understand what the extent of regulatory dependence on agency ratings actually is.²⁸⁷

theoretical model indicating that regulatory use of ratings may produce complete breakdown of ratings' informational content under some circumstances).

²⁸¹ H.R. Rep. No. 111-517, at 521-22 (2010).

²⁸² *Id.*

²⁸³ *Id.*

²⁸⁴ See Credit Rating Agency Reform Act of 2006, S. 3850, 109th Cong. § 2(5) (enrolled bill as passed by Senate and House, Sept. 29, 2006) ("the 2 largest credit rating agencies serve the vast majority of the market, and additional competition is in the public interest.").

²⁸⁵ See Claire A. Hill, *Regulating the Rating Agencies*, 82 WASH. U.L.Q. 43, 73 (2004) (discussing importance of "two-rating norm").

²⁸⁶ See, e.g., Hunt, *CRA's and the WWCC*, *supra* note , at 136.

²⁸⁷ See JOINT FORUM, BANK FOR INT'L SETTLEMENTS, STOCKTAKING ON THE USE OF CREDIT RATINGS (2009), available at <http://www.bis.org/publ/joint22.pdf>.

2. The Dodd-Frank Bill and the Conflict Between Financial Regulators and Rating-Agency Reformers

Reformers who seek to eliminate ratings from financial regulation enjoyed their greatest success to date in the Dodd-Frank Wall Street Reform and Consumer Protection Act. Section 939A of the Act instructs each federal agency “to the extent applicable” to review and remove its rating-dependent regulations.²⁸⁸ It seems to reflect a Congressional desire to eliminate federal rating-dependent regulation, though the extent to which is actually a command to the agencies do so is open to question. The meaning of “to the extent applicable” is not clear – there is nothing in the statute that expressly makes clear what would make Section 939A applicable or inapplicable. One interpretation would be that Section 939A is “applicable” to all financial regulatory agencies, but agencies who wish to continue using ratings might argue that “to the extent applicable” confers discretion on them in this respect.

Even if a Congressional mandate to eliminate federal rating-dependent regulation in a year is precipitous in light of the discussion above, such a mandate would be understandable from the standpoint of rating-agency reform if regulators have a consistent tendency to want to

²⁸⁸ Section 939A provides in its entirety:

(a) Agency Review.—Not later than 1 year after the date of the enactment of this subtitle, each Federal agency shall, to the extent applicable, review—

(1) any regulation issued by such agency that requires the use of an assessment of the credit-worthiness of a security or money market instrument; and

(2) any references to or requirements in such regulations regarding credit ratings.

(b) Modifications Required.—Each such agency shall modify any such regulations identified by the review conducted under subsection (a) to remove any reference to or requirement of reliance on credit ratings and to substitute in such regulations such standard of credit-worthiness as each respective agency shall determine as appropriate for such regulations. In making such determination, such agencies shall seek to establish, to the extent feasible, uniform standards of credit-worthiness for use by each such agency, taking into account the entities regulated by each such agency and the purposes for which such entities would rely on such standards of credit-worthiness.

(c) Report.—Upon conclusion of the review required under subsection (a), each Federal agency shall transmit a report to Congress containing a description of any modification of any regulation such agency made pursuant to subsection (b).

rely on ratings, whether arising from legitimate if parochial needs, their own biases, or pressures from those they regulate. Simply put, someone has to force them to do it.

But even if the federal agencies cooperate – and early signs suggest they may not – state insurance regulators’ continued reliance on credit ratings seems like an important obstacle to improving the market by reducing rating-dependent regulation. This is because insurance companies are such a large segment of the overall bond market: U.S. insurer holdings of nonfinancial corporate bonds are equal to about half the total outstanding principal of such bonds from U.S. issuers; their holdings of municipal bonds are equal to about 15% of the outstanding principal in that market. The U.S. insurance sector currently owns around \$2.2 trillion in corporate bonds;²⁸⁹ for comparison, the total amount of U.S. nonfarm nonfinancial corporate bonds outstanding as of the first quarter of 2010 was \$4.25 trillion.²⁹⁰ As of year-end 2008, insurers held \$432 billion in municipal bonds,²⁹¹ and the total amount outstanding was \$2.7 trillion.²⁹²

Thus, even complete elimination of credit ratings from federal regulatory requirements may not have the desired effect on rating-agency incentives. Of course, Congress probably has the power to preempt state regulation of insurance in this area, and the extent to which it should exercise that power is an ongoing subject of debate. Unless Congress retreats from its objective of complete elimination of rating-dependent regulation, or the risk measures the federal regulators are to devise persuade state insurance officials to abandon rating-dependent regulation, this subject promises to become another area of tension in the historically

²⁸⁹ Sapna Maheshwari, *Insurers ‘Live and Die’ with \$2.2 Trillion in Corporate Bonds*, BLOOMBERG BUSINESSWEEK, May 28, 2010, <http://www.businessweek.com/news/2010-05-28/insurers-live-and-die-with-2-2-trillion-in-corporate-bonds.html>.

²⁹⁰ FED. RESERVE BD., FEDERAL RESERVE STATISTICAL RELEASE Z.1: FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES 65 (June 10, 2010). The cited figures mean that U.S. insurers hold bonds equal in magnitude to about half the U.S. corporate bond market, but don’t necessarily imply that insurers own half of U.S. corporate bonds – insurers hold non-U.S. bonds. NAIC’s figures tell a similar story: U.S. insurers held \$1.9 trillion in nonfinancial corporate bonds at the end of 2008, when total nonfinancial nonfarm corporate bonds outstanding were about \$3.8 trillion. Evangel, *supra* note 164, at 11.

²⁹¹ Evangel, *supra* note 164, at 11.

²⁹² SIFMA, *Outstanding U.S. Bond Market Debt* (2008), available at http://www.sifma.org/research/pdf/Overall_Outstanding.pdf.
research/research.aspx?ID=10806.

vexed relationship between state and federal authority over insurance.

VI. AIG, THE BOND INSURERS, AND SYSTEMIC RISK

The far-reaching effects of the failures of AIG and the bond insurers during the financial crisis challenged the notion that insurers do not pose systemic risk. Credit ratings served a gatekeeping function for both AIG's and the bond insurers' investments in novel products, investments that contributed to their failure. Nevertheless, the New York State Department of Insurance, which has principal responsibility for regulating the bond insurance industry showed even less interest in reducing rating dependence for bond insurers than the RAWG did for the rest of the industry. Instead, it imposed a series of outright bans on risky activities.

If there is tradeoff between safety and conservatism on the one hand and efficiency, dynamism, or innovation on the other, then recognizing previously unrecognized systemic risk pushes the optimal tradeoff toward safety. Although efforts are under way to reduce any systemic risk posed by insurers, the possibility of such a risk nevertheless supports an effort to make certain insurers safer, even if there are costs to doing so. A seasoning requirement for ratings on novel products offers a way of accomplishing this that actually seems less intrusive than the apparently permanent activity bans the New York Department of Insurance has put in place.

A. THE FAILURES OF AIG AND BOND INSURERS CHALLENGE THE CONSENSUS THAT INSURERS DO NOT POSE SYSTEMIC RISK

Until the financial crisis, the prevailing view was that insurance companies did not pose a systemic risk. Two leading commentators summed up the conventional wisdom in 2005: "Systemic risk has not been a major preoccupation of insurance regulators, and there has been no evidence of the failure of an insurance company being a significant source of systemic risk."²⁹³ This viewpoint makes a good deal of sense. As discussed above, insurance companies generally do not rely on short-term funding to the same extent banks do, so they are less vulnerable to panics

²⁹³ Richard Herring & Til Schuermann, *Capital Regulation for Position Risk in Banks, Securities Firms, and Insurance Companies*, in CAPITAL ADEQUACY BEYOND BASEL 15, 23 (Hal S. Scott ed. 2005).

and bank runs.²⁹⁴ Moreover, the consequences of panics are likely to be less severe: Unlike banks, insurance companies do not operate the payment system. Nor do they originate many loans.

But the failures of AIG and the bond insurers in the financial crisis seemed to create or threaten systemic consequences. Major banks had large exposures to AIG through its CDS activities and lending operations. The bond insurers' difficulties apparently increased uncertainty about the novel products they insured and therefore deepened the problems of the institutions that owned those products. Moreover, bond insurers' problems apparently contributed to liquidity problems in the municipal bond market and interfered with municipalities' ability to borrow, because many municipal bond issues depended on bond insurance coverage. The proposition that the failures actually created a systemic risk is still disputed,²⁹⁵ and it is true that some of the more damaging exposures were taken on by insurance-company affiliates rather than regulated insurers. But the idea that capital-regulated insurance companies pose a systemic risk can no longer be dismissed out of hand.

1. AIG

The perception that the insurance group AIG was

²⁹⁴ *Id.* at 24.

²⁹⁵ See MARY A. WEISS, SYSTEMIC RISK AND THE U.S. INSURANCE SECTOR 2 (2010), *available at* http://www.naic.org/documents/cipr_weiss_systemic_risk_100223.pdf (“[T]he analysis suggests that insurers are not instigators or the cause of systemic risk”); THE GENEVA ASS’N, SYSTEMIC RISK IN INSURANCE: AN ANALYSIS OF INSURANCE AND FINANCIAL STABILITY 4 (2010), *available at* http://www.genevaassociation.org/Portals/0/Geneva_Association_Systemic_Risk_in_Insurance_Report_March2010.pdf (“Applying the FSB [Financial Stability Board] criteria to the main activities of insurers and reinsurers, we conclude that none pose a systemic risk”); BRUNNERMEIER ET AL., *supra* note 16, at 24 (classifying insurance companies as “non-systemic large and not highly levered” institutions); Charles Goodhart, *Procyclicality and Financial Regulation*, 16 BANCO DE ESPAÑA INFORME DE ESTABILIDAD FINANCIERA 11, 15 (2009) (same). These analyses are not altogether consistent. For example, Brunnermeier and Goodhart both seem to assume that life insurance companies are not leveraged. See BRUNNERMEIER ET AL., *supra* note 16, at 24; Goodhart, *supra*, at 15. But Weiss’ examination of data leads her to conclude that life insurers’ leverage is comparable to that of commercial banks. See Weiss, *supra*, at 30. She does find that “[p]roperty-casualty insurers are much less highly leveraged than either life-health insurers or banks”). *Id.*

“systemically important”²⁹⁶ was the articulated basis for the U.S. government’s decision to put at least \$182.5 billion²⁹⁷ at risk starting in September 2008 to save the firm from disorderly failure.

The perception seems to have stemmed primarily from CDS positions taken by AIG’s trading subsidiary, AIG Financial Products Corp., which had sold credit protection to major banks on a large volume of multi-sector CDOs, many of which were exposed to subprime mortgages.²⁹⁸ AIG Financial Products Corp. is not an insurance company and is not subject to solvency regulation as described in this Article.²⁹⁹

Although regulators have been adamant that AIG’s regulated life insurance companies did not face a solvency threat,³⁰⁰ these entities did

²⁹⁶ See Press Release, Board of Governors of the Federal Reserve System and U.S., Dep’t of the Treasury, U.S. Treasury and Federal Reserve Board Announce Participation in AIG Restructuring Plan (March 2, 2009) (announcing aid to AIG “in order to stabilize this systemically important company”); see also Brady Dennis, *Bernanke Blasts AIG for ‘Irresponsible Bets’ That Led to Bailouts*, WASH. POST, March 4, 2009 (quoting Federal Reserve Chairman Ben Bernanke as testifying to Senate committee, “[W]e’re not doing this to bail out AIG or their shareholders, certainly. We’re doing this to protect our financial system and to avoid a much more severe crisis in our global economy.”).

²⁹⁷ William K. Sjostrom, *The AIG Bailout*, 66 WASH. & LEE L. REV. 943, 945, 975 (2009).

²⁹⁸ See *id.* at 959, 979-81.

²⁹⁹ See American International Group: Examining What Went Wrong, Government Intervention, and Implications for Future Regulation; Testimony to the U.S. Sen. Comm. On Banking Housing, and Urban Affairs, March 5, 2009, at 3 (Statement of Eric Dinallo, Superintendent, New York State Ins. Dep’t, “AIG Financial Products is not a licensed insurance company. It was not regulated by New York State or any state.”; Dennis, *supra* note 264, (quoting Bernanke, “There was no oversight of the Financial Products division. This was a hedge fund, basically, that was attached to a large and stable insurance company....”).

³⁰⁰ See Sjostrom, *supra* note 266, at 978; *causes and Effects of AIG Bailout: H. Comm. On Oversight and Gov’t Reform*, 110th Cong. 2 (2008) (written testimony of Eric Dinallo, Superintendent of Insurance, New York State Ins. Dep’t). *available at*

http://oversight.house.gov/index.php?option=com_content&task=view&id=3375&Itemid=2. (stating that New York regulated insurance companies were solvent). Certainly, insurance regulators have been adamant that policyholders were not at risk. See Dinallo, New York State Ins. Dep’t, Testimony to the U.S. Sen. Comm. on Housing, Banking & Urban Affairs, March 5, 2009, at 6 (“[E]ven if there had been a run on the securities lending program with no federal rescue, our detailed analysis suggests that the AIG life insurance companies would not have been insolvent.”); Joel Ario, Insurance Comm’r, Pennsylvania Ins. Dep’t, Testimony of

experience difficulty as counterparties in securities lending transactions demanded the return of cash collateral, which apparently would have been difficult to accomplish because much of the collateral had been invested in highly rated mortgage-backed securities³⁰¹ which had declined in value and couldn't readily be sold.³⁰² These counterparties were in many cases important financial intermediaries,³⁰³ so this modern-day bank run could have had systemic consequences.

State insurance regulators argue that the threat to AIG's life insurers and the financial system would never have arisen if the company's CDS losses hadn't sparked a bank run.³⁰⁴ The AIG life insurers' securities-lending troubles may have been a matter of liquidity rather than solvency,³⁰⁵ although this is disputed.³⁰⁶ The evidence suggests – although

the NAIC Before the Subcomm. on Capital Mkts., Ins., and Gov't Sponsored Enters., U.S. House of Reps., March 18, 2009, at 6, 11.

³⁰¹ Dinallo, *supra* note 269, at 5 (AIG's securities lending program investments were "almost exclusively in the highest-rated securities" and mortgage-backed securities made up "60 percent of the collateral pool."); Ario, *supra* note 269, at 10 (29% of AIG collateral pool was composed of subprime MBS).

³⁰² Sjostrom, *supra* note 266, at 961-62. It is not clear what prevented AIG from selling the securities returned to in the unwind of the lending transactions, as these apparently were government bonds, which remained liquid throughout the crisis.

³⁰³ Press Release, American Int'l Group, Inc., AIG Discloses Counterparties to CDS, GIA, and Securities Lending Transactions, Att. D. (March 15, 2009), (disclosing fourth-quarter 2008 payments of \$1 billion or more from direct Fed support to securities lending counterparties Barclays, Deutsche Bank, BNP Paribas, Goldman Sachs, Bank of America, HSBC, Citigroup, Dresdner Kleinwort, Merrill Lynch, UBS, and ING).

³⁰⁴ See Dinallo, *supra* note 269, at 4 ("If there had been no Financial Products unit and only the securities lending program as it was, we would not be here today"); Ario, *supra* note 269, at 8 ("[S]ecurities lending did not pose unmanageable systemic risk and was not the reason for federal intervention. AIG Financial Products was the source of federal intervention.").

³⁰⁵ Dinallo, *supra* note 269, at 6 (absent "run on the securities lending program," regulators "would have continued to work with AIG to unwind its program and any losses would have been manageable ... [E]ven if there had been a run on the securities lending program with no federal rescue, our detailed analysis indicates that the AIG life insurance companies would not have been insolvent.").

³⁰⁶ See Scott E. Harrington, *The Financial Crisis, Systemic Risk, and the Future of Insurance Regulation*, Sept. 2009, at 11, available at www.naic.org/documents/topics_white_paper_namic.pdf.

it does not conclusively establish – that the securities lending activities of AIG’s life-insurance subsidiaries posed a systemic risk.

2. Bond Insurers

a. Industry Background

Bond insurers, also called “financial guaranty insurers” or “monoline insurers,” insure against default losses on debt obligations. As of 2008, the industry accounted for about \$3 billion in direct premiums,³⁰⁷ and eight firms accounted for about 99% of direct premiums written between 2001 and 2008.³⁰⁸ The basic premise of the bond insurance industry is that the guaranty insurer maintains very strong credit, so that by insuring a debt obligation it reduces the credit risk on that obligation. The lower credit risk because of the insurance “wrapper” allows the issuer to sell the debt at a lower yield, so that the interest savings at least cover the cost of the insurance premium.³⁰⁹ How this industry would add value in a truly efficient market is not immediately intuitive, although theoretical arguments based on asymmetric information have been advanced to justify its existence.³¹⁰

The bond insurance business originated in³¹¹ the municipal debt market and continued to be important to that market until the financial crisis. From the mid-1990s until 2008, around half of new municipal bond issuances were covered by bond insurance.³¹² Starting in the 1980s, bond insurers expanded into insurance of financial products other than municipal debt.³¹³ The first expansion was to guarantees of public project finance

³⁰⁷ See Pamela Drake & Faith Neale: Financial Guarantee Insurance: Arrogance of Ignorance in an Era of Exuberance (Aug. 2009) (unpublished working paper) (on file with author) at 9.

³⁰⁸ See *id.* at 9-10.

³⁰⁹ See JAN JOB DE VRIES ROBBÉ, SECURITIZATION LAW AND PRACTICE IN THE FACE OF THE CREDIT CRUNCH 69 (2009).

³¹⁰ See Anjan Thakor, *An Exploration of Competitive Signaling Equilibria with “Third Party” Information Production: The Case of Debt Insurance*, 37 J. FIN. 717 (1982).

³¹¹ See James P. McNichols, *Monoline Insurance and Financial Guaranty Reserving* 231, 233 (2003) available at www.casact.org/pubs/forum/03fforum/03ff231.pdf.

³¹² See Drake & Neale, *supra* note 276, at 30 Fig. 2.

³¹³ See *id.* at 276, at 25 Tbl. 1; Circular Ltr. 19, at 2.

bonds, starting in the late 1980s.³¹⁴ Later, bond insurers began to take on credit risk associated with more novel and complex financial products. They insured notes issued by CDOs,³¹⁵ created special purpose vehicles to sell credit protection on CDOs by entering into credit default swaps,³¹⁶ and invested in CDOs.³¹⁷ This activity eventually grew to account for a large proportion of the bond insurers' business.³¹⁸

b. Industry Failure and Systemic Effects

As described in greater detail above, downgrades, collateral calls, and defaults on novel financial products led to severe financial problems for the bond insurers.³¹⁹ Losses that call solvency into question are, of course, significant for any insurer, but superior credit is by definition the stock in trade of financial guaranty insurers. Bond insurers operated with high leverage to begin with because of the perceived safety of their exposures, and the financial crisis caused most bond insurers to suffer serious rating downgrades and to be unable to meet regulatory capital

³¹⁴ See Bartlett, *supra* note 152, at 9.

³¹⁵ See *id.* at 9.

³¹⁶ See Drake & Neale, *supra* note 276, at 6 (outstanding notional value of monoline CDS was \$550 billion as of March 2008)

³¹⁷ See *id.*, at 17.

³¹⁸ Drake & Neale report that structured finance “compris[ed] up to half the insurance portfolio of several [financial guaranty] insurers.” *Id.* at 6.

³¹⁹ See, e.g., Helen Remeza, *Financial Guaranty Insurance Industry 2009 Review and 2010 Outlook*, MOODY'S SPECIAL REP., at 2 (Feb. 2010) (Moody's report asserting that financial guaranty insurers saw their resources “severely depleted as a result of claims, mostly from direct mortgage exposures and leveraged exposures through ABS CDOs, but also through stress in their insured asset-management business.”). Although the extent of financial insurers' exposure to actual default losses on insured novel products is not clear, and although it is argued that prices on such instruments during the crisis were reduced below fair value due to market liquidity issues and investor panic, Bartlett documents the existence of actual losses on highly rated notes issued by CDOs and insured by monoline insurers. See e.g., Robert Bartlett III, *Inefficiencies in the Information Thicket: A Case Study of Derivative Disclosures During the Financial Crisis* at 48-49 (2010) available at <http://www.ssrn.com/abstract=1585953> (liquidation of Kleros Preferred Funding VI Ltd. CDO in late 2009 resulted in a \$2 billion principal deficiency on \$2.4 trillion of Class A-1S notes insured by Ambac). The Class A-1S notes carried an initial rating of AAA. See Kleros Preferred Funding VI Ltd. Offering Circular at 1, (June 6, 2007) available at http://www.ise.ie/debt_documents/kleros_5756.pdf

requirements.³²⁰ By 2010, only one bond insurer was writing new business.³²¹

The failure of the bond insurers naturally affected their counterparties and the markets for the products they insured. The failure of CDS and insurance policies on novel products seems to have imperiled the bond insurers' counterparties in the same way AIG's failure might have.³²² The fact that the insurance coverage for such exposures had been called into question presumably increased uncertainty and decreased confidence, further reducing liquidity for RMBS and CDOs. Even municipal bonds, historically seen as quite safe, were seriously affected. Prices plunged and municipalities reportedly found it difficult to issue debt.³²³

B. Rating-Dependent Regulation of Bond Insurance and Systemic Risk

The experience of the financial guaranty insurance industry illustrates the problems with rating-agency gatekeeping of insurance-company exposures. The exposures in this case arose from the bond insurers' decisions to invest in novel products, and even more importantly from their decision to insure novel assets in various ways. The financial guarantors were allowed to insure novel products because rating agencies had given those products investment-grade ratings.

The regulatory response to the state of the FGI industry did not seriously question rating-dependent regulation, providing yet another example of regulators' reluctance to abandon ratings altogether. In fact, the New York State Department of Insurance *increased* its reliance on credit ratings, and its efforts to prevent recurrence of the FGI industry's plight took the form of outright, apparently permanent bars on certain FGI activities. Here again, a seasoning requirement for giving regulatory effect to credit ratings would have averted the problem – a problem that in this case apparently contributed to systemic crisis. Moreover, a seasoning requirement would be *less* intrusive in some respects than the approach the

³²⁰ Remeza, *supra* note 288, at 3.

³²¹ *See id.* at 2.

³²² *See, e.g.,* Bartlett, *supra* note 288 at 51 (“Like AIG Financial Products, monoline insurers stood at the center of the Financial Crisis in light of their key role insuring the super-senior tranches of multi-sector CDOs tied to residential mortgages.”).

³²³ *See* Marc Levinson, *Financial Regulation's Fatal Flaw* COUNS. OF FOREIGN AFF. (Jan. 21, 2010), *available at* http://www.cfr.gov/publication/21263/financial_regulaitons_fatal_flaw.html.

Department of Insurance eventually adopted.

1. Pre-Crisis Rating-Dependent Regulation of Bond Insurers

Credit risk is central to the financial guaranty insurance industry. Credit risk doesn't just affect the performance of the guarantors' investments; it also determines the amount they are required to pay out in claims. Unsurprisingly, credit ratings come up frequently in discussions of the industry.

A bond insurer's credit rating is important to its business. One recent study declares that "the value of a monoline financial guarantee insurer is directly tied to its credit rating."³²⁴ This is probably due in large part to the fact that certain obligations that New York-regulated insurers otherwise cannot purchase can become eligible for investment if they are covered by bond insurance – but only if the bond insurer maintains a AAA rating.³²⁵

The credit ratings of individual instruments are central to the regulation of bond insurers. The New York State Department of Insurance apparently is the most important capital regulator for financial guaranty insurers,³²⁶ and New York's pre-crisis solvency rules for financial guaranty insurers were heavily rating-dependent:

Policyholders' surplus: Financial guaranty insurers must maintain a policyholder's surplus (excess of admitted assets over liabilities)³²⁷ of \$65 million.³²⁸ Only specified types of assets can be used to satisfy this

³²⁴ Drake & Neale, *supra* note 276, at 21; *see also* McNichols, *supra* note 280, at 257 ("the monoline's highest priority is maintenance of its AAA ratings").

³²⁵ N.Y. INS. LAW § 1404(a)(2)(iii) (McKinney 2006).

³²⁶ It appears that even when financial guaranty insurers are domiciled in states other than New York, the state of domicile will look to New York for capital standards. *See, e.g.*, Office of the Comm'r of Ins., State of Wisconsin, *Report of the Examination of Ambac Assurance Corporation* (Aug. 31, 2007), at 34-35 (noting that Wisconsin-domiciled Ambac "is also subject to the minimum capital requirements of the New York Insurance Laws, which are more restrictive than Wisconsin requirements for certain segments of the financial guaranty business. The New York aggregate risk limitation requirement serves as an industry standard for the evaluation of minimum capital requirements of a financial guaranty insurer and is used as the minimum standard in Wisconsin.").

³²⁷ N.Y. INS. LAW § 107(a)(42) (McKinney 2006).

³²⁸ *Id.* § 6902(b)(1). (McKinney 2009) The New York State Department of Insurance stated in 2008 that it would seek to increase this "to a figure in excess of

requirement,³²⁹ and one of those types is municipal bonds – as long as they carry high ratings.³³⁰

Contingency reserves: Financial guaranty insurers must maintain contingency reserves to cover losses on insured instruments. For bonds other than municipal obligations and special revenue bonds, the amount of the required contingency reserve depends on the credit rating of the insured instrument: Insurers must hold 1-1.5% of guaranteed principal against investment-grade obligations,³³¹ and 2-2.5% of guaranteed principal against non-investment grade obligations,³³² where “investment grade” is a rating-dependent determination.³³³

Aggregate risk limitations: Financial guaranty insurers must maintain surplus to policyholders and contingency reserves³³⁴ against the unpaid principal, interest, and other obligations of guaranteed obligations, net of reinsurance ceded and collateral.³³⁵ The amount of surplus and reserves that has to be held against an insured obligation under this rule generally depends on the obligation’s rating. For example, the insurer must hold reserves and surplus equal to 1-1.5% of the insured amount of most investment-grade obligations³³⁶ and 2-4% of the insured amount of most non-investment-grade obligations.³³⁷

Overall investment-grade limit: At least 95% of the insurer’s aggregate net liability on municipal obligation bonds, special revenue bonds, and industrial revenue bonds must be on investment-grade

\$150 million.” Circ. Ltr. No. 19, at 10, *available at* http://www.ins.state.ny.us/circltr/2008/c108_19.htm.

³²⁹ See N. Y. INS. LAW § 1402 (McKinney 2006) (setting forth general rules for what assets can be used to satisfy policyholders’ surplus requirement)

³³⁰ See N. Y. INS. LAW (McKinney 2009) § 6902(b)(3).

³³¹ *Id.* § 6903(a)(4)(B)(i)-(ii).

³³² *Id.* LAW § 6903(a)(4)(B)(iii)-(v)

³³³ *Id.* § 6901(n) (investment-grade obligation is one rated in the “top four generic lettered rating classifications by a securities rating agency acceptable to the superintendent,” identified in writing by such a rating agency to be of investment grade quality, or rated NAIC-1 or -2 by SVO).

³³⁴ *Id.* § 6904(c).

³³⁵ *Id.* § 6901(d) (defining “aggregate net liability” in these terms).

³³⁶ N.Y. INS. LAW § 6904(c)(1)(C)-(D) (McKinney 2009).

³³⁷ *Id.* § 6904(c)(1)(E)-(G). Notably, municipal bonds are subject to the same (low) capital requirement regardless of credit ratings. See *id.* § 6904(c)(1)(A) (requirement to hold 0.333% of principal value of municipal bonds in reserves and surplus).

instruments.³³⁸

Although the aggregate insurance risk limitations mentioned above could be considered a form of risk-based capital requirement, the New York State Department of Insurance apparently does not impose risk-based capital standards based on exposures.³³⁹

Bond insurers apparently played a large role in securing acceptance of novel products.³⁴⁰ Because bond insurers' own ability to take on exposures was rating-dependent, this created an indirect form of rating-dependent regulation. A potential investor that would not or could not invest in a product based on the product's rating might invest based on the bond insurance – insurance enabled by the existence of a rating.

2. The New York State Department of Insurance Deepens Its Reliance on Ratings in Response to the Crisis

The failure of bond insurers in the financial crisis has led some commenters to conclude that “[s]olvency procedures currently used by regulators are not sufficient to monitor the solvency of bond insurers, due in part to the lack of risk-based capital standards and the deviation of FGIs away from their core business.”³⁴¹

³³⁸ *Id.* § 6904(b)(2).

³³⁹ See Drake & Neale, *supra* note 276, at 12-13 & n.45. Drake and Neale report that financial guaranty insurers are all regulated by the State of New York, which has adopted a separate regulatory regime for these insurers that does not incorporate NAIC's risk-based capital guidelines. *Id.*

³⁴⁰ See Bartlett, *supra* note 288, at 9 (securitized products “typically required some form of external credit enhancement in order for the senior notes ... to receive an investment grade credit rating” and financial guaranty insurers were well positioned to provide enhancement because “no monoline insurer had ever experienced a single ratings downgrade.”); McNichols, *supra* note 280, at 257 (estimating that 1/3 of all asset-backed security transactions are wrapped by AAA insurers); Basel Committee on Banking Supervision, Joint Forum, *Credit Risk Transfer* 21 (March 2005) (“To a great extent, their role appears to be to provide an additional layer of bonded due diligence (beyond that provided by the rating agencies) that enables CDO tranche buyers to become comfortable with purchasing instruments that they themselves are uncertain how to evaluate fully”). On the explosion of novel securitized products, see, e.g., Yongheng Deng et al., *CDO Market Implosion and the Pricing of Subprime Mortgage-Backed Securities* 3-4 (March 2009) (global CDO issuance expanded from \$300 billion to \$2 trillion from 1997 to 2006, subprime asset-backed CDO issuance increased from \$10 billion in 2000 to \$50 billion in 2006).

³⁴¹ Drake & Neale, *supra* note 276, at 42.

The New York Department of Insurance has taken action to address such concerns. On September 22, 2008, the Department issued Circular Letter Number 19, which provided new guidance for financial guaranty insurers in response to the declines in the structured-finance market and the rating agency downgrades of the leading bond insurers.³⁴² Circular Letter 19 did not directly reduce the role of rating agencies. Indeed, New York deepened its commitment to rating-dependent regulation. Circular Letter 19 includes a statement that the Department expects that FGIs' entire portfolios will be invested in investment grade assets, with "investment grade"³⁴³ determined by rating. Circular Letter 19 also forbids financial guaranty insurers to insure non-agency CDOs of ABS absent special permission from the Superintendent – or a policy provision that the insurer holds an unsubordinated senior position with a rating of A or better.³⁴⁴

By enacting what appears to be a permanent ban on insuring ABS CDOs under certain conditions, Circular Letter 19 imposes a requirement that is more onerous and intrusive than a seasoning requirement would have been.

C. IMPLICATIONS FOR REGULATORY REFORM

The difficulties that apparently systemically important regulated insurers faced after highly rated novel products failed to perform as anticipated highlight the importance of rating reliability. The failure of a systemically important institution has important consequences, so if all else is equal, systemically important institutions should be regulated more conservatively than institutions that lack systemic importance. The pre-crisis rating-dependent bond insurance regulations described above did not distinguish appropriately between ratings that could be expected to be highly reliable and those that could be expected to be less reliable. Ratings on financial products with a long history are likely to be more reliable than ratings on novel products. This is true even if the novel-product ratings are as good as anyone has a right to expect,³⁴⁵ and regulatory conservatism is

³⁴² Circ. Ltr. No. 19. Circular Letter No. 19 took effect January 1, 2009.

³⁴³ *See id.* at 9 (the "95% investment grade" rule previously had covered only municipal, special revenue, and industrial development bonds).

³⁴⁴ *Id.*, at 5.

³⁴⁵ The same observation applies to the bond insurers' internal assessments of credit risk, which contemporary analysts regarded as first-rate. *See* Joint Forum, *Credit Risk Transfer* 37 (March 2005) ("At this stage, the Working Group has not

even more strongly indicated if the market cannot fully digest the extent and nature of an insurer's exposures to novel products, as appears to have been the case for the bond insurers.³⁴⁶

A seasoning requirement – a determination that ratings will not be given regulatory effect until the rated product has been in existence long enough to permit reliable ratings – is a simple way of achieving regulatory conservatism. It appears less intrusive and restrictive than imposing permanent bars on taking exposures to novel products, as New York's insurance department apparently has done.

VII. RMBS, RULE BAILOUTS, AND THE LIMITS OF CAPITAL REGULATION

As the RAWG and the New York State Department of Insurance were illustrating the difficulty of abandoning rating-dependent regulation in general, a separate NAIC proceeding was illustrating the difficulty of sticking to rating-dependent regulation – or any *ex ante* capital rules – in the midst of a financial crisis. Rating-agency downgrades of RMBS during the financial crisis would have required insurers to raise large additional amounts of capital under the risk-based capital rules. In response, the NAIC abandoned its rating-dependent rules for RMBS and substituted an alternative third-party credit risk assessor. The NAIC's action resembles the move away from mark-to-market accounting in banking around the same time, which apparently was motivated by a desire to provide capital relief in that sector. Both actions can be described as “rule bailouts” – changes to the rules in the midst of a crisis at the behest of a regulated industry in order to avoid the need to raise capital or be found insolvent.

found evidence of hidden concentrations of credit risk. Nevertheless, there are some non-bank firms whose primary business model focuses on taking on credit risk. These include the monoline financial guarantors and the specialized CDS entity described above. Other market participants are fully aware of the nature of these firms. In the case of the monolines, credit risk has always been their primary business activity and thus they have invested heavily in obtaining expertise in the analysis of credit risk. The rating agencies also obtain significant data on individual transactions entered into by the monolines. While it is clearly possible that one of these firms could experience unanticipated problems or otherwise misjudge the risks involved, such problems are not likely to be the result of having entered into the business of CRT activity lightly. Given their orientation toward super senior risk, the monolines exhibit more exposure concentration rather than risk concentration.”)

³⁴⁶ See Bartlett, *supra* note 288, at 1-4.

Rule bailouts may be justified on their own terms when they happen. The life insurance industry presented a well-reasoned argument for the change – albeit an argument that did not rest on anything specific to the financial crisis and that could have been raised years earlier. Almost any rule bailout can be characterized either as a justified response to the failure of preexisting rules devised by fallible humans to work in a financial crisis or as an unjustified example of regulatory forbearance – reflecting perhaps the fact that regulators want to believe, along with their regulated charges that things will turn around somehow, or at least that failure can be staved off until a new regulator is on the watch.

Whether any particular rule bailout was justified or unjustified on the merits, the tendency to engage in rule bailouts has implications for the design of capital rules. For example, regulators might consider limiting reliance on rigorous, painful enforcement of existing rules in a financial crisis, which in turn counsels conservative requirements to build up institutions' cushions when a crisis is not occurring. Relatedly, rule bailouts impart a kind of shadow countercyclicality to capital requirements that might be considered in designing a macroprudential regulatory system. High capital requirements are not as procyclical as they might appear if they are likely to be relaxed in crisis. And the unexpected failure of ratings that depended on correlation measures, which triggered the pressure for a rule bailout, suggests that regulators should be cautious in approaching regulatory-reform suggestions that would increase reliance on accurate forecasts of correlation.

The tendency toward rule bailouts is characteristic of capital regulation generally, not just of rating-dependent regulation. But rating-dependent regulation as practiced by insurance regulators helped create the conditions for a rule bailout by making it easy for insurers to amass large exposures to novel assets that performed unpredictably in a financial crisis. A seasoning requirement would have helped avoid that situation. Moreover, a seasoning requirement is less vulnerable to the forces that produce rule bailouts than, say, a requirement that regulators take prompt corrective action to resolve endangered institutions, because the seasoning requirement does not rely on regulators to make painful decisions in the midst of a financial crisis.

A. RMBS REVALUATION IN THE CRISIS OF 2007-09

In the wake of the crisis, the NAIC changed its approach to solvency regulation of residential mortgage-backed securities. Instead of relying on agency ratings, NAIC now relies on models developed by

PIMCO Advisory to place each RMBS into one of the six NAIC categories.³⁴⁷ The RAWG report states that this change, “(1) identifies the actual risks presented by RMBS; (2) quantifies the severity of possible losses; (3) provides a better measure of losses against which surplus must be kept; and (4) when appropriate, frees up capital, in particular for securities held at a discount.”³⁴⁸

This decision generally follows a proposal that the American Council of Life Insurers advanced in August 2009 after a wave of downgrades to the credit ratings of RMBS.³⁴⁹ ACLI argued that the rating-based capital rules required the insurers to hold too much capital.³⁵⁰ In particular, ACLI argued that agency ratings were based “primarily on the likelihood of the first dollar of loss,”³⁵¹ so that the ratings did not “distinguish between securities that are projected to experience a total loss and securities that are projected to experience minor losses.”³⁵² Thus, a 10% chance of default produced the same rating, regardless of whether the bond was likely to lose 1% or 100% of its value on default. Although Moody’s apparently did not submit formal comments on the ACLI proposal before it was adopted, Moody’s later argued that this was an unfair characterization of its ratings; for securities were expected to incur a loss (usually those rated below B), Moody’s stated it was an unfair characterization because its ratings were based on anticipated recovery.³⁵³ Moody’s also argued that its recovery estimates on subprime RMBS were no lower than those implied by market prices.³⁵⁴

³⁴⁷ RAWG Final Report, *supra* note 38, at 4.

³⁴⁸ *Id.* at 4.

³⁴⁹ Letter from John Bruins, Senior Actuary, Am. Council of Life Insurers (ACLI) & Andrew Melnyk, Managing Director, ACLI to Michael Moriarty, Chair, Valuation of Securities Task Force, NAIC & Lou Felice, Chair, Capital Adequacy Task Force, NAIC (Aug. 10, 2009) (on file with author), *available at* <http://www.naic.org> [*hereinafter* “ACLI Aug. 10, 2009 Letter”].

³⁵⁰ *Id.* at 1. (“unwarranted impact on RBC being experienced by the industry” as a result of rating agency RMBS downgrades).

³⁵¹ *Id.*, at 1.

³⁵² *Id.* at 3.

³⁵³ Debash Chatterjee et al., *Moody’s Ratings on U.S. RMBS Reflect Expected Recoveries: Ratings on Impaired Securities Do Not Overstate Risk*, Final Report of the RAWG to the Financial Conditions (E) Committee: Comment Letters 1,2 (Nov. 6, 2009) *available at* http://www.naic.org/scommittees_e_rating_agency.htm (click on “Rating Agency WG Final Report”; then proceed to section 8 of Moody’s pdf),

³⁵⁴ *Id.* at 2.

ACLI argued that this was inappropriate because the risk-based capital system was calibrated to levels of loss given default typical of corporate bonds, while RMBS were likely to suffer much less loss given default than corporate bonds.³⁵⁵ Thus it arguably was inappropriate to make an insurer hold as much capital against a B-rated RMBS as against a B-rated corporate bond.

This was a serious issue for the insurers; ACLI cited a report finding that at least 64% of AAA-rated non-agency RMBS had been downgraded to below investment grade by at least one rating agency by June 2009.³⁵⁶ ACLI estimated the credit-risk capital component of their capital requirement attributable to RMBS increased from \$2 billion as of the end of 2008 to \$11 billion by the end of 2009 as a result of the RMBS downgrades.³⁵⁷

ACLI's proposal was adopted with little formal comment; NAIC's records reveal only two official comments, both friendly to the ACLI proposal.³⁵⁸ The NAIC adopted special rules under which a third-party

³⁵⁵ ACLI Sept. 10, 2009 Letter, *supra* note 318, at 4. In particular, ACLI argued that in the event of a corporate default, corporate bond indentures typically terminate interest payments and accelerate maturity of the principal, effectively terminating the security on default. ACLI argued that RMBS structure, by contrast, allow securities to continue receiving principal and interest even after an event of default. *Id.* Thus, ACLI argued, "In the case of senior RMBS tranches, the ability to receive several years of coupon payments alone dramatically improves expected economic recoveries relative to a typical corporate bond." *Id.* ACLI's letters proposing the change in methodology did not present any quantitative data backing this analysis, and it does not appear that any such data was presented in the course of NAIC's consideration of ACLI's proposal.

³⁵⁶ *Id.* at 3.

³⁵⁷ ACLI Sept. 10, 2009 Letter, *supra* note 318, at 3. Apparently the actual increase in the amount of capital the industry would have to hold would be somewhat less than the \$9 billion difference between these two numbers because of the way the risk-based capital formula combines the different risks to arrive at a total risk-based capital requirement – a process called "taking correlation into account." See *supra* Part __. For example, if a company had a \$2 billion capital charge for interest rate risk, a \$2 billion capital charge for credit risk, and a \$10 billion capital charge for insurance risk, then total risk-based capital would be around \$10.8 billion. If the credit-risk component of the charge were to increase from \$2 billion to \$11 billion, then total risk-based capital would be \$16.4 billion, an increase of \$5.6 billion, not \$9 billion. The formula guarantees that the increase in total capital will be less than the increase in the credit risk charge unless the company has no insurance risk.

³⁵⁸ One comment was from a provider of analytical tools for RMBS that would

evaluator would establish a price range for each RMBS for each of the six NAIC designations, and those ranges would be used instead of credit ratings to establish the amount of capital that the insurers were obliged to hold.³⁵⁹

The change apparently had the intended effect; NAIC estimated that the change in valuation method reduced the credit-risk capital charge for life insurance companies' RMBS holdings from \$10.8 billion to \$3.5 billion – a 68% reduction.³⁶⁰

The rating agencies resisted the notion that their rating downgrades were responsible for the industry's straits. Moody's suggested that most of the reduction in required capital came from the decision to give insurers the benefit of bargain purchases and write-downs, rather than the change in who was doing the assessment.³⁶¹ For its part, Fitch pointedly commented that its ratings "are expressly not designed to effect a pre-determined regulatory outcome, such as 'free[ing] up capital.'"³⁶²

have been a potential candidate to be hired to carry out the third-party valuation exercise. See Letter from Andrew Davidson, Pres., Andrew Davidson & Co. to Michael Moriarty, Chair, Valuation of Securities Task Force, NAIC, & Lou Felice, Chair, Capital Adequacy Task Force, NAIC (Sept. 30, 2009) (on file with the author) *available at*

http://www.naic.org/documents/committees_e_091014_materials.pdf. The other was from a life insurance company that suggested technical changes to the process for valuing the RMBS. See E-mail from Andy Hopping, Exec. Vice Pres. & CFO, Jackson Nat'l Life Ins. Co. to Richard Newman, NAIC (Sept. 30, 2009) (on file with author) http://naic.org/documents/committees_e_091014_materials.pdf.

³⁵⁹ See NAIC, *Re: RFP 1344 – Assessment of Residential Mortgage Backed Securities (RMBS)* 13 (Oct. 23, 2009) http://naic.org/documents/svo_rmbs_rfp_102309.pdf.

³⁶⁰ *Estimated RBC Impact from the RMBS Initiative 1* (Apr. 8, 2010), *available at* http://www.naic.org/rmbs/100408_rbs_impact_estimate.pdf. The values are for the year-end 2009 risk-based capital requirement. After taking correlation into account, the reduction was smaller in absolute terms but about the same in percentage terms: the change reduced the amount of life insurers' post-correlation capital charge attributable to RMBS credit risk from \$8.4 billion to \$3.0 billion, or 65%. (total life insurer capital charge from NAIC par value is about \$178 billion and book adjusted carrying value about \$ 151 billion).

³⁶¹ Scott Robinson, *Most U.S. Life Insurers RMBS Capital Relief from Change in Computation, Not Switch to PIMCO*, Final Report of the RAWG to the Financial Conditions (E) Committee: Comment Letters 1, 1 (Jan. 11, 2010), *available at* http://www.naic.org/committees_e_rating_agency.htm (click on "rating Agency WG Final Report:" then proceed to Section 8 of pdf).

³⁶² Letter from Charles Brown, General Counsel, Fitch Ratings to Richard

B. THE RULE BAILOUT IN CONTEXT

It seems that the problem ACLI identified with the regulators' use of ratings to assess the risk of RMBS, assuming it was a problem at all, existed before the crisis and was not a product of the crisis. Whatever the merits of the underlying argument about recovery values on RMBS versus corporate bonds, this episode illustrates the willingness of regulators to adjust capital requirements to fit the interests of regulated parties during a systemic crisis. ACLI expressly justified its request on the basis of the old rules' "unwarranted" and "severe" impact on required capital.³⁶³ It parallels other examples of departure from established rules and customs during the crisis, such as the dubiously legal abandonment of long-standing Federal Reserve practices to make unprecedented loans,³⁶⁴ and the bank-friendly amendment of fair value (or "mark-to-market") accounting rules in March 2009, by the Financial Accounting Standards Board (FASB).³⁶⁵

The mark-to-market changes were widely viewed as a form of regulatory "forbearance."³⁶⁶ Although mark-to-market rules have their critics, including some who are known more for trust in markets than doubts about them,³⁶⁷ the sudden discovery in the midst of a crisis that

Newman, NAIC, Bob Carcano, NAIC, & Dan Daveline, NAIC, Final Report of the RAWG to the Financial Conditions (E) Committee: Comment Letters 1, 4 (Jan 5, 2010) (on file with author) available at http://www.naic.org/committees_e_rating_agency.htm (click on "Rating Agency WG Final Report:" then proceed to Section 6 Fitch Ratings of pdf).

³⁶³ See ACLI Aug. 10, 2009 Letter, *supra* note 318, at 2.

³⁶⁴ See Steven M. Davidoff & David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 ADMIN. L. REV. 463, 477 (2009).

³⁶⁵ See Kara Scannell, *FASB Eases Mark-to-Market Rules*, WALL ST. J., Apr. 3, 2009 (describing banking industry's argument for changing rule and FASB's decision to do so).

³⁶⁶ Jonathan Weil, *Suing Wall Street Banks Never Looked So Shady*, BLOOMBERG.COM, Feb. 24, 2010. <http://www.bloomberg.com/news/2010-02-24/suing-wall-street-banks-never-looked-so-shady-jonathan-weil.html>. See also James Chanos, *We Need Honest Accounting*, WALL. ST. J., March 24, 2009 (characterizing relaxation of capital requirements as an alternative, and superior, method of providing regulatory relief as compared to changing mark-to-market rules).

³⁶⁷ See Richard A. Epstein & M. Todd Henderson, *Marking to Market: The Dangerous Allure of Mark to Market*, 22-23 (*U. of Chi. Law & Econ., Olin Working Paper No. 458, 2009*), available at

these rules are “procyclical” – a fact that apparently had gone unnoticed by those in a position to make or influence policy when marking to market was, presumably, procyclically inflating a bubble – suggests that the mark-to-market relief was indeed a form of “rule bailout.” Certainly, the banking industry – in both its GSE³⁶⁸ and private³⁶⁹ segments – supported the changes, although some commentators questioned whether the game was worth the candle for the banks, given the relatively small percentage of their assets that was even subject to mark-to-market accounting.³⁷⁰

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1385382.

³⁶⁸ See Letter from Michael Gutttau, Chmn., & John L. von Seggern, Pres. & CEO, Council of Fed. Home Loan Banks to Russell G. Golden, Technical Dir., Fin. Acct. Standards. Bd., 1 (March 27, 2009) (on file with author) (proposed changes to FAS 157 “an improvement over existing guidance”) *available at* <http://www.fasb.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175818328874&blobheader=application/pdf> [hereinafter Council Letter 132]; Letter from Michael Gutttau, Chmn., Council of Fed. Home Loan Banks & John L. von Seggern, President & CEO, Council of Fed. Home Loan Banks to Russell G. Golden, Technical Dir., Fin. Acct. Standards. Bd., 1 (March 27, 2009) (on file with author) (proposed changes to FAS 115, 125, and EITF 99-200 “an improvement” over existing guidance, but do not go far enough) *available at* <http://www.fasb.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175818329600&blobheader=application/pdf>, (hereinafter Council Letter 98).

³⁶⁹ See Letter from Donna Fisher, Sr. Vice President, Am. Bankers Ass’n to Russell Golden, Technical Dir., Fin. Acct. Standards. Bd., (March 30, 2009) (on file with author) (“We strongly support” proposed changes to FAS 157), *available at* <http://www.fasb.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175818331124&blobheader=application/pdf> [hereinafter ABA Letter 31A]; Letter from Donna Fisher, Sr. Vice President., Am. Bankers Ass’n to Russell Golden, Technical Dir., Fin. Acct. Standards. Bd. (March 30, 2009) (“Overall, ABA supports the proposed” changes to FAS 115, 124, and EITF 99-20-b), *available at* <http://www.fasb.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175818430414&blobheader=application/pdf> (herinafter ABA Letter 31).

³⁷⁰ David Reilly, Commentary, *Elvis Lives, and Mark-to-Market Rules Fuel Crisis*, BLOOMBERG.COM, March 11, 2009, <http://www.bloomberg.com/apps/news?pid=newsarchive&sis=aD11FOjLK1y4> (reporting analysis of company data finding that only 29% of assets of the 12 largest banks were held in mark-to-market categories at year-end 2008). Of

C. IMPLICATIONS FOR CAPITAL REGULATION

The insurance industry's experience with rating failure on RMBS and the resulting rule bailout has three major implications for capital regulation. First, the tendency toward rule bailouts causes capital regulations to be less pro-cyclical than they otherwise would be. Second, if regulators have a tendency toward rule bailouts in financial crises, that suggests that policymakers should not put too much stock in prompt corrective action requirements that order regulators to take ailing companies into receivership. Both these points seem to weigh in favor of higher capital requirements than would otherwise be justified. Finally, the failure of correlation-sensitive ratings on RMBS suggests caution in adopting suggestions that entail greater regulatory reliance on correlation measures.

1. Built-in Countercyclical and Regulatory Forbearance

There has been acute interest in macro-prudential regulation since the crisis began. Macro-prudential regulation “concerns itself with factors that affect the stability of the financial system as a whole.”³⁷¹ One type of macro-prudential regulation is adopting countercyclical capital adequacy requirements – requiring that firms hold more capital in a boom and less in a crisis.³⁷² Another proposal for macro-prudential regulation would be permitting institutions with access to long-term funding – perhaps including insurers – to value their assets using long-term third party valuations rather than market prices.³⁷³ As described in Part IV³⁷⁴, the

course, a highly leveraged institution could be rendered insolvent by losses on a relatively small percentage of its holdings.

³⁷¹ MARKUS BRUNNERMEIER ET AL., *supra* note 17, at viii.

³⁷² *Id.* at 29 (capital regulation measures “have to be counter-cyclical, i.e., tough during a credit boom and more relaxed during a crisis”).

³⁷³ See, e.g., Avinash D. Persaud, *The Rise and Apparent Fall of Macro-Prudential Regulation*, VOXEU.ORG, June 24, 2009, <http://www.voxeu.org/index.php?q=node/3694>; Avinash D. Persaud, *Regulation, Valuation, and Systemic Liquidity*, 12 BANQUE DE FRANCE FIN. STABILITY REV. 75, 79 (2008). As explained, insurance regulation in the United States already follows this prescription for capital regulation, as non-impaired insurer assets are not marked to market for regulatory purposes. [check]

³⁷⁴ Goodhart, *supra* note 264, at 14-15 (previously viewed as having little, or

consensus not long ago was that insurance companies did not pose a systemic risk. Although that consensus has come under pressure because of the financial crisis, proponents of macro-prudential regulation tend to believe that because of this, insurance companies need only micro-prudential regulation.³⁷⁵

As described above, recent events have challenged the assumption that insurers pose no systemic risk, so macro-prudential regulation, at least of certain insurers, may be appropriate. If so, the possibility of rule bailouts affects the extent to which a given capital requirement is procyclical. Capital requirements are said to be procyclical in part because they can prompt cycles of fire sales when prices are low. Asset prices go down, forcing entities to sell assets to satisfy capital requirements, which drives prices down more. The capital requirement deepens the downward leg of the cycle. Rule bailouts mitigate this effect because regulators find ways not to require the forced sales just described.

At the same time, rule bailouts seem to embody a kind of unprincipled forbearance. The tendency to forbear seems to reflect the worst incentives of regulators: to hope for the best, or at least that the worst will not happen on the regulator's watch. Such a tendency to push problems off into the future would be consistent with insurance regulators' reported tendency to underprice ex ante premiums for guarantee funds.³⁷⁶

Unbridled regulatory forbearance can in some circumstances be a very bad idea— that is typically understood to be one of the central lessons of the S&L crisis. Regulators may decline to take aggressive action to wind up an insolvent firm, hoping along with the firm's management that the firm will turn itself around.³⁷⁷ In the meantime, the firm takes greater and greater risks in an effort to extricate itself from insolvency.³⁷⁸ This *pas de deux* can increase the ultimate cost of resolution dramatically.³⁷⁹ The

no, leverage" suggesting to the need for "micro-prudential regulation").

³⁷⁵ See BRUNNERMEIER ET AL., *supra* note 16, at 24; Goodhart, *supra* note 264, at 15.

³⁷⁶ See David Cutler & Richard Zeckhauser, *Extending the Premiums to Meet the Practice*, in PAPERS ON FINANCIAL SERVICES 1, 34 (Robert E. Litan & Richard Herring eds., 2004).]

³⁷⁷ See Daniel Schwarcz, *Regulating Insurance Sales or Selling Insurance Regulation? Against Regulatory Competition in Insurance*, 94 MINN. L. REV. 1707, 1763 – 1764 n.256 (2010).

³⁷⁸ See FREDERIC S. MISHKIN, *THE ECONOMICS OF MONEY, BANKING, AND FINANCIAL MARKETS* 294-95 (8th ed. 2007).

³⁷⁹ See Martin F. Grace et al., *Insurance Company Failures: Why Do They Cost So Much?*, Ga. State Univ. Working Paper 03-1 (Oct. 30, 2003), at 29,

insurance industry and its regulators³⁸⁰ were accused of behaving similarly to S&Ls and their regulators during the era of the S&L crisis, which also saw several high-profile insurance insolvencies.³⁸¹ Thrift and insurance regulators both became subject to “prompt corrective action” (PCA) requirements during this period. As described in Part II.A.2 above, PCA requirements direct the regulator to take action when capital levels fall below specified thresholds. They are designed to prevent forbearance. Rule bailouts illustrate a problem with a system that relies on PCA requirements to force regulators to take unpleasant actions during a crisis. The regulators can just change the rules to circumvent the requirements.³⁸²

Before being too hard on regulators for their rule bailouts, we should remember that no massive wave of insolvencies has appeared in the insurance sector in the current crisis— at least to date.³⁸³ And NAIC’s CEO reminds us that some scholars believe that NAIC’s changes to asset valuation rules in the 1930s helped insurance companies survive the Great

available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=463103 (reporting the results of an empirical study finding that there are three main components of resolution costs: “the pre-insolvency condition of the firm; the degree of regulatory forbearance; and the transparency of post-insolvency administration”).

³⁸⁰ See STAFF OF H. SUBCOMM. ON OVERSIGHT AND INVESTIGATIONS OF THE COMM. ON ENERGY AND COMMERCE, 101ST CONG., FAILED PROMISES: INSURANCE COMPANY INSOLVENCIES 6 (Comm. Print 1990) [*hereinafter* FAILED PROMISES] (“The same patterns of industry and regulatory conduct [as in the S&L industry] have emerged from the Subcommittee’s recent investigations of insurance company insolvencies.”); *see also* STAFF OF H. SUBCOMM. ON OVERSIGHT AND INVESTIGATIONS OF THE COMM. ON ENERGY AND COMMERCE, 103D CONG., WISHFUL THINKING: A WORLD VIEW OF INSURANCE SOLVENCY REGULATION 6 (Comm. Print 1994) (“The single, overriding weakness plaguing the supervision of domestic and foreign insurance companies is the widespread practice of wishful thinking by regulatory officials.”).

³⁸¹ See FAILED PROMISES, *supra* note 349, at 2 (“The Subcommittee examined in great detail the failures of Mission Insurance Co., Integrity Insurance Co., Transit Casualty Co., and Anglo-American Insurance Co. Collectively, these four failures are projected to cost the American public more than \$5 billion...”).

³⁸² Cf. Brunnermeier et al., *supra* note 16, at 33-34 (arguing that macroprudential regulation should be implemented by rules rather than regulatory discretion: Otherwise, few regulator/supervisors will actually dare to face the odium of tightening in boom conditions.).

³⁸³ See Martin Grace, *A Reexamination of Federal Regulation in the Insurance Industry*, at 1-2, Networks Financial Institute Policy Brief No. 2009-PB-02 (Feb. 2009). *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=135053

Depression with only modest insolvencies and policyholder losses.³⁸⁴ Although we would expect any such wave would appear only after a lag, the general recovery in credit markets since 2008 and early 2009 suggests that the very large credit spreads in those periods did not forecast corresponding high levels of credit loss, perhaps because they reflected high risk aversion and an absence of liquidity. So perhaps this particular rule bailout will turn out to have been justified, at least from a short-term perspective.

Whether any specific rule bailout was justified or not, the possibility of rule bailouts seems to weigh in favor of higher capital requirements. The negative consequences of a high requirement are smaller, because there is less chance of forced fire sales during a crisis, and the benefits of a high requirement are greater, because rule bailouts and forbearance increase the costs of distress, placing a higher premium on staying out of distress.

2. Ratings in Crisis and the Asset-by-Asset Debate

The RMBS experience sheds light on another debate in capital regulation, the asset-by-asset debate. The RBC formula has been attacked for years on the ground that it does not give enough credit to ideas from financial economics about the value of diversification.³⁸⁵ The RBC formula, so we have been told, fails to take a portfolio approach to assessing risk. The Model Investment Law, at least in its Defined Limits Version, has come in for equally severe criticism.³⁸⁶ These criticisms do

³⁸⁴ Therese M. Vaughan, *The Implications of Solvency II for U.S. Insurance Regulation* 18 & n.25, Networks Financial Institute Policy Brief 2009-PB-03 (Feb. 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1350539 (noting that NAIC altered asset valuation rules not just in the 1930s, but also in “periods of market turmoil in 1907, 1914, and 1917-21”).

³⁸⁵ See, e.g., Schwarcz, *supra* note 346, at 1765 (RBC formula “does a poor job accounting for insurers’ diversification and risk mitigation measures, employing a simple covariance formula that does not credit standard hedging techniques, much less sophisticated portfolio design.”).

³⁸⁶ See, e.g., Lawrence J. White, *The NAIC Investment Law: A Missed Opportunity*, in *THE STRATEGIC DYNAMICS OF THE INSURANCE INDUSTRY: ASSET/LIABILITY MANAGEMENT ISSUES* (Edward I. Altman & Irwin T. Vanderhoof, eds. 1996) 41, 41 (arguing that NAIC’s draft Model Investment Law misses a “once-in-a-generation” opportunity by “adopt[ing] a ‘pigeon-hole approach that addresses categories of risk assets (and activities) on a standalone basis, ignoring portfolio effects and the potential for offsetting interactions among

deserve to be taken seriously, as I have argued elsewhere.³⁸⁷

The value of diversification depends on how the assets in the portfolio move together. The idea of co-movement is usually expressed using the term “correlation,” a numerical measure of co-movement that ranges from -1 to 1. The lower the correlation between each pair of assets, the greater the diversification benefit of each pair of assets. The criticism of the RBC system and Model Investment Law is that it does not give enough credit for diversification. In fact, as explained in Part II.A.1 above, the RBC system assumes that credit risks have a correlation of 1 – that is, that there is no diversification benefit.

Under normal circumstances most assets are not perfectly correlated with one another so the perfect-correlation assumption is too conservative, just as critics claim. But it is a common saying in the financial community that “in a crisis, all correlations go to one.”³⁸⁸ And in fact defaults on the mortgages underlying RMBS turned out to be more correlated during the crisis than rating agencies or many investors anticipated. Indeed, the high ratings and subsequent downgrades on the RMBS in question were based in large part on diversification benefits that failed to materialize in the crisis.

If a capital regulation system is to be designed so that the regulated companies meet specified probabilities of survival during a financial crisis, the assumption that credit risks are perfectly correlated looks more like a prudent, conservative design feature than a technologically retrograde failure to keep up with contemporary thought. The failure of ratings on novel products counsels caution about importing higher levels of sophistication into the capital regulation system, at least without sufficient testing of the underlying assumptions.

VIII. THE CASE FOR A RATINGS SEASONING REQUIREMENT IN REGULATION

The performance of insurance solvency regulation during the financial crisis mapped to the performance of the ratings on which regulators’ solvency determinations are based. Regulated life and property & casualty insurers were not heavily exposed to products on which ratings

the categories.”).

³⁸⁷ See Hunt, *supra* note 255, at 776-77..

³⁸⁸ RICHARD M. BOOKSTABER, *A DEMON OF OUR OWN DESIGN: MARKETS, HEDGE FUNDS, AND THE PERILS OF FIANCIAL INNOVATION* 269 (John Wiley & Sons, Inc. eds., 2007)..

failed, and they by and large escaped insolvency. AIG and financial guaranty insurers were heavily exposed to products on which ratings failed, and they did suffer insolvency.

The ratings that failed were ratings on novel products. Substantial evidence indicates that agencies simply did not know what they were doing in rating these products. Although rating agencies have sometimes been successful in rating novel products right out of the box, it seems hard to dispute that ratings on novel products are less reliable than ratings on more seasoned products.

Rating failure on novel products may or may not indict rating agencies. Perhaps their performance was as good as anyone had a right to expect. The experience does highlight a potential problem with the design of the regulatory system, though. Rating-dependent regulation of the insurance industry treats all ratings, on novel and traditional products, as the same. But they are not the same, because ratings on novel products can be expected to be less reliable. As a simplifying device, imagine two ratings, one on a traditional industrial corporate bond and one on a novel structured product. Assume for the sake of argument that each rating corresponds to a 75% chance of default and that 75% is in fact the best estimate of the chance of default for each obligation.³⁸⁹ But the corporate-bond rating may be more reliable: Think of a 75% +/- 5% chance of default for that bond, as opposed to a 75% +/- 25% chance of default for the novel bond. A regulatory system that wants insurers to hold only bonds with a chance of default reasonably close to 75% might well admit the first rating and not the second.

If all bond ratings should not be treated equally, how should regulators decide which ratings to credit? A simple seasoning requirement could be used to distinguish between reliable and less-reliable ratings. For example, if ratings on novel products did not “count” for regulatory purposes until a substantial volume of the product had been on the market for some period designed to correspond to the length of the credit cycle, perhaps 5-7 years, this would allow regulators and credit rating agencies to observe the product’s performance under varying economic and market conditions, so that final ratings would be more reliable.³⁹⁰

³⁸⁹ As discussed, rating agencies state that ratings do *not* correspond to specified default probabilities, although some researchers have concluded that S&P’s CDO ratings were designed to achieve just such probabilities.

³⁹⁰ A seasoning requirement for giving regulatory effect to ratings is in some respects a partial substitute for a more general system for deterring issuance of low-quality ratings on novel products. For example, if a rule requiring

Such a seasoning requirement would be a more narrowly tailored change to rating-dependent regulation than other proposals that are under consideration or that have been adopted. For example, the first-draft RAWG proposal to eliminate rating-dependent regulation on structured products seems to give short shrift to rating agencies' ability to learn from mistakes. Dodd-Frank's requirement that rating-dependent regulation be eliminated at the federal level is even more sweeping.

The strongest argument for sweeping elimination of rating-dependent regulation is that RDR damages rating quality. But the heavily rating-dependent regulatory system apparently has not degraded rating quality to unacceptable levels for traditional obligations. Although scholars have argued that ratings do not add value in the sense of improving on what anyone with access to the financial press could accomplish,³⁹¹ that level of quality seems "good enough for government work,"³⁹² as other scholars have argued. Rating-agency critiques of the pernicious effect of rating-dependent regulation on agency incentives likewise focus on RDR's effects in the context of novel products.

A seasoning requirement for rating-dependent regulation could conceivably impede the development of novel financial products, as rating-regulated investors would effectively be barred from purchasing such products. Of course, the overall social utility of financial-product innovation is the subject of an unresolved debate, and in that sense it is unclear that this objection has any force at all. In any event, hedge funds and accredited individual investors are not subject to rating-dependent regulations and would be able to purchase novel products. And under Dodd-Frank, ratings are to be excised from federal regulations anyway, creating another potential market for unrated products.

From a political-economy point of view, a seasoning requirement is more feasible than more aggressive RDR-reduction measures. The seasoning requirement could be implemented by NAIC via a change to Rule FE, so that a state-by-state effort is unnecessary. Industry is spared the expense of paying for efforts that duplicate reliable rating-agency efforts. The seasoning requirement addresses Moody's and S&P's major

disgorgement of profits on low-quality profits were adopted, *see* Hunt, *Credit Rating Agencies*, *supra* note 148, at 53, then we might expect agencies not to issue low-quality ratings on novel products, so that no seasoning requirement would be needed.

³⁹¹ Partnoy, *Two Thumbs Down*, *supra* note 246, at 509.

³⁹² Claire A. Hill, *Why Did Anyone Listen to the Rating Agencies After Enron?*, 4 J. BUS. & TECH. L. 283, 283 (2009).

criticisms of RDR, and the other rating agencies have adopted essentially an agnostic line. By adopting a bright-line seasoning rule, regulators would avoid taking responsibility for each and every decision to permit insurers to make investments. At the same time, seasoning reduces one potentially harmful political-economy effect: rule bailouts. If rating performance is more reliable, it is less likely that ratings will perform in unexpectedly negative ways that result in industry's demanding a rule bailout.

Given NAIC's evident lack of interest in complete eradication of RDR at this time, an effort to do so seems likely to require a costly state-by-state battle. Congress could take action, but states have successfully resisted federal efforts to encroach on their authority for nearly 70 years. Arguments based on systemic risk might provide some traction, but they don't really apply to core insurance activities, with the possible exception of financial guaranty insurance, which effectively has a single regulator already.

IX. CONCLUSION

Rating-agency reformers have good arguments for removing private credit ratings from the regulatory system. At the same time, financial regulators have both good reasons and strong incentives to continue relying on private credit ratings or something very much like them. Congress' recent expression of desire to eliminate credit ratings from financial regulation, taken together with state insurance regulators' reaffirmation of the role of ratings in regulation, sets the stage for a confrontation on this score.

One approach to addressing the problem of rating-dependent regulation would be for regulators to stop relying on "unseasoned" ratings – that is, ratings on novel financial products without a significant history of market experience. Such ratings should be less reliable than ratings on traditional products. Recent events with CDOs and subprime RMBS suggest that that was the case, and that regulatory reliance on novel product ratings created systemic risk and pressure for rule bailouts that reliance on traditional ratings did not. Selectively reducing rating reliance by focusing on unseasoned ratings preserves the benefits that regulators and the regulated industry derive from the present system while addressing the most serious problems with rating-dependent regulation.