# MODERNIZING INSURANCE REGULATION

JOHN H. BIGGS
MATTHEW P. RICHARDSON
EDITORS



Founded in 1807, John Wiley & Sons is the oldest independent publishing company in the United States. With offices in North America, Europe, Australia, and Asia, Wiley is globally committed to developing and marketing print and electronic products and services for our customers' professional and personal knowledge and understanding.

The Wiley Finance series contains books written specifically for finance and investment professionals as well as sophisticated individual investors and their financial advisors. Book topics range from portfolio management to e-commerce, risk management, financial engineering, valuation, and financial instrument analysis, as well as much more.

For a list of available titles, visit our Web site at <a href="https://www.WileyFinance.com">www.WileyFinance.com</a>.

## Modernizing Insurance Regulation

JOHN H. BIGGS MATTHEW P. RICHARDSON EDITORS



Cover Design: Wiley

Cover Image: © iStockphoto/skegbydave

Copyright © 2014 by Viral Acharya, Matthew Richardson, and John Biggs. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey. Published simultaneously in Canada.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600, or on the Web at <a href="www.copyright.com">www.copyright.com</a>. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <a href="http://www.wiley.com/go/permissions">http://www.wiley.com/go/permissions</a>.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services or for technical support, please contact our Customer Care Department within the United States at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <a href="http://booksupport.wiley.com">http://booksupport.wiley.com</a>. For more information about Wiley products, visit <a href="www.wiley.com">www.wiley.com</a>.

ISBN 978-1-118-75871-7 (Hardcover) ISBN 978-1-118-75875-5 (ePDF)

ISBN 978-1-118-75884-7 (ePub)

### To my wife Penelope, for 55 years of companionship

—J.B.

To my wife Julie, for 27 wonderful years, hoping for at least another 28

—M.R.

#### **Contents**

<u>Preface</u>
Acknowledgments
CHAPTER 1 Modernizing Insurance Regulation: An
<u>Overview</u>
<u>Introduction</u>
State versus Federal Regulation
Systemic Risk
<u>Guaranty Associations</u>
Consumer Protection
Comparison with the FIO Report
<u>Conclusion</u>
<u>Notes</u>
CHAPTER 2 Life Insurance's Importance to American Families and Industry's Concern about Regulation
CHAPTER 3 Why Insurance Needs a Federal Regulator
<u>Option</u>
The Convergence between Insurance and Financial Services
Challenges of State-Based Regulation
Reasons for a Federal Regulator Option
<u>Conclusion</u>
CHAPTER 4 Observations on Insurance Regulation—
<u>Uniformity, Efficiency, and Financial Stability</u>
A Brief History of U.S. Insurance Regulation
The Importance of Checks and Balances
The Other Side of the Problem

<u>Notes</u>
References
CHAPTER 8 Designation and Supervision of Insurance
<u>SIFIs</u>
<u>Insurance and Systemic Risk</u>
FSOC Designation of Nonbank SIFIs
Potential Consequences of SIFI Designation
<u>Promoting Market Discipline and Avoiding Too Big to Fail</u>
Conclusion
<u>Notes</u>
References
CHAPTER 9 Is the Insurance Industry Systemically Risky?
Are Insurance Companies Systemically Risky?
Systemic Risk Evidence
State versus Federal Regulation of Insurance
<u>Companies</u>
<u>Conclusion</u>
<u>Notes</u>
CHAPTER 10 Modernizing the Safety Net for Insurance
<u>Companies</u>
<u>Critique of the GA System</u>
A Federal Option for Modernizing the Insurer Safety
<u>Net</u>
<u>Conclusion</u>
<u>Notes</u>
References
CHAPTER 11 Policyholder Protection in the Wake of the
Financial Crisis

Basic Aspects of the U.S. Direct Insurance Industry Financial Regulation and Quasi-Regulation of Insurers The U.S. Insurance Receivership and Guaranty <u>System</u> Conclusion Appendix 11A: The Critical Role of Prompt Corrective Action Appendix 11B: Table of Relevant Guaranty Association Coverage Levels by State or Jurisdiction Notes CHAPTER 12 Comparative Regulation of Market Intermediaries: Insights from the Indian Life Insurance Market Comparing Life Insurance Markets in the United States and India Comparing Disclosure Mandates **Quality of Advice** Quality of Advice in India: An Experiment with Associated Recommendations Conclusion Notes **About the Authors** Index End User License Agreement

#### **List of Tables**

Chapter 6
Table 6.1

```
Table 6.2
   Table 6.3
   Table 6.4
   Table 6.5
   Table 6.6
   Table 6.7
Chapter 7
   Table 7.1
   Table 7.2
   <u>Table 7.3</u>
   Table 7.4
   Table 7.5
   Table 7.6
Chapter 9
   Table 9.1
Chapter 10
   <u>Table 10.1</u>
   Table 10.2
   <u>Table 10.3</u>
```

#### **List of Illustrations**

#### Chapter 6

Figure 6.1 Life Insurance Corporate Bond Holdings by Industry (2012 Q4)

Chapter 7

## Figure 7.1 Failure Rates of U.S. Banks and Insurers Chapter 9

Figure 9.1 Total Systemic Risk of U.S. Financial Sector and Insurance Subsector

Figure 9.2 Insurance Subsector Percentage of U.S. Financial Sector's Assets and Systemic Risk

Figure 9.3 CDS Spread versus CRSP Index Level

Figure 9.4 CDS Marginal Expected Shortfall (MES) versus Total Realized Return in CDS Spread

Measured during the Period July 1, 2007, to June 30, 2008

Figure 9.5 CDS Marginal Expected Shortfall (MES) versus Total Realized Stock Return Measured during the Period July 1, 2007, to June 30, 2008

#### Chapter 11

Figure 11.1 Assessments Called with Number of Liquidations, 1988–2011

Figure 11.2 Assessment Capacity versus Assessments Called, 1988-2011

Figure 11.3 Assessment Capacity versus
Assessments Called, Next 10 Years at 100 Percent of
2011 Capacity

Figure 11.4 Multistate Insolvencies, 1991-2009

Figure 11A.1 Policyholder Claim with No GA Protection

Figure 11A.2 Policyholder Claim with \$100,000 GA Protection

Figure 11A.3 Policyholder Claim with \$250,000 GA Protection

#### Figure 11A.4 Multistate Insolvencies, 1991-2009

#### **Preface**

With the onset of the financial crisis in the summer of 2007 and the emergence of systemic risk with the fall of Lehman Brothers in September 2008, the faculty at the New York University (NYU) Stern School of Business embarked on an ambitious project of trying to understand the root causes of the crisis and make suggestions for fixing the financial system. This project involved at different stages 35 or so faculty aligned with NYU. The result was three books— Restoring Financial Stability: How to Repair a Failed System (John Wiley & Sons, 2009), Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance (John Wiley & Sons, 2010), and Guaranteed to Fail: Fannie Mae, Freddie Mac and the Debacle of Mortgage *Finance* (Princeton University Press, 2011). As part of our analysis, it became clear to us that a much-understudied area of the financial system was the insurance sector.

To address this, we, along with our colleagues Viral Acharya and Stephen Ryan, and PhD student Hanh Le, wrote a 62-page article entitled "Systemic Risk and the Regulation of Insurance Companies" (Chapter 9 of Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance). The paper had some traction within regulatory circles. However, there was sufficient disagreement with our views in the paper by practitioners in the industry that we decided to put on a conference on September 21, 2009, at the Salomon Center for the Study of Financial Institutions at the NYU Stern School of Business, titled "Regulation of the Insurance Industry: Current Issues." The conference featured leading practitioners, regulators, and academics. The purpose of the conference was to debate important issues surrounding

regulation of insurance companies. A follow-up conference took place on March 2, 2012, titled "Conference on Alternative Designs for a Modern Insurance Regulatory Structure."

Three important points emerged. First, there was general agreement that the insurance sector is a key part of the financial system and needed to be regulated as such. Second, there was sharp disagreement on the form the regulation should take and which type of companies would fall under a given regulation. Third, the arguments on both sides were well constructed and therefore worthy of future discussion. Therefore, we thought it worthwhile that the participants of the conferences lay out the arguments of these various sides in a written form to help academics, regulators, and practitioners alike see these arguments up against each other.

This book is very much organized around this principle. All the chapters have as an author at least one of the participants—whether a regulator, practitioner, or academic—of the conference. The chapters focus on three key areas: (1) whether state regulation of insurance companies is sufficient in today's world of modern finance, (2) whether insurance companies are systemically risky and need to be regulated as such, and (3) whether the guaranty associations are sufficiently structured given the risks of insurance companies. The chapters are organized so that the reader can read the arguments side by side and decide on their own the merits of all the arguments. We therefore hope that this book serves as a useful tool to navigate the world of insurance regulation.

#### **Acknowledgments**

First and foremost, we would like to thank all the academics, regulators, and practitioners who wrote chapters for this book. Their contributions have made this book a unique compilation of arguments from leading thinkers in the field. The disagreements and various views offered for and against particular forms of insurance regulation provide the reader with an interesting perspective from all sides.

Second, and equally important, we would like to thank other participants and attendees of the two conferences on insurance regulation at the Salomon Center at the NYU Stern School of Business, "Regulation of the Insurance Industry: Current Issues" (September 21, 2009) and "Conference on Alternative Designs for a Modern Insurance Regulatory Structure" (March 2, 2012). We are sure that all the contributors to this book, but the editors especially, benefited and were influenced by discussions that arose during these two days. In particular, we would like to thank those participants who did not write in this volume but presented at these conferences, including William Berkley (CEO, W.R. Berkley Corporation); Scott Campion (Oliver Wyman); Douglas Elliott (Brookings Institution); Frank Keating (former CEO of the American Council of Life Insurers); Howard Mills (Deloitte & Touche, former Superintendent of the New York State Insurance Department); Mark Parkin (Deloitte & Touche); Stephen Ryan (NYU Stern School of Business); Ingo Walter (NYU Stern School of Business); and Roy Woodall (independent member of the Financial Stability Oversight Council).

Third, a very special thanks needs to be given to our finance colleague, Viral Acharya (coauthor of Chapter 9 of

this book), and our accounting colleague, Stephen Ryan. Their input was invaluable towards NYU Stern's undertaking of studying insurance regulation. The conferences and books would not have happened without them. We would also like to thank Hanh Le, our PhD student, who not only was involved in the original chapter on insurance regulation but has been involved in many of the school's initiatives on systemic risk. We also want to acknowledge the Salomon Center staff for the smooth running of the conferences, especially Mary Jaffier and Robyn Vanterpool. Finally, we need to acknowledge practitioners who were instrumental in putting together the conferences, including Gary Hughes (General Counsel, American Council of Life Insurers), Jack Egan (American Council of Life Insurers), Elizabeth Palmer (TIAA-CREF), and Tom Workman (President, Life Insurance Council of New York). These individuals in particular put large amounts of time into organizing the conferences. Even though some of our work was at odds with their views, their willingness to hold an open academic forum made the conferences successful and has led to what (we hope everyone agrees) is a unique book in the insurance area.

# CHAPTER 1 Modernizing Insurance Regulation: An Overview

John H. Biggs and Matthew Richardson
Stern School of Business, New York University

#### INTRODUCTION

The insurance sector is an important part of the U.S. economy. For example, premiums collected by life and health (L/H) and property-casualty (P-C) insurers totaled \$1.28 trillion in the United States in 2008, according to the National Association of Insurance Commissioners (NAIC). Insurance allows individuals and businesses to protect themselves against potentially catastrophic financial risks. The traditional model of insurance is one in which insurers pool and diversify these idiosyncratic risks. In competitive markets, insurers price diversifiable risks on an actuarial basis, yielding tremendous utility gains to the previously exposed individuals and businesses.

Within this traditional model of insurance, it is reasonable to argue that systemwide defaults across insurance companies are unlikely because much of the risk is diversified away. If this type of risk is therefore not the primary concern, then it should not be surprising that the focus of regulation of insurance companies has been consumer protection in terms of individual firm solvency and the types of products offered. This partially explains why a regulatory system, dating back some 150 years, has revolved around state, not federal, regulations.

That said, why precisely insurance companies are regulated at the state rather than the federal level can be explained through two Supreme Court decisions, one in 1868 and the other in 1944. (See, for example, Harrington [2000], Webel and Cobb [2005], and Tyler and Hornig [2009], among others.)<sup>2</sup> In the earlier decision, in the *Paul v. Virginia* opinion, the Court determined that insurance was not interstate commerce and so for all practical purposes insurance companies were not subject to federal regulation. Seventy-six years later, the court reversed that decision in the *United States v. Southeastern Underwriters Association* case, which ruled that insurance is interstate commerce and subject to federal antitrust laws.

However, in response to the 1944 ruling, Congress elected not to take on insurance regulation and quickly passed into law in 1945 the McCarran-Ferguson Act, which permitted states to continue the regulation of insurance companies, as long as state regulation was not deficient (albeit subjecting the insurers to the antitrust laws). The latter provision affected mostly property-casualty (P-C) companies because of their use of state rating bureaus and their standardized pricing of personal insurance.

Since the passage of the McCarran-Ferguson Act, a tug-of-war between federal and state regulation has been a regular source of conflict. As the equilibrium between state and federal regulation has been disturbed by exogenous shocks in insurance products and markets, the regulatory process has been for the states and its regulatory body, the NAIC, to respond by adapting the state system to these shocks or criticisms. The NAIC is a de facto national organization, albeit made up of the chief insurance officials of the 50 states.

But there is growing evidence that the insurance industry has moved away from the traditional model, exposing itself to fragility similar to other parts of the financial sector. While this process started some 50 years ago as banks and asset management firms began to compete for similar customers, it likely escalated with the passage of the Gramm-Leach-Bliley Act in 1999. This Act effectively repealed the Glass-Steagall Act, further blurring the lines between financial services companies by allowing affiliation among banks, securities firms, and insurance companies. Insurance companies, whether through their asset holdings, their product offerings like variable annuities (VAs) and guaranteed investment contracts (GICs), or their funding, look less like the insurance companies of a few decades ago. It should not be a controversial statement that financial markets of the twenty-first century are substantially different from those of the nineteenth and twentieth centuries, suggesting possible revisions in how insurance companies are regulated.

Many large, complex financial institutions effectively failed during the most recent financial crisis. While one can argue that the insurance industry was less impacted (for the reasons given in paragraph 2), it is clear that the industry was not entirely spared—for example, from the failure of American International Group (AIG) to severe financial distress at some monoline insurers to large increases in default risk at some of the largest life insurers.

The most recent financial crisis has exposed serious holes in the architecture of the U.S. financial system. As a result, the Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act, and it was signed into law by President Barack Obama on July 21, 2010. The Dodd-Frank Act did not create a new direct regulator of insurance but did impose on nonbank holding companies, possibly insurance entities, a major new and unknown form of regulation for those deemed "systemically important financial institutions" (SIFIs)—sometimes denoted "too big

to fail" (TBTF)—or presumably any entity that regulators believe represents a "contingent liability" for the federal government in the event of severe stress or failure.<sup>3</sup>

Such a holding company would be subject to regulation by the Federal Reserve, where the list of companies subject to that regulation and its form is still being worked out, but now features AIG and Prudential Financial as two insurers in the SIFI list. This initiative arose due to the concern of massive support for AIG with direct funding from the Federal Reserve or the more limited bailouts of \$950 million for Lincoln National and \$3.4 billion for the Hartford Group under the federal Troubled Asset Relief Program (TARP). Other insurers, faced with large losses, made corporate moves so as to qualify for support from federal resources but were able to survive without actual drawdowns.

Because of the lack of any significant insurance expertise in Washington, the Dodd-Frank Act did create a Federal Insurance Office (FIO) in the Treasury Department, with a broad mandate to make recommendations and gather information but no broad regulatory responsibility. Significantly, it required that the director of the FIO submit a report to Congress with recommendations to modernize and improve insurance regulation within 15 months of the passage of the Dodd-Frank Act.

The law also provides that a person with "insurance expertise" should be nominated by the President and approved by the Senate as one of the 10 voting members of the very powerful Financial Stability Oversight Council (FSOC). It further provided that at least one other individual with "insurance expertise," to be nominated by the NAIC, should be one of the five nonvoting members of the FSOC. In fact, three of the appointments have been made and all three are former state commissioners.

In light of the financial crisis and the somewhat benign changes to insurance regulation contained in the Dodd-Frank Act (regulation of SIFIs aside), how should a modern insurance regulatory structure be designed to deal with twenty-first-century insurance companies?

The purpose of this book is to lay out the arguments for and against various types of regulation. The book focuses in particular on three key areas of insurance regulation: (1) state versus federal, (2) systemic risk, and (3) guaranty associations. The book purposefully provides opposing arguments by leading academics, regulators, and practitioners.

This chapter summarizes the arguments laid out in the book and is separated into the following three sections, covering each of the three key areas.

#### STATE VERSUS FEDERAL REGULATION

As described in the introduction, the regulatory framework for insurance companies revolves around state, not federal, regulation. Aside from the advisory role of the new FIO housed in the Treasury Department, the only significant change is federal oversight of insurance companies deemed to be SIFIs. The question is whether this is sufficient for a modern insurance sector that includes companies operating across state and national lines and engaging in nontraditional insurance activities.

While not the primary focus of all the chapters of this book, almost all of the chapters touch on the issue of state versus federal regulation. The book starts with Chapter 2, by Dirk Kempthorne, CEO of the American Council of Life Insurers (ACLI) and former U.S. senator and governor of Idaho and U.S. Secretary of Commerce. While not calling for federal regulation per se, he argues that insurance regulation

should be (1) uniform across different jurisdictions, (2) consistent with the business model of insurance companies (and not banks), and (3) efficient and, in particular, not duplicative. One could view points 1 and 3 as being more consistent with federal than multistate regulation. At the very least, Governor Kempthorne suggests that the new FIO will have to play a role in modernizing the system, especially with respect to coordination with international regulatory standards.

In Chapter 3, Roger Ferguson, CEO of TIAA-CREF and former vice chairman of the Federal Reserve Board of Governors, goes one step further and argues for the need for a federal regulator option for insurance companies. He argues that there has been a blurring of lines of business among financial companies, and that existing state regulation of insurance companies has led to a competitive disadvantage for those companies with a national footprint. Many of his concerns mirror those of Governor Kempthorne's in Chapter 2. Vice Chairman Ferguson admits that the NAIC has tried to fix some of these problems for multistate insurers. Nevertheless, he argues that, because the NAIC has no jurisdictional power across the states, national insurance companies cannot achieve speed to market for products and must satisfy a complex web of regulations for managing insurance sales. In addition to these issues, Vice Chairman Ferguson explains that a federal regulator for nationwide insurance companies would be better able to handle rules within an international setting and industry-wide threats or crises. He surmises that the majority of insurance companies would remain state regulated but, for the select few national companies, a federal insurer would serve them better.

In Chapter 4, Therese Vaughan, former CEO of the NAIC, sees the state versus federal regulation issue quite

differently. Vaughan views the state system for insurance companies as a much more effective way to regulate the insurance sector. She describes historical evidence of the success of the state system and cites other international agencies' praise of its hands-on approach to regulation. Vaughan describes her experience at the NAIC and how the organization led to improvements in many of the state system's design faults described in Chapters 2 and 3. In contrast to those chapters, Vaughan questions the benefits of uniform regulation and cites examples of how federal regulation failed with respect to banks during the most recent financial crisis. She also sees a benefit of collaboration among state regulators. That said, there is recognition that inefficiencies remain, especially with respect to life insurers focused on asset management.

Chapter 5, by Eric Dinallo, partner at the law firm Debevoise & Plimpton and former insurance superintendent for the State of New York, concurs with Vaughan's Chapter 4. Commissioner Dinallo describes his experience in particular at regulating certain insurance subsidiaries of AIG before and during the financial crisis. He points out lapses in federal regulation and the danger of regulatory arbitrage, especially with respect to AIG's holding company and its use of credit derivatives. In his view, the strong protections of the operating companies at the state level through ring-fencing and tight capital regulation provide a robust solvency regime in times of financial distress. Commissioner Dinallo very much questions the need to federalize existing state regulation. Interestingly, however, the chapter places the business of insurance in a historical context and questions whether some of the activities performed by modern-day insurance companies are insurance per se and not some form of other financial activity.

With respect to solvency of insurers, in Chapter 11, Peter Gallanis, who leads the National Organization of Life and Health Insurance Guaranty Associations (NOLHGA), provides theoretical arguments and evidence in favor of the existing state-based system. In particular, Gallanis describes the success of the current state guaranty associations system in protecting policyholders over the years, with respect to both the size of the safety net and the resolution of failed insurance companies prior to 2008. In contrast, in Chapter 10, John Biggs, who is the former CEO of TIAA-CREF and an executive-in-residence at the NYU Stern School of Business, takes an opposite view. Biggs sees the system as particularly weak with a lack of uniformity and risk-based pricing across state guaranty associations. In pointing out well-known problems with systems based on post hoc assessments, Biggs is especially concerned that a number of guaranty associations did not or could not effectively participate in resolving the stress of large insurance companies in 2008 (such as AIG, Hartford Financial, and Lincoln Financial). Because there is a presumed reliance on the federal taxpayers in the event of widespread distress of large companies, and putting aside the Dodd-Frank Act's designation and resolution of SIFIs, Biggs calls for a risk-based, prefunded, federal insurer guaranty system.

With respect to state versus federal regulation, Chapters 6 through 9 of the book discuss this issue peripherally and for the most part argue either for or against federal regulation, depending on a given chapter's case for whether the insurance sector is systemically risky. For example, in Chapter 9, Viral Acharya and Matthew Richardson of the NYU Stern School of Business call for federal regulation. The argument is twofold: (1) It is simply inconceivable that federal regulation would not be required for a systemically risky sector since different state

jurisdictions would not be able to manage the risk of such a sector, and (2) the Dodd-Frank Act's reliance on FSOC to look at a limited number of insurance SIFIs is not sufficient to pick up potential emerging systemic risks within the sector. While the chapter recognizes the advantage of state regulators' proximity to the ground and the relatively dismal performance of federal regulators, Acharya and Richardson also point out that a multistate system is prone to regulatory arbitrage, citing a recent paper by Koijen and Yogo (2013) as one such instance.<sup>5</sup>

In contrast, consistent with arguments made in some of the aforementioned chapters, in Chapter 7, David Cummins and Mary Weiss of Temple University and, in Chapter 8, Scott Harrington of the University of Pennsylvania's Wharton School point out that insurers have generally fared well through this and other crises. They argue that this is partly due to the success of the state regulatory framework and are concerned with any radical change to the current system. While Cummins and Weiss find some evidence for systemic risk for certain nontraditional insurance activities, their view is that federal regulation should focus in this area and not more broadly. Similarly, while Harrington is less convinced about systemic risk, to the extent that some new federal regulation will inevitably take hold for SIFIs, this regulation should be tailored specifically to insurance companies and focus on the nontraditional activities of these firms.

Of course, at the end of the day, the question of state versus federal regulation, particularly as it relates to systemic risk, is very much about the degree to which the insurance sector is systemically risky. The book devotes four chapters to this issue, and we briefly summarize the relevant arguments in the following section.

#### SYSTEMIC RISK

In the book *Regulating Wall Street: The Dodd-Frank Act* and the New Architecture of Global Finance (edited by Acharya, Cooley, Richardson, and Walter [2010]), seven chapters are devoted to systemic risk regulation with a special emphasis on analyzing the economic implications of the Dodd-Frank Act's approach to systemic risk regulation. One of those chapters in particular focuses on insurance companies. As such, the four chapters devoted to systemic risk of insurance companies in this book take a step back and ask the essential question: Are insurance companies systemically risky? Chapters 6 through 9 provide a broad range of views on this question.

On the one hand, as described earlier, insurance companies are not banking institutions and should be regulated differently than banks. All four chapters agree that the traditional insurance model is unlikely to produce much systemic risk. In fact, in Chapter 2 Governor Kempthorne argues that life insurance companies are not systemically risky. His chapter describes life insurance companies very much in the traditional sense.

On the other hand, as also described in the introduction and in some of the aforementioned four chapters, insurance companies have moved away from the traditional model of insurance. For example, the argument is given that the insurance industry is no longer traditional and instead (1) offers products with nondiversifiable risk, (2) is more prone to a "run," (3) insures against macroeconomy-wide events, and (4) has expanded its role in financial markets. If the insurance sector performs poorly in systemic states, that is, when other parts of the financial sector are struggling, then as an important source for products to the economy (i.e., insurance) and a source for financing (i.e., corporate bonds and commercial mortgages), disintermediation of the

insurance sector can have severe consequences for the real economy.

Before summarizing Chapters 6 to 9's debate about whether insurance firms are systemically risky, it is first worthwhile to describe the exact procedure for determining whether an insurance company is systemically risky using the Dodd-Frank Act and subsequent rulings. Chapter 8, by Scott Harrington, provides an excellent discussion of the procedure involved in designating nonbank financial institutions SIFIs, including insurance companies.

The Dodd-Frank Act created the Financial Stability Oversight Council (FSOC) with the primary purpose of identifying and monitoring risks to the U.S. financial system arising from the distress or failure of large, interconnected bank holding companies or nonbank financial companies. FSOC is made up of 10 voting members from the major regulatory agencies such as the Federal Reserve, Securities and Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC), Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), Consumer Financial Protection Bureau (CFPB), Federal Housing Finance Agency (FHFA), National Credit Union Administration (NCUA), Treasury, and, most important for our purposes, a presidential appointee with expertise in insurance. With respect to nonbank financial companies, the Dodd-Frank Act gives the FSOC (by a twothirds vote) the authority to designate any nonbank financial company a SIFI subject to enhanced regulation by the Federal Reserve.

If a nonbank financial company is deemed to be a SIFI, then the Federal Reserve must determine a set of enhanced regulatory rules for the SIFI, including additional riskbased capital requirements, leverage and liquidity restrictions, resolution standards (especially with respect to capital structure rules), and short-term funding limits. The FSOC lays out six risk categories from which the SIFI designation will be determined. In particular, FSOC will consider (1) size, (2) leverage, (3) liquidity risk, (4) interconnectedness, (5) lack of substitutes for the firm's services and products, and (6) existing regulatory scrutiny.

The process involves three stages. The first stage will look at the six factors using publicly available data and information from regulatory agencies. The second stage involves a more detailed analysis of the company, involving additional information from the company, if certain quantitative thresholds are reached with respect to the six categories or if the global consolidated assets are over \$50 billion. If FSOC deems that a company needs additional evaluation after the second stage, then a third stage is triggered. This final stage involves information collected directly from the company. After this stage is the required two-thirds vote of the FSOC to determine whether a company is a SIFI. If requested, a company can ask for a hearing, after which there is a new vote. Currently, AIG and Prudential have been designated as SIFIs and MetLife is in the third stage of review.

Governor Kempthorne's Chapter 2 and Scott Harrington's Chapter 8 both argue that insurance companies are not banks and that they are therefore not systemically risky, and focus their arguments on the fact that traditional insurance does not have systemic consequences. While the analysis in Chapter 8 allows for the fact that some noninsurance activities may pose additional risks, Harrington suggests that the regulation should be differentially focused on these risks and should not place the rest of the insurance company under the same regulatory regime. Harrington in particular is concerned with the potential consequences of FSOC's recent

determinations on AIG, but especially Prudential Financial and MetLife.

Chapter 7, by David Cummins and Mary Weiss, provides a more detailed analysis of the FSOC risk factors in the context of the insurance industry. Their general conclusion is that most of the core activities of insurance companies are not systemically risky with respect to the six risk factors. Some exceptions they cite are for the large life insurers and possible interconnectedness in the property-casualty area. That said, Chapter 7 points out that noncore activities of the type mentioned earlier may be more problematic, such as investing in privately placed bonds and asset-backed securities, offering guaranteed investment contracts for annuities, writing financial guarantee insurance, and so on.

In Chapter 6, Anna Paulson, Thanases Plestis, Richard Rosen, Robert McMenamin, and Zain Mohey-Deen of the Federal Reserve Bank of Chicago provide some evidence that the U.S. life insurance industry is less traditional than commonly assumed. Specifically, they provide a detailed analysis of the liquidity of the life insurance industry's asset holdings and liabilities. They provide evidence that approximately 50 percent of liabilities are in a moderately to highly liquid category, allowing for some type of withdrawal. In light of the possibility that life insurance premiums are no longer as sticky, they also describe the liquidity of the insurance industry's asset holdings. In particular, they analyze stress scenarios in which the insurance industry would have to liquidate some of its assets. They find that, relative to runnable liabilities, these firms would have to dip fairly deeply into their holdings of corporate bonds and other less liquid securities (i.e., nonagency and nongovernment securities).

In Chapter 9, Viral Acharya and Matthew Richardson describe systemic risk in a different way than FSOC's risk factors. Using theoretical arguments in Acharya, Pedersen, Philippon, and Richardson (2010), they estimate a firm's systemic risk as its expected shortfall in a financial crisis, denoted systemic expected shortfall (SES, or SRISK on NYU Stern's systemic risk website at

http://vlab.stern.nyu.edu/welcome/risk). In particular, systemic risk of a financial firm is its relative contribution to the aggregate capital shortfall of the financial sector. Chapter 9 then provides a detailed descriptive analysis of how insurance companies contribute to this shortfall and therefore to systemic risk.

Like Cummins and Weiss's Chapter 7, Chapter 9 also stresses the nontraditional nature of current insurance companies, yet argues that the insurance sector is more systemically risky than implied by Chapter 7. One of the main differences between these chapters is the different interpretation of systemic risk. Using the SRISK definition, it is likely that the impact of noncore activities will be greater because these activities expose insurance companies to aggregate shocks. Moreover, while there is some disagreement among Chapters 6, 7, 8, and 9 on how to measure systemic risk and with respect to the degree to which insurance firms are no longer in traditional lines of business, there is also a different interpretation about how to view systemic risk. Chapter 9 argues that systemic risk arises when there is an aggregate capital shortfall in the financial sector and the sector as a whole begins to disintermediate. For insurance companies, this disintermediation might involve insurance companies no longer supplying the full slate of insurance products, or no longer being a primary financier of many of the creditlinked activities in the economy, such as corporate bonds or commercial mortgages.