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## Reframing Complexity: Hedge Fund Policy Paradigm for the Way Forward

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# **REFRAMING COMPLEXITY: HEDGE FUND POLICY PARADIGM FOR THE WAY FORWARD**

*Cecilia C. Lee\**

## **ABSTRACT**

In the wake of the global financial crisis, the need for systemic risk mitigation in the shadow banking system is resoundingly evident. The task at hand is incomplete, leaving grey areas such as hedge funds obfuscated. I contend it is both timely and relevant to revisit hedge fund regulatory reform. The relationship between the banking and non-banking sectors requires continuous monitoring and further regulation, particularly in market conditions likely to shift banking functions outside the realms of prudential regulation. In addition, as complacency is a likely companion to normalcy, the window of opportunity for meaningful reforms is rapidly closing. This Article proposes an elucidating and flexible policy paradigm in support of an understandable stance on hedge fund regulation. Such approach is crucial to continue the discourse on post-crisis reforms. By conceptualizing degrees of regulatory intensity and prescriptiveness as points on a continuum, the proposed matrix of continuums provides contextual adaptability. It also reframes the complexities of hedge fund regulation using basic regulatory trade-offs. In doing so, this proposal supports ongoing evaluations and open dialogue of relevant issues. Accordingly, such policy paradigm for a targeted and balanced formula of hedge fund regulation reflects pivotal lessons from the recent crisis and offers a simplified perspective to facilitate analysis of reforms in the context of the international soft law system.

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## INTRODUCTION

The turbulent backdrop of the global financial crisis (GFC) has generated extensive scholarship on its causes and remedies, propelled wide-ranging financial reforms, and fostered solidarity among nations to safeguard financial stability in a “common and coherent international framework”.<sup>1</sup> Post-crisis literature, policy recommendations and regulations continue to grow at a dizzying pace. Notwithstanding these efforts for the past six years, numerous challenges remain for systemic risk<sup>2</sup> mitigation in the deeply interconnected global capital markets. Understandably, this has precipitated a sense of exhaustion within the financial markets, which have already been overwhelmed by the Herculean task of post-GFC reforms. However, now is a critical juncture to sustain momentum for completion of the necessary reforms.

With transforming changes taking shape across the financial markets, one might be tempted to conclude that fundamental fault lines revealed by the GFC have been repaired by new regulations. The hedge fund<sup>3</sup> industry is one such example. In the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act)<sup>4</sup> reshaped the hedge fund regulatory landscape that had been in play since the near failure of Long-Term Capital Management L.P. (LTCM) in 1998.<sup>5</sup> Although the hedge fund industry is arguably now within the perimeters of regulation, this exercise is incomplete. The relationship between banking and non-banking sectors requires constant monitoring, particularly in market conditions conducive to shifting core banking functions outside the realms of prudential regulation.<sup>6</sup>

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1. G20 WORKING GROUP 1, ENHANCING SOUND REGULATION AND STRENGTHENING TRANSPARENCY ii–iii (2009), available at <http://cdm16064.contentdm.oclc.org/cdm/ref/collection/p266901coll4/id/2932>.

2. See *infra* Part I.C.2 (discussing systemic risk and associated implications).

3. See *infra* note 20 and accompanying text on the definition of hedge funds, and Part I.A generally on the makeup and characteristics of the hedge fund industry.

4. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

5. LTCM was a large, highly leveraged hedge fund with trading strategies that made it critically vulnerable to the extraordinary market conditions following the default of Russian government debt that depressed credit spread and liquidity. See Andrea Aguilar et al., *A Map of Funding Durability and Risk* 20 (Off. of Fin. Research, Working Paper Series 14-03, 2014), available at [http://financialresearch.gov/working-papers/files/OFRwp2014-03\\_AguilarBookstaberWipf\\_MapofFundingDurabilityandRisk.pdf](http://financialresearch.gov/working-papers/files/OFRwp2014-03_AguilarBookstaberWipf_MapofFundingDurabilityandRisk.pdf) (describing the development of the LTCM crisis). See also *infra* note 109 and accompanying text.

6. Recently, the IMF found a shift in the locus of risks resulting from an increase in risk appetite in the search for yield, noting that “[c]oncerns have shifted to the shadow banking system” and cautioning that “current stability risks call for increased vigilance”). IMF, GLOBAL FINANCIAL STABILITY REPORT: RISK TAKING, LIQUIDITY, AND SHADOW BANKING: CURBING EXCESS WHILE PROMOTING GROWTH 1 (2014) [hereinafter IMF, OCTOBER 2014 REPORT]. The same report also discusses key factors that contribute to shadow banking growth, including “a

As the financial markets find their post-crisis groove, the altered terrain will generate trend changes and opportunities, including for hedge funds. As such, systemic risk concerns in the shadow banking sector<sup>7</sup> and the rising importance of asset fund management<sup>8</sup> have increasingly captured regulatory focus of late.<sup>9</sup> Hedge funds are prominent participants in both

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search for yield, regulatory arbitrage, and complementarities with the rest of the financial system . . .” *Id.* at 74–81.

7. For an analysis of shadow banking and its implications for financial stability, see *infra* Part I.C.3.

8. See Letter from Mark Carney, Chairman, FSB, to G20 Finance Ministers and Central Bank Governors: Financial Reforms—Finishing the Post-Crisis Agenda and Moving Forward 4 (Feb. 4, 2015) [hereinafter FSB 2015 Agenda Letter], available at <http://www.financialstabilityboard.org/wp-content/uploads/FSB-Chair-letter-to-G20-February-2015.pdf> (setting out FSB work programs during the Turkish G20 Presidency in 2015, which includes addressing concerns relating to potential “liquidity illusion” in the capital markets and asset management activities). “Strengthening Asset Managers” is also identified as one of SEC’s core policy areas in 2015. See Mary Jo White, Chair, SEC, Chairman’s Address at SEC Speaks 2015 (Feb. 20, 2015), available at [http://www.sec.gov/news/speech/2015-spch022015mjw.html#.VPn\\_njh0y71](http://www.sec.gov/news/speech/2015-spch022015mjw.html#.VPn_njh0y71).

9. Potential threats to financial stability from the asset management industry are under review by the Financial Stability Oversight Council (FSOC) in the United States and the Financial Stability Board (FSB) and IOSCO internationally. See US OFF. OF FIN. RESEARCH, ASSET MANAGEMENT AND FINANCIAL STABILITY (2013) [hereinafter OFR ASSET MANAGEMENT REPORT], available at [http://financialresearch.gov/reports/files/ofr\\_asset\\_management\\_and\\_financial\\_stability.pdf](http://financialresearch.gov/reports/files/ofr_asset_management_and_financial_stability.pdf); FSB & IOSCO, CONSULTATIVE DOCUMENT: ASSESSMENT METHODOLOGIES FOR IDENTIFYING NON-BANK NON-INSURER GLOBAL SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS (2014) [hereinafter FSB & IOSCO, IDENTIFYING NBNI G-SIFI], available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_140108.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_140108.pdf). Consideration of these proposals, among others, are ongoing and subject to further developments. As a general qualification, such state of flux renders it impracticable for this Article to remain current with the constantly evolving reform process regarding systemic risks in the shadow banking system, including NBNI G-SIFI categorization of investment funds and asset managers. The intended purpose here is to present a thought experiment on a regulatory policy paradigm for hedge funds going forward and not a comprehensive review of their regulatory landscape. Hence, certain recent developments in documents and data may not be captured, but may supersede reform initiatives referenced herein. For example, FSB and IOSCO recently issued the 2nd Consultative Document regarding identification of NBNI G-SIFIs on March 4, 2015. See FSB & IOSCO, CONSULTATIVE DOCUMENT (2ND): ASSESSMENT METHODOLOGIES FOR IDENTIFYING NON-BANK NON-INSURER GLOBAL SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS (2015), available at <http://www.financialstabilityboard.org/wp-content/uploads/2nd-Con-Doc-on-NBNI-G-SIFI-methodologies.pdf>. This second consultation process is currently underway and the revised methodologies are expected to be completed by the end of 2015. Similarly, subsequent to the OFR Asset Management Report in the US, the FSOC is seeking public comments regarding potential risks posed by asset management products and activities; the comment period was extended to close on March 25, 2015. See *Notice Seeking Comment on Asset Management Products and Activities*, FSOC (Feb. 4, 2015), <http://www.treasury.gov/initiatives/fsoc/rulemaking/Documents/Notice%20Seeking%20Comment%20on%20Asset%20Management%20Products%20and%20Activities.pdf>; *Notice Seeking Comment on Asset Management Products and Activities*, 79 Fed. Reg. 77488 (Dec. 24, 2014). The SEC is also currently working on regulatory initiatives regarding the asset management industry. These recent developments are not incorporated in the analysis herein.

arenas. It is, therefore, timely and relevant to revisit potential systemic risks presented by the hedge funds through their multiple roles in the shadow banking system. The challenge lies in maintaining focus on potential outstanding risks despite waning public support.

This Article aims to fill a gap in the existing regulatory discourse by synthesizing select topics mirroring the voluminous literature on the GFC (and the resulting regulatory reforms) and reframing these complexities in a simplified regulatory policy paradigm for hedge funds. This is achieved by reducing the events from the GFC to the consequences associated with trade-offs, at the root of which is the pivotal balance between free market and government intervention. In the period preceding the crisis, regulatory decisions were filtered through the lens of the Efficient Market Hypothesis.<sup>10</sup> Consequently, ensuring competitive financial markets became a priority in the policy agenda. The growth of market-based finance that improved market efficiency also brought new risks to global financial stability. However, such trade-offs—or at least the extent of the trade-offs—were blurred by the complexity of the financial system at the run-up to the crisis. Furthermore, choices were often made with reckless disregard by parties with the most to gain. In the end, binging on the feast of financial innovations brought the global economy to face a banquet of consequences.<sup>11</sup>

The GFC underscored vulnerabilities in the global financial system from greed, fear and panic, which set in motion the irrational exuberance for the asset bubble and the subsequent downward spiral of the financial markets. In its wake, it highlighted the need to address competitive, practical and political realities as support for regulation waxes and wanes in the reform process. This Article's proposed policy paradigm follows a targeted and balanced formula for reforms that reflects critical lessons from

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10. Limited regulatory intervention is needed in efficient markets as the Efficient Market Hypothesis (EMH) states “security prices fully reflect all available information.” See Eugene F. Fama, *Efficient Capital Markets: II*, 46 J. FIN. 1575 (1991). Accordingly, the regulators’ over-reliance on the assumptions of the EMH has been attributed as one of the causes of the GFC. See UK FIN. SERVS. AUTH., THE TURNER REVIEW: A REGULATORY RESPONSE TO THE GLOBAL BANKING CRISIS 39 (2009) [hereinafter TURNER REVIEW], available at [http://www.fsa.gov.uk/pubs/other/turner\\_review.pdf](http://www.fsa.gov.uk/pubs/other/turner_review.pdf) (“The predominant assumption behind financial market regulation—in the US, the UK and increasingly across the world—has been that financial markets are capable of being both efficient and rational and that a key goal of financial market regulation is to remove the impediments which might produce inefficient and illiquid markets”). Note, however, a less critical view on EMH’s role in the GFC: “the claim that [EMH] is responsible for the current worldwide crisis seems wildly exaggerated.” See Ray Ball, *The Global Financial Crisis and the Efficient Market Hypothesis: What Have We Learned*, 21 J. APPLIED CORP. FIN. 8 (2009).

11. Paraphrasing the quote by Robert Louis Stevenson: “Everybody, soon or late, sits down to a banquet of consequences.”

the GFC and builds on developments in the international soft law system.<sup>12</sup> As such, this Article offers a conceptual experiment for an adaptive regulatory mechanism to navigate evolving hedge fund industry specific issues and trends. It envisions the analysis of a spectrum of potential risks and regulatory responses along continuums using the Regulatory Continuum Matrix (RCM)<sup>13</sup>.

The RCM can serve as a tool for ongoing monitoring of hedge funds' potential systemic risk. This process reframes the multi-layered and complex issues of hedge fund regulation into basic regulatory trade-offs in need of rebalancing, while bridging the intangible human foibles involved in such decision-making. Considering these issues as combinations of trade-offs allows for a comprehensive, adaptable, and comparable view to assess and rebalance policy choices across regulatory continuums of intensity and prescriptiveness. It also takes into account the practical and political limitations of regulation. This simplified approach to systemic risk mitigation is more accessible to the general public and can help cultivate vigilance through thriving market periods and combat a natural tendency for complacency. In doing so, the proposed regulatory mechanism originates a distinctive contribution to the ever-growing scholarship of post-crisis regulatory reforms.<sup>14</sup>

The Article proceeds as follows. Part I begins with an introduction on the hedge fund industry, followed by a brief reflection on the GFC and a high-level overview of post-crisis financial reforms. It further examines the role of systemic risk and shadow banking in the GFC, and their implications for hedge fund regulation, concluding with the regulatory objective and agenda for the proposal herein. Part II addresses the normative basis for the hedge fund policy paradigm as a synthesis of post-crisis lessons, international soft law system, principles-based regulation (PBR) and inclusive capitalism. It then sets forth the four steps of the paradigm in meeting the stated regulatory objective. Part III proposes the regulatory mechanisms in implementing such policy paradigm for on-going monitoring and assessment of hedge funds' potential contribution to systemic risks via the shadow banking system. It illustrates the application of the RCM to evaluate recommendations for the mitigation of bank-like

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12. See, e.g., Michael S. Piowar, Comm'r, SEC, Remarks at AIMA Global Policy & Regulatory Forum (Mar. 6, 2014), available at <http://www.sec.gov/News/Speech/Detail/Speech/1370540888843#.VKg8Hmo5DX5> (discussing the critical role of international engagement).

13. For description, analysis and application of the RCM, see *infra* Parts II.B and III.D.

14. Admittedly, the underpinnings for this proposal are well-established notions and discernible from the events of the GFC, but I submit that their synthesis here is novel and necessary to meet hedge funds' regulatory challenges ahead.

“runs” presented by collective investment vehicles (CIVs)<sup>15</sup> in the shadow banking system. Finally, Part IV posits the prospects and challenges of the RCM.

## I. REGULATORY REFORM ANALYSIS: HEDGE FUNDS AND SYSTEMIC RISK IN THE SHADOW BANKING SYSTEM

### A. HEDGE FUND INDUSTRY

The makeup and characteristics of hedge funds are significant to understand the analysis of their regulation. To begin, as commonly acknowledged, there is no universal definition of “hedge funds.”<sup>16</sup> Discussions are generally based on a set of shared characteristics, most notably by their previously unregulated status. Since the introduction of hedge fund regulations, the term has been defined for specific statutory purposes. For example, in the United States, Form PF defines “hedge fund” to include “any private fund having any one of these three common characteristics: (a) a performance fee that takes into account market value (instead of only realized gains); (b) high leverage; or (c) short selling.”<sup>17</sup> On the international level, the International Organization of Securities Commissions (IOSCO) developed identification guidelines for hedge funds<sup>18</sup> to cover funds that (i) are considered hedge funds under local law, (ii) declare themselves to be one, or (iii) display a combination of some of the following characteristics: “(a) use of leverage; (b) performance fees

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15. FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING: POLICY FRAMEWORK FOR STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING ENTITIES 6 n.11 and accompanying text (2013) [hereinafter FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES], *available at* [http://www.financialstabilityboard.org/publications/r\\_130829c.pdf](http://www.financialstabilityboard.org/publications/r_130829c.pdf) (defining CIVs to “include investment vehicles/funds/accounts established for pooling client assets for one or more than one investors”).

16. *See* BD. OF IOSCO, REPORT ON THE SECOND IOSCO HEDGE FUND SURVEY 4 (2013) [hereinafter SECOND IOSCO HEDGE FUND SURVEY], *available at* <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD427.pdf> (reiterating the lack of a globally agreed upon definition of a “hedge fund”). *See also* TECHNICAL COMM., IOSCO, HEDGE FUNDS OVERSIGHT: FINAL REPORT 4 (2009) [hereinafter IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT], *available at* <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD293.pdf>.

17. Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, Investment Advisers Act Release No. 3308, 2011 WL 5130051, at \*22–23, (Oct. 31, 2011), *available at* <http://www.sec.gov/rules/final/2011/ia-3308.pdf> (note that such definition is limited to the purposes of Form PF, and also adopted for Form ADV). For the full definition of “hedge fund”, see SEC, OMB No. 3235-0679, FORM PF: REPORTING FORM FOR INVESTMENT ADVISERS TO PRIVATE FUNDS AND CERTAIN COMMODITY POOL OPERATORS AND COMMODITY TRADING ADVISORS Glossary of Terms 4 (2011) [hereinafter FORM PF], *available at* <https://www.sec.gov/rules/final/2011/ia-3308-formpf.pdf>.

18. *See* SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16, at 4.



based on unrealized gains;<sup>19</sup> (c) complex strategies, which may include use of derivatives, short selling, high frequency trading and/or the search for absolute returns; and (d) tendency to invest in financial rather than physical assets.”<sup>20</sup> These distinguishing features have regulatory implications for the industry as discussed in Part III.<sup>21</sup> For purposes of this Article, references to “hedge funds” encompass the broader group as described in the foregoing IOSCO guidelines.

Hedge funds began as funds that sought absolute return by taking risks that others would pay a premium for and hedging those risks that were not compensated. Characteristically, a wide range of strategies is utilized to find such risk-return relationships. While there are general categorizations of hedge funds by their trading strategies, data consistency is difficult to obtain due to their heterogeneity.<sup>22</sup> Since the use of leverage differs with the investment strategy, this highlights one data challenge to effective regulation.<sup>23</sup> The active trading style and use of complex derivatives in hedge fund investment strategies further expand and deepen hedge funds’ footprint in the financial markets.<sup>24</sup> For example, hedge funds held an

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19. Their typical compensation is 2% annual and 20% of the increase in the value of assets under management.

20. FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 28 n.35 (adopting IOSCO’s guidelines to define collective investment schemes with a combination of such characteristics as hedge funds).

21. For an analysis of their implications for the SBRC and RIC evaluation, see *infra* Part III.A, B. See also *infra* note 116 (describing hedge fund characteristics with risk amplifying effects).

22. Findings vary depending on the source. For different classifications of hedge fund segments, see *Hedge Fund Strategies: An Overview of the Various Investment Strategies Offered by Hedge Funds in the Marketplace Today*, HEDGEFUND FUNDAMENTALS.COM, [http://www.hedgefundfundamentals.com/wp-content/uploads/2012/12/HFF\\_HedgeFund\\_Strategies\\_11-2012.pdf](http://www.hedgefundfundamentals.com/wp-content/uploads/2012/12/HFF_HedgeFund_Strategies_11-2012.pdf) (last visited Jan. 3, 2015); ALEXANDER INEICHEN, AIMA’S ROADMAP TO HEDGE FUNDS—2012 EDITION 97–98 (2012) [hereinafter AIMA ROADMAP], available at <http://www.altervest.ca/french/pdf/AIMA2012.pdf>; THECITYUK, FINANCIAL MARKETS SERIES: HEDGE FUNDS 4–5, 4 Chart 9 (2013), available at <http://www.thecityuk.com/research/our-work/reports-list/hedge-funds-2013> [hereinafter THECITYUK]. Note, however, that despite such different hedge fund classifications, long/short equity funds composed the largest category, between 44% and 30%, depending upon its definition among these sources.

23. See FIN. STABILITY OVERSIGHT COUNCIL, 2014 ANNUAL REPORT 85 (2014), available at <http://www.treasury.gov/initiatives/fsoc/Documents/FSOC%202014%20Annual%20Report.pdf> [hereinafter FSOC 2014 ANNUAL REPORT] (noting financial leverage differences among investment strategies). See also OFR, 2014 ANNUAL REPORT 114 (2014), available at <http://financialresearch.gov/annual-reports/files/office-of-financial-research-annual-report-2014.pdf> (noting data challenges in considering the relative use of leverage across different hedge fund strategies based on data reported through Form PF as of May 2014).

24. See, e.g., *Regulating Hedge Funds and Other Private Investment Pools: Hearing Before the Subcomm. on Securities, Insurance, and Investment of the U.S. Sen. Comm. on Banking, Housing, and Urban Affairs*, 111th Cong. 34 (2009) (statement of Andrew J. Donohue), available at <http://www.gpo.gov/fdsys/pkg/CHRG-111shrg54883/pdf/CHRG-111shrg54883.pdf> (noting that hedge funds “reportedly account for 18-22% of all trading on the New York Stock

estimated 60% of the positions in credit derivatives preceding the crisis,<sup>25</sup> providing channels for the transmission of systemic risk.

Due to application of different measures and time frames, estimates of hedge fund industry size are inexact and difficult to compare. Nevertheless, by all accounts, the industry is rebounding from the crisis.<sup>26</sup> According to *HFR Global Hedge Fund Industry Report*, global hedge fund capital experienced “the highest calendar year of inflows since 2007” to reach a record of \$2.85 trillion at the end of 2014.<sup>27</sup> In comparison, data from the Securities and Exchange Commission (SEC) measures hedge funds’ “regulatory assets under management” (RAUM), which accounts for financial leverage used and results in a higher industry total.<sup>28</sup> As of May 7, 2014, total RAUM for all U.S. hedge fund filers was \$5.006 trillion and was \$4.046 trillion for the “qualifying hedge funds,”<sup>29</sup> both up from the previous

Exchange”). *See also* MCKINSEY & CO., THE NEW POWER BROKERS: HOW OIL, ASIA, HEDGE FUNDS, AND PRIVATE EQUITY ARE SHAPING GLOBAL CAPITAL MARKETS 110 Exhibit 4.10 (2007) [hereinafter 2007 MCKINSEY REPORT], available at [http://www.mckinsey.com/insights/global\\_capital\\_markets/how\\_the\\_new\\_power\\_brokers\\_are\\_shaping\\_global\\_capital\\_markets](http://www.mckinsey.com/insights/global_capital_markets/how_the_new_power_brokers_are_shaping_global_capital_markets) (citing estimates of 35-50% of share of trading on NYSE and LSE).

25. 2007 MCKINSEY REPORT, *supra* note 24, at 109–11.

26. *See e.g.*, THECITYUK, UK FUND MANAGEMENT 2014: AN ATTRACTIVE PROPOSITION FOR INTERNATIONAL FUNDS 16, 16 fig.15 [hereinafter THECITYUK 2014], available at <http://www.thecityuk.com/research/our-work/reports-list/uk-fund-management-2014/> (stating that hedge funds’ assets under management at 2013 year end totaled \$2.3 trillion, “surpassing for the first time the pre-crisis peak in 2007”); IOSCO, SECURITIES MARKETS RISK OUTLOOK: 2013-14 45 (2013) [hereinafter IOSCO, SECURITIES MARKETS RISK OUTLOOK], available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD426.pdf> (noting suggestions of growing demand for hedge funds based on market intelligence); FIN. STABILITY OVERSIGHT COUNCIL, 2013 ANNUAL REPORT 96 (2013) [hereinafter FSOC 2013 ANNUAL REPORT], available at <http://www.treasury.gov/initiatives/fsoc/Documents/FSOC%202013%20Annual%20Report.pdf>; FSOC 2014 ANNUAL REPORT, *supra* note 23, at 85.

27. Press Release, Hedge Fund Research, Inc., Hedge Funds Conclude 2014 with Inflows as Investors Position for Volatility (Jan. 20, 2015) [hereinafter HFR January 2015], available at [https://www.hedgefundresearch.com/pdf/pr\\_20150120.pdf](https://www.hedgefundresearch.com/pdf/pr_20150120.pdf). Previously, global hedge fund assets under management exhibited seven consecutive quarterly records to close at \$2.70 trillion in the first quarter of 2014. Press Release, Hedge Fund Research, Inc., Strong Inflows Drive Hedge Fund Capital to New Record in 1Q14 (Apr. 21, 2014) [hereinafter HFR April 2014], available at [https://www.hedgefundresearch.com/pdf/pr\\_20140421.pdf](https://www.hedgefundresearch.com/pdf/pr_20140421.pdf). The estimated global industry is smaller according to IOSCO, at \$2.2 trillion in the first quarter of 2014. IOSCO, SECURITIES MARKETS RISK OUTLOOK 2014-2015 25, 26 fig.18 (2014) [hereinafter IOSCO, 2014-15 RISK OUTLOOK], available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD453.pdf>. *See also* SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16, at 4, 12 n.22, 14 (reporting results for “qualifying funds” of approximately \$1.94 trillion total assets under management (AUM) as of September 2012, which is limited to funds with total global net asset value above US \$500 million).

28. RAUM is calculated pursuant to Form PF, part of hedge funds’ new disclosure requirements. *See generally* Form PF, *supra* note 17, Glossary of Terms at 8 (prescribing calculation of hedge funds’ RAUM in accordance with Part 1A, Instruction 5.b of Form ADV).

29. SEC, ANNUAL STAFF REPORT RELATING TO THE USE OF DATA COLLECTED FROM PRIVATE FUND SYSTEMIC RISK REPORTS app. A at 2–3 (2014) [hereinafter SEC

year.<sup>30</sup> The United States and United Kingdom remain the top two hedge fund centers, with the United States representing approximately 76% of the global total according to IOSCO's 2013 Hedge Fund Survey.<sup>31</sup>

In general, the global hedge fund industry has increased more than three fold over the past decade.<sup>32</sup> Based on the UK FCA 2014 Hedge Fund Survey, managers of hedge fund assets comprised the third largest type (behind real estate and private equity) among the global top 100 managers of alternative investments in early 2013,<sup>33</sup> even though the hedge fund industry is small compared to the conventional fund industries.<sup>34</sup> Further, the number of hedge funds has continued to recover with new hedge funds outpacing fund closures from 2010.<sup>35</sup> Estimates on the number of funds also vary depending on the survey's parameters.<sup>36</sup> According to the May 2013 hedge funds report by TheCityUK, global hedge funds totaled around

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STAFF REPORT ON FORM PF DATA 2014], available at <http://www.sec.gov/reportspubs/special-studies/im-private-fund-annual-report-081514.pdf> (covering funds over \$150 million in the first instance and those over \$500 million, classified as "qualifying hedge funds").

30. SEC, ANNUAL STAFF REPORT RELATING TO THE USE OF DATA COLLECTED FROM PRIVATE FUND SYSTEMIC RISK REPORTS 6 (2013) [hereinafter SEC STAFF REPORT ON FORM PF DATA 2013], available at <http://www.sec.gov/news/studies/2013/im-annualreport-072513.pdf> (reporting on corresponding data as of May 15, 2013).

31. SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16, at 4, 13 n.22, 14. See also THECITYUK 2014, *supra* note 26, at 16 (noting New York as the first, followed by London as the second largest global center for hedge fund managers with an 18% share in 2013).

32. See THECITYUK, *supra* note 22, at 2 Chart 1 (charting the global hedge fund assets under management between 2002 and 2012, which totaled over \$2,050 billion as of the end of 2012); FIN. CONDUCT AUTH. (FCA), HEDGE FUND SURVEY 10, 10 fig.3 (2014) [hereinafter FCA HEDGE FUND SURVEY 2014], available at <http://www.fca.org.uk/static/documents/hedge-fund-survey.pdf>; IOSCO, 2014-15 RISK OUTLOOK. *supra* note 27, at 25, 26 fig.18 (finding that "[t]he global assets under management of hedge funds grew from \$825 billion in 2003 to \$2.2 trillion in the first quarter of 2014").

33. See FCA HEDGE FUND SURVEY 2014, *supra* note 32, at 11, 11 fig.4.

34. See Michael R. King & Philipp Maier, *Hedge Funds and Financial Stability: Regulating Prime Brokers Will Mitigate Systemic Risks*, 5 J. FIN. STABILITY 283, 285 tbl.1 (2009) (finding that "hedge funds represent only 1.5% of the total funds and assets of other financial institutions, rising to 2.2% when applying market estimates of average gross market exposures of 150%"—based on data comparison for size of hedge funds relative to pension funds, mutual funds, insurance companies and banks from 1998 to 2007). See also THECITYUK 2014, *supra* note 26, at 14 (estimating global assets of hedge funds at year end 2013 at \$2.3 trillion compared to the \$97.2 trillion in global assets represented by pension funds, mutual funds and insurance companies).

35. See THECITYUK, *supra* note 22, at 2 Chart 4, 2–3. Note, however, that new hedge fund launches have slowed in the third quarter of 2014, falling to 240, against 200 hedge fund liquidations in the same period. See Press Release, Hedge Fund Research, Inc., Hedge Fund Launches Slow as Assets, Global Equities Reach Record Levels (Dec. 11, 2014), at 1, available at [https://www.hedgefundresearch.com/pdf/pr\\_20141211.pdf](https://www.hedgefundresearch.com/pdf/pr_20141211.pdf).

36. E.g., IOSCO's hedge fund survey comprises "qualifying hedge funds" of AUM over \$500 million, whereas the Form PF filings use a number of materiality thresholds, with the lowest set at \$150 million RAUM. See SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16, at 12, 14; SEC STAFF REPORT ON FORM PF DATA 2014, *supra* note 29, app. A at 2–3.

10,100 at the end of 2012,<sup>37</sup> with a slight increase to 10,300 at 2013 year end.<sup>38</sup> In the United States, the SEC reports of filings from 7,790 hedge funds as of May 7, 2014,<sup>39</sup> up from 6,683 hedge funds as of May 15, 2013.<sup>40</sup>

The industry growth trend also suggests that it is becoming more concentrated.<sup>41</sup> The composition of the hedge fund sector is dominated by large funds, with the 100 largest hedge funds controlling 61% of assets under management (AUM) in 2012, while the majority of the funds are small, with 76% of funds managing less than \$200 million as of January 2013.<sup>42</sup> In addition, there is vast disparity between the AUM of the largest hedge funds and the majority of the funds.<sup>43</sup> Data comparison between 2008 and 2013 year end shows a continuing trend for growth concentration in large funds, with firms of greater than \$5 billion AUM exhibiting asset growth of 127% compared to 15% for firms with less than \$1 billion AUM.<sup>44</sup> A one-size-fits-all regulatory approach is ill-suited in light of these characteristics. Instead, a flexible and risk-based approach is necessary for problem detection, prevention, and regulatory resource allocation. Proportionate regulation of hedge funds may also be appropriate given its

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37. Compare THECITYUK, *supra* note 22, at 3, with SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16, at 13 (with a global estimate of 1,044 “qualifying hedge funds” of AUM over \$500 million).

38. THECITYUK 2014, *supra* note 26, at 16.

39. SEC STAFF REPORT ON FORM PF DATA 2014, *supra* note 29, app. A at 2–3, 3 n.4 (representing hedge fund filers with at least \$150 million in RAUM, compared to the 1,326 “Qualifying Hedge Funds” with net asset value of at least \$500 million).

40. SEC STAFF REPORT ON FORM PF DATA 2013, *supra* note 30, at 6 (representing hedge fund filers with at least \$150 million in RAUM, compared to the 1,169 “Qualifying Hedge Funds” with net asset value of at least \$500 million).

41. *See id.* at 6.

42. THECITYUK, *supra* note 22, at 5 Chart 13, 6 (illustrating the growth in concentration of funds with AUM greater than \$200 million between 2007 and 2013). *See also* FCA HEDGE FUND SURVEY 2014, *supra* note 32, at 14 (indicating a high concentration ratio, with the “20 largest firms control[ing] 82% of the sample’s NAV (net AUM)”, which ratio increases to 94% when considered at the fund level, based on the 2014 survey sample of 49 UK firms); *id.* at 9 (parameters of the survey).

43. *See* THECITYUK, *supra* note 22, at 6, tbl.2 (finding the 2012 top 10 hedge funds by size of AUM range from \$76.1 billion to \$23.2 billion, creating a large gap between the largest fund and the majority of the industry at AUM of less than 200 million).

44. CITI INVESTOR SERVS., OPPORTUNITIES AND CHALLENGES FOR HEDGE FUNDS IN THE COMING ERA OF OPTIMIZATION—PART I: CHANGES DRIVEN BY THE INVESTOR AUDIENCE 19 (2014) [hereinafter CITI REPORT, PART 1], available at [http://www.citibank.com/icg/global\\_markets/prime\\_finance/docs/Opportunities\\_and\\_Challenges\\_for\\_Hedge\\_Funds\\_in\\_the\\_Coming\\_Era\\_of\\_Optimization.pdf](http://www.citibank.com/icg/global_markets/prime_finance/docs/Opportunities_and_Challenges_for_Hedge_Funds_in_the_Coming_Era_of_Optimization.pdf) (citing data from Hedge Fund Research, Inc.). For data on the distribution of capital inflow in 2014, see HFR April 2014, *supra* note 27, at 3 (noting that approximately half of the capital inflow in the first quarter of 2014 was allocated to hedge fund firms with greater than \$5 billion in AUM). This trend continued in respect of net capital inflows at 2014 year end, with \$38.7 billion of the total \$76.3 billion net inflow received by firms with greater than \$5 billion. *See* HFR January 2015, *supra* note 27, at 2–3.

industry makeup, which would help alleviate compliance hardships for the smaller funds.

The preceding overview of the hedge fund industry illustrates informational impediments to assess its growth and trends, as well as regulatory challenges resulting from the industry makeup and the complex and diverse investment strategies involved. These aspects will be further considered in the context of hedge fund and shadow banking trends to determine the appropriate regulatory policy. In order to do so, an understanding of issues meriting government intervention is needed, which is achieved by revisiting the GFC.

## B. RETROSPECTIVE ON THE GFC: CAUSES AND LESSONS

The speed, breadth, and severity of the GFC's impact left the world stunned. The GFC began in the United States with concerns about subprime loans in 2006, which grew into a credit crisis by 2007. With massive loss of confidence sparked by the bankruptcy of Lehman Brothers in 2008, it morphed into a financial crisis that spread globally and transmitted financial system problems into the real economy.<sup>45</sup> In the end, unprecedented government intervention was undertaken to stabilize the markets, prevent the collapse of major banks, and rescue troubled institutions, notably AIG.<sup>46</sup> The magnitude of the GFC's economic costs, which one estimate placed at approximately \$12.8 trillion<sup>47</sup> in the United States, is a powerful reminder of the critical importance for the completion of financial reforms.<sup>48</sup>

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45. See TURNER REVIEW, *supra* note 10, at 27; Gary Gorton & Andrew Metrick, *Getting up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide*, 50 J. ECON. LITERATURE 128 (2012). See also ALAN S. BLINDER, AFTER THE MUSIC STOPPED 168 (2013) (describing how the Lehman bankruptcy triggered panic in the United States, crossing borders by October 2008).

46. For example, the Troubled Asset Relief Program (TARP) of \$700 billion and the Temporary Liquidity Guarantee Program (TLGP).

47. Luis A. Aguilar, Comm'r, SEC, Remarks at the SEC Open Meeting: Working to Increase Transparency and Reduce Systemic Risks Caused by the Global Derivatives Market n.3 (May 1, 2013), available at <http://www.sec.gov/News/PublicStmt/Detail/PublicStmt/1370542573918> (citing to the September 15, 2012 report from Better Markets). See also U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-180, FINANCIAL REGULATORY REFORM: FINANCIAL CRISIS LOSSES AND POTENTIAL IMPACTS OF THE DODD-FRANK ACT 15-16 (2013), available at <http://www.gao.gov/assets/660/651322.pdf> (noting a range of losses stemming from the GFC between a few trillion to over \$10 trillion dollars).

48. For further discussion on the severity of the crisis and the evolution of the financial crisis into an economic recession, see HAL S. SCOTT, THE GLOBAL FINANCIAL CRISIS 2-9 (2009). See also INT'L MONETARY FUND, WORLD ECONOMIC OUTLOOK: CRISIS AND RECOVERY 63-71 (2009) (on the effects of the GFC on the U.S.), available at <http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/text.pdf>; *World Economic Outlook Update*, INT'L MONETARY FUND (Jan. 26, 2010), <http://www.imf.org/external/pubs/ft/weo/2010/update/01/pdf/0110.pdf> (updating the earlier IMF report).

The ever-growing volumes of research, commentaries and analyses conducted on the GFC provide ample examination of the causes and ramifications of this 21st Century style financial crisis.<sup>49</sup> The purpose here is not to reiterate or evaluate the rich body of work in this area. Instead, it is to discern certain relevance to hedge funds and the implications for their reform. Accordingly, the following overview of the financial crisis is focused on systemic risk dangers that underlie the basis of the proposed policy paradigm.

Although hedge funds have generally not been named as a cause of the GFC,<sup>50</sup> their presence is evident throughout its major events. The failure of two hedge funds sponsored by Bear Stearns in July 2007 sounded the first alarm of trouble. The subsequent run on Bear Stearns in March 2008 also involved its hedge fund customers and derivative counterparties.<sup>51</sup> The fragilities of market-based finance were exposed under stressed conditions, with a string of market failures seen in bank-like runs on non-banks, such as the run on money market funds (MMFs)<sup>52</sup> triggered by the Reserve Primary Fund “breaking the buck.”<sup>53</sup> Hedge funds found themselves on both sides of the runs. The Lehman failure exposed hedge funds’ vulnerability to prime brokers<sup>54</sup> as their re-hypothecated collateral became frozen or lost in the bankruptcy proceedings. This realization triggered a hedge fund run on the prime brokers.<sup>55</sup> Hedge funds also faced unprecedented runs by their own

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49. See generally THE FIN. CRISIS INQUIRY COMM’N (FCIC), THE FINANCIAL CRISIS INQUIRY REPORT—FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES (2011) [hereinafter FCIC REPORT], available at <http://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf>; TURNER REVIEW, *supra* note 10; JOSEPH E. STIGLITZ, FREEFALL—AMERICA, FREE MARKETS, AND THE SINKING OF THE WORLD ECONOMY 17 (2010) (finding the role of agency and externalities as two main reasons for the market failures); Stijn Claessens et. al., *Lessons and Policy Implications from the Global Financial Crisis* 9 (IMF, Working Paper WP/10/44, 2010) [hereinafter IMF, *Lessons and Policy Implications*], available at <http://www.imf.org/external/pubs/ft/wp/2010/wp1044.pdf>; BLINDER, *supra* note 45.

50. E.g., Houman B. Shadab, *Hedge Funds and the Financial Crisis*, MERCATUS ON POLICY, Jan. 2009, at 1, available at [http://mercatus.org/uploadedFiles/Mercatus/Publications/RSP\\_MOP34\\_Hedge\\_Funds\\_and\\_the\\_Financial\\_Crisis.pdf](http://mercatus.org/uploadedFiles/Mercatus/Publications/RSP_MOP34_Hedge_Funds_and_the_Financial_Crisis.pdf). See also *infra* note 111 and accompanying text on hedge funds’ role in the GFC.

51. FCIC REPORT, *supra* note 49, at 280.

52. Money market mutual funds are “open-ended mutual funds that invest in short-term securities . . . .” See TOBIAS ADRIAN & ADAM B. ASHCRAFT, SHADOW BANKING: A REVIEW OF LITERATURE 9 (2012), available at [http://www.newyorkfed.org/research/staff\\_reports/sr580.pdf](http://www.newyorkfed.org/research/staff_reports/sr580.pdf).

53. See *id.* (explaining that the term “breaking the buck” refers to a situation where a MMF’s net asset value (NAV) drops below \$1.00, the level of stable NAV it seeks to maintain).

54. See Jón Danielsson et al., *Highwaymen or Heroes: Should Hedge Funds Be Regulated? A Survey*, 1 J. FIN. STABILITY 522, 525 (2005) (explaining that hedge funds use prime brokers (generally major investment banks) to deal with most aspects of their transactions, including execution, settlements, clearing, leverage and risk management).

55. With the loss of confidence, hedge funds pulled their assets out of prime brokers in a flight to safety, such as FDIC-insured banks. Morgan Stanley became the target of a hedge fund run. See

investors, with 20% average redemption requests in the fourth quarter of 2008.<sup>56</sup> Forced asset sales were made to meet such high level of redemptions, which had further downward effects on stressed market prices. The recent financial crisis illustrated that interconnections in the secured financing markets greatly exacerbated market turmoil.

The events of the GFC have exposed risks embedded in our financial markets threatening financial system stability. For the purposes of regulatory analysis herein, the key sources of these risks can be summarized in a non-exhaustive list below:

- (1) non-transparency<sup>57</sup> and complexity;<sup>58</sup>
- (2) cross-market and cross-border spillovers from the global interconnected capital markets;<sup>59</sup>
- (3) unregulated or under-regulated entities, activities and products in the shadow banking system;<sup>60</sup>
- (4) outdated financial regulatory regime and resulting lack of effective oversight;<sup>61</sup> and
- (5) leverage<sup>62</sup> and unchecked incentives for excessive risk taking.<sup>63</sup>

Systemic risk is the common thread that runs through the GFC. The above factors contributed to risk build-up and the resulting contagion that imperil the stability of the entire financial system. As seen from hedge

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FCIC REPORT, *supra* note 49, at 360–361 (finding that on September 15, 2008, hedge funds requested about \$10 billion from Morgan Stanley, eventually growing to \$32 billion by the day after the AIG bailout).

56. *Id.* at 361.

57. See, e.g., *The Future of Financial Services Regulation: Hearing Before the H. Comm. on Fin. Services*, 110th Cong. 5 (2008) [hereinafter Stiglitz, Oct. 2008 Testimony], available at <http://archives.financialservices.house.gov/hearing110/stiglitz102108.pdf> (statement of Joseph Stiglitz) (naming non-transparency as a key cause of the crisis).

58. See, e.g., TURNER REVIEW, *supra* note 10, at 28 (referencing the complexity and opacity of the structured credit and derivatives system based on a misguided reliance on sophisticated mathematics).

59. *Id.* at 18 (identifying the increase of systemic risks that led to “an explosion of claims within the financial system, between banks and investment banks and hedge funds”).

60. Joseph Stiglitz, *Government Failure v. Market Failure*, in GOVERNMENT AND MARKETS—TOWARDS A NEW THEORY OF REGULATION 15–16 (Edward J. Balleisen & David A. Moss eds., 2010) (noting that the general trend of deregulation preceding the GFC coupled with the lack of new regulation to capture the expanding realms of the financial world formed one of the causes of the GFC).

61. See BLINDER, *supra* note 45, at 132 (citing observation by Ben Bernanke that AIG was operating a hedge fund but regulated as an insurance company); see also HOWARD DAVIES & DAVID GREEN, GLOBAL FINANCIAL REGULATION: THE ESSENTIAL GUIDE 231–232, 3 (2008) (arguing that the international regulatory system is out of date in keeping up with globalization and innovations of the capital markets).

62. IMF, *Lessons and Policy Implications*, *supra* note 49, at 9, 36 fig.11 (charting sharp increase in leverage from 2000 to 2008).

63. Stiglitz, Oct. 2008 Testimony, *supra* note 57, at 10 (arguing that the current system “encourages excessive risk taking, a focus on the short term, and bad accounting practices,” all of which contributed to the failure in the markets).

funds' footprints along many of these fault lines, this Article's position is that the primary post-crisis regulatory objective for the industry is to address how systemic risk may be generated or transmitted through its multi-dimensional role in the financial system.

Beyond identifying causes of the GFC, the regulatory design of reforms must also incorporate the revelations imparted to prevent another "credit tsunami"<sup>64</sup> down the road.<sup>65</sup> Guiding principles deduced from the lessons of the GFC provide a necessary overview and direction to develop a policy paradigm for financial reform generally, and in respect of hedge funds specifically herein. The following overarching lessons support regulatory intervention and guide the normative goals for the proposed hedge fund policy paradigm.

**Lesson 1: A macroprudential approach<sup>66</sup> is required to monitor and manage the sources, channels, and effects of systemic risks in the financial system as a whole.**

Regulation needs to go beyond the individual risks of the market participants to guard against threats to the stability of the financial system. This is because systemic risks may not necessarily be part of such market actors' risk management process.<sup>67</sup>

**Lesson 2: The regulatory approach needs to reflect what we have learned are false theoretical assumptions about financial markets being both efficient and self-correcting, and market participants being rational.**

Market fundamentalism<sup>68</sup> and assumptions of rationality proved to be flawed in light of the GFC.<sup>69</sup> Contrary to long held views on the merits of

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64. See *The Financial Crisis and the Role of Federal Regulators: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. 11 (2008) [hereinafter Greenspan, October 2008 Testimony], available at <https://house.resource.org/110/org.c-span.281958-1.pdf> (written testimony of Alan Greenspan, Former Federal Reserve Chairman) (referring to the GFC as a "once-in-a century credit tsunami").

65. See, e.g., TURNER REVIEW, *supra* note 10, at 92 (identifying GFC lessons that underscore the need to change prior regulatory philosophy).

66. See GENEVA REPORTS ON THE WORLD ECONOMY 11: THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION xvi (2009) [hereinafter GENEVA REPORTS, THE FUNDAMENTAL PRINCIPLES], available at <http://www.princeton.edu/~markus/research/papers/Geneva11.pdf> (differentiating microprudential regulation, focused on institutional safety, from macroprudential regulation, aimed to ensure system-wide stability). See also Luis I. Jácome & Eriend W. Nier, *Macroprudential Policy: Protecting the Whole*, FIN. & DEV., Mar. 2012, available at <http://www.imf.org/external/pubs/ft/fandd/basics/macroprou.htm> (explaining macroprudential regulation as a more systemic approach to financial regulation); IMF, OCTOBER 2014 REPORT, *supra* note 6, at 90 (advocating for a macroprudential approach to financial sector regulation).

67. See Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 198 (2008) (analogizing to the "tragedy of the commons" regarding the insufficient incentive that individual market participants have, absent regulation, to limit risk taking in the interests of systemic financial stability).

68. See GEORGE SOROS, *THE CRISIS OF GLOBAL CAPITALISM* xx (1998) (referring to the ideology that common interest is best served by the pursuit of individual self-interest in the self-



financial innovation and liquidity, more is not always better. The GFC demonstrated that “[i]ndividual behaviour is not entirely rational,”<sup>70</sup> and even if individual actors behave rationally, it does not ensure collective rationality.<sup>71</sup>

**Lesson 3: Market discipline needs appropriate incentives and effective oversight.**

Market discipline is impaired by human fragilities and misaligned incentives.<sup>72</sup> It has been suggested that the inability to anticipate shifts in collective human behavior of “unbridled optimism on the upside and fear on the downside,” as exacerbated by an environment of intense market competition, is the root cause of financial market excesses.<sup>73</sup>

**Lesson 4: The effectiveness of regulation is limited by regulatory resources and regulatory capture.**

Limited resources necessitate trade-offs in regulation and reliance on market discipline, which is bolstered by an effective regulatory relationship. Trust is essential to efficient market operation and in the regulatory relationship. The dangers of an out-matched regulator are heightened by regulatory capture. This can take many forms, including the “revolving door”<sup>74</sup> effect, or a “capture of ideas and mindsets.”<sup>75</sup> The varied perspectives in a robust “interpretive community”<sup>76</sup> can provide a useful

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correcting markets, without resorting to regulatory intervention, which may distort market mechanisms).

69. See Greenspan, October 2008 Testimony, *supra* note 64, at 9 (“Those of us who have looked to the self-interest of lending institutions to protect shareholders’ equity (myself especially) are in a state of shocked disbelief.”).

70. See TURNER REVIEW, *supra* note 10, at 41.

71. See *id.* at 40–41.

72. See John C. Coffee & Hillary A. Sale, *Redesigning the SEC: Does the Treasury Have a Better Idea?*, 95 VA. L. REV. 707, 781–82 (2009) (stating that two lessons learned from the GFC are that “the incentives for financial institutions to increase leverage in order to enhance profitability are strong” and that “in a bubbly market, it is easy to rationalize economizing on due diligence and professional standards”). See also IMF, *Lessons and Policy Implications*, *supra* note 49, at 20 (listing principles of regulatory design, including that “market discipline and supervision should complement each other”).

73. COUNTERPARTY RISK MANAGEMENT POLICY GROUP III, CONTAINING SYSTEMIC RISK: THE ROAD TO REFORM 7 (2008) [hereinafter CRMPG III REPORT], available at <http://www.crmpolicygroup.org/docs/CRMPG-III.pdf>. See also AIMA ROADMAP, *supra* note 22, at 65 n.4 (citation omitted) (describing human nature as the main cause of the GFC).

74. Referring to the situation where regulatory staff is motivated by employment opportunities at the regulated entities.

75. See JOSEPH STIGLITZ, COMM. OF EXPERTS OF THE PRESIDENT OF THE UN GEN. ASSEMBLY ON REFORMS OF THE INT’L MONETARY & FIN. SYS., PRINCIPLES FOR A NEW FINANCIAL ARCHITECTURE pt. II.B.11 (2009), available at <http://www.un.org/ga/president/63/commission/newfinancialarchitecture.pdf> (“If those who are supposed to regulate the financial markets approach the problem from financial markets’ perspectives, they will not provide an adequate check and balance.”).

76. For a discussion of the role of “interpretive community” in PBR, see *infra* note 404 and accompanying text.

counterbalance to the development of groupthink between the regulator and industry.

**Lesson 5: The structure and scope of financial regulation must address the dynamic nature of the markets and the political realities of swings between pro- and anti-regulation sentiments.**

Financial innovations are a certainty, and regulation must adapt and evolve with future developments.<sup>77</sup> Safeguards against the inevitable ebb of support for regulation are also needed to withstand shifts in political economy. In particular, increased opposition to market restraints from parties with vested interest and strong lobbying power can be expected as time passes.<sup>78</sup>

**Lesson 6: The national regulatory regime needs to address the global nature of financial markets and an international regulatory network will be critical to ensuring coordination and cooperation on such systemic issues.**

The globalized financial markets underscore the incongruity of regulatory cooperation and competition, yet another area in need of balance. Globalization has intensified competitive pressures for national financial markets and heightened potential for regulatory arbitrage as downsides to regulatory competition.<sup>79</sup> At the same time, international regulatory coordination and cooperation are essential for market integrity and stability of the interconnected global capital markets. An important lesson from the GFC is that international cooperation should be part of the domestic policies and global financial stability should be an objective on the national regulatory agenda. The role of soft law in the regulation of the global financial system is ascending and will present challenges given competing national interests and varying regulatory philosophy and approaches.

As noted above, the vulnerabilities exposed by the GFC demonstrate a requisite for addressing inherent limitations of regulation, including the lag behind financial innovations and susceptibility to industry capture and political influence.<sup>80</sup> Foibles of human nature and the impact of “animal spirits”<sup>81</sup> on previous assumptions about rational behavior cannot be

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77. See, e.g., Patrick Jenkins, *Investment Banks Try to Cushion Rule Changes*, FIN. TIMES (Apr. 11, 2010), <http://www.ft.com/cms/s/0/b6e57828-4588-11df-9e46-00144feab49a.html> (noting development of new products to circumvent regulatory changes).

78. See IMF, *Lessons and Policy Implications*, *supra* note 49, at 28–29, 29 n.15 (raising caution of intense efforts by the financial industry to protect their interests against reform).

79. See generally Ethiopis Tafara & Robert J. Peterson, *A Blueprint for Cross-Border Access to U.S. Investors: A New International Framework*, 48 HARV. INT'L L.J. 31, 36, 52 (2007) (discussing the effects of regulatory competition and proposing a state of healthy regulatory competition).

80. IMF, *Lessons and Policy Implications*, *supra* note 49, at 20.

81. For a discussion on “animal spirits” and their part in the GFC, see Robert J. Shiller, *Animal Spirits Depend on Trust*, WALL ST. J., Jan. 27, 2009, available at <http://online.wsj.com/article/SB123302080925418107.html>.

ignored. As well, after the massive government bailouts, inappropriate incentives for risk-taking arising from moral hazard are greater than ever. An effective policy paradigm to monitor and manage systemic risks must address both tangible and intangible sources identified in the guiding principles.

### C. FINANCIAL REFORMS AND THE ROAD AHEAD: HEDGE FUNDS, SYSTEMIC RISK AND SHADOW BANKING

This Part I.C. examines the post-GFC concerns in safeguarding global financial stability, specifically, potential systemic risks that may arise from hedge funds' activities in the shadow banking system. The following analysis further contributes to the development of hedge fund regulatory objective and agenda established later in Part I.D.3. To be sure, the international soft law system is a prominent feature of the post-crisis reform efforts and will continue to be a key component of future financial regulatory policy to address systemic risk threats in the shadow banking sector.<sup>82</sup>

#### 1. Post-GFC Financial Reforms

Given the severity of the GFC, extensive regulatory reforms have been introduced and continue to be in progress to address the fault lines exposed, primarily focused on systemic risk dangers.<sup>83</sup> This reformed regulatory landscape includes hedge fund specific changes,<sup>84</sup> such as those outlined by the Group of Twenty (G20).<sup>85</sup> In alignment with G20's overarching reform

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82. See *infra* Part II.A.2 for discussion of the role of soft law in the post-crisis financial system.

83. From the start of the G20 summits on financial reforms, identification and mitigation of systemic risks has been an overarching goal. See G20 LEADERS, DECLARATION—SUMMIT ON FINANCIAL MARKETS AND THE WORLD ECONOMY (2008) [hereinafter G20 WASHINGTON DECLARATION], available at [https://www.g20.org/sites/default/files/g20\\_resources/library/Washington\\_Declaration\\_0.pdf](https://www.g20.org/sites/default/files/g20_resources/library/Washington_Declaration_0.pdf). On the domestic front, national supervisors were established to address threats from systemic risks. For example, in the United States, the FSOC was created under Title I of the Dodd-Frank Act, charged with responsibilities relating to systemic risks. Similarly, the UK Financial Policy Committee at the Bank of England was established to address systemic risk issues.

84. Given space constraints and the extensive post-crisis reforms, this Article is focused on hedge fund specific changes, with only cursory mention of the general post-crisis regulatory landscape here. For an overview of hedge funds' post-GFC regulatory environment, see *infra* Part I.D.2. For a brief summary of financial regulatory reform progress and outstanding issues, see Janet L. Yellen, Chair, Bd. of Governors of the Fed. Reserve Sys., Address at the International Monetary Conference: Regulatory Landscapes: A U.S. Perspective (June 2, 2013), available at <http://www.federalreserve.gov/newsevents/speech/yellen20130602a.htm>.

85. See G20 WASHINGTON DECLARATION, *supra* note 83 (setting out common principles for financial market reforms, together with an action plan and the policies to be implemented consistent with these principles). For more discussion on G20 and such post-crisis reforms, see *infra* Part I.D.2 and Part II.A.2. The G20 Finance Ministers and Central Bank Governors is a

goals, the Dodd-Frank Act is the centerpiece of post-crisis regulatory reforms in the United States.

The G20 has championed a coordinated international response to the GFC. Since the first G20 Washington Summit on Financial Markets and The World Economy on November 15, 2008 (Washington Summit), substantial progress has been made pursuant to the G20's reform agenda to strengthen the financial system, notably in improving the resilience of banks by fortifying their capital and liquidity under the new global regime of Basel III and addressing the "too-big-to-fail" problem and moral hazard risks posed by systemically important financial institutions (SIFI),<sup>86</sup> including the designation of Global-SIFIs (G-SIFI).<sup>87</sup>

On the domestic front, the Dodd-Frank Act introduced sweeping changes to the financial regulatory landscape in the United States to remedy areas that exhibited failures with systemic effects. This includes, among others, addressing potential systemic risks within the banking sector through the Volcker Rule,<sup>88</sup> and extending federal oversight in respect of certain financial market utilities, market participants and products, like non-bank financial institutions and swaps/derivatives.<sup>89</sup> Systemic risk is prominently addressed in Title I of the Dodd-Frank Act, creating the

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forum to facilitate dialogue and cooperation for industrial and emerging-market countries to discuss key issues in the global economy, particularly in respect of global economic stability since the GFC. *See About G20*, <https://g20.org/about-g20/> (last visited Mar. 21, 2015).

86. The FSB defines SIFIs as "financial institutions whose distress or disorderly failure, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity". *See Policy Measures to Address Systemically Important Financial Institutions*, FIN. STABILITY BD. § 3 (Nov. 4, 2011), [http://www.financialstabilityboard.org/wp-content/uploads/r\\_111104bb.pdf?page\\_moved=1](http://www.financialstabilityboard.org/wp-content/uploads/r_111104bb.pdf?page_moved=1). For further outline of reforms regarding the FSB's SIFI framework, see FSB, PROGRESS AND NEXT STEPS TOWARDS ENDING "TOO-BIG-TO-FAIL" (TBTF): REPORT OF THE FINANCIAL STABILITY BOARD TO THE G-20 (2013), available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_130902.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_130902.pdf).

87. *See* G20 WASHINGTON DECLARATION, *supra* note 83. The G20 reform agenda also included fortifying financial market infrastructure to reduce systemic risks by broadening the scope of regulation and overhauling the over-the-counter ("OTC") derivatives markets to increase transparency and standardization. *See* Press Release, Fin. Stability Bd., Financial Stability Board Publishes Reports on Implementation of OTC Derivatives Market Reforms (April 8, 2014), available at [http://www.financialstabilityboard.org/press/pr\\_140408.pdf](http://www.financialstabilityboard.org/press/pr_140408.pdf).

88. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 619, 124 Stat. 1376 (2010) (prescribing banking structural reforms to safeguard core banking activities from the more risky wholesale and investment business, commonly referred to as the "Volcker Rule", and setting out prohibitions of short-term proprietary trading for the firm's own account and limitations on investments and other relationships with hedge funds and private equity funds).

89. For general summary of reforms under the Dodd-Frank Act, see *Dodd-Frank Resource Center*, DAVIS, POLK & WARDWELL LLP, <http://www.davispolk.com/dodd-frank/> (last visited Jan. 3, 2015).

Financial Stability Oversight Council (FSOC)<sup>90</sup> charged with the monitoring and management of potential threats to the financial system, among other mandates.<sup>91</sup> A principal authority of the FSOC is the designation of SIFIs.<sup>92</sup> Such designation entails supervision by the Federal Reserve and is subject to enhanced prudential standards,<sup>93</sup> such as leverage and capital requirements. The FSOC and FSB's ongoing work on the assessment methodologies for identifying non-bank, non-insurer G-SIFI (NBNI G-SIFI) will be particularly relevant to future hedge fund regulation,<sup>94</sup> and provides a possible application for the proposed RCM.<sup>95</sup> Much consideration remains on how to identify such systemically important entities and what prudential requirements should apply.<sup>96</sup>

With the completion of new prudential standards under Basel III, attention is now focused on the potential dangers outstanding, and likely heightened as a result, in the lesser-regulated parallel banking system.<sup>97</sup> Systemic risk mitigation continues to be a primary goal of the financial reforms in progress with the focus shifted to risks from non-bank entities,

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90. Dodd-Frank Wall Street Reform and Consumer Protection Act, Title I, Subtitle A, § 111(a).

91. *Id.* § 112(a). The FSOC is also mandated to promote market discipline and respond to emerging threats to the stability of the U.S. financial system. Note that the Office of Financial Research (OFR) was also created under Section 152 to support the FSOC by providing financial data and research.

92. For general information on SIFI designations by the FSOC, see *Financial Stability Oversight Council: Designations*, U.S. DEP'T OF THE TREASURY, <http://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx> (last visited Mar. 21, 2015).

93. Dodd-Frank Wall Street Reform and Consumer Protection Act, § 113. See also FSOC 2013 ANNUAL REPORT, *supra* note 26, at 129 (noting the three-stage process for the determination of non-bank SIFIs).

94. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9 (describing NBNI financial sector-specific methodologies, including hedge funds as part of the investment fund sector in Section 6). Assessment methodologies have been established for global systemically important banks (G-SIBs) and insurers (G-SIIs). See e.g., BANK FOR INT'L SETTLEMENTS, GLOBAL SYSTEMICALLY IMPORTANT BANKS: UPDATED ASSESSMENT METHODOLOGY AND THE HIGHER LOSS ABSORBENCY REQUIREMENTS (2013), available at <http://www.bis.org/publ/bcbs255.pdf>; INT'L ASSOC. OF INS. SUPERVISORS, GLOBAL SYSTEMICALLY IMPORTANT INSURERS: INITIAL ASSESSMENT METHODOLOGY (2013), available at <http://www.fsa.go.jp/inter/iai/20130719/05.pdf>.

95. See *infra* Part IV.A (considering RCM's potential use for categorization). For example, using RCM to categorize hedge funds with similar or highly correlated strategies to monitor potential "crowded trade" phenomenon, which may result in self-reinforcing spirals as observed in the "Quant Crisis" of August 2007. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 31, 31 n.40.

96. As hedge funds are unlikely to be "systemically important" on size alone, it will involve a more textured examination in terms of its interconnections with other financial institutions, or if they are "systemic as part of a herd." See, e.g., GENEVA REPORTS, THE FUNDAMENTAL PRINCIPLES, *supra* note 66, at 26.

97. See *supra* note 6 and accompanying text.

markets and transactions in shadow banking.<sup>98</sup> At this juncture, it is useful to examine the subjects of “systemic risk” and “shadow banking” as they underpin the reforms discussed herein.

## 2. Systemic Risk and Hedge Funds

The GFC elevated the concept of systemic risk and interconnectedness into new buzzwords beyond the remit of banking regulation. Traditionally, systemic risk is focused on micro-level financial banking institutions, as the risk that the failure of one large institution would cause other institutions to fail.<sup>99</sup> Such dangers were painfully played out in the aftermath of the Lehman Brothers’ bankruptcy. The GFC also demonstrated that the shift to market-based finance requires more attention to potential systemic risks arising from capital market linkages.<sup>100</sup> This can be seen from IOSCO’s increased focus and involvement in systemic risk regulatory issues in the post-crisis soft law regime.<sup>101</sup>

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98. *Financial Regulation*, G20AUSTRALIA.ORG, [http://www.g20australia.org/g20\\_priorities/g20\\_2014\\_agenda/financial\\_regulation](http://www.g20australia.org/g20_priorities/g20_2014_agenda/financial_regulation) (including “address shadow banking risks” as one of the four core areas on the G20 2014 agenda for financial regulation). See also FSB, TRANSFORMING SHADOW BANKING INTO RESILIENT MARKET-BASED FINANCING—AN OVERVIEW OF PROGRESS AND A ROADMAP FOR 2015 (2014) [hereinafter FSB, SHADOW BANKING ROADMAP], available at <http://www.financialstabilityboard.org/wp-content/uploads/Progress-Report-on-Transforming-Shadow-Banking-into-Resilient-Market-Based-Financing.pdf> (reiterating the regulatory focus on shadow banking); G20 LEADERS’ COMMUNIQUÉ: BRISBANE SUMMIT ¶ 12 (2014) [hereinafter G20 BRISBANE COMMUNIQUÉ], available at <http://www.g20.utoronto.ca/2014/2014-1116-communiqué.html>.

99. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 47, at 35 (noting that since the GFC, systemic risk has shifted from a micro-level to a macro-level definition).

100. See Schwarcz, *supra* note 67, at 200.

101. IOSCO has actively participated in the post-GFC reform process under the auspices of the G-20, including addressing potential systemic risk in securities markets (such as the IOSCO Risk Dashboard and the annual IOSCO Securities Market Risk Outlooks). See *Mitigating Systemic Risk: A Role for Securities Regulators* 61–62 (Technical Committee of IOSCO, Discussion Paper, 2011) [hereinafter IOSCO, *Mitigating Systemic Risk*], available at <http://www.iosco.org/library/pubdocs/pdf/ioscopd347.pdf>; see also IOSCO, OBJECTIVES AND PRINCIPLES OF SECURITIES REGULATION (2010) [hereinafter IOSCO REVISED OBJECTIVES AND PRINCIPLES], available at <http://www.compliance-exchange.com/governance/library/ioscopprinciples2010.pdf> (updating the revised principles to further address systemic risks in Principles 6 and 7); IOSCO, RISK IDENTIFICATION AND ASSESSMENT METHODOLOGIES FOR SECURITIES REGULATORS (2014) [hereinafter IOSCO, RISK IDENTIFICATION AND ASSESSMENT] (setting out the methods, approaches and tools for risk identification and assessment); Werner Bijkerk et al., *Systemic Risk Identification in Securities Markets*, (IOSCO Research Department, Staff Working Paper 2012/1, 2012) [hereinafter IOSCO, *Systemic Risk Identification*], available at <http://www.iosco.org/research/pdf/swp/Option%20for%20Systemic%20Risk%20Identification%20System.pdf?v=1> (outlining its systematic approach to identify and monitor systemic risks in securities markets); IOSCO, 2014-15 RISK OUTLOOK, *supra* note 27 (reporting on its second yearly overview of financial market trends and highlighting potential systemic risks in securities markets). For more discussion on IOSCO’s role in systemic risk regulation and increased policy-making profile, see Mary Condon, *Products, Perimeters and Politics: Systemic Risk and*

Notwithstanding its frequent usage in recent regulatory discourse, there is no precise definition for systemic risk.<sup>102</sup> Its use can be nuanced and range widely in the dialogue of domestic and international policy makers,<sup>103</sup> and in academic scholarship.<sup>104</sup> Consideration of systemic risk in its simplest term, with added qualifications in respect of its various sources, is appropriate for the thought experiment proposed herein. A good starting point is the definition of “systemic risk” in *The Financial Crisis Inquiry Report* as, “[i]n financial terms, that which poses a threat to the financial system.”<sup>105</sup> The GFC demonstrated that systemic threat to financial stability can derive from the failure of a large financial institution like Lehman, as well as through market risks that ripple through the credit intermediation chain via runs and fire sales. By incorporating potential sources of systemic risk as highlighted by Schwarcz,<sup>106</sup> a general definition of “systemic risk” for purposes of this Article can be formulated as follows: ***the risk that poses a threat to the entire financial system, either (i) directly through failure of, or significant losses in assets or liquidity to, one or more institutions, or (ii) indirectly through the effects of such events via the operation of financial markets.***<sup>107</sup> This concept is consistent with the G20’s approach to post-crisis reforms pertaining to systemically important financial institutions and markets whose failure or severe distress may contribute to, or transmit, systemic risk.<sup>108</sup>

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*Securities Regulation*, in THE EMBEDDED FIRM: CORPORATE GOVERNANCE, LABOR, AND FINANCE CAPITALISM 440, 440–458 (Cynthia A. Williams & Peer Zumbansen eds., 2011).

102. E.g., Eugenio Cerutti et al., *Systemic Risks in Global Banking: What Can Available Data Tell Us and What More Data Are Needed?* 1 n.2 (IMF Working Paper, No. 376, 2012), available at <http://www.bis.org/publ/work376.pdf> (referencing literature survey on the topic). See also *infra* notes 103 and 104, and accompanying text, for various definitions of “systemic risk”.

103. See, e.g., INT’L MONETARY FUND, GLOBAL FINANCIAL STABILITY REPORT: OLD RISKS, NEW CHALLENGES 140 (2013), available at <http://www.imf.org/External/Pubs/FT/GFSR/2013/01/pdf/text.pdf> (discussing systemic risks in the global financial system); INT’L MONETARY FUND, ET AL., GUIDANCE TO ASSESS THE SYSTEMIC IMPORTANCE OF FINANCIAL INSTITUTIONS, MARKETS AND INSTRUMENTS: INITIAL CONSIDERATIONS 5–6 (2009) [hereinafter FSB, GUIDANCE TO ASSESS SIFI], available at <http://www.bis.org/publ/othp07.pdf> (assessing what constitutes a “systemic event”). For a summary of commonly used definition of “systemic risk”, see IOSCO, RISK IDENTIFICATION AND ASSESSMENT, *supra* note 101, at 7–9.

104. Condon, *supra* note 101, at 444 n.17 (discussing the diverse definitions of “systemic risk” in emerging literature).

105. FCIC REPORT, *supra* note 49, app. A at 543.

106. See Schwarcz, *supra* note 67, at 204 (defining systemic risk to include risk triggering chain effects in markets and institutions).

107. This definition also draws on the analysis of channels of systemic risk transmission; see *infra* notes 113 and 114 and accompanying text.

108. See *supra* note 86 and accompanying text.

Hedge Funds' potential for systemic risk became evident with the near failure of LTCM in 1998.<sup>109</sup> The recent crisis further illustrated the broad connection between hedge funds and systemic risk.<sup>110</sup> Although there is acknowledgement that hedge funds did not cause the financial crisis,<sup>111</sup> it is also generally agreed that their multidimensional roles in the global financial markets give rise to potential systemic risks that warrant monitoring and continued assessment.<sup>112</sup>

According to the the Joint Forum Report, hedge funds can transmit systemic risks, either separately or together, through two main channels: (i) "credit risk", deriving directly from financial institutions' exposure to hedge funds as counterparties or prime brokers;<sup>113</sup> and (ii) "market risk", deriving indirectly from hedge fund failures or actions in unwinding

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109. FCIC REPORT, *supra* note 49, at 48. See also HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG TERM CAPITAL MANAGEMENT 17–22 (1999), available at <http://www.treasury.gov/resource-center/fin-mkts/Documents/hedgfund.pdf>.

110. See, e.g., Reint Gropp, *How Important Are Hedge Funds in a Crisis?*, FRBSF ECONOMIC LETTER, Apr. 14, 2014, at 1–2 (citation omitted), available at <http://www.frbsf.org/economic-research/publications/economic-letter/2014/april/hedge-fund-risk-measurement-spillover-economic-crisis/> (reporting that the study suggests "hedge funds may be the most important transmitters of shocks during crises, more important than commercial banks or investment banks"). Note that there are varying arguments regarding the extent of hedge funds' contribution to systemic risk relating to the GFC, the evaluation of which is outside the scope of this Article.

111. See IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16, at 7; Piwowar *supra* note 12 (noting that "the recent financial crisis is not actually a 'hedge fund crisis'", with reference to FCIC's examination of the causes of the financial crisis). See also SCOTT, *supra* note 48, at 15 ("While hedge funds and their investors suffered large losses, no hedge fund failures presented risk to the system.").

112. See, e.g., FIN. SERVS. AUTH., ASSESSING THE POSSIBLE SOURCES OF SYSTEMIC RISK FROM HEDGE FUNDS 4 (2012) [hereinafter FSA, AUGUST 2012 ASSESSMENT], available at <http://www.fsa.gov.uk/static/pubs/other/hedge-fund-report-aug2012.pdf> (noting that "they have the potential to pose systemic risks to financial stability if they are individually very large or leveraged"); TURNER REVIEW, *supra* note 10, at 72 (highlighting the significant procyclical systemic effect from hedge fund activities in the aggregate through their simultaneous deleveraging, which depresses securities prices); IOSCO, HEDGE FUNDS OVERSIGHT CONSULTATION REPORT 19–20 (2009) [hereinafter IOSCO HEDGE FUNDS OVERSIGHT CONSULTATION REPORT], available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD288.pdf> (noting possible risks that can arise from the amplifying effects of hedge funds' market behavior and trading/investment strategies); LLOYD DIXON ET AL., HEDGE FUNDS AND SYSTEMIC RISK 61, 63 (2012), available at [http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND\\_MG1236.pdf](http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1236.pdf). Dixon et al. found that while hedge funds have the potential to contribute to systemic risk, they "did not play a pivotal role in the financial crisis". *Id.* at xviii. They concluded, therefore, that hedge funds should not be a "primary concern of regulators" in respect of global financial stability, but better understanding and monitoring of the systemic risk they pose is needed. *Id.* at 101.

113. THE JOINT FORUM, REVIEW OF THE DIFFERENTIATED NATURE AND SCOPE OF FINANCIAL REGULATION—KEY ISSUES AND RECOMMENDATIONS 56 (2010) [hereinafter JOINT FORUM REPORT], available at <http://www.bis.org/publ/joint24.pdf> (report by working group of the Basel Committee on Banking Supervision (BCBS), IOSCO and the International Association of Insurance Supervisors finding that counterparty risks increase when a hedge fund has multiple prime brokers, impeding a complete picture of leverage or other risk exposures).



positions that depress asset prices, fuel market illiquidity and create contagion across unrelated asset classes.<sup>114</sup> Such market risk also increases with the complexity of hedge funds' trading positions, as well as the range of markets involved.<sup>115</sup> The reach of Lehman Brothers' bankruptcy demonstrated the transmission of systemic risks from its sudden and disorderly wind-down as a result of its interconnections with the market participants.<sup>116</sup> Such risks can be amplified by certain characteristics of hedge funds: (i) by their use of leverage, making them more vulnerable to market shocks; (ii) by the complex derivatives used in their trading strategies, which often carry higher risks and involve illiquid positions that make it difficult to measure the risks; (iii) high transaction volume/fund turnover, which magnifies their market impact; and (iv) the concentration in specialized or less liquid markets, thereby increasing liquidity risks.<sup>117</sup>

Recent UK data indicate limited systemic risks from hedge funds through the "market" and "credit" channels, with the aggregate footprint of surveyed funds remaining modest in most markets and relatively low leverage for most funds.<sup>118</sup> However, such findings are subject to potential risks from sudden withdrawal of funding necessitating hedge funds to engage in forced asset sales, especially if such funds have significant footprints or are highly leveraged.<sup>119</sup>

Current deliberations on the methodologies for identification of NBNI G-SIFI include hedge funds as potential SIFIs, which by combination of

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114. *Id.* at 56. See also FIN. STABILITY FORUM, UPDATE OF THE FSF REPORT ON HIGHLY LEVERAGED INSTITUTIONS 2 (2007), available at [http://www.fsforum.org/publications/r\\_0705.pdf?noframes=1](http://www.fsforum.org/publications/r_0705.pdf?noframes=1); FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 3, 29–30; OFR ASSET MANAGEMENT REPORT, *supra* note 9, at 21–23 (identifying similar channels of systemic risk transmission by asset managers).

115. See FCA HEDGE FUND SURVEY 2014, *supra* note 32, at 4.

116. FCIC REPORT, *supra* note 49, at 324–43.

117. See JOINT FORUM REPORT, *supra* note 113, at 57 n.67 (referencing implications of hedge funds' characteristics on their market impact noted in the FSA June 2005 Discussion Paper DP05/4).

118. FSA, AUGUST 2012 ASSESSMENT, *supra* note 112, at 22. Note that these survey results are also subject to the general caveat that it is voluntary and represents a limited UK sample that may not be representative of the global picture. The most recent UK FCA Hedge Fund Survey found that the majority of the sample hedge funds "exhibit low levels of leverage", although the data also indicated that "most funds have raised their total gross leverage". FCA HEDGE FUND SURVEY 2014, *supra* note 32, at 5. See also *infra* Part III.A. (evaluating the shadow banking risks posed by hedge funds, including their use of leverage).

119. FSA, AUGUST 2012 ASSESSMENT, *supra* note 112, at 22. See also FCA HEDGE FUND SURVEY 2014, *supra* note 32, at 5–6 (suggesting that continuing monitoring is needed, and that "[o]f the total leverage, 98% is obtained using derivatives to gain market exposure, driven by a few larger funds", but it was also found that their portfolios remain fairly liquid and easily valued in the aggregate, though the larger funds surveyed specialized in illiquid investments). See also IOSCO, 2014-15 RISK OUTLOOK, *supra* note 27, at 66–67, 96–97, (discussing hedge funds' use of leverage and the resulting financial vulnerabilities created by the interconnections, particularly via synthetic leverage, and noting that "synthetic exposure explained the largest share of overall gross leverage of hedge funds in aggregate").

their size, leverage, and interconnectedness could pose a threat to financial stability if they failed.<sup>120</sup> It is a pertinent topic for ongoing discourse on hedge fund regulation. While individual hedge funds have not generally reached the level of systemic risk concerns by these measures,<sup>121</sup> their collective impact, based on factors like the nature of their investment strategies and use of leverage, has systemic risk potentials.<sup>122</sup> Likewise, hedge funds' interconnections in the financial system could elevate their counterparty risks to be systemic. Such dangers are further compounded in a market where a few instruments or participants dominate the trades or the provision of liquidity. This was the case in the GFC when the repo market supplied short-term funding, and when Lehman Brothers was a significant provider of liquidity in the credit default swap market.<sup>123</sup> The extensive use of repos by hedge funds increases the likelihood for systemic risk transmission through fire sales triggered by distress or default of a dealer or other large borrower in tri-party repo arrangements. These repo markets continue to be an area of concern as highlighted by the FSOC in its 2014 Annual Report.<sup>124</sup>

In addition, the effects of systemic risk are exacerbated by leverage and opacity. Deleveraging could have a downward effect on asset pricing, and trigger a spread of fire sales across other sectors in the securities market, causing market illiquidity to ripple into the rest of the financial system. Lack of transparency increases the likelihood of such domino effect by impairing market participants' ability to assess risks and deterring proper price formation. It also limits the regulators' power to monitor potential systemic risks through information on trading activities and/or positions to identify contributing factors to fire sales, such as market concentration and herding.<sup>125</sup> Therefore, even if individual hedge funds are unlikely to pose systemic risks, continuous monitoring of the industry on the collective effects of their investment strategies and positions, along with their interconnectedness to the overall global markets, is necessary to safeguard financial stability. From the foregoing analysis, this exercise should focus

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120. FSB, GUIDANCE TO ASSESS SIFI, *supra* note 103, at 2–3 (setting out considerations for the assessment of systemic importance). *See also* FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9. Consideration of proposals by both the FSB and the OFR are ongoing and subject to further developments. *See supra* note 9 and accompanying text.

121. E.g., according to the materiality threshold for assessment as NBNI G-SIFI. *See* FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 9.

122. *See* IOSCO, *Mitigating Systemic Risk*, *supra* note 101, at 16–21 (discussing factors with collective systemic risk potential, including size, interconnectedness, lack of substitutes and concentration, lack of transparency, leverage, market participant behavior, information asymmetry and moral hazard).

123. *Id.* at 18–19.

124. FSOC 2014 ANNUAL REPORT, *supra* note 23, at 113 (reiterating the potentially destabilizing effects from fire sale vulnerabilities associated with tri-party repo markets).

125. *See* OFR ASSET MANAGEMENT REPORT, *supra* note 9, at 22.

on the shadow banking sector as a primary location where systemic risks can build up and be transmitted into the wider financial system.

### 3. Shadow Banking and Hedge Funds

The shadow banking system exemplifies the innovative and ever-changing nature of the modern financial system. It transformed the original function of a single banking entity into an intricate, multi-step chain, involving specialized financial institutions with novel services and products, and developing new market sectors at the same time.<sup>126</sup> Its evolution over the past few decades illustrates how the transformation in credit intermediation developed through complex interconnections between the traditional banking system and the non-banking financial sector.<sup>127</sup> A snapshot of this parallel banking follows to provide a perspective on its connections to systemic risk and hedge funds, in support of the regulatory objective stated in Part I.D.3.<sup>128</sup>

“Credit intermediation”, the function of connecting savers to borrowers, was traditionally conducted within a single financial entity, usually the bank.<sup>129</sup> At the onset of the GFC, market-based institutions replaced many banks, with the capital markets providing a significant supply of credit.<sup>130</sup> In such credit creation, the bank/shadow bank may conduct credit, maturity and liquidity transformation,<sup>131</sup> with maturity transformation being the most pertinent for regulatory attention. “Maturity transformation refers to the use of short-term deposits to fund long-term loans, which creates liquidity for

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126. For more details on the evolution of shadow banking, see generally ADRIAN & ASHCRAFT, *supra* note 52, at 3–5.

127. Adair Turner, Address at Cass Business School: Shadow Banking and Financial Instability 6–7 (March 14, 2012) [hereinafter Turner, Shadow Banking], available at <http://www.fsa.gov.uk/static/pubs/speeches/0314-at.pdf>.

128. Given the purpose and space constraints herein, it is not feasible to describe the inner workings of the shadow banking system in this Article. The complexity of the shadow banking system has been said to “defy complete understanding”. *Id.* at 36; Adair Turner, *Shadow Banking and Financial Instability* (Mar. 14, 2012), [http://www.cass.city.ac.uk/\\_data/assets/pdf\\_file/0013/120307/004-CASS-LECTURE-20120308.pdf](http://www.cass.city.ac.uk/_data/assets/pdf_file/0013/120307/004-CASS-LECTURE-20120308.pdf) [hereinafter Turner, *Shadow Banking Slides*]. See also ZOLTAN POZSAR ET AL., SHADOW BANKING app. 1–8 (2012) [hereinafter POZSAR ET AL., SHADOW BANKING], available at [http://www.newyorkfed.org/research/staff\\_reports/sr458.pdf](http://www.newyorkfed.org/research/staff_reports/sr458.pdf) (setting out shadow banking maps depicting the complex interconnectivity of shadow banking entities and activities).

129. POZSAR ET AL., SHADOW BANKING, *supra* note 128, at 4.

130. TOBIAS ADRIAN & HYUN SONG SHIN, THE SHADOW BANKING SYSTEM: IMPLICATIONS FOR FINANCIAL REGULATION 1 (2009) [hereinafter ADRIAN & SHIN, SHADOW BANKING SYSTEM], available at [http://www.ny.frb.org/research/staff\\_reports/sr382.pdf](http://www.ny.frb.org/research/staff_reports/sr382.pdf) (noting that at the end of the 2nd quarter of 2007 the market-based assets were substantially larger than the bank assets).

131. ADRIAN & ASHCRAFT, *supra* note 52, at 2 (“Credit transformation refers to the enhancement of the credit quality of debt issued by the intermediary through the use of priority of claims.”). Liquidity transformation occurs when liquid instruments are used to fund illiquid assets, such as the process of creating a liquid-rated security secured by a pool of illiquid loans. *Id.*

the saver but exposes the intermediary to rollover and duration risks.”<sup>132</sup> Accordingly, Morgan Ricks identified the resulting maturity mismatch as connected to a demonstrated market failure that merits government intervention and argued it is the central problem for financial regulatory policy.<sup>133</sup> Such rationale would apply to regulating the same functions performed in the shadow banking system. As seen from the run on prime brokers and MMFs in the GFC, short-term deposit-like funding of non-bank entities can lead to bank-like “runs” from the loss of “depositor” confidence under stressed market conditions.<sup>134</sup>

Since the coining of the term “shadow banking,”<sup>135</sup> regulatory and academic attention have shed some light on this parallel banking system as interests gained momentum in the aftermath of the GFC.<sup>136</sup> Nevertheless, it is widely agreed that there is no universal definition for shadow banking<sup>137</sup> and the scope of this sector varies depending on the purpose of the discussion and the use for the data in question.<sup>138</sup> The boundaries of shadow banking can expand to cover all non-bank credit intermediation in the financial system or contract to only a subset of the broader definition.<sup>139</sup>

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132. *Id.* at 2.

133. *See, e.g.*, Morgan Ricks, *Shadow Banking and Financial Regulation* 13 (Columbia Law and Economics Working Paper No. 370, 2010), available at <http://ssrn.com/abstract=1571290> (noting the inference from historical events that “maturity transformation in the absence of a government safety net is inherently prone to periodic run-behavior.”).

134. *See supra* Part I.B (discussing the bank-like runs that took place during the GFC) and *infra* note 170 and accompanying text (characterizing the GFC as a “run on repo”).

135. Coined in 2007 by Paul McCulley, former managing director of PIMCO.

136. Voluminous literature on this topic can be found from the economic, legal and industry perspectives. *See generally* ADRIAN & ASHCRAFT, *supra* note 52; POZSAR ET AL., SHADOW BANKING, *supra* note 128; Gary Gorton & Andrew Metrick, *Regulating the Shadow Banking System*, 41 BROOKINGS PAPERS ON ECONOMIC ACTIVITY, no. 2, Fall 2010, at 261–312 [hereinafter Gorton & Metrick, *Regulating Shadow Banking*], available at [http://www.brookings.edu/~media/Projects/BPEA/Fall%202010/2010b\\_bpea\\_gorton.PDF](http://www.brookings.edu/~media/Projects/BPEA/Fall%202010/2010b_bpea_gorton.PDF); Steven Schwarcz, *Regulating Shadow Banking*, 31 REV. BANKING & FIN. L. 619 (2012); Ricks, *supra* note 133; INST. OF INT’L FIN., “SHADOW BANKING”: A FORWARD-LOOKING FRAMEWORK FOR EFFECTIVE POLICY (2012) [hereinafter IIF, SHADOW BANKING], available at [https://www.iif.com/system/files/IIF\\_ShadowBankingPaper\\_06012012.pdf](https://www.iif.com/system/files/IIF_ShadowBankingPaper_06012012.pdf).

137. Compare, e.g., FSB’s definition, *infra* note 140, with the definition of “all financial activities, except traditional banking, which require a private or public backstop to operate”. Stijn Claessens & Lev Ratnovski, *What is Shadow Banking?* 4 (IMF Working Paper, WP/14/25, 2014), available at <http://www.imf.org/external/pubs/ft/wp/2014/wp1425.pdf> (considering the spectrum of financial activities involving intermediation). For a literature summary of the definition of “shadow banking”, see IMF, OCTOBER 2014 REPORT, *supra* note 6, at 91–92, ann. 2.

138. *See, e.g.*, IIF, SHADOW BANKING, *supra* note 136, at 12.

139. *See, e.g.*, FIN. STABILITY BD., SHADOW BANKING: STRENGTHENING OVERSIGHT AND REGULATION—RECOMMENDATIONS OF THE FINANCIAL STABILITY BOARD 3–4 (2011) [hereinafter FSB 2011 SHADOW BANKING RECOMMENDATIONS], available at [http://www.financialstabilityboard.org/publications/r\\_111027a.pdf](http://www.financialstabilityboard.org/publications/r_111027a.pdf) (setting out a 2 step definition process, broadly defined for the purposes of surveillance and narrowed for regulatory policy purposes to focus on such credit intermediation activities with potential to pose (i) systemic risks; and/or (ii) regulatory arbitrage concerns).

As this Article proposes a conceptual policy paradigm to monitor and manage potential systemic risk posed by hedge funds, a more comprehensive definition is better suited at the initial stage. Therefore, I propose using a broad functional approach largely based on the FSB's definition to cover "credit intermediation involving entities and activities (fully or partially) outside the regular banking system,"<sup>140</sup> but narrowing its coverage for specific regulatory analysis in respect of hedge funds. References to the "shadow banking system" here encompass the financial participants, markets, activities, and instruments involved in the various steps of the non-bank credit intermediation chain.<sup>141</sup> However, a more nuanced interpretation is needed for the evaluation of hedge funds' "shadow banking" risks in Part III.A.<sup>142</sup> In making such assessment, I adopt, for the most part, the FSB's approach to shadow banking risks by focusing on hedge funds' activities in the shadow banking system that pose (i) potential systemic risks with indicators of maturity transformation and leverage, and/or (ii) regulatory arbitrage concerns.<sup>143</sup> Accordingly, the Shadow Banking Risk Continuum (SBRC) analysis applies the FSB's two-step definition process and incorporates additional considerations of the context, scale, and degree of the activity in question to evaluate if it is akin to banking functions.<sup>144</sup>

The issue of whether hedge funds are shadow banks to be captured in FSB's current shadow banking reform initiatives is hotly contested. On one hand, the GFC revealed hedge funds' significant market footprint through their broad and varied roles in the shadow banking system. Hedge funds

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140. FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING—AN OVERVIEW OF POLICY RECOMMENDATIONS iv (2013) [hereinafter FSB 2013 RECOMMENDATIONS—OVERVIEW], *available at* [http://www.financialstabilityboard.org/publications/r\\_130829a.pdf](http://www.financialstabilityboard.org/publications/r_130829a.pdf).

141. Schwarcz, *supra* note 136, at 622–623 (including, in the definition, shadow banks' provision of financial products and services and the markets used to do so).

142. Regulatory analysis needs to focus on relevant areas of systemic risk concerns as the shadow banking system evolves. *See* ADRIAN & ASHCRAFT, *supra* note 52, at 5–9.

143. FSB 2011 SHADOW BANKING RECOMMENDATIONS, *supra* note 139, at 4 (narrowing the definition of the shadow banking system for policy purposes, the FSB lists four key risk factors to identify the subset of non-bank credit intermediation with potential to pose systemic risks: (i) maturity transformation; (ii) liquidity transformation; (iii) imperfect credit risk transfer; and/or (iv) leverage). For the proposed hedge fund regulatory analysis herein, the scope is further narrowed to center on the risk factors of maturity transformation and leverage, as they are most applicable to hedge funds. Highlighting these two systemic risk indicators is consistent with similar emphasis found in other literature. *See* Turner, Shadow Banking, *supra* note 127, at 5. *See also* OFF. OF FIN. RESEARCH, 2012 ANNUAL REPORT 7 (2012) [hereinafter OFR 2012 ANNUAL REPORT], *available at*

[http://www.treasury.gov/initiatives/wsr/ofr/Documents/OFR\\_Annual\\_Report\\_071912\\_Final.pdf](http://www.treasury.gov/initiatives/wsr/ofr/Documents/OFR_Annual_Report_071912_Final.pdf) (citing to the definition of "credit intermediation" in ZOLTAN POZSAR ET AL., SHADOW BANKING (2012)).

144. *See infra* Part III.A, notes 330–332 and accompanying text (setting out the fine-tuning process for the evaluation of "shadow banking" risks).

were active traders of complex financial instruments in the shadow banking system, like collateralized debt obligations,<sup>145</sup> and also acted as credit risk repository in the credit intermediation chain.<sup>146</sup> Their connection with banks and broker-dealers via repo and securities lending transactions, as well as margin lending by their prime broker, created multiple routes for market stresses to spread and intensify.<sup>147</sup> Adrian and Shin argued that the amplified shock resulting from linkages through hedge funds' role as liquidity provider for financial intermediaries, such as Lehman Brothers, proved to be an important source of funding instability.<sup>148</sup> In this way, the need to monitor hedge funds for transmission of systemic risks in the shadow banking system is irrefutable. In addition, the credit hedge fund segment has garnered attention regarding its activities in the non-banking financial system, such as engaging in corporate lending similar to banks.<sup>149</sup>

On the other hand, industry groups have forcefully disputed categorizing hedge funds as shadow banks on the grounds that they are already regulated and that asset managers do not sufficiently perform bank-like activities.<sup>150</sup> The industry argued that hedge funds do not warrant regulation because: (i) they are relatively small compared to the rest of the financial system,<sup>151</sup> particularly in respect of credit hedge funds alone;<sup>152</sup>

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145. OFR 2012 ANNUAL REPORT, *supra* note 143, at 104.

146. ADRIAN & ASHCRAFT, *supra* note 52, at 19.

147. See *infra* note 161 and accompanying text (describing the role of hedge funds as a source of funding in the shadow banking system).

148. Compare ADRIAN & SHIN, SHADOW BANKING SYSTEM, *supra* note 130, at 7 (commenting that hedge fund customers' "deposits" are subject to withdrawal on demand, which generates funding instability), with arguments made by Alternative Investment Management Association (AIMA) and Managed Funds Association (MFA) *infra* note 155 and accompanying text (regarding hedge funds' ability to utilize redemption restrictions to avoid asset/liability mismatch).

149. See Letter from Richard H. Baker, President and CEO of Managed Funds Ass'n, to the European Commission (June 1, 2012) ann. 2 at 18 [hereinafter MFA June 2012 Letter], available at

[https://www.managedfunds.org/wp-content/uploads/2012/06/MFA\\_response\\_to\\_EuropeanCommission\\_greenpaper\\_on\\_shadowbanking.pdf](https://www.managedfunds.org/wp-content/uploads/2012/06/MFA_response_to_EuropeanCommission_greenpaper_on_shadowbanking.pdf) (acknowledging that a small segment of credit hedge funds are involved in direct commercial loans to small and medium-sized enterprises). See also *infra* note 345 (noting the need to monitor trends in hedge funds' participation in leveraged lending).

150. See, e.g., HEDGE FUND STANDARDS BD., RESPONSE TO THE FSB CONSULTATIVE DOCUMENT "STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING" 8 (2013) [hereinafter HFSB JANUARY 2013 RESPONSE], available at [http://www.financialstabilityboard.org/wp-content/uploads/c\\_130129ao.pdf](http://www.financialstabilityboard.org/wp-content/uploads/c_130129ao.pdf) (examining the activities of asset management against categories of bank-like features); AIMA, THE ROLE OF CREDIT HEDGE FUNDS IN THE FINANCIAL SYSTEM: ASSET MANAGERS, NOT SHADOW BANKS 18 (2012) [hereinafter AIMA MARCH 2012 PAPER], available at <http://www.aima.org/en/document-summary/index.cfm/docid/129E55F5-AF6C-471F-B30DA4A33B40A8EB>.

151. MFA June 2012 Letter, *supra* note 149, ann. 2 at 6 (comparing the global hedge fund industry's approximately \$2.08 trillion in net assets with the approximately \$14.4 trillion in assets from the top 50 U.S. bank holding companies). See also HFSB JANUARY 2013 RESPONSE, *supra* note 150, at 3 (referring to the credit hedge fund sector's marginal share of assets under management compared to the size of the banking sector).

(ii) they do not perform a significant credit intermediation function<sup>153</sup> because of the ability to avoid asset and liabilities mismatch<sup>154</sup> through contractual liquidity protections with their investors;<sup>155</sup> (iii) they generally utilize low levels of leverage;<sup>156</sup> and (iv) they are not “too big to fail” and did not require government support in the GFC.<sup>157</sup> However, while this line of argument may address systemic risk concerns arising directly from the failure of a hedge fund, it does not adequately deal with the more intricate dangers resulting from the web of interconnections facilitated by hedge funds.<sup>158</sup>

The shadow banking system involves multiple entities and activities across various market segments along the credit intermediation chain, many of which exhibited failures in the GFC.<sup>159</sup> Hedge funds’ systemic risk potential in such parallel banking sector lies in their numerous interconnections in key markets, most notably the secured funding markets.<sup>160</sup> This is because the shadow banking system offers a source of

152. See AIMA MARCH 2012 PAPER, *supra* note 150, at 12 (citing FSA findings that direct lending and ABS activities of hedge funds only account for a small subset of credit hedge funds’ already small 1% size within non-bank credit intermediaries).

153. *Id.* at 4, 13.

154. See MFA June 2012 Letter, *supra* note 149, ann. 2 at 8 n.11 (citing evidence from UK FSA’s hedge fund surveys showing that their portfolios can generally be liquidated more quickly than their liabilities fall due).

155. See AIMA, AIMA’S RESPONSE TO THE FSB’S INITIAL INTEGRATED SET OF RECOMMENDATIONS TO STRENGTHEN OVERSIGHT AND REGULATION OF SHADOW BANKING 1 (2013), available at [http://www.financialstabilityboard.org/wp-content/uploads/c\\_130129a.pdf](http://www.financialstabilityboard.org/wp-content/uploads/c_130129a.pdf). See also AIMA MARCH 2012 PAPER, *supra* note 150, ann. 2 (discussing potential redemption strategies).

156. See AIMA MARCH 2012 PAPER, *supra* note 150, at 11 (discussing the approximate level of leverage for the various types of credit hedge funds, which are generally at low levels, but acknowledging that for fundamental credit managers potentially high term funding lines of 50% of equity may be utilized in lower interest rate environments). See also MANAGED FUND ASS’N, RE: MANAGED FUNDS ASSOCIATION RESPONSE TO SHADOW BANKING: SCOPING THE ISSUES 8 (2011), available at [http://www.financialstabilityboard.org/wp-content/uploads/c\\_110901m.pdf](http://www.financialstabilityboard.org/wp-content/uploads/c_110901m.pdf) (noting the significantly lower peak leverage ratio of 2.6:1 during December 2004 to October 2009 compared with that of LTCM, which was leveraged more than 25:1 as of January 1, 1998).

157. See, e.g., AIMA MARCH 2012 PAPER, *supra* note 150, at 17 n.21. They also contend that the diverse universe of investment strategies utilized by hedge funds, along with the dispersion of assets among different managers, funds and investors, avoids concentration of trades in asset classes. See MFA June 2012 Letter, *supra* note 149, ann. 2 at 7.

158. See *supra* Part I.C.2 (discussing hedge funds as potential SIFIs).

159. See, e.g., FSB 2011 SHADOW BANKING RECOMMENDATIONS, *supra* note 139, at 22 (noting the close relationship between secured lending markets with securitization and money markets through the use of collateral). See also Gary Gorton, *Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007*, 14 (Fed. Reserve Bank of Atlanta’s 2009 Fin. Mkts. Conference, Working Paper, 2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1401882](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1401882) (explaining that securitization and repo markets are connected because securitization provides the “informationally-insensitive debt” needed as collateral in the repo markets).

160. Other major markets in the shadow banking system include securitization and MMFs. Traditional credit intermediation (deposit-funded, hold to maturity lending) is broken down into

financing for hedge funds “via market-based securities lending and repo transactions, and through margin lending as part of the prime broker relationship.”<sup>161</sup>

As key components of the short-term funding markets,<sup>162</sup> repos and securities lending are similar in that they involve the use of securities not owned by a party. In the securities lending segment, institutional investors lend securities to banks and broker dealers, against collaterals of cash or securities.<sup>163</sup> Prime brokers then use the borrowed securities to on-lend to hedge funds.<sup>164</sup> “Repo,” in general terms, refers to a sale-and-repurchase agreement whereby the bank, or other financial entity, takes money from an investor for a short period and gives in exchange physical possession of collateral valued at market prices for it, as well as interest. The contract provides for simultaneous repurchase of the collateral by the bank at a specified price at the end of its term.<sup>165</sup> Hedge funds are large users of repo and secured lending markets and, in doing so, connect multiple market participants across market segments.<sup>166</sup> Further, in these transactions, prime brokers’ rehypothecation of the collateral for the borrowed securities can

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the multi-step chain for an “originate-and-distribute” model through securitization in the shadow banking system. See POZSAR ET AL., SHADOW BANKING, *supra* note 128, at 11. Hedge funds’ participation and provision of risk capital in the first-loss positions of loan pools has been attributed to the growth of the asset-backed securities market. See OFR 2012 ANNUAL REPORT, *supra* note 143, at 104. MMFs have a large presence in the shadow banking system both as a means for direct investment in a deposit-like manner, as well as a source of short-term funding for the regular banking system and for other non-banks via the credit intermediation chain. See FSB 2013 RECOMMENDATIONS—OVERVIEW, *supra* note 140, at 3. Hedge funds and MMFs are interconnected through repo transactions and all share in the potential effects of systemic risks from vulnerabilities of such short-term funding markets.

161. See FIN. STABILITY BD., SECURITIES LENDING AND REPOS: MARKET OVERVIEW AND FINANCIAL STABILITY ISSUES—INTERIM REPORT OF THE FSB WORKSTREAM ON SECURITIES LENDING AND REPOS 24 (2012) [hereinafter FSB INTERIM REPORT ON REPOS], available at [http://www.financialstabilityboard.org/publications/r\\_120427.pdf](http://www.financialstabilityboard.org/publications/r_120427.pdf). The FSB WS5 examined the hedge fund and prime broker relationship in such financing arrangements in the securities lending and repo network.

162. See *id.* ann. 3, 4 (listing sources of literature on securities financing transactions). See also OFR 2012 ANNUAL REPORT, *supra* note 143, at 100 (noting that repos and securities lending are key components of the short-term funding markets).

163. FSB INTERIM REPORT ON REPOS, *supra* note 161, at 2.

164. *Id.* at 3.

165. Gorton & Metrick, *Regulating Shadow Banking*, *supra* note 136, app. at 291.

166. Repos can be used for a number of trading position purposes and serve as “an important mechanism for obtaining leverage, especially for hedge funds”. *Id.* at 279. As users of repos, hedge funds connect dealer banks as intermediaries in repo financing. Hedge funds use the securities lending market for temporary ownership of the securities to pursue their investment strategies, such as shorting. See FIN. STABILITY BD., GLOBAL SHADOW BANKING MONITORING REPORT ann. 5 at 16, 18 (2012) [hereinafter FSB, 2012 SHADOW BANKING REPORT], available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_121118c.pdf?page\\_moved=1](http://www.financialstabilityboard.org/wp-content/uploads/r_121118c.pdf?page_moved=1). See also *supra* notes 159–161 and accompanying text discussing the interconnections between markets and participants in the shadow banking system.



create additional market risks and deepen the interconnections between the various participants in the shadow banking system.<sup>167</sup>

The secured funding market can generate benefits to the overall economy by facilitating effective market making, injecting liquidity and increasing market efficiency. However, the GFC revealed two hidden dangers in the form of haircuts<sup>168</sup> and collateral rehypothecation.<sup>169</sup> In fact, the GFC has been characterized as a “run on repo” by authors Gorton and Metrick, in that repos, as a short-term debt perceived to be safe and money-like, suffered a bank run through the increase of repo haircuts.<sup>170</sup> These runs on the repo markets also caused forced deleveraging with severe ripple effects.<sup>171</sup> Accordingly, these issues are part of the shadow banking reforms currently under consideration.<sup>172</sup>

Finally, the growth of shadow banking, including hedge funds’ role in it, needs to be monitored. Due to the lack of clear definition and consistent data, there is no exact figure for the size of the global shadow banking system.<sup>173</sup> According to FSB’s 2014 Global Shadow Banking Monitoring Report, the global shadow banking assets are estimated, on the conservative side, at \$75.2 trillion in 2013—a 7% increase of \$4.8 trillion from 2012.<sup>174</sup>

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167. See Turner, Shadow Banking, *supra* note 127; Turner, *Shadow Banking Slides*, *supra* note 128, at 34 Exhibit 44 (highlighting how securities financing transactions connect a variety of financial entities, such as commercial banks, broker dealers, asset managers, money market funds and hedge funds).

168. FSB INTERIM REPORT ON REPOS, *supra* note 161, at 15–16 (referring to “haircuts” as the degree of over-collateralization). See also Gorton & Metrick, *Regulating Shadow Banking*, *supra* note 136, at 279–280 (explaining that “[a]n increase in a repo haircut is tantamount to a withdrawal from the issuing bank”).

169. Tobias Adrian & Adam B. Ashcraft, *Shadow Banking Regulation*, 4 ANN. REV. FIN. ECON. 99, 112 (2012) [hereinafter Adrian & Ashcraft, *Shadow Banking Regulation*] (explaining this as the re-use of client collateral, frequently utilized by prime brokers using collateral posted by hedge funds as collateral for its own funding purposes).

170. See Gorton & Metrick, *Regulating Shadow Banking*, *supra* note 136, at 279. *But see* comments by Andrei Shleifer questioning this view. *Id.* at 300–302.

171. Gorton, *supra* note 159, at 33 (discussing the “run on repo”). See also Adrian & Ashcraft, *Shadow Banking Regulation*, *supra* note 169, at 102 (referencing the analysis of market sector collapses in the shadow banking system in Gary Gorton & Andrew Metrick, *Regulating the Shadow Banking System*, 41 BROOKINGS PAPERS ON ECONOMIC ACTIVITY, no. 2, Fall 2010).

172. See e.g., FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING: REGULATORY FRAMEWORK FOR HAIRCUTS ON NON-CENTRALLY CLEARED SECURITIES FINANCING TRANSACTIONS (2014), available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_141013a.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_141013a.pdf).

173. In addition to data constraints, variations in the definition of shadow banking can result in conceptual differences in its measurement and produce inconsistencies in the estimated size of the sector. For example, non-MMF funds are included in the broad FSB measures, but they are excluded in estimates using the flow of funds and the noncore measures. See IMF, OCTOBER 2014 REPORT, *supra* note 6, at 72, 73, tbl.2.1 (tabling comparison of shadow banking measures).

174. FIN. STABILITY BD., 2014 GLOBAL SHADOW BANKING MONITORING REPORT 5–7, 8, 12 (2013) [hereinafter FSB, 2014 SHADOW BANKING REPORT], available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_141030.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_141030.pdf). This broad measure of global shadow banking assets is determined using data of 20 individual jurisdictions and the Euro

Applying the FSB's narrow definition of shadow banking substantially lowers these estimates down to \$34.0 trillion in 2012 and \$34.9 trillion in 2013—exhibiting only a 2.4% increase in 2013.<sup>175</sup> Notably, shadow banking's share of the total financial system assets continued to grow in 2013, reaching 25%, while the banking sector experienced decline for a second consecutive year, dropping to 46%.<sup>176</sup> Based on these FSB findings, hedge funds remain the smallest sub-sector of shadow banking, at \$0.1 trillion, representing less than 0.2% of the assets of non-bank financial intermediaries in 2013.<sup>177</sup> However, this breakdown is not an accurate representation of hedge funds' size relative to the entire shadow banking system. Citing industry size data from national hedge fund surveys and private sector sources, the FSB report acknowledges that such figures are significantly understated due to data gaps from macro-mapping.<sup>178</sup>

As of 2013, the United States and the Euro area have the largest non-bank financial intermediation sectors, each with a third of the global shadow banking assets.<sup>179</sup> The global trend for average growth of the shadow banking system presents a wide variation across countries, ranging from negative 6% to 50%.<sup>180</sup> It indicates a shift in growth to emerging market jurisdictions, marked in particular by the rapid increase in China's shadow banking sector.<sup>181</sup> Looking ahead, this development is a critical one

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Area aggregate. *Id.* at 7–8. It covers non-bank financial intermediation using the “total financial assets held by Other Financial Intermediaries (OFIs), which include all non-bank financial intermediaries with the exception of insurance companies, pension funds and public financial institutions.” *Id.* at 5–6. Applying the same broad measure but using 25 individual jurisdictions instead provides a lower estimate of the global shadow banking assets at \$63.8 trillion. *Id.* at 7.

175. *Id.* at 6–7, 19, 22–23. For a description of FSB's narrowing down process from the broad measure see *id.* at 6–7. This refines the broader estimate based on prescribed criteria and utilizes more granular data provided by 23 jurisdictions, as opposed to the data samples used for the broader measure of shadow banking. *Id.* at 19, 22–23. This also generates a different growth rate than the one for shadow banking in broad terms, at 6.6% for 2013 instead of the 7% noted above. *Id.* at 23. It illustrates the difficulties in attaining comprehensive and comparable shadow banking data.

176. *Id.* at 8 (applying the broad measures of shadow banking).

177. *Id.* at 13–14 (noting the lack of data from IOSCO's hedge fund survey to supplement the 2013 statistics). See also FIN. STABILITY BD., 2013 GLOBAL SHADOW BANKING MONITORING REPORT 14–15, 15 Exhibit 4-1 (2013) [hereinafter FSB, 2013 GLOBAL SHADOW BANKING REPORT], available at [http://www.financialstabilityboard.org/publications/r\\_131114.pdf](http://www.financialstabilityboard.org/publications/r_131114.pdf) (noting that hedge funds' 0.2% share based on the 2012 flow of funds data would increase to 3% when incorporating results from the 2013 IOSCO Hedge Fund Survey Report and the numbers reported by participating jurisdictions in the FSB exercise).

178. FSB, 2014 SHADOW BANKING REPORT, *supra* note 174, at 13–14.

179. *Id.* at 9–10, 10 Exhibit 2-3 (estimates based on the broad measure of shadow banking assets, with the United Kingdom in third place at a 12% share).

180. *Id.* at 3.

181. FSB, 2013 GLOBAL SHADOW BANKING REPORT, *supra* note 177, at 12 (exhibiting the largest growth at over 42% in 2012). FSB, 2014 SHADOW BANKING REPORT, *supra* note 174, at 10 Exhibit 2-3 (noting an increase in China's share of the global shadow banking assets from 1% in 2007 to 4% at 2013 year end, coming in fifth place after Japan at 5%).

to monitor as shadow banking risks shift to the emerging markets,<sup>182</sup> possibly elevating the dangers of cross-border spillover risks to advanced economies.<sup>183</sup> Such regulatory concerns are particularly alarming in China given the continuing rapid expansion of its shadow banking sector,<sup>184</sup> accompanied by possible dangers from its scale of growth in debt.<sup>185</sup> The worrisome growth of this sector in China is compounded by the fact that it is fueled by regulatory arbitrage and propelled by a strong demand premised on potentially false expectation of government back-stop.<sup>186</sup> The multitude of issues raised by this topic is beyond the scope of this Article, but further research and consideration are imperative to address their global financial stability implications.

The shadow banking system brought together risks inherent in banking in a concealed form and a potentially more combustible combination. The interdependence of market participants through assets and liabilities held among them in the multi-step credit intermediation chain magnified the vulnerabilities from maturity and liquidity transformations, as well as procyclicality.<sup>187</sup> Such interdependence underscores hedge funds' potential for system risk merely as a key player in the credit intermediation chain,

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182. See Ambrose Evans-Pritchard, *Bank of England's Mark Carney Sees Shadow Banking in Emerging Markets as Biggest Global Risk*, THE TELEGRAPH (Dec. 13, 2013), <http://www.telegraph.co.uk/finance/mark-carney/10516661/Bank-of-Englands-Mark-Carney-sees-shadow-banking-in-emerging-markets-as-biggest-global-risk.html>. See also FSB, SHADOW BANKING ROADMAP, *supra* note 98 (identifying the assessment and mitigation of systemic risks posed by shadow banking as a regulatory reform priority in 2015).

183. See IMF, OCTOBER 2014 REPORT, *supra* note 6, at 20 (noting that “[t]he risk of direct spillovers to advanced economies from elevated stress in China’s financial system continues to rise with the growth in cross-border bank lending”).

184. See IOSCO 2014-15 RISK OUTLOOK, *supra* note 27, at 26–27 (highlighting the systemic risk potential of Chinese wealth management products); Fed. Reserve Bank of San Francisco, *Shadow Banking in China: Expanding Scale, Evolving Structure*, ASIA FOCUS, Apr. 2013, at 1 [hereinafter FRBSF], <http://www.frbsf.org/banking-supervision/publications/asia-focus/2013/april/shadow-banking-china-scale-structure/asia-focus-shadow-banking-in-china.pdf>; Michael Schuman, *Why You Need to Worry About China’s Shadow Banking*, TIME (Feb. 19, 2014), <http://time.com/8671/why-you-need-to-worry-about-chinas-shadow-banking/>.

185. See *A Question of Trust*, THE ECONOMIST, May 10, 2014, at 13–15 (noting concerns sparked by a series of troubled shadow banks and trust product defaults).

186. See JOE ZHANG, INSIDE CHINA’S SHADOW BANKING—THE NEXT SUBPRIME CRISIS (2013) (describing the origins, makeup and concerns relating to this sector in China). See also FRBSF, *supra* note 184, at 1 (discussing the differences in “composition, players and drivers” of the shadow banking systems between China and the U.S.). Note also that the present limited role of hedge funds, which is frequently tied to trust firms, may be expanded in the future with the pilot program allowing foreign hedge funds to operate in China.

187. Turner, *Shadow Banking*, *supra* note 127, at 13. See also FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING: A POLICY FRAMEWORK FOR ADDRESSING SHADOW BANKING RISKS IN SECURITIES LENDING AND REPOS 3 (2012) [hereinafter FSB CONSULTATIVE DOCUMENT: REPOS], [http://www.financialstabilityboard.org/publications/r\\_121118b.pdf](http://www.financialstabilityboard.org/publications/r_121118b.pdf) (highlighting this as a potential risk from repo and securities lending).

without being classified as a “shadow bank” per se.<sup>188</sup> In addition, market shocks are amplified in the shadow banking system that incorporate negative market information quickly. These shocks, coupled with greater reliance on market confidence, result in sensitivity to volatility in the capital markets.<sup>189</sup> Accordingly, the shadow banking system serves as “an international systemic risk transmitter in times of crisis.”<sup>190</sup>

Furthermore, hedge funds’ facilitation of credit intermediation in the shadow banking system also amplifies their negative economic trade-offs. Hedge funds’ multiple roles in shadow banking’s network of interconnections exacerbate the existing complexity and non-transparency involved in hedge fund activities.<sup>191</sup> These conditions heighten potential dangers from the use of leverage in hedge fund investment strategies and instruments. The GFC also demonstrated that vulnerabilities in the relationship between hedge funds and their prime brokers are significant and run both ways.<sup>192</sup>

Shadow banking poses a conundrum for financial regulatory policy. “Properly structured, shadow banking can increase efficiency, provide diversification, and spur competition and innovation.”<sup>193</sup> Non-bank credit intermediation offers alternative funding sources for the real economy and provides economic benefits in lowering the costs of credit for borrowers and expanding the investment portfolio for savers. However, it also generates run risks that are unregulated and unsupported by government back-stop. Therefore, finding the regulatory balance to preserve benefits of the parallel banking system, while safeguarding stability of the global financial system, is a critical challenge to the completion of post-GFC reforms.<sup>194</sup>

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188. See, e.g., FSB, 2012 SHADOW BANKING REPORT, *supra* note 166, ann. 5 at 18 (noting that AIG’s securities lending operation created “unexpected connections among disparate market players, such as insurance companies and hedge funds”).

189. Adrian & Ashcraft, *Shadow Banking Regulation*, *supra* note 169, at 102 (citing Dang, Gorton & Holmstrom (2009) regarding synthetic credit derivatives as a mechanism for rapid incorporation of negative information); ADRIAN & SHIN, SHADOW BANKING SYSTEM, *supra* note 130, at 6 (noting greater market shock sensitivity).

190. ADRIAN & ASHCRAFT, *supra* note 52, at 10. See also IMF COUNTRY REPORT No. 14/234 47–52 (2014), available at <http://www.imf.org/external/pubs/ft/scr/2014/cr14234.pdf> (considering the repo market as a channel for stress transmission from global shadow banks to UK banks).

191. See, e.g., FSB, 2012 SHADOW BANKING REPORT, *supra* note 166, ann. 5 at 18 (using the AIG experience to illustrate the unpredictable effects of contagion arising from its securities lending operations).

192. See *supra* Part I.B (describing the ripple effects of Lehman’s bankruptcy).

193. Mark Carney, former Governor of the Bank of Canada, Address to the Institute of International Finance 3 (Sept. 25, 2011), available at <http://www.bis.org/review/r110927a.pdf?frames=0>.

194. For a global overview of shadow banking regulatory reforms and implementation thereof, see IMF, OCTOBER 2014 REPORT, *supra* note 6, ch. 2, ann. 2.4 at 99–101.

#### **D. HEDGE FUND REGULATORY LANDSCAPE: THEN AND NOW**

The foregoing discussion highlights systemic risk concerns associated with hedge funds' role in the shadow banking system. It is essential to identify and respond to trends that may shift the hedge fund regulatory analysis of the trade-offs between their economic benefits and the dangers of potential systemic risk.<sup>195</sup> Having considered the areas of such regulatory concerns in the preceding analyses, at this juncture, it is useful to examine the extent these issues have been addressed by post-GFC reforms in order to determine the outstanding fault lines in the hedge fund regulatory landscape.

##### **1. Pre-GFC Hedge Fund Regulatory Environment**

Hedge funds' freedom from regulation before the GFC reflects the evaluation of trade-offs in favor of preserving their positive economic contributions towards liquidity and innovation in the financial system.<sup>196</sup> The contrarian investment strategies taken by many hedge funds also provide the benefit of investment diversification opportunities to deliver "alpha" in down markets. On these grounds, the industry managed to fend off periodic calls for regulation prompted by failures of large hedge funds, like LTCM in 1998 and Amaranth in 2006, as well as general concerns from the Asian financial crisis of 1997-1998. By and large, the policy approach has been for unofficial monitoring of the industry and its effects on the capital markets, and relying on market discipline through improved counterparty risk management.

Before the GFC, hedge funds operated in a largely unregulated arena.<sup>197</sup> Advisers to hedge funds in the United States were able to avoid regulation pursuant to the "private advisers exemption" under Section 203(b)(3) of the

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195. For example, signs of troubling trends reminiscent of certain market conditions in 2007, such as the continued low interest rates generating "search for yield" risk appetite, accompanied by economic recovery and a constrained banking sector incentivizing regulatory arbitrage. For a summary of financial market risks and trends identified by IOSCO, IMF, BIS, FSOC, and the European Securities and Markets Authority, see IOSCO, 2014-15 RISK OUTLOOK, *supra* note 27, at 11 tbl.1.

196. See Hومان B. Shadab, *The Challenge of Hedge Fund Regulation*, 30 REGULATION 36, 36 (2007) ("Academics, industry professionals, and regulatory authorities overwhelmingly agree that hedge funds benefit the economy by mitigating price downturns, bearing risks that others will not, making securities more liquid, and ferreting out inefficiencies. Those benefits are possible because hedge funds are subject to much less regulation than most investment companies."); DAVIES & GREEN, *supra* note 61, at 231-232.

197. IOSCO HEDGE FUNDS OVERSIGHT CONSULTATION REPORT, *supra* note 112, ann. 5 at 51-69 (summarizing hedge fund regulatory approaches in various jurisdictions, including Canada, the E.U., the U.K. and the U.S.). Hedge funds operated without disclosure requirements or restrictions on their activities, but were still subject to SEC regulations applicable to all securities market participants, such as prohibitions against fraud.

*Investment Advisers Act* of 1940 (the Advisers Act).<sup>198</sup> In the absence of statutory regulation, there are substantial best practices established for the hedge fund industry, largely impelled by the collapse of LTCM. The most prominent in the United States is the principles-based guidance for regulators and market participants set out in the *Agreement Among PWG and U.S. Agency Principals on Principles and Guidelines Regarding Private Pools of Capital* (the PWG Principles) by the President's Working Group (PWG)<sup>199</sup> on Financial Markets.<sup>200</sup> International organizations have also issued their own standards and guidelines for the hedge fund industry.<sup>201</sup> In addition, the hedge fund industry's own associations have attempted to provide self-regulation through their guides of sound practices in areas such as governance, disclosure, risk management, operations and valuation.

Like shadow banking, hedge funds pose a dilemma for their regulation. This is because “[a]n efficient capital market requires transparency and liquidity.”<sup>202</sup> What hedge funds lack in transparency is countered by the liquidity they provide to the markets. Granted, however, the absolute merit of market liquidity is in question post-crisis, likely altering this balance of cost and benefit analysis.<sup>203</sup> The GFC underscored the dangers of systemic risk, and the potential cost to the real economy that accompanied the positive attributes of hedge funds. Such impetus ushered in a new regulatory landscape for hedge funds to provide oversight and to increase transparency.

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198. Investment Advisers Act of 1940, 15 U.S.C. §§ 80b-1–21 (2006) (exempting advisers of fewer than 15 clients, which treats each fund as a client rather than the individual investors in a fund). Despite the weak rationale for such an exemption, attempts to remove it have not (until now) succeeded. In 2004, SEC adopted an amendment to Rule 203(b)(3)-1 that required most hedge fund advisers to register under the *Investment Advisers Act* of 1940. However, in 2006, this rule was overturned by the D.C. Circuit of Appeals in *Goldstein v. Sec. & Exch. Comm'n*, 451 F.3d 873 (D.C. Cir. 2006). See also Anita K. Krug, *Moving Beyond the Clamor for "Hedge Fund Regulation": A Reconsideration of "Client" Under the Investment Advisers Act of 1940*, 55 VILL. L. REV. 661, 663 (2010) (critiquing the treatment of “client” under the exemption, which resulted in under-regulation of private fund investment advisers).

199. The PWG is made up of the heads of the Treasury, the Federal Reserve System, the SEC and the Commodity Futures Trading Commission (CFTC).

200. PRESIDENT'S WORKING GRP. ON FIN. MKTS., AGREEMENT AMONG PWG AND U.S. AGENCY PRINCIPALS ON PRINCIPLES AND GUIDELINES REGARDING PRIVATE POOLS OF CAPITAL (2007) [hereinafter PWG PRINCIPLES], available at [http://www.treasury.gov/resource-center/fin-mkts/Documents/hp272\\_principles.pdf](http://www.treasury.gov/resource-center/fin-mkts/Documents/hp272_principles.pdf).

201. See, e.g., the BCBS and IOSCO promulgated sets of “sound practices” in dealing with the provision of liquidity and leverage to hedge funds. IOSCO has subsequently issued additional principles and best practices relating to hedge funds.

202. Tafara & Peterson, *supra* note 79, at 46.

203. See commentary *supra* Part I.B, on Lesson 2 and *infra* Part III.B (dispelling assumptions about liquidity).

## 2. Post-GFC Hedge Fund Regulatory Environment

Fortified with lessons of the GFC, numerous proposals for financial reforms, including hedge fund regulation, were put forward by national governments, international bodies, private institutions, and academia.<sup>204</sup> Industry bodies, such as the UK-based, Alternative Investment Management Association (AIMA)<sup>205</sup> and U.S.-based Managed Funds Association (MFA),<sup>206</sup> have also been quick to act in order to minimize the glare of regulation by establishing best practices for its members and actively participating in the policy discussions.<sup>207</sup> In examining the progress of post-crisis reforms, the international developments that steered the reshaping of hedge fund regulation can aid in understanding the context for future reform initiatives.

It was evident that hedge funds would be under scrutiny for their lack of regulation at the first G20 Washington Summit.<sup>208</sup> The G20 London Summit in 2009 named oversight of hedge funds among the goals for financial sector reforms, stating “hedge funds or their managers will be registered and will be required to disclose appropriate information on an

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204. See, e.g., U.S. TREASURY, FINANCIAL REGULATORY REFORM: A NEW FOUNDATION: REBUILDING FINANCIAL SUPERVISION AND REGULATION (2009) [hereinafter, U.S. TREASURY, A NEW FOUNDATION]; UK, HER MAJESTY'S TREASURY, REFORMING FINANCIAL MARKETS (2009); JOINT FORUM REPORT, *supra* note 113; IOSCO HEDGE FUNDS OVERSIGHT CONSULTATION REPORT, *supra* note 112; IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16; THE DE LAROSIÈRE GROUP, THE HIGH-LEVEL GROUP ON FINANCIAL SUPERVISION IN THE EU (2009) [hereinafter DE LAROSIÈRE REPORT], available at [http://ec.europa.eu/internal\\_market/finances/docs/de\\_larosiere\\_report\\_en.pdf](http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf) (advising on the future of European financial regulation and supervision); GROUP OF THIRTY, FINANCIAL REFORM: A FRAMEWORK FOR FINANCIAL STABILITY (2009) [hereinafter GROUP OF THIRTY PLAN], available at [http://www.group30.org/rpt\\_03.shtml](http://www.group30.org/rpt_03.shtml); CRMPG III REPORT, *supra* note 73 (setting out a private sector response to the GFC); G20 WORKING GROUP 1, *supra* note 1; COMM. ON CAPITAL MKTS. REGULATION, THE GLOBAL FINANCIAL CRISIS—A PLAN FOR REGULATORY REFORM (2009); CONGRESSIONAL OVERSIGHT PANEL, SPECIAL REPORT ON REGULATORY REFORM—MODERNIZING THE AMERICAN FINANCIAL REGULATORY SYSTEM: RECOMMENDATIONS FOR IMPROVING OVERSIGHT, PROTECTING CONSUMERS, AND ENSURING STABILITY (2009).

205. About AIMA, AIMA, <http://www.aima.org/en/about/index.cfm> (last visited Jan. 6, 2015).

206. MFA, <http://www.managedfunds.org/> (last visited Jan. 6, 2015).

207. See, e.g., AIMA ROADMAP, *supra* note 22, app. 2 at 137–38 (citing various sound practices guides); Press Release, Managed Funds Assoc., Managed Funds Association Takes Steps to Restore Investor Confidence with Enhanced Best Practices & Investor Due Diligence Recommendations (Mar. 31, 2009), <http://www.businesswire.com/news/home/20090331006134/en/Managed-Funds-Association-Takes-Steps-Restore-InvestorVKyU8Th0y70> (noting its updated Sound Practices for hedge fund managers and due diligence questionnaire for investors); HEDGE FUND STANDARDS BD., HEDGE FUND STANDARDS (2012), available at [http://www.hfsb.org/sites/10377/files/hedge\\_fund\\_standards\\_-\\_as\\_at\\_february\\_2012.pdf](http://www.hfsb.org/sites/10377/files/hedge_fund_standards_-_as_at_february_2012.pdf).

208. G20 WASHINGTON DECLARATION, *supra* note 83, at 3 ¶ 9.

ongoing basis to supervisors or regulators.”<sup>209</sup> In the G20 summits that followed, commitments on national and international fronts were reiterated to close the gaps in unregulated products and entities, including the recent focus on the oversight and regulation of the shadow banking sector.<sup>210</sup> This internationally coordinated process of financial reforms is characterized by the broad regulatory goals set by the G20, which are then tasked to the FSB and applicable standard-setters to establish overarching principles and reform proposals. They are generally subject to a public consultation process and G20 endorsement before the final detailed recommendations are issued, with the national implementation schedule outlined for subsequent peer review. *IOSCO’s Hedge Fund Oversight Final Report*,<sup>211</sup> together with the subsequent template of systemic risk data requirements,<sup>212</sup> are examples of soft law developments spurring on national reforms.<sup>213</sup> In addition, the monitoring and information sharing process continues under the coordination of these international financial organizations.<sup>214</sup> For hedge funds, two notable areas of financial reforms are underway in the international soft law process. The FSB is currently heading the reform efforts with respect to strengthening shadow banking oversight and regulation,<sup>215</sup> as well as working with IOSCO on the assessment of NBNI G-SIFI, potentially including asset management funds.<sup>216</sup>

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209. G20 LEADERS, DECLARATION ON STRENGTHENING THE FINANCIAL SYSTEM 3 (2009), available at [http://www.financialstabilityboard.org/wp-content/uploads/london\\_summit\\_declaration\\_on\\_str\\_financial\\_system.pdf](http://www.financialstabilityboard.org/wp-content/uploads/london_summit_declaration_on_str_financial_system.pdf). For an update on the progress of such hedge fund reforms, see FSB, OVERVIEW OF PROGRESS IN THE IMPLEMENTATION OF THE G20 RECOMMENDATIONS FOR STRENGTHENING FINANCIAL STABILITY 29–30 (2014) [hereinafter FSB, OVERVIEW OF PROGRESS 2014], available at <http://www.financialstabilityboard.org/wp-content/uploads/Overview-of-Progress-in-the-Implementation-of-the-G20-Recommendations-for-Strengthening-Financial-Stability.pdf>.

210. At the most recent G20 Summit held in Brisbane on November 15-16, 2014, the Leaders reiterated their focus on shadow banking and their commitment towards building a “stronger, more resilient global economy”. See G20 BRISBANE COMMUNIQUÉ, *supra* note 98, ¶ 12.

211. See IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16 (setting six high level principles on hedge fund regulation). See also corresponding changes in IOSCO REVISED OBJECTIVES AND PRINCIPLES, *supra* note 101.

212. See Press Release, IOSCO, International Regulators Publish Systemic Risk Data Requirements for Hedge Funds (Feb. 25, 2010), available at <http://www.iosco.org/news/pdf/IOSCONEWS179.pdf>; Press Release, IOSCO, IOSCO Publishes Updated Systemic Risk Data Requirements for Hedge Funds (Mar. 22, 2012), available at <http://www.iosco.org/news/pdf/IOSCONEWS229.pdf> (amending 2010 data template).

213. See, e.g., hedge fund regulation implemented under the Dodd-Frank Act in the U.S. and, in the E.U., the Alternative Investment Fund Manager Directive (AIFMD). The reforms under AIFMD have significant regulatory implications for the global hedge fund industry, but is not covered herein due to space constraints.

214. See, e.g., SECOND IOSCO HEDGE FUND SURVEY, *supra* note 16.

215. See *supra* Part I.C and *infra* note 254 and accompanying text (relating to FSB’s work on shadow banking reforms); FSB, SHADOW BANKING ROADMAP, *supra* note 98.

216. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9. See also FSB 2015 Agenda Letter, *supra* note 8, at 4.



As discussed in Part I.C.1, post-crisis financial reforms in the U.S. were largely implemented under the Dodd-Frank Act in 2010. Title IV of the Dodd-Frank Act marked the beginning of hedge fund regulation by eliminating the private adviser exemption,<sup>217</sup> and creating certain new exemptions, including one for advisers solely to private funds with less than \$150 million in assets under management in the United States.<sup>218</sup> The dangers associated with hedge funds' opacity and unregulated state are addressed by extending the perimeters of regulation through registration and disclosure requirements. All requisite registrations were completed by March 30, 2012, upon which the hedge advisers are subject to obligations under the Advisers Act, including disclosure on the amended Form ADV,<sup>219</sup> record keeping and examination by the SEC, and other business conduct requirements.<sup>220</sup> Except for "Exempt Reporting Advisers", registered advisers to hedge funds with at least \$150 million in RAUM are subject to additional systemic risk data collection requirements set out in Form PF. The deadlines for filing the initial and on-going Form PFs, along with the required disclosure, are determined by the size and type of funds.

In addition, a variety of other financial reforms will impact hedge funds' operations, such as regulation on bank counter-parties via Basel III, as well as those relating to the shadow banking activities and products involved in hedge fund strategies, such as over-the-counter derivatives reforms and the removal of the advertising ban pursuant to the Jumpstart Our Business Startups Act (the JOBS Act).<sup>221</sup> The Volcker Rule will also have significant implications for the hedge fund industry as banks divest their in-house proprietary trading desks.<sup>222</sup>

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217. See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 403, 124 Stat. 1376 (2010).

218. See *id.* § 403 (other exemptions are extended to venture capital fund advisers and certain foreign advisers without a place of business in the U.S.).

219. The amended Form ADV prescribes required disclosure from private fund advisers, comprising general information about the manager and the funds. See SEC, OMB NO. 3235-0049, FORM ADV: UNIFORM APPLICATION FOR INVESTMENT ADVISER REGISTRATION AND REPORT FORM BY EXEMPT REPORTING ADVISERS (2011).

220. Rules Implementing Amendments to the Investment Advisers Act of 1940, Investment Advisers Act Release No. IA-3221, 76 FR 42950-01 (July 19, 2011), available at <http://www.sec.gov/rules/final/2011/ia-3221.pdf> (final rules and rule amendments under the Advisers Act to implement Title IV were adopted by the SEC on June 22, 2011). See generally Kenneth W. Muller, Jay G. Baris & Seth Chertok, *The SEC's New Dodd-Frank Advisers Act Rulemaking: An Analysis of the SEC's Implementation of Title IV of the Dodd-Frank Act*, 2 HARV. BUS. L. REV. 57 (2012) (summarizing new hedge fund regulatory obligations).

221. Removing the ban on general solicitation and advertising for private offerings under Regulation D.

222. See *supra* note 88 and accompanying text. See also OFR, 2014 ANNUAL REPORT, *supra* note 23, at 72 (noting the resulting migration of banking activities to asset managers and pension funds).

### 3. Hedge Fund Regulatory Objective and Agenda

Although post-GFC reforms have been made pertaining to the lack of transparency and oversight of hedge funds, work remains outstanding to adequately monitor and manage systemic risk issues in a number of respects. To determine the focus for further reforms, a brief regulatory agenda follows, outlining informational and substantive concerns, and the potential challenges ahead reflecting current developments. Together with the preceding discussion on GFC causes and responses, a regulatory objective for hedge fund policy is developed as follows: *To establish an evolving regulatory framework that supports a more transparent and resilient global shadow banking system as a “sustainable source of market-based finance.”*<sup>223</sup>

#### a. Informational

Further improvements in data and understanding of hedge funds' leverage practices are required to better assess their potential systemic risks.<sup>224</sup> It remains to be seen to what extent information collected from the recent hedge fund disclosure requirements remedy data gaps to enable effective systemic risk monitoring and management.<sup>225</sup> More granularity is needed to evaluate assumptions underpinning the position that hedge funds currently do not pose significant shadow banking risk, such as leverage, redemption restrictions,<sup>226</sup> and the potential collective systemic impact of funds involved in crowded trades.<sup>227</sup> Such evaluation should also take into account changes in hedge funds' internal operations regarding information management in response to evolving investor demands or business needs as it may alter the cost and benefit analysis for regulatory compliance. The volume and complexity of data collected may also merit reconsideration of

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223. See *infra* Part I.D.3 and note 254 (developing the reform policy to address identified dangers to financial stability).

224. See IOSCO, 2014-15 RISK OUTLOOK, *supra* note 27, at 67.

225. See, e.g., *supra* Part I.D.2 (on hedge funds' reporting obligations under Form PF); OFR, 2014 ANNUAL REPORT, *supra* note 23, at 112–13 (noting the SEC rule issued in July 2014 to amend reporting requirements regarding liquidity on Form PF, made to align with money market fund reporting for improvement of data comparability). See also OFR ASSET MANAGEMENT REPORT, *supra* note 9, at 24–26 (describing data gaps for macroprudential analysis, oversight and monitoring of the asset management sector).

226. For example, relaxing trends in redemption restrictions increases the potential for maturity mismatch. See CITI REPORT, PART 1, *supra* note 44, at 21 Chart 12 (finding hedge funds' redemption notice period of 30 days or less accounts for 65% in 2014, up from 50% in 2008, thus reducing fund managers' ability to stem an investor run).

227. See OFR ASSET MANAGEMENT REPORT, *supra* note 9, at 22 (listing crowded trades as one of the factors that can increase the probability and gravity of fire sales).

the suitability of a disclosure-based regulatory approach in achieving effective information utilization.<sup>228</sup>

*b. Substantive*

Beyond informational requisites for systemic risk mitigation, two substantive concerns of particular relevance to hedge funds are currently the focus of ongoing regulatory reforms. As previously noted, the first is the oversight and regulation of shadow banking. The second is the designation methodology and analysis for NBNI G-SIFIs. As described below, the propensity for increased systemic risks is greater in resurgent markets and heightened by new arbitrage opportunities in the banking sector's more constrained regulatory environment.<sup>229</sup> This may result in shifting levels of portfolio liquidity and leverage for hedge funds, with corresponding changes in their potential systemic risk. As such, regulatory policy and tools may need to extend beyond supervisory conduct regulation to include prudential-type requirements for certain hedge funds. Part III explores the RCM's potential as an evolving regulatory mechanism to supplement the evaluation of potential systemic risks posed by hedge funds.

*c. Practical and Political Challenges*

The GFC demonstrated the sway of industry influence over political agenda and the impact of boom time mentality limiting regulation. This experience also underlined inherent tension between the need for internationally coordinated financial regulation and the goal of national competitiveness in the global capital markets. Four practical and political challenges are evident from the GFC lessons discussed in Part I.B: (i) political economy of regulation; (ii) regulatory capacity asymmetry;<sup>230</sup> (iii) incentive for excessive risk-taking;<sup>231</sup> and (iv) global regulatory coordination and cooperation.<sup>232</sup> The political economy of regulation deserves elaboration here, particularly against the backdrop of reform exhaustion and current financial market trends. It is critical for the necessary regulatory reforms to be made within the window of opportunity

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228. The utility of more disclosure needs to be balanced with diminishing marginal gains from the data collected, given the costs of processing such information. See Udo Braedle & Juergen Noll, *A Fig Leaf for the Naked Corporation*, 9 J. MGMT. & GOVERNANCE 79, 97 (2005).

229. For example, liquidity and leverage considerations are particularly pertinent amid concerns regarding the trends and resurgence in leveraged financing, particularly in the high yield bond markets. See, e.g., Jonathan Wheatley, *Corporate Bonds: Emerging Bubble*, FIN. TIMES (Feb. 15, 2015), <http://www.ft.com/intl/cms/s/0/d31fe990-b2a4-11e4-b234-00144feab7de.html#axzz3VKH0TIHv>. See also *supra* note 6 and accompanying text (noting certain market developments with potential systemic risk concerns).

230. See *supra* Part I.B (Lesson 4, discussing the challenges of regulatory capacity).

231. See *id.* (Lesson 3, relating to human fragilities and incentives).

232. See *id.* (Lesson 6, discussing the challenges for international regulatory cooperation).

opened by the GFC in the “Regulatory Sine Curve” highlighted by John Coffee.<sup>233</sup> While there is debate on the merits of regulatory changes born out of market crisis, this phenomenon is a pertinent reminder of the need to avoid complacency as the economy continues to recover.<sup>234</sup>

According to Coffee, the Regulatory Sine Curve drives the intensity of financial regulatory oversight, which rises following market crisis and falls as the markets and society regain normalcy resulting from waning public support for regulation needed to counter powerful interest groups.<sup>235</sup> This is especially relevant to hedge fund regulatory reforms, given the information asymmetry arising from the complex investment strategies, and its powerful industry organizations.<sup>236</sup> Opposing forces to further regulatory initiatives can be expected to build as public calls for regulation quiets.<sup>237</sup>

The foreseeable waning support for reform is particularly troublesome juxtaposed against growing risk-appetite in the financial markets. Evidence of the return to boom-era high yield corporate and other debt instruments, such as collateralized debt obligations (CDOs), and collateralized loan obligations (CLOs), along with resurgent asset-backed securities, like commercial mortgage-backed securities (CMBS), have continued to sound alarms.<sup>238</sup> The more constrained banking sector also creates incentives for

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233. John C. Coffee, Jr., *The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated*, 97 COR. L. REV. 1019, 1029–37 (2012).

234. See *id.* at 1029 (addressing opposing views on reforms born out of crisis). Cf. Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521 (2005); Roberta Romano, *Regulating in the Dark* (Yale Law & Econ. Research Paper No. 442, 2012). The debate on the merits and circumstances surrounding crisis-driven reforms, and the appropriate measures to address them, are outside of the scope of this Article.

235. See Coffee, *supra* note 233, at 1029–30 (“The standard cyclical progression along the Regulatory Sine Curve from intense to lax enforcement is driven by a basic asymmetry between the power, resources, and organization of the latent group (i.e., investors) and the interest groups affected by the specific legislation.”). See also Eric J. Pan, *Understanding Financial Regulation*, 4 UTAH L. REV. 1897, 1936–40 (2012) (considering the problem and implications of the sine curve of financial regulation).

236. This is evidenced by their active participation throughout the recent regulatory reform process. See Susan Pulliam & Tom McGinty, *Hedge Funds Boost Profile in Lobbying*, WALL ST. J. (June 22, 2009), <http://www.wsj.com/news/articles/SB124562579691335609> (noting the increased involvement of the hedge fund industry in the regulatory process since the onset of the crisis, with its lobbying expenditure rising to \$6.1 million in 2008, 7 times the average spending of \$897,000 between 2003 and 2006, according to figures from the Center for Responsive Politics).

237. See, e.g., Kathleen Casey, *REGULATION: Regulatory Changes in Key Markets*, HEDGE FUND INTELLIGENCE (Apr. 12, 2013), <http://www.hedgefundintelligence.com/Article/3189491/REGULATION-Regulatory-changes-in-key-markets.html> (arguing against including hedge funds in the shadow banking regulatory efforts).

238. Such developments in the financial markets underline the importance of continued monitoring and analysis to assess the return to leverage in the financial system. See, e.g., IOSCO, *SECURITIES MARKETS RISK OUTLOOK*, *supra* note 26, at 44–45, 44 n.55, 45 fig.26 (noting a rise in the issuances of CDOs and that issuances of high yield corporate bonds reached record levels globally in 2012); IOSCO, *2014-15 RISK OUTLOOK*, *supra* note 27, at 55–57, 62–64 (highlighting a resurgence of high yielding products over the last few years); Tracy Alloway, *Bundled Debt*

new financial activities and products to meet investors' "search for yield" in the prolonged low interest rate environment.<sup>239</sup> With the vacuum created by banks exiting business segments due to newly implemented restrictions, such as the Volcker Rule, regulation of non-banks filling that gap takes on greater importance.<sup>240</sup> Sustaining public engagement will be crucial to combat complacency, which requires keeping the dialogue open and comprehensible. Alan Blinder prescribed a "Seven-Step Rehab Program" for policy makers based on the lessons from the crisis which includes communication in plain and understandable language.<sup>241</sup> The proposed paradigm has potential to fill this much-needed prescription.

As financial headlines suggest, hedge funds are among the non-bank entities to assume businesses rendered too risky or costly to banks by higher prudential requirements.<sup>242</sup> These areas include: lending activities to middle-market companies,<sup>243</sup> which contribute to the growth of the credit hedge fund segment; activities involving non-qualified mortgages under the new rules,<sup>244</sup> and market-making and trading activities from the exit of sell-side proprietary traders in the banks.<sup>245</sup> Accordingly, such expanding opportunities in the shadow banking system may alter the systemic impact

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*Demand Reaching Levels of Height of Crisis*, FIN. TIMES (May 18, 2014), <http://www.ft.com/intl/cms/s/0/63ca5748-daea-11e3-9a27-00144feabdc0.html#axzz3BBjHqf2H>; Eliot Brown, *Commercial Mortgage-Backed Securities Make Comeback* WALL ST. J. (Jan. 13, 2015), <http://www.wsj.com/articles/commercial-mortgage-backed-securities-make-comeback-1421175548>.

239. See, e.g., CITI REPORT, PART 1, *supra* note 44, at 26–27, 45–47 (describing post-crisis development of investment strategies and financial products to meet demand from institutional and retail investors).

240. See, e.g., Tom Stabile, *Hedge Fund Frontier Likes New Regulation Landscape*, FIN. TIMES (Jan. 5, 2014), <http://www.ft.com/intl/cms/s/0/87552838-73d3-11e3-a0c0-00144feabdc0.html#axzz3BZ4hsFil>.

241. BLINDER, *supra* note 45, at 438–41 ("Say It in Language That Ordinary People Can Understand").

242. Lisa Abramowicz et. al., *Hedge Funds Rush Into Debt Trading with \$108 Billion*, BLOOMBERG (May 7, 2013), <http://www.bloomberg.com/news/2013-05-07/hedge-funds-rush-to-debt-trading-where-wall-street-tread.html> (pointing to shadow-banking firms filling in as lenders and highlighting the rapid growth of debt-focused hedge funds).

243. See Tracy Alloway, *Competition for Banking Business Lurks in the Shadows*, FIN. TIMES (Jan. 17, 2014), <http://www.ft.com/intl/cms/s/0/19a3ee84-7ed0-11e3-8642-00144feabdc0.html#axzz3O6NqLyaX> (reporting that gaps left by commercial lenders retreating from middle-market companies is being filled by hedge funds, among others).

244. See Tracy Alloway, *US Lenders Return to Securitized Mortgages*, FIN. TIMES (Feb. 18, 2014), <http://www.ft.com/intl/cms/s/0/80e41cae-97e9-11e3-ab60-00144feab7de.html#axzz3O6NqLyaX> (highlighting opportunities for entities like hedge funds in the non-qualified mortgage space).

245. See CITI INVESTOR SERVS., OPPORTUNITIES AND CHALLENGES FOR HEDGE FUNDS IN THE COMING ERA OF OPTIMIZATION—PART 2: CHANGES DRIVEN BY REGULATION 57 (2014), available at [https://www.citibank.com/mss/docs/citi\\_2014\\_spring\\_survey\\_part\\_2.pdf](https://www.citibank.com/mss/docs/citi_2014_spring_survey_part_2.pdf).

of hedge funds and require re-evaluation for further regulation.<sup>246</sup> Other trends in the hedge fund industry also deserve a closer look, including expansions in investment strategies,<sup>247</sup> shifts in investor base,<sup>248</sup> and growing concentration in large funds.<sup>249</sup> For example, the International Monetary Fund (IMF) recently identified “brand risks” resulting from the concentration of investment assets—whereby sharp drawdowns in one fund can propagate redemptions across funds managed by the same firm based on investors’ perception of brand quality of the asset management firm—to be a financial stability risk amplifying feature of asset management funds.<sup>250</sup> The foregoing developments warrant continuous close monitoring to assess hedge funds’ systemic risk potential as market conditions evolve.

Having identified outstanding issues for hedge fund regulation in the above broad regulatory agenda, a policy focus going forward can be formulated. In furtherance of the international soft law reform process, the overarching goal is guided by the G20’s “Framework for Strong, Sustainable and Balanced Growth.”<sup>251</sup> To achieve this, regulation should ensure appropriate trade-offs between shadow banking’s economic benefits

246. See Sam Fleming & Patrick Jenkins, *BoE’s Tucker Warns on Shadow Banking Risk*, FIN. TIMES (Oct. 17, 2013), <http://www.ft.com/intl/cms/s/0/38763856-3747-11e3-9603-00144feab7de.html#axzz3O6NqLyaX>.

247. See, e.g., Sam Jones, *Credit Hedge Fund CQS Moves into Equities*, FIN. TIMES (June 4, 2013), <http://www.ft.com/intl/cms/s/0/aff3f970-cd31-11e2-9efe-00144feab7de.html#axzz3O6NqLyaX> (reporting on the move into equities by CQS, Europe’s biggest credit hedge fund by AUM).

248. See AIMA, BEYOND 60/40: THE EVOLVING ROLE OF HEDGE FUNDS IN INSTITUTIONAL INVESTOR PORTFOLIOS 4, 6 (2013), available at <http://www.thehedgefundjournal.com/sites/default/files/aima-beyond-60-40-report.pdf> (noting continued strong growth of hedge funds’ institutional investors); CITI REPORT, PART 1, *supra* note 44 (noting hedge funds’ diversification to new segments of investors through the retail market via multi-alternative mutual funds or single-manager “closed-end interval funds”). Such expansion into more retail-focused markets may also prompt reconsideration of hedge fund regulation on the basis of investor protection.

249. See Eric Uhlfelder & Jonathan Kanterman, *Hedge Funds: Mediocre Performance Fails to Stop Gush of New Money*, FIN. TIMES (Jan. 5, 2014), available at <http://www.ft.com/intl/cms/s/0/8c9204ca-67d9-11e3-a905-00144feabdc0.html#axzz3O6NqLyaX> (citing findings by HedgeFund Intelligence that, as of the first half of 2013, 11 US-based firms are each managing more than \$20 billion and that more than two-thirds of all hedge fund assets are controlled by the group of 287 managers with assets over \$1 billion). See also *supra* notes 41–44 and accompanying text (noting trend for growth concentration in large firms). A similar trend towards concentration of holdings in big firms is also found in the greater asset management industry. See IMF, OCTOBER 2014 REPORT, *supra* note 6, at 33, 33 n.32.

250. See IMF, OCTOBER 2014 REPORT, *supra* note 6, at 33 (identifying features of funds investing in credit instruments that could result in elevated financial stability risks—“[t]hese features could exacerbate the feedback loop between negative fund performance and outflows from the sector, leading to further pressure on prices and the risk of runs on funds . . .”).

251. G20 LEADERS, LEADERS’ STATEMENT: THE PITTSBURGH SUMMIT (2009)[hereinafter G20 PITTSBURGH DECLARATION], available at [https://www.g20.org/sites/default/files/g20\\_resources/library/Pittsburgh\\_Declaration.pdf](https://www.g20.org/sites/default/files/g20_resources/library/Pittsburgh_Declaration.pdf) (launching this policy framework at the Summit).

and its potential systemic risks for a positive contribution to the real economy. It requires improvement in the transparency and resilience of this parallel banking sector, including hedge funds' role in it.<sup>252</sup> Therefore, the regulatory objective for hedge fund policy can be conceived as follows: **To establish an evolving regulatory framework that supports a more transparent and resilient global shadow banking system as a "sustainable source of market-based finance."**<sup>253</sup> As stated, this regulatory objective is consistent with the G20's goal for shadow banking reform and the proposed paradigm complements the current reform process addressing systemic risk in this parallel banking realm.<sup>254</sup>

## II. HEDGE FUND POLICY PARADIGM: A POST-CRISIS SYNTHESIS

### A. NORMATIVE BASIS

The preceding discussion provides a backdrop for the regulatory task to safeguard global financial stability and its implications for hedge funds. This Article does not purport to be a comprehensive review of scholarship and data in developing the hedge fund regulatory proposal.<sup>255</sup> Instead, it presents a thought experiment to meet the regulatory policy objective established above by addressing the informational, substantive, practical and political challenges that remain for hedge funds in the shadow banking space. Towards this end, I propose a targeted and balanced policy paradigm for hedge funds, which facilitates the analysis of a spectrum of potential risks and responses along continuums using the RCM.<sup>256</sup> This approach reframes the multi-layered and complex issues of hedge fund regulation into basic concepts of trade-offs for ongoing regulatory dialogue.

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252. See Mark Carney, Governor of the Bank of England and Chair of the FSB, Taking Shadow Banking out of the Shadows to Create Sustainable Market-Based Finance 3 (June 16, 2014), available at <http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech740.pdf> (setting the goal of replacing "a shadow banking system prone to excess and collapse with one that contributes to strong, sustainable balanced growth of the world economy").

253. *Id.* at 2.

254. See *id.* (stating that the aim of shadow banking reform has been to "deliver a transparent, resilient, sustainable source of market-based financing for real economies"); see also FSB, SHADOW BANKING ROADMAP, *supra* note 98, at 1 ("Transforming shadow banking into resilient market-based financing has been one of the core elements of the FSB's regulatory reform agenda . . . [as well as] build[ing] safer, more sustainable sources of financing for the real economy").

255. Consistent with the stated position on leveraging and complementing developments in the current international soft law system, this Article places greater emphasis on work by national and international bodies involved in such reform processes, such as the FSB and the FSOC in the United States. See also qualification in *supra* note 9.

256. See *infra* Part IV (setting out the premises, structure and functions for the RCM).

Although the underpinning concepts of trade-offs and continuums are not novel, their use in the proposal aligns with the goal of reducing complexity and increasing accessibility. I draw on the often-used notion of continuums where a spectrum of intervention may be appropriate depending on the circumstances and resource constraints.<sup>257</sup> As the proposed paradigm is based on continual trade-offs necessitated by regulation, it can be conceptualized as two continuums of regulation in terms of the level of government intervention and the extent of their prescriptiveness. Each of these aspects of regulation can be represented graphically by a Regulatory Intensity Continuum (RIC) and a Regulatory Approach Continuum (RAC), respectively, combined to form the RCM.

The normative basis for this thought experiment is a synthesis of certain post-crisis experiences. In formulating a forward-looking policy to address hedge funds' regulatory challenges, I incorporate lessons learned from the GFC and argue that the interplay of ideals underpinning some prevalent developments and concepts around the recent crisis can be synthesized to make the case for the proposed paradigm—one that is evolving, responsive, inclusive, and consistent with existing international regulatory landscape in meeting the stated regulatory objective for hedge funds. The following discussion expands on these four elements: GFC lessons, the international soft law system, PBR, and inclusive capitalism.

### 1. GFC Lessons

Bearing in mind the regulatory objective and the outstanding issues for reform, the proposed paradigm builds on three basic concepts gleaned from the lessons of the GFC.<sup>258</sup> (i) regulation necessitates making trade-offs among regulatory objectives; (ii) we cannot regulate what we do not understand; and (iii) “*A global crisis requires a global solution.*”<sup>259</sup> The first premise reflects the fundamental economic principle that “people face trade-offs,”<sup>260</sup> which extends to government policy-making.<sup>261</sup> Since there is

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257. This is evident in various aspects of society, such as addressing the range of student needs in public education within staffing and budgetary constraints.

258. See *supra* Part I.B (discussing lessons of the GFC).

259. G20 LEADERS, LONDON SUMMIT—LEADERS' STATEMENT ¶ 2 (2009), available at [https://www.g20.org/sites/default/files/g20\\_resources/library/London\\_Declaration\\_0.pdf](https://www.g20.org/sites/default/files/g20_resources/library/London_Declaration_0.pdf) (emphasis added). Note, however, that while this statement appears simple and logical, whether and how a “global solution” can be achieved is complex and controversial, as demonstrated by differences in the United States' and United Kingdom's handling of big bank failures. See, e.g., Gillian Tett, *Regulators Should Say Who Calls the Shots*, FIN. TIMES (Feb. 27, 2014), <http://www.ft.com/intl/cms/s/0/d49b72f2-9ee7-11e3-8663-00144feab7de.html#axzz3QKZkMj48>.

260. GREGORY MANKIW, PRINCIPLES OF ECONOMICS 4 (7th ed. 2014) (listing this as the first of ten principles of economics).

261. See, e.g., CHRIS BRUMMER, SOFT LAW AND THE GLOBAL FINANCIAL SYSTEM—RULE MAKING IN THE 21ST CENTURY 130 (2012) (stating that “[f]inancial regulation involves various trade-offs . . .”).



“no regulatory free lunch,” policy decisions involve balancing trade-offs on regulatory goals.<sup>262</sup> In hindsight, many of the choices made between conflicting goals contributed to the GFC.<sup>263</sup> The second assertion is another truism that is underscored by the opaque and complex financial products and markets exposed in the GFC. Specifically, the convoluted and ever-changing layers in the shadow banking system require an adaptive regulatory approach. The final contention is borrowed from the Leaders’ Declaration at the 2009 G20 London Summit to highlight the need for international cooperation and coordination in financial regulations.<sup>264</sup> Domestic hedge fund regulatory reform will need to account for the interplay with the international soft law system.<sup>265</sup>

## 2. International Soft Law System

The presence of global governance tied together by government networks came to prominence over the course of the 1990s.<sup>266</sup> In the financial sector, these networks were formed in response to market conditions and filled the need for international coordination and regulatory gaps on a global level, such that their standards and principles developed into a form of international financial governance.<sup>267</sup> Due to space constraints, below is a cursory view of the role of such soft law regime in guiding the global financial system through the recent financial crisis.<sup>268</sup>

262. See MANKIW, *supra* note 260 (noting that “[m]aking decisions require trading off one goal against another”).

263. See *supra* Part I.B (discussing lessons of the GFC and the trade-offs made leading up to the crisis).

264. See *supra* note 259. See also JOSEPH STIGLITZ ET AL., *THE STIGLITZ REPORT: REFRAMING THE INTERNATIONAL MONETARY AND FINANCIAL SYSTEMS IN THE WAKE OF THE GLOBAL CRISIS 195–97* (2010) [hereinafter *STIGLITZ REPORT*] (stressing the importance of collective global response to the crisis and highlighting the shortcomings of the existing political institutions to do so); IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16, at 7–8; GROUP OF THIRTY PLAN, *supra* note 204, at 37–38; DE LAROSIÈRE REPORT, *supra* note 204, at 59 (all expressing agreement on the importance of international coordination and cooperation).

265. See *supra* Part I.D.2 (discussing the soft law development through the international post-GFC reform efforts).

266. See Anne-Marie Slaughter, *Global Government Networks, Global Information Agencies, and Disaggregated Democracy*, 24 MICH. J. INT’L L. 1041, 1042–45 (2003) (examining the phenomenon of global governance through government networks and the issues and concerns connected with their rising importance in the shift from “government” to “governance”). See generally ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* (2004).

267. For example, the Financial Stability Forum (FSF), predecessor to the FSB, was created by the Group of Seven industrial countries to address the threats of financial instability following the Asian crisis of 1997–1998. See FIN. STABILITY BD., <http://www.financialstabilityboard.org/> (last visited Jan. 3, 2015). FSB’s structure continues to be refined in a review of its framework of representation reported at the 2014 G20 Brisbane Summit. See FSB, *OVERVIEW OF PROGRESS 2014*, *supra* note 209, at 43–44. See also DAVIES & GREEN, *supra* note 61, ch. 3 (discussing significant financial regulatory organizations).

268. For insightful and comprehensive coverage on this system of international financial law, see BRUMMER, *supra* note 261.

The soft law system facilitated post-GFC reforms led by the G20 in coordinating high-level principles and tasking international organizations (e.g., the FSB) and standard setters to follow through with the assessment, recommendation, and national implementation of these initiatives. This globalized regulatory landscape is of particular importance to hedge funds since their organization and activities span across borders. As discussed later, the rising role of soft law in financial regulation will also impact the balance between principles and rules in regulatory approaches.<sup>269</sup>

Since the initial 2008 G20 Washington Summit, numerous initiatives have been coordinated and undertaken in such international networks, with the G20 designated as the premier forum for international economic cooperation in this global architecture.<sup>270</sup> The G20 also launched a “Framework for Strong, Sustainable, and Balanced Growth” to develop a coordinated process for setting policy objectives, submitting proposed domestic policies and plans to achieve these objectives and collectively assess the progress.<sup>271</sup>

The reform initiatives steered by such transnational networks set the direction and guided the course to monitor, supervise and mitigate systemic risks in various aspects of the global financial system, including the shadow banking sector.<sup>272</sup> At the request of the G20 Leaders at the Seoul Summit in 2010,<sup>273</sup> the FSB took the lead in examining shadow bank systemic risk concerns and developing recommendations to bolster the supervision and regulation of the industry.<sup>274</sup> Since then, the FSB has (i) established task forces and workstreams to analyze these issues,<sup>275</sup> (ii) collaborated with applicable international standard-setters, like IOSCO, (iii) generated preliminary reports, (iv) invited and incorporated comments through public consultations, and (v) issued final recommendations on the shadow banking framework.<sup>276</sup> Most recently, FSB’s Roadmap for further work to

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269. See *infra* Parts II.A.3 and III.C (discussing principles based regulation and the considerations for the RAC).

270. See G20 PITTSBURGH DECLARATION, *supra* note 251, ¶ 19, 10–13 (providing the re-established FSB with a broadened mandate to coordinate and monitor the reform efforts underway, along with more legitimate and effective roles for the IMF and World Bank). See also *supra* Part I.D.2 (describing the role of soft law in the recent financial reform process).

271. G20 PITTSBURGH DECLARATION, *supra* note 251, at 2, 5–7, 22–23.

272. See BRUMMER, *supra* note 261, at 236–38 (describing the post-GFC global regulatory system relating to shadow banking).

273. G20 LEADERS, THE SEOUL SUMMIT DOCUMENT ¶ 41 (2010), available at [https://www.g20.org/sites/default/files/g20\\_resources/library/Seoul\\_Summit\\_Document.pdf](https://www.g20.org/sites/default/files/g20_resources/library/Seoul_Summit_Document.pdf).

274. See FSB, OVERVIEW OF PROGRESS 2014, *supra* note 209 (reporting to the G20 regarding progress on global policy development and reform implementation).

275. FSB 2011 SHADOW BANKING RECOMMENDATIONS, *supra* note 139, at 1.

276. These final recommendations were endorsed at the 2013 Saint Petersburg Summit. See G20 LEADERS, LEADERS’ DECLARATION—SAINT PETERSBURG SUMMIT ¶ 76 (2013), available

at [https://www.g20.org/sites/default/files/g20\\_resources/library/Saint\\_Petersburg\\_Declaration\\_ENG](https://www.g20.org/sites/default/files/g20_resources/library/Saint_Petersburg_Declaration_ENG)

strengthen oversight and regulation of shadow banking was endorsed by the G20 at the November 2014 Brisbane Summit.<sup>277</sup> Going forward, the FSB is centrally placed in this soft law regime for the international coordination and oversight functions necessary to address systemic risk.<sup>278</sup>

The progression in the soft law system can also provide channels for the law to harden. In many cases, international financial standards have crystalized to have the same effect as law through market forces or by their explicit adoption into national laws. The adoption of Basel II, Basel 2.5, and Basel III is a prominent example.<sup>279</sup> Compliance with these standards is made more transparent and enhanced by the peer review processes of members in the transnational networks, such as IMF's Financial Sector Assessment Program (FSAP).<sup>280</sup> As illustrated in Part III.D, the RCM can

\_0.pdf; FSB, SHADOW BANKING ROADMAP, *supra* note 98, ann. (setting out the agreed course of action for outstanding issues in shadow banking reforms). For the series of works published by the FSB in this regard, see generally FIN. STABILITY BD., SHADOW BANKING: SCOPING THE ISSUES—A BACKGROUND NOTE OF THE FINANCIAL STABILITY BOARD (2011), *available at* [http://www.financialstabilityboard.org/publications/r\\_110412a.pdf](http://www.financialstabilityboard.org/publications/r_110412a.pdf); FSB 2011 SHADOW BANKING RECOMMENDATIONS, *supra* note 139; FSB INTERIM REPORT ON REPOS, *supra* note 161; FSB CONSULTATIVE DOCUMENT: REPOS, *supra* note 187; FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING—A POLICY FRAMEWORK FOR STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING ENTITIES (2012), *available at* [http://www.financialstabilityboard.org/publications/r\\_121118a.pdf](http://www.financialstabilityboard.org/publications/r_121118a.pdf); FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING—AN INTEGRATED OVERVIEW OF POLICY RECOMMENDATIONS (2012) [hereinafter FSB CONSULTATIVE DOCUMENT—OVERVIEW], *available at* [http://www.financialstabilityboard.org/publications/r\\_121118.pdf](http://www.financialstabilityboard.org/publications/r_121118.pdf); FSB 2013 RECOMMENDATIONS—OVERVIEW, *supra* note 140; FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING—POLICY FRAMEWORK FOR ADDRESSING SHADOW BANKING RISKS IN SECURITIES LENDING AND REPOS (2013) [hereinafter FSB 2013 RECOMMENDATIONS—REPOS], *available at* [http://www.financialstabilityboard.org/publications/r\\_130829b.pdf](http://www.financialstabilityboard.org/publications/r_130829b.pdf); FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15.

277. See FSB, SHADOW BANKING ROADMAP, *supra* note 98; G20 BRISBANE COMMUNIQUÉ, *supra* note 98, ¶ 12.

278. For an overview of the FSB's ongoing reform work in the global financial sector, see FIN. STABILITY BD., FIRST ANNUAL REPORT (2015), *available at* [www.financialstabilityboard.org/wp-content/uploads/First-FSB-Annual-Report.pdf](http://www.financialstabilityboard.org/wp-content/uploads/First-FSB-Annual-Report.pdf). The FSB can continue to establish policy implementation timetables and oversee the review and reporting process under its Coordination Framework for Monitoring the Implementation of Agreed G20/FSB Financial Reforms. See FIN. STABILITY BD., A COORDINATION FRAMEWORK FOR MONITORING THE IMPLEMENTATION OF AGREED G20/FSB FINANCIAL REFORMS (2011), *available at* [http://www.financialstabilityboard.org/publications/r\\_111017.pdf](http://www.financialstabilityboard.org/publications/r_111017.pdf); FIN. STABILITY BD., PROGRESS IN IMPLEMENTING THE G20 RECOMMENDATIONS ON FINANCIAL REGULATORY REFORM (2013), *available at* [https://www.g20.org/sites/default/files/g20\\_resources/library/FSB\\_Secretariat\\_Traffic\\_Lights\\_Scoreboard.pdf](https://www.g20.org/sites/default/files/g20_resources/library/FSB_Secretariat_Traffic_Lights_Scoreboard.pdf).

279. Julia Black & David Rouch, *The Development of the Global Markets as Rule-Makers: Engagement and Legitimacy*, 2 L. & FIN. MARKETS REV. 218, 224 (2008).

280. BRUMMER, *supra* note 261, at 278 (positing that soft law can evoke hard law under the right circumstances and citing examples of reforms in the international surveillance and monitoring process).

capture the position of hedge fund regulatory approach in broad terms, which offers a national overview, facilitates comparisons and complements such soft law developments.

The current international soft law regime also provides important perspective for the appropriate balance on the RAC. As between principles and rules, a more principles-based regulatory approach would be complementary and conducive to the development of international financial regulation governance,<sup>281</sup> as well as support progress for mutual recognition and harmonization. It is easier to compare and adopt broad principles than specific rules, as seen from the financial reform process under the G20, which began with five common principles for financial reform.<sup>282</sup>

National regulatory policy for hedge funds should utilize the soft law system to maximize its effectiveness in safeguarding global financial stability. The brief account above illustrates the importance of the international governance system in curtailing and repairing the damages of the GFC,<sup>283</sup> as well as the role of soft law guiding post-crisis regulatory reforms on the domestic front. However, notwithstanding the significance of these international reform efforts, they are subject to the precarious and voluntary nature of an informal soft law system.

The globalized financial markets necessitate trade-offs between regulatory cooperation, to function with stability, and national competitive advantage, to ensure thriving domestic economies. The international soft law system may be able to bridge the divides and straddle the fluctuations of priorities over time—a potentiality subject to further study.

### 3. Principles-Based Regulation

Conceptualizing regulation in the form of a continuum is widely used in the context of principles and rules-based discourse, and the extensive academic scholarship on the topic forms the foundation for the RAC proposed here.<sup>284</sup> The traditional debate has come to recognize that

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281. See Cristie Ford, *New Governance, Compliance, and Principles-Based Securities Regulation*, 46 AM. BUS. L. REV. 1, 27–28 (2008) (arguing that the new governance approach is a necessary complement to effective principles-based securities regulation).

282. See G20 WASHINGTON DECLARATION, *supra* note 83, at 2–3 (committing to common principles for financial reform).

283. See DANIEL W. DREZNER, *THE SYSTEM WORKED: HOW THE WORLD STOPPED ANOTHER GREAT DEPRESSION* ch. 2 (2014) (discussing the positive contributions made by these global economic governance institutions).

284. See generally Lawrence A. Cunningham, *A Prescription to Retire the Rhetoric of “Principles-Based Systems” in Corporate Law, Securities Regulation, and Accounting*, 60 VAND. L. REV. 1411, 1492 (2007) (“Rules and principles are imperfect categories to describe individual legal or accounting provisions. While some provisions may fit neatly into such categories, rational systems of law or accounting partake of both types, resulting in hybrids located along a continuum.”); Ford, *supra* note 281, at 8–9; Coffee & Sale, *supra* note 72, at 752–53 (arguing that

principles and rules are not separate and distinct, but rather may overlap and function on a continuum.<sup>285</sup> Even the former U.K. Financial Services Authority (FSA),<sup>286</sup> a principles-based financial regulator, acknowledged that its 11 core principles of only 194 words are supplemented by a very large rulebook of 8,500 pages.<sup>287</sup> This supports the view taken here that rules are derived from principles. In this way, the concept of a continuum facilitates the decision on how many rules are necessary to supplement the principles in each case. The application of this view can be represented as points on the RAC. For example, the PWG Principles on systemic risk provide broad principles for appropriate and effective counterparty risk-management, which are more on the principles end of the continuum.<sup>288</sup> On the other hand, the new disclosure requirements prescribing the reporting of RAUM under Form PF<sup>289</sup> fall more on the rules end of the RAC.

From this perspective, the formulation of a regulatory approach is not one of principles-based versus rules-based, but more of a re-balancing of principles and rules to best achieve the regulatory objectives in the specific context.<sup>290</sup> Therefore, from the extreme ends of the spectrum of the RAC, adjustments for the balance of principles and rules along the continuum are made as appropriate for the circumstances and application. By conceptualizing such mix of regulatory approaches as points on the continuum, its classification transcends what Lawrence Cunningham refers to as false dichotomies of binary labels.<sup>291</sup> Using the RAC for this exercise involves a combination of trade-offs in a multi-factored evaluation as illustrated in Part III.C.

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“most systems are really combinations of the two, with the major difference being the location of the system’s center of gravity in one or the other system”).

285. See Cristie L. Ford, *Principles-Based Securities Regulation in the Wake of the Global Financial Crisis*, 55 MCGILL L.J. 257, 266 (2010) (asserting that “[r]ules and principles are also best understood as points on a continuum rather than discrete concepts, and there is a good deal of overlap and convergence among them”).

286. Under the post-crisis regulatory structural reforms in the United Kingdom, the FSA has now become two separate regulatory authorities, The Financial Conduct Authority and The Prudential Regulation Authority.

287. See Callum McCarthy, Chairman, FSA, Speech Delivered at the British American Business London Insight Series and Financial Services Forum: Financial Regulation: Myth and Reality 1–2 (Feb. 13, 2007), available at [http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2007/0213\\_cm.shtml](http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2007/0213_cm.shtml).

288. See, e.g., PWG PRINCIPLES, *supra* note 200, ¶ 7.1 (“Creditors and counterparties should undertake appropriate and effective due diligence before extending credit to a private pool of capital and on an ongoing basis thereafter.”).

289. See Form PF, *supra* note 17 (setting out provisions for RAUM calculation).

290. See Cunningham, *supra* note 284, at 1470 (“The issue is . . . whether a rule or principle is superior for a given situation, an outcome that depends on trade-offs (such as certainty versus context), how rules and principles are applied, and how they interact.”). See also Ford, *supra* note 285, at 266–267 (referencing the examination of precision in statutory drafting and the balance between rules and principles based on decisions about priorities and concerns).

291. See Cunningham, *supra* note 284, at 1492–1493.

While there is general agreement on the strengths and weaknesses of each approach in the rich literature on the subject, the application of such features to determine their relative superiority is far less obvious due to internal conflicts and contextual dependency.<sup>292</sup> Consequently, the choice between rules and principles entails trade-offs in both effectiveness and implementation costs.<sup>293</sup> Rules provide for precision and certainty, which improve transparency, but by design can only cover known or anticipated circumstances. Therefore, the rules-based approach is ill-equipped to adapt to changing market conditions and may quickly become outdated. In comparison, broad principles can be interpreted to incorporate the applicable context and better stand the test of time. The flexibility and responsiveness to evolving markets and products offered by a principles-based approach are the primary reasons for endorsing its use in securities regulation.

Another reason for the ascendance of a principles-based approach is its effects on the mind-set of the regulated to foster a “culture of compliance.”<sup>294</sup> By placing the onus on the regulated entities to determine how to achieve the outcomes set out by principles, they also become more accountable for the compliance decisions made. However, flexibility and discretion come at the price of inconsistency and unpredictability, which are undesirable for market operations. Finally, as seen in the GFC, principles can be more susceptible to manipulation in its interpretation, thereby increasing the difficulties and costs of enforcement.

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292. See, e.g., Julia Black et al., *Making a Success of Principles Based Regulation*, 1 L. & FIN. MARKETS REV. 191, 193–96, 200–04 (2007) (addressing the benefits and drawbacks of principles-based regulatory approach and identifying eight “critical success factors”); Cristie Ford, PRINCIPLES-BASED SECURITIES REGULATION 27–30 (2009), available at <http://www.expertpanel.ca/documents/research-studies/Principles%20Based%20Securities%20Regulation%20-%20Ford.English.pdf> (considering the balance between rules and principles in statutory drafting); Ford, *supra* note 281, at 8 (referencing literature on various aspects of the principles versus rules debate in footnotes 25–32). See also Cunningham, *supra* note 284, at 1423–1425, 1425 n.41 (observing the lack of agreement on the relative trade-offs of each approach in literature: “Indeed, rules may provide more certainty for contexts that are simple, stable, and involve small stakes, but less certainty when addressed to complex, dynamic, high-stakes contexts”).

293. See, e.g., Cunningham, *supra* note 284, at 1424 n.34; (“In general, rules are more costly than principles to create, while principles can impose higher compliance costs.”).

294. See, e.g., Erinn B. Broshko. & Kai Li, *Corporate Governance Requirements in Canada and the United States: A Legal and Empirical Comparison of the Principles-Based and Rules-Based Approaches* 10 (Sauder Sch. of Bus., Working Paper, 2006), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=892708](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=892708). Authors Broshko and Li conducted a comparison of the “principles-based” versus “rules-based” corporate governance regimes in Canada and the U.S. and noted this conclusion from the debates of legal literature.

#### 4. Inclusive Capitalism

The proposed paradigm also draws inspiration from the ideals of “inclusive capitalism” as spearheaded by the Inclusive Capitalism Initiative (ICI). This initiative began as a post-GFC response to build a case for capitalism that is inclusive in providing economic opportunities and shared prosperity.<sup>295</sup> The envisioned paragon serves as a unifying theme for the preceding three rationales of the proposed paradigm. To begin, its inception resulted from disillusionment in capitalism and breakdown of public trust following the events of the GFC. The crisis also underscored the interdependence of global economies and raised the stature of the soft law system. Finally, remedies to the malaises of pre-crisis style capitalism require a renewal that includes “broad participation over narrow patronage”<sup>296</sup> and fosters a sense of individual responsibility for systemic ramifications of their actions. Such goals recommend a more principles-based regulatory approach where appropriate.

The above discussion highlights aspects of inclusive capitalism relevant to the formulation of the proposed paradigm. First, it represents a rebalancing of market fundamentalism and government intervention in the financial system, which takes us back to the premise of trade-offs for the proposal herein. Second, the basis for inclusive capitalism is consistent with the G20 goals under its “Framework for Strong, Sustainable and Balanced Growth.”<sup>297</sup> By recognizing the extent of global interdependence, we can better evaluate trade-offs entailed by political policy and regulation.<sup>298</sup> Such evaluation is further aided by open and continued dialogue with the stakeholders.

The proposed paradigm seeks to reframe the analysis of hedge funds’ systemic risk potential through the use of the RCM and expanded

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295. McKinsey & Co., TOWARDS A MORE INCLUSIVE CAPITALISM (2012), available at [http://www.mckinsey.com/global\\_locations/europe\\_and\\_middleeast/united\\_kingdom/en/latest\\_thinking/renewing\\_capitalism](http://www.mckinsey.com/global_locations/europe_and_middleeast/united_kingdom/en/latest_thinking/renewing_capitalism) (setting out the blueprint for the initiative to address societal inequalities and “promote a debate about the benefits of capitalism and how to share those benefits with as many people as possible.”). See also Conference on Inclusive Capitalism: Building Value, Renewing Trust, May 27, 2014, London, hosted by the Lord Mayor of the City of London and E.L. Rothschild and organized by The Inclusive Capitalism Initiative and the Financial Times, <http://www.inc-cap.com/> (last visited Mar. 24, 2015). Note that the initiative is subject to critics who question its motives and intended goals. However, further consideration of the concept of, and scholarship on, “inclusive capitalism” is outside the scope of this Article.

296. See Christine Lagarde, Managing Director, IMF, Economic Inclusion and Financial Integrity—an Address to the Conference on Inclusive Capitalism 2 (May 27, 2014), available at <https://www.imf.org/external/np/speeches/2014/052714.htm>.

297. See *id.* at 2 (speaking of inclusion in economic growth and integrity in the financial system as two dimensions of the quest for inclusive capitalism).

298. See Conference on Inclusive Capitalism, *supra* note 295. President Clinton spoke about defining the terms of interdependence and the connection to the success of cooperative societies.

participation in building a “financial interpretive community.”<sup>299</sup> This paradigm suggests a new way to view complexity and how to deal with its implications. Further, the broader constituents in this widened “financial interpretive community”—bridging the viewpoints of industry, market participants, regulators, experts and other stakeholders<sup>300</sup>—can also reframe the assessment of inherent risk-reward trade-offs of finance in the context of the broader system. Accomplishing these possibly lofty, but imperative aspirations, can help rebuild public trust in a financial system that supports businesses benefiting the real economy. For example, where shadow banking fills funding gaps left by banks to finance projects that serve a public good, it furthers the function of inclusive capitalism towards the goal of building a “sustainable source of market-based finance.”<sup>301</sup>

The Article takes the position that international cooperation under the current soft law system, as well as the regulatory aims of PBR and inclusive capitalism, are desirable underpinnings for financial reforms to address the lessons of the GFC.<sup>302</sup> Together, the synthesis of aspects of these ideologies and GFC lessons forms the normative basis of the proposed paradigm for hedge fund regulation. The shift to a more effective version of capitalism can begin by reducing complexity to (i) improve knowledge and understanding of systemic risk, and (ii) facilitate broader participation in the regulatory and market discipline process. An effectual “interpretive community”<sup>303</sup> envisioned under PBR can foster greater social consciousness for the financial world. As aptly stated by Mark Carney, the Governor of the Bank of England and Chair of the FSB, “[a] sense of self must be accompanied by a sense of the systemic.”<sup>304</sup>

## B. HEDGE FUND POLICY PARADIGM

Based on the analyses set out above, I present a thought experiment using the proposed policy paradigm to supplement the current financial reform agenda. This proposal is developed in four steps: (1) establish policy goals and identify regulatory deficiencies in the shadow banking system; (2) target regulation as needed; (3) determine appropriate balance

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299. Modifying the reference to “interpretive community” in PBR by highlighting the inclusion of experts in finance across disciplines, such as law and economics. *See infra* note 404 and accompanying text describing the original term.

300. *See id.*

301. Consistent with the regulatory objective set out in Part I.D.3. *See supra* note 253 and accompanying text.

302. *See supra* Part I.B (highlighting GFC lessons addressed by the proposed paradigm).

303. *See infra* note 404 and accompanying text (noting the role of an “interpretive community” in PBR).

304. Mark Carney, Governor, Bank of England, Speech at the Conference on Inclusive Capitalism: Creating a Sense of the Systemic 5 (May 27, 2014), *available at* <http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech731.pdf>.



of regulatory intensity and approach in meeting the established objectives; and (4) construct a process for ongoing evaluation and adjustment of regulation.

**Step 1. Establish policy goals and identify areas in need of regulation: systemic risk mitigation in the shadow banking system**

The first step in simplifying the complex task of hedge fund regulation is to go to the core of the matter: the role of regulation.<sup>305</sup> As noted earlier, the prolonged debate over whether to regulate hedge funds reflects the inherent tension between market fundamentalism and regulation. Regulatory intervention is needed to correct demonstrated failures from the GFC and rebalance market predominance in the pre-crisis period. Greenwald and Stiglitz established that the markets cannot be *pareto efficient* when there is always imperfect information or incomplete markets.<sup>306</sup> The scope and depth of financial turmoil exhibited in the last crisis underscored the pervasiveness of externalities<sup>307</sup> that renders inefficient or unstable results left solely to market operations.<sup>308</sup> The problem of the “tragedy of the commons”<sup>309</sup> also distorts individual decisions on risk and return trade-offs, resulting in suboptimal systemic consequences. According to Nobel laureate, Joseph Stiglitz, addressing externalities and agency problems undermining the efficiency of markets is one of the rationales for financial market regulation.<sup>310</sup>

Accordingly, two principal justifications for regulatory intervention in this case are to: (i) guard against systemic risks,<sup>311</sup> and (ii) correct information asymmetries in the markets.<sup>312</sup> The new adviser registration requirements address some concerns with information asymmetries arising from the industry’s opacity and complexity, although efficacy of the reforms remains to be seen. Consistent with the regulatory objective formulated above,<sup>313</sup> this leaves systemic risk concerns as the current

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305. Pan, *supra* note 235, at 1902–18 (reviewing academic literature on regulation and describing basic components of financial regulation).

306. Stiglitz, *supra* note 60, at 16.

307. See STIGLITZ, *supra* note 49, at 15 (explaining that, in economics, “externality refers to situations where a market exchange imposes costs or benefits on others who aren’t party to the exchange”).

308. STIGLITZ REPORT, *supra* note 264, at 197.

309. See Schwarcz, *supra* note 67 and accompanying text.

310. STIGLITZ, *supra* note 49, at 15.

311. See *supra* Part I.C.2 (discussing the sources, transmission and detrimental effects of systemic risk on global financial stability).

312. DAVIES & GREEN, *supra* note 61, at 15–24.

313. See *supra* Part I.D.3.

regulatory focus, specifically those deriving from the shadow banking system.<sup>314</sup>

### **Step 2. Target regulation as needed: the SRBC**

This step is the “targeted” aspect of the paradigm by limiting hedge fund regulation to the identified areas from Step 1 above. The multifaceted question of whether hedge funds pose shadow banking risks requiring further regulation will be considered along the SBRC in Part III.A.

### **Step 3. Balance competing interests in calibrating the regulatory intensity and approach to best meet regulatory objectives: the RIC and the RAC**

This step is the “balanced” feature of the paradigm in evaluating the economic benefits of hedge funds against the systemic risks they may entail, as well as the merits of the principles versus rules regulatory approaches. The RIC and RAC are tools to represent the balance struck among the respective trade-offs involved. For hedge funds, the pre-crisis desired balance favored their economic value over mitigating the apparently contained systemic risk. The post-crisis balance of trade-offs in meeting the established regulatory objective<sup>315</sup> is considered in Part III.B using the RIC, which extends from an unregulated state, dominated by market discipline, to the other end of a heavily regulated regime.<sup>316</sup>

The mix of regulatory approach is determined by the RAC, involving a balance of principles and rules in the context of the global financial system. In the run up to the GFC, globalization made international competitiveness a major policy focus, which hailed the more flexible and responsive principles-based approach as the preferable choice.<sup>317</sup> The post-crisis balance will need to recalibrate the traditional market discipline-based regulatory approach to hedge funds.

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314. See *supra* Part I.C.3 (examining hedge funds’ potential for systemic risk in the shadow banking system). Note, however, that while the primary focus of hedge fund regulation at present is to address systemic risk, investor protection and market integrity concerns can also be monitored for changes that may require further intervention in those areas by adding to the RIC factors of consideration.

315. See *supra* Part I.D.3 and note 253 and accompanying text (outlining the regulatory objective towards making shadow banking a “sustainable source of market-based finance”).

316. Edward J. Balleisen, *The Prospects for Effective Coregulation in the United States: A Historian’s View from the Early Twenty-First Century*, in GOVERNMENT AND MARKETS TOWARD A NEW THEORY OF REGULATION 449 (Edward J. Balleisen & David A. Moss eds., 2010) (noting that “[t]he regulatory experience of the past two generations reinforces the longstanding reality that regulatory options exist on a continuum between intensive governmental oversight and the inclination to maintain a much more hands-off approach”).

317. The success of London against the traditionally dominant New York financial center garnered much praise and support for a principles-based regulatory approach, both in the U.S. and Canada.

#### **Step 4. Incorporate process for evaluation and adjustments of regulation: the RCM**

The RIC and RAC are helpful conceptual instruments in determining the intensity and approach of hedge fund regulation. However, separately, they are of limited value in delivering a complete assessment of ongoing regulatory needs. The RCM provides a frame of reference for the findings on the RIC and RAC. In doing so, it presents a simple visual two-dimensional representation of hedge fund regulatory analysis.<sup>318</sup>

The two continuums of regulatory intensity and regulatory approach are combined to create a matrix of four quadrants in the RCM set out in Figure 1.<sup>319</sup> The quadrants are numbered 1 to 4 and capture varying combinations of the level and prescriptiveness of regulation. Quadrant 1 (Q1) encompasses a regulatory environment that relies primarily on market discipline and takes a more principles-based approach.<sup>320</sup> Quadrant 2 (Q2) shares the same level of regulatory intervention as Q1, but shifts towards the rules-based end of the spectrum. Quadrant 3 (Q3) is subject to greater regulation compared to the previous two quadrants and exhibits a principles-dominant regulatory approach.<sup>321</sup> Quadrant 4 (Q4) covers the same environment of regulatory intensity as Q3, but is further governed by prescriptive rules.

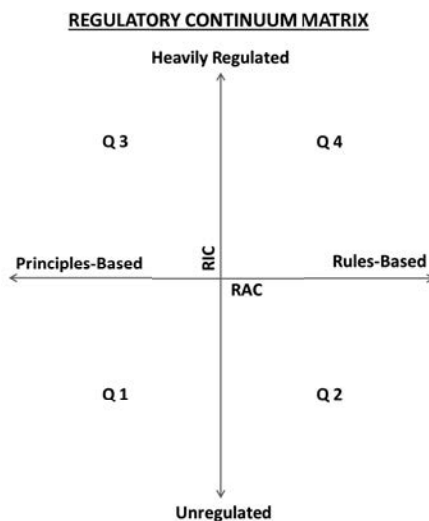
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318. The RCM can operate as a visual tool to reveal relationships and trade-offs involved in hedge fund regulation to provide a valuable supplement to ongoing research on financial stability. See OFR, 2014 ANNUAL REPORT, *supra* note 23, at 78–83 (discussing visual tools for understanding financial stability as part of its research agenda).

319. Note that Julia Black also used a four quadrant construction to represent variations of PBR. Although it shares similarity with the RCM in that they both deal with the role of principles in regulation, Black's model is focused on the categorization of the forms of PBR. See Julia Black, *The Rise, Fall and Fate of Principles-Based Regulation*, in LAW REFORM AND FINANCIAL MARKETS 6–7 (Kern Alexander & Niamh Moloney eds., 2011).

320. This represents the pre-GFC position, where the hedge fund industry faces relatively low levels of regulation and retains discretion in how to meet the stated best practices/regulatory objectives.

321. Although government intervention in Q3 is greater than Q1 and Q2, the overall ability of hedge funds to operate within the regulatory perimeter is retained, and possibly improved, if originating from Q2.

**Figure 1**

The multifarious nature of hedge funds poses difficulties with generalization of the need for their regulation on an industry basis. This is particularly relevant to hedge funds' role in the shadow banking system since shadow banking risk varies with the type of investment strategy.<sup>322</sup> In Steps 1 to 3, determinations are made in respect of the appropriate level of regulation and the principles-rules balance for the applicable context and regulatory objectives. The RCM can then be a mechanism to document and analyze the combination of these determinations. In doing so, the RCM serves the following potential functions: (i) simplifying hedge funds' regulatory status<sup>323</sup>; (ii) establishing a framework for monitoring changes and analysis of reforms; and (iii) providing categorization of hedge funds for regulatory purposes on an individual basis or by sector.<sup>324</sup>

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322. Leverage is a key risk factor, both in its level and source, which varies across different hedge fund strategies. See *Hedge Fund Strategies: An Overview of the Various Investment Strategies Offered by Hedge Funds in the Marketplace Today*, HEDGEFUND FUNDAMENTALS.COM, [http://www.hedgefundfundamentals.com/wp-content/uploads/2012/12/HFF\\_HedgeFund\\_Strategies\\_11-2012.pdf](http://www.hedgefundfundamentals.com/wp-content/uploads/2012/12/HFF_HedgeFund_Strategies_11-2012.pdf) (last visited Jan. 3, 2015). See also OFR, 2014 ANNUAL REPORT, *supra* note 23, at 115 (“Monitoring ways hedge funds combine borrowing and derivatives to obtain leverage is essential to identifying potential risks in asset markets.”). See also *supra* Parts I.A and I.C (referring to the diverse investment strategies of hedge funds and the attending risk profile).

323. Complexity is an initial challenge encountered when broaching the topic of hedge fund regulation. By dividing the universe of regulatory positions into four quadrants, such regulatory issues for the hedge fund industry are reduced to big picture concepts to aid understanding and dialogue.

324. The use of RCM contemplated in (ii) and (iii) is discussed further in Part III.D, *infra*.

### III. REGULATORY MECHANISM: THE REGULATORY CONTINUUM MATRIX

This Article proposes, in broad stroke, a paradigm focused on the big picture trade-offs involved in regulation and adaptable to changes in the globalized financial markets. The SBRC, RIC, RAC and RCM are components of the regulatory mechanism offered to detect, monitor and manage potential systemic risk. To explicate, the proposed regulatory mechanism is applied in this Part III to consider systemic risks associated with CIVs,<sup>325</sup> which is part of the FSB's policy framework for the oversight and regulation of shadow banking entities.<sup>326</sup>

Regulatory concerns arise from CIVs' susceptibility to bank-like runs from large scale redemption requests, which can lead to contagious fire sales that spread to other CIVs and possibly to the wider markets with systemic effects.<sup>327</sup> Hedge funds are CIVs as defined in the FSB policy framework. The question is whether they have features that make them susceptible to runs, thus displaying shadow banking risks and necessitating further regulation as recommended therein.

Consistent with a targeted and balanced approach, the RCM is applied to assess hedge funds' potential systemic risks as CIVs and uses FSB's recommendations to mitigate such runs in the shadow banking system.<sup>328</sup> To be sure, this thought experiment is intended to be illustrative, rather than conclusive, in that the analyses conducted are high-level and the positions on the continuums and matrix are rudimentary approximations due to their preliminary nature. Also, the list of considerations concerning the underlying analysis of the SBRC, RIC and RAC are not exhaustive, nor have specific metrics and calibration methodology been developed for the positions thereon. However, substantial work on systemic risk factors has been done in the current reform process, which can be leveraged for application in the proposed continuums and matrix, such as those outlined by IOSCO in "Systemic Risk Identification in Securities Markets."<sup>329</sup> Given

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325. For definition of "CIV", see *supra* note 15.

326. FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15, at 3–4, 6–7 (recommending a policy framework for the category of "other shadow banking entities", which are non-banking financial entities other than MMFs, based on five economic functions, including CIVs with features that make them susceptible to runs). See also *id.* at 5 exhibit 1 (providing a schematic policy framework overview for assessment of CIVs (based on their economic functions), adoption of policy tools, and sharing of information).

327. *Id.* at 6–7.

328. *Id.* at 11–17 (describing overarching principles for the recommended policy toolkits and such tools within).

329. See IOSCO, *Systemic Risk Identification*, *supra* note 101, at 4–7, 9, apps. 1, 2. IOSCO outlines thirteen categories of systemic risk factors derived from a comparison of the then existing literature on systemic risk (summarized in Table 4 thereof) to provide a 'skeleton' for systemic risk identification in different jurisdictions and for various markets. In particular, IOSCO applies

space constraints and the nascent stage of the paradigm, elaboration on the continuum factors are limited to relevant themes herein. For the same reasons, applications of the SBRC, RIC and RAC herein are presented as examples of the trade-off assessments, and not definitive findings regarding whether hedge funds' potential systemic risk merits further regulation. The discussion that follows is, therefore, a view of the forest rather than its trees—trading in-depth assessment for general understanding to promote broader open dialogue.

### A. SHADOW BANKING RISK CONTINUUM (SBRC)

The SBRC uses a fine-tuned meaning of “shadow banking” from the FSB’s two-step definition process<sup>330</sup> and incorporates aspects of the Institute of International Finance’s (IIF) proposal on shadow banking entities.<sup>331</sup> The analysis of “shadow banking” in this narrow sense looks at what credit intermediation functions are being performed, how closely its performance mimics the banks’ functions and how it differs, and whether it is of a scale sufficiently large to be of concern for systemic risk,<sup>332</sup> while taking into consideration its level of leverage.

Applying the paradigm in this example, the analysis for hedge funds would start with the position that they perform a deposit-taking role in managing investment assets, and consider whether they can be differentiated in their performance of credit intermediation. The argument that hedge funds do not conduct shadow banking functions is often made on the grounds that they are generally not redeemable on demand and do not usually carry a guarantee of return on capital at or above par. The issue in this example is whether the extended regulatory perimeters should include hedge funds with respect to their potential “run” risk as CIVs. It is determined by finding the level of such risks on the SBRC and transposing it onto the RIC to establish the commensurate degree of regulatory

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specific thematic indicators relevant to hedge funds from this list to examine the systemic risks of LTCM as Case Study 1 in Appendix 1. *Id.* app. 1.

330. The role of international soft law has been significant in focusing the reform efforts, and is likely to continue to guide the course of further work in strengthening the oversight and regulation of shadow banking. The proposed paradigm leverages and works within this context for hedge fund reform. Accordingly, this Article follows the FSB’s approach and analysis of the shadow banking system in considering hedge funds’ role in this sector. *See* FSB 2011 SHADOW BANKING RECOMMENDATIONS, *supra* note 139, at 3 and *supra* notes 139 and 143 and accompanying text (describing the first step as the broader definition for monitoring purposes and the second step as the narrowed definition limited to credit intermediation that may increase systemic risk and/or with indications of regulatory arbitrage).

331. IIF, SHADOW BANKING, *supra* note 136, at 4, 11–13 (considering whether the extent of involvement in shadow banking activities is sufficiently significant to be included in the scope of shadow banking regulation).

332. *Id.* at 12–13 (setting out the analysis of “shadow banking” in context and with consideration of the scale and degree of the activity).

response. Both the analysis and the SBRC risk indicators in Box 1 below are largely built upon FSB's substantial work on this subject.<sup>333</sup>

A facts-based evaluation is required because the diversity in hedge funds' industry makeup and investment strategies will have varied corresponding levels of potential systemic risks. Additionally, hedge funds' risk profile is dependent on the extent of leverage, investment horizon and investor liquidity. Such systemic risk variations are replicated in hedge funds' role in the shadow banking system, with a broad range of activities that entail varying resemblance to banking functions across a risk spectrum.<sup>334</sup> For example, credit hedge funds engaged in direct corporate lending are performing functions more akin to the banking sector than the industry average.

From this perspective, there is in essence a continuum of shadow banking risks on which non-bank entities, including hedge funds, may fall depending on the scale and extent of bank-like functions performed, together with the degree of potential systemic risk involved.<sup>335</sup> This forms the continuum, SBRC, proposed in the paradigm (see Figure 2).

In this way, assessment of their potential shadow banking risk is better described as finding the applicable point on the SBRC, which can be approximated in respect of the entire industry, a specific hedge fund sector, or an individual hedge fund. Such determination allows regulation to be implemented only when the industry, sector, or fund, rises to the level of shadow banking risks meriting intervention. Based on the analysis in Parts I and II, a non-exhaustive list of shadow banking risk indicators for the application of SBRC is set out in Box 1.<sup>336</sup>

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333. See *supra* Part I.C.3 and note 276 (noting FSB's series of work on shadow banking reforms).

334. See, e.g., AIMA MARCH 2012 PAPER, *supra* note 150, at 6–11 (discussing credit hedge funds in four general investment types of Relative Value Credit, Long-short Credit, Macro Credit, and Fundamental Credit, with the last category being the most likely to execute near bank activities through direct lending).

335. See *supra* notes 139 and 143 and accompanying text (discussing the 2-tiered approach to defining shadow banks).

336. The extensive body of work regarding systemic risk indicators cannot be covered within the constraints of this Article, but they provide ample consideration for additional evaluation factors in refining the SBRC. See, e.g., IOSCO, *Systemic Risk Identification*, *supra* note 101, at 4–7, 5 tbl.3, 6 tbl.4, apps. 1, 2 (summarizing and comparing systemic risk factors and applying the IOSCO risk identification proposal in the LTCM case study); TURNER REVIEW, *supra* note 10, at 39, 47–49; FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9; OFR ASSET MANAGEMENT REPORT, *supra* note 9.

**Box 1**

1. Bank-like functions without government safety net (credit intermediation that may increase systemic risk—involving maturity transformation, leverage; and/or regulatory arbitrage concerns)<sup>337</sup>
2. Size<sup>338</sup>
3. Interconnectedness and counterparty risks<sup>339</sup>
4. Investor base<sup>340</sup>
5. Complexity<sup>341</sup>
6. Opacity<sup>342</sup>
7. Risks of activity<sup>343</sup>

On the first risk indicator, hedge funds have argued that they generally do not play a significant role in the credit intermediation process because they can avoid mismatched asset and liabilities through contractual liquidity protections with their investors. However, the level of shadow banking risks posed by hedge funds may be greater for those hedge funds that deviate from the average, or if shifts in industry norm occur that reduce their ability to restrict redemption or structure loans to avoid maturity

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337. See *supra* Part I.C.3, notes 330–332 and accompanying text (referencing the more nuanced definition of shadow banking for policy purposes).

338. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 33 (including size as one of the indicators for systemic importance); *supra* note 120 and accompanying text. At present, the hedge fund industry remains relatively small compared to the banking industry and the rest of the financial system, especially for the credit hedge fund sub-sector alone.

339. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 33–34 (including interconnectedness as one of the indicators for systemic importance).

340. See FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15, at 6–7 (including CIVs’ investor base as one of the factors of evaluation for their exposure to run risk). See also TURNER REVIEW, *supra* note 10, at 72 (naming this as one of three factors of determination for “bank-like” activity). The institutionalization of hedge funds’ investor base, as well as the growth of retail focused strategies involving hedge funds, will require continuing evaluation of the industry’s link to the retail market and the real economy. See, e.g., Joe Morris, *Retail Rush into Alternatives Sounds Alarm*, FIN. TIMES (Apr. 27, 2014), <http://www.ft.com/intl/cms/s/0/1099b614-c5c2-11e3-97e4-00144feabdc0.html#axzz3BBjHqf2H>.

341. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 35–36 (including complexity as an indicator of systemic importance).

342. See *supra* Part I.B and I.C.3 (discussing systemic risks in the shadow banking sector as a result of opacity).

343. See FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15, at 6–7 (stating that CIVs’ susceptibility to runs depends on a combination of their business operation factors).



mismatch.<sup>344</sup> In addition, credit hedge funds involved in direct lending activities will require closer monitoring.<sup>345</sup>

As noted previously, on average, hedge funds generally utilize low levels of leverage, but the degree of utilization varies with their respective investment strategy and is subject changes in the markets.<sup>346</sup> Continued evaluation of such claim against findings from Form PF disclosure is necessary.<sup>347</sup> Regulators should also monitor the development of hedge fund instruments and activities to determine if they derive mostly from efficiencies gained through specialization and expertise rather than the pursuit of regulatory arbitrage.<sup>348</sup> This is especially important in the current “search for yield” environment set against the backdrop of a constrained banking sector.

Finally, the existence and extent of potential “bank run” and fire sale risks from CIVs in the shadow banking system will vary depending on the nature of their activities and the markets in which they operate, including the following: the regulatory setting; the CIV’s investor base; the structure of the CIV; the investment portfolio’s complexity and liquidity; the degree of leverage; the concentration of the CIV in market segments or counterparties; and the correlation of assets between those affected by the run and those held by other CIVs and investors.<sup>349</sup> For example, a hedge fund engaging in an investment strategy or asset class that dominates a

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344. For example, the greater presence and negotiating power of institutional investors in the industry may alter the extent of maturity transformation function performed. *But see* AIMA MARCH 2012 PAPER, *supra* note 150, at 4 (claiming that “direct lending by credit hedge funds is now done primarily through long lock-up private equity style vehicles”).

345. The general rising trend of non-bank entities engaged in direct lending signals caution to monitor such shifts in hedge fund investment activities. *See* IMF, OCTOBER 2014 REPORT, *supra* note 6, at 76 Box 2.2 (identifying new shadow banking developments, including increasing direct corporate lending by non-bank entities, such as investment funds in the United States: “the nonbank share of leveraged lending rose from about 20 percent in 2000 to 80 percent in 2013, and loan funds expanded from \$80 billion to \$160 billion between 2010 and 2013”). The OFR also noted financial stability risk concerns over the significant migration of leveraged lending—“lending to corporations that already carry considerable debt”—to asset management products, including hedge funds. *See* OFR, 2014 ANNUAL REPORT, *supra* note 23, at 70–71.

346. *See supra* Part I.C.2, note 117, 156 and accompanying text. Note that such high-level views are tentative and subject to rapid changes depending on market conditions. *See* OFR, 2014 ANNUAL REPORT, *supra* note 23, at 115 (“Hedge fund strategies can change rapidly in response to market factors. Leverage levels, even within hedge fund strategy types, can vary significantly over time, depending on individual funds’ investment decisions.”).

347. *See* OFR, 2014 ANNUAL REPORT, *supra* note 23, at 114–15 (noting caution on the interpretation of new data collections, including information from Form PF on which its analysis of hedge fund leverage and strategy is based).

348. *See* Charles K. Whitehead, *Reframing Financial Regulation*, 90 B.U. L. REV. 1, 37 (2010) (positing that hedge funds are more efficient in minimizing agency costs through their organizational structure, which in turn increases their competitiveness against traditional intermediaries).

349. *See* FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15, at 6–7 (setting out conditions that affect CIVs susceptibility to runs).

market will pose a higher threat because of the lack of substitutability.<sup>350</sup> “Specialization concerns apply most directly to funds that focus on illiquid investments or funds that make large, concentrated bets.”<sup>351</sup> In addition, a hedge fund’s importance for international financial stability increases with its global footprint.<sup>352</sup>

On a high-level basis and for the purposes of this example, the balance of these considerations suggests that currently hedge funds generally do not conduct significant bank-like functions.<sup>353</sup> This would put hedge funds towards the lower end of the SBRC, roughly approximated by the “∇” in Figure 2.

**Figure 2**



The foregoing risk indicators provide a placeholder for further consideration and refinement. Changes in some or all of the conditions evaluated for the above position, particularly the use of leverage and redemption restrictions, could make hedge funds’ features more bank-like and susceptible to runs. Lastly, the SBRC exercise can help identify additional data needed to support on-going evaluation and management of systemic risks in the shadow banking system.<sup>354</sup>

## **B. REGULATORY INTENSITY CONTINUUM (RIC)**

In the regulatory debate, the appropriate level of regulation is determined by the benefits and costs of the said regulation in achieving the

350. FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 34–35 (including substitutability as an indicator of systemic importance).

351. See OFR ASSET MANAGEMENT REPORT, *supra* note 9, at 22.

352. See FSB & IOSCO, IDENTIFYING NBNI G-SIFI, *supra* note 9, at 36 (including cross-jurisdictional activities as an indicator of systemic importance).

353. See, e.g., TURNER REVIEW, *supra* note 10, at 72 (concluding on the analysis of the factors of leverage, customer base and performance of maturity transformation function that hedge funds’ functions were not sufficiently “bank-like” at that time).

354. See, e.g., Zoltan Pozsar & Manmohan Singh, *The Nonbank-Bank Nexus and the Shadow Banking System* 16 (Int’l Monetary Fund, IMF Working Paper, WP/11/289, 2011), available at <https://www.imf.org/external/pubs/ft/wp/2011/wp11289.pdf> (noting data gaps for hedge funds in the Flow of Funds data).

desired goals. For present purposes, this involves balancing the need for economic efficiency with mitigation of systemic risks to best preserve stable global financial markets and promote economic growth. The theme of trade-offs between innovation and stability continues here in finding the balance between “unrestrained innovation and overregulation.”<sup>355</sup> A level of acceptable risk lies within the balance of such trade-offs,<sup>356</sup> incorporating what we have learned about the relative value of some long held market goals relating to innovation and liquidity.

Arguments against regulation are often directed at its stifling effects on innovation, which found staunch support in the pre-crisis era of market fundamentalism. However, the GFC has dispelled the assumption that all financial innovation is necessarily good, like those designed to circumvent regulation or lacking in true economic benefits.<sup>357</sup> The value of financial innovation and enhancements of the markets needs to be judged against the new risks they pose. For example, the shift from banks to market-based financing generated funding alternatives, increased competition and deepened the markets. However, the use of such innovations was not tempered with adequate caution for the accompanying new risks as financial institutions came to rely on the illusion of market liquidity.<sup>358</sup>

The Turner Review challenges the traditional view that maximizing liquidity is always a worthy market goal — a benefit that is often attributed to the function of hedge funds in the financial markets. The trade-offs in heightened risks from the pursuit of ever-greater liquidity need to be considered in the context of the applicable market conditions.<sup>359</sup>

The RIC can be a mechanism to calibrate the extent of government intervention. The range of regulatory intensity can be conceptualized as a continuum from an unregulated state dominated by market fundamentalism to a heavily regulated, command and control environment. While the latter approach is incompatible with hedge funds since they were born out of the freedom from regulatory constraints, in light of the GFC, the other end of the continuum is equally undesirable.

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355. IOSCO, *Mitigating Systemic Risk*, *supra* note 101, at 4.

356. BRUMMER, *supra* note 261, at 130 n.34 (citing economist Dani Rodrik's statement that “the more you value financial stability, the more you [may] have to sacrifice financial innovation”). See also *supra* Part II.A.1 (discussing this lesson learned from the GFC).

357. In fact, it is said that some financial innovations created “economic rent extraction” instead of real economic benefits. See TURNER REVIEW, *supra* note 10, at 39, 47–49 (noting the fallacy that “[f]inancial innovation can be assumed to be beneficial since market competition would winnow out any innovations which did not deliver value added”).

358. See CRMPG III REPORT, *supra* note 73, at 6.

359. See TURNER REVIEW, *supra* note 10, at 112 (giving the example of short-selling in stressed markets as contributing to a “self-fulfilling downward cycle of falling confidence”).

Continuing with the case study of hedge funds' systemic risk as CIVs, a preliminary list of factors in Box 2 can help evaluate the appropriate range of regulatory intervention on the RIC to meet the regulatory objective established in Part I.D.3. Certain factors are selected for further discussion below.

### Box 2

1. Level of shadow banking systemic risk<sup>360</sup> (transpose findings from SBRC)
2. Industry environment and market discipline
3. Industry characteristics<sup>361</sup>
4. Regulatory arbitrage<sup>362</sup>
5. International competitiveness<sup>363</sup>
6. Regulatory capacity<sup>364</sup>
7. Investor base<sup>365</sup>
8. Cost and benefit analysis<sup>366</sup>

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360. Note that, although this factor is limited to shadow banking risks for the purposes of this CIVs example, it can be extended to systemic risks generally for a broader application of the RIC.

361. *See supra* note 117 and accompanying text discussing hedge fund industry characteristics with the potential to amplify systemic risk. Compare with other industry characteristics of hedge funds which may serve to enhance risk management and mitigate their contribution to systemic risk. *See DIXON, supra* note 112, at 29.

362. Allowing regulatory gaps provides an incentive for market participants to develop financial innovations of regulatory arbitrage. *See* Joseph Stiglitz, *Regulation and Failure*, in *NEW PERSPECTIVES ON REGULATION 23* (David Moss & John Cisternino eds., 2009). The new banking regulatory regime creates incentive for migration of activities to areas of finance not subject to the same prudential restrictions, and therefore heightens the potential for regulatory arbitrage, which requires more supervisory vigilance.

363. The GFC has illustrated that competitive pressures can set the stage for regulatory philosophy that favors less government intervention, creating tension with the need for international regulatory cooperation. *See supra* Part I.B. (Lesson 6) and *infra* note 415 (commenting on the implications of international competition). With the increasing sophistication of capital markets in other nations, ensuring the United States' position in the global financial system will likely continue to be a top policy focus. Challenges to regulation will arise from the inevitable trade-offs between international competitiveness and international regulatory cooperation.

364. The crisis experience underscored the need to consider and address the shortcomings in regulatory capacity and regulatory capture in redesigning regulation. In that regard, a robust interpretative community that incorporates different views could serve as a failsafe mechanism against regulatory capture.

365. On this point, so long as hedge funds are limited to sophisticated investors, their regulation should be premised on prevention of systemic risks since U.S. securities regulation is focused on the protection of retail investors. *See* Troy A. Paredes, *On the Decision to Regulate Hedge Funds: The SEC's Regulatory Philosophy, Style and Mission*, U. ILL. L. REV. 975, 998–99 (2006).

366. *See supra* Part I.D.1 (discussing the trade-offs between hedge funds' beneficial and negative economic potentials). *See also* DIXON, *supra* note 112, at xxvi (noting that hedge fund regulation "should weigh any reduction in systemic risk due to increased regulation against the reduction in the hedge funds' ability to provide value to their investors and the economy more generally, as well as the costs of overseeing numerous medium-sized financial institutions").

Applying a balanced and targeted regulatory approach, the RIC evaluation takes into account non-government regulation derived from industry environment and market discipline.<sup>367</sup> This is consistent with the traditional focus for hedge fund regulation to strengthen market discipline through counterparties<sup>368</sup> and institutional investors.<sup>369</sup> Industry body standards and involvement, including self-regulatory organizations (SROs), can reduce the need for statutory provisions.<sup>370</sup> The requisite for regulation also corresponds inversely to the level of alignment of incentives and “culture of compliance”, although the voluntary nature of market discipline limits their effectiveness in curbing risk-taking in a highly competitive marketplace.<sup>371</sup>

Market-based discipline is more compatible with the dynamic nature of hedge funds and their use of innovative strategies and products. Evaluations on the RIC also need to account for the regulatory implications of hedge funds’ industry makeup, including its business structure, diversity in investment strategies, and fund composition. As noted earlier, adopting a risk-based approach and proportionate regulation could aid in problem detection and prevention, regulatory resource allocation, and ease compliance burden on smaller funds. This approach can focus on higher risk hedge fund sectors, such as those funds with strategies that require substantial leverage to be effective, as well as those engaged in large positions of a particular market.<sup>372</sup>

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367. Balleisen, *supra* note 316, at 446–49 (conceptualizing private regulation in the last 3 decades through in-house “ethics and compliance” departments and trade organizations).

368. PWG PRINCIPLES, *supra* note 200, ¶¶ 6–7 (setting out systemic risk principles for indirect regulation through hedge fund counterparties).

369. Impetus for improvements in industry risk management may be found in investors, especially with the increasing institutionalization of the investor base, and possibly through private litigation. See, e.g., Frank Partnoy, *Wall Street Beware: The Lawyers Are Coming*, FIN. TIMES (Apr. 18, 2010), available at <http://www.ft.com/cms/s/0/d2af9178-4b1f-11df-a7ff-00144feab49a.html>.

370. The potential role for self-regulatory organizations relating to hedge funds has been considered in the mandated GAO report on the feasibility and implications of a SRO to provide primary oversight of private fund advisers. The finding was inconclusive. See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-11-623, PRIVATE FUND ADVISERS: ALTHOUGH A SELF-REGULATORY ORGANIZATION COULD SUPPLEMENT SEC OVERSIGHT, IT WOULD PRESENT CHALLENGES AND TRADE OFFS (2011) [hereinafter GAO PRIVATE FUND ADVISERS], available at <http://www.gao.gov/new.items/d11623.pdf>.

371. See Coffee & Sale, *supra* note 72, at 744–745 (pointing to competitive pressure as a factor in the investment banks’ rush to increase leverage) (referencing Michiyo Nakamoto & David Wighton, *Bullish Citigroup Is ‘Still Dancing’ to the Beat of the Buy-Out Boom*, FIN. TIMES, Jul. 10, 2007 (quoting the then-CEO of Citigroup, Charles Prince, about the need to keep up: “When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you’ve got to get up and dance. We’re still dancing”).

372. The large market positions can create a crowded space danger for systemic risk. Higher use of leverage, particularly from derivatives, also increases the potential for systemic risk. However, data challenges remain for the effectiveness of this proposed approach to systemic risk monitoring. See *supra* note 23 and accompanying text. For example, compare AIMA RESPONSE

A key lesson from the GFC is that regulatory capacity needs to be commensurate with the level of regulation to avoid failures in oversight, such as the case of the SEC's Consolidated Supervised Entities (CSE) Program.<sup>373</sup> The diverse and complex nature of hedge funds, the volume and pace of their investment activities, combined with the vast industry resources and specialized expertise, intensify the challenge of adequate regulatory capacity.<sup>374</sup> Before the GFC, there was support for self-regulation in the securities law area.<sup>375</sup> However, the debacle of the CSE Program provided a cautionary tale for reliance on the discretion of industry participants.<sup>376</sup> Although the crisis has put the theoretical premise of self-regulation in doubt, its potential benefits in supplementing shortfalls in public oversight functions makes the use of SROs worthy of reconsideration.<sup>377</sup>

To the extent market discipline is inadequate, the balance of regulatory intervention should begin with the least intrusive regulation necessary to achieve its objectives. The flexibility of hedge funds to pursue investment strategies unavailable to mutual funds is characteristic of their business model and responsible for their benefits to the markets. Therefore, the costs to their regulation, aspects of which are explored above, need to be measured against their economic value in assessing the trade-offs along the RIC on an evolving basis. One example is hedge funds' diversification benefit from their absolute-return strategy — one that provides a positive return irrespective of market conditions. This is possible because of their freedom from regulation to pursue diverse and complex investment strategies. To the extent that hedge funds exhibit correlation in their returns

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LETTER TO THE IOSCO HEDGE FUNDS OVERSIGHT CONSULTATION REPORT app. 1 (2009), available at [http://www.iosco.org/library/pubdocs/pdf/IOSCOPD293\\_AnnexB.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD293_AnnexB.pdf) (noting that fixed income, convertible arbitrage and mortgage-backed securities type strategies are said to employ higher levels of leverage, but account for a modest percentage of the overall hedge fund industry) with the OFR's findings based on 2014 Form PF data (noting relative-value funds at the highest leverage level, followed by macro- and multi-strategy funds). See OFR, 2014 ANNUAL REPORT, *supra* note 23, at 114–115.

373. The CSE Program was a voluntary consolidated supervision regime for companies that own an SEC-registered securities broker or dealer adopted by the SEC in 2004 (designed for the largest securities firms). The five big investment banks all opted into the CSE Program in order to be subject to consolidated supervision by a U.S. federal regulator to satisfy exemption requirements from EU regulation. It was abandoned by the SEC in the fall of 2008 in light of the GFC events. See U.S. TREASURY, A NEW FOUNDATION, *supra* note 204, at 36–37.

374. See IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16, at 8.

375. See Lori Richards, Dir., SEC, Remarks at the NRS Fall 2000 Compliance Conference: Self-Regulation in the New Era (Sept. 11, 2000), available at <http://edgar.sec.gov/news/speech/spch398.htm>.

376. See Balleisen, *supra* note 316, at 461 (identifying the CSE Program as a form of “management self-regulation” because of the devolution of responsibility to the investment banks on their capital requirements).

377. See *supra* note 370 and accompanying text.

to the markets and each other, there is both a decrease in their diversification benefits and an increase in potential systemic risk. According to a 2013 OFR working paper, “recent financial crises demonstrated that the returns of different hedge fund styles might be more correlated than anticipated during times of distress, indicating a systemic risk in the industry.”<sup>378</sup> Like the value of financial innovation and liquidity, this is another instance for reevaluating suppositions of hedge funds’ economic benefits against the potential systemic risks associated with their unregulated activities. In addition, until better understanding is reached on the triggers and transmissions of systemic risk, recent experience calls for a shift in mindset to take into account “high impact but low probability events.”<sup>379</sup>

More granular and comparable data on hedge funds is critical to determine whether additional regulation of hedge funds may be necessary. Informational needs are particularly pressing relating to the secured financing markets.<sup>380</sup> For present purposes, the current regulatory environment for hedge funds appears to be sufficient, as roughly approximated by the “∇” on the continuum (see Figure 3).<sup>381</sup>

**Figure 3**



### C. REGULATORY APPROACH CONTINUUM (RAC)

The RAC weaves the old regulatory debate on principles and rules together with the post-GFC revelations. This discussion may seem stale

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378. Ozgur Akay et al., *Hedge Fund Contagion and Risk-Adjusted Returns: A Markov-Switching Dynamic Factor Approach 1* (Off. Fin. Research, Working Paper #0006, 2013), available at [http://financialresearch.gov/working-papers/files/OFRwp0006\\_AkaySenyuzYoldasHedgeFundContagionandRiskAdjustedReturns.pdf](http://financialresearch.gov/working-papers/files/OFRwp0006_AkaySenyuzYoldasHedgeFundContagionandRiskAdjustedReturns.pdf).

379. See Julia Black, *Paradoxes and Failures: 'New Governance' Techniques and the Financial Crisis*, 75 MOD. L. REV. 1037, 1061 (2012).

380. FSB 2013 RECOMMENDATIONS—REPOS, *supra* note 276, anns. 5–7. Annexes 5 and 6 set out the types of data needed and Annex 7 identifies data gaps. See also OFR 2012 ANNUAL REPORT, *supra* note 143, at 124 box K (noting the need for improved research and data on repo markets). Addressing data gaps in the repo and securities lending markets continues to be a top priority for the OFR. See OFR, 2014 ANNUAL REPORT, *supra* note 23, at 107–109.

381. As in the case of the SBRC, this position is tentatively set for purposes of the example and subject to changing industry and market conditions.

given the arguments on each side remain much the same and the consensus that both approaches are blended in law.<sup>382</sup> However, the fault lines exposed by the crisis are instructive for a re-evaluation of the trade-offs involved in the regulatory approach choice. Articles by scholars well-versed in the discourse of PBR provide insightful examinations of the post-GFC state of PBR and its variants.<sup>383</sup> While many principles-based areas exhibited failures in the GFC,<sup>384</sup> the more rule-intensive regulatory approach of the SEC also failed to deter the events in the crisis. In particular, the failure of financial regulation to prevent the GFC brings to the fore two noteworthy observations: (i) the inherent tensions and paradoxes<sup>385</sup> of each approach in serving the *ex ante* oversight function and *ex post* enforcement process; and (ii) the regulatory relationships in the implementation of regulation is critical to its effectiveness.<sup>386</sup>

On the first point, the paradoxes of PBR are identified and examined by Julia Black in her articles, *Forms and Paradoxes of Principles-Based Regulation*,<sup>387</sup> and *Paradoxes and Failures: "New Governance" Techniques and the Financial Crisis*.<sup>388</sup> Precisely for the diametrically opposed features of principles and rules applied in the dual supervision and enforcement functions of regulation, the benefit of one approach often corresponds to the flaw in the other. For instance, principles offer flexibility to the regulated in meeting their compliance obligations, but may result in unpredictability in their enforcement. On the other hand, rules provide certainty on what is permissible *ex ante*, but anything beyond their perimeters is out of reach of enforcement, as in the case of shadow banking.

Such internal conflicts in each approach necessitate trade-offs in achieving the desired regulatory results. For instance, flexibility required for oversight needs to be balanced with the certainty necessary in enforcement. To do so, the existing principles (including industry standards) regulating hedge funds should be examined to identify areas where rules are desirable to specify, *ex ante*, permissible conduct, while

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382. See *supra* Part II.A.3. (considering the principles- and rules-based discourse).

383. See, e.g., Ford, *supra* note 285; Black, *supra* note 379.

384. Ford, *supra* note 285 (describing the failures of PBR by FSA in respect of Northern Rock).

385. See Black, *supra* note 379 (observing the regulatory paradoxes and failures in the financial context, and examining examples of such related to new governance in light of the GFC); Julia Black, *Forms and Paradoxes of Principles-Based Regulation*, 3 CAP. MKTS. L.J. 425, 425–27 (2008) [hereinafter Black, *Forms and Paradoxes*].

386. Ford, *supra* note 285, at 307 (“To be effective, principles-based regulation must increase regulatory resources, develop a thoughtful response to complexity (including a place for prophylactic rules), and consciously incorporate a broader and more independent range of perspectives into the regulatory discussion.”).

387. Black, *Forms and Paradoxes*, *supra* note 385 (identifying seven paradoxes of principles-based-regulation, relating to “interpretation, communication, compliance, supervision and enforcement, internal management, ethics and trust”).

388. Black, *supra* note 379.



allowing for effective supervision and enforcement by regulators.<sup>389</sup> In addition, the “supervisory and enforcement paradox” identified by Black would require a delicate balance in the level of enforcement, enough to give credibility to the principles, but not in excess that can lead to their demise.<sup>390</sup>

The problem of excessive industry discretion was exemplified by the fate of Northern Rock in the GFC.<sup>391</sup> However, Ford posits that this is more an implementation issue in the devolution to industry than an inherent danger in the principles-based approach.<sup>392</sup> She distinguishes PBR from the predominant role of self-regulation in the financial system preceding the GFC, to which many of the causes of the crisis have been attributed. Ford further concludes that the downfalls are avoidable with meaningful regulatory oversight.<sup>393</sup> The challenge remains, however, that in order for PBR to succeed, a regulatory relationship of trust<sup>394</sup> and what Black refers to as “shared understanding”<sup>395</sup> must be developed between the regulator and the regulated to establish their respective roles.

In truth, the regulatory effectiveness of principles versus rules is predicated on a multitude of factors that is far more complex than a collection of their respective pros and cons. The context in which each approach operates has significant implications on its success. Just as “a principles-based approach does not work with individuals who have no principles,”<sup>396</sup> a rules-based approach cannot be effective with individuals who circumvent rules. A regulatory environment that provides checks and balances for such deficiencies is needed to address the fault lines exposed in the GFC.<sup>397</sup> Similarly, even if the adaptability of principles creates a flexible perimeter for *ex ante* supervision, the regulator may not be politically inclined to act.<sup>398</sup> While there is truth in the incompatibility of

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389. See Coffee & Sale, *supra* note 72, at 749–50 (discussing the difference between “the *ex ante* decision under a rules-based regime and the *ex post* decision under a principles-based system . . .”).

390. Black, *Forms and Paradoxes*, *supra* note 385, at 450–52.

391. See *infra* note 427 (referencing discussion of post-mortem of Northern Rock).

392. Ford, *supra* note 285, at 280, 300–01 (noting Northern Rock and the CSE Programs as examples).

393. *Id.* at 287 (finding accountability to be missing in the GFC experience).

394. Black et al., *supra* note 292, at 200 (noting that a relationship characterized by mistrust on both sides leads to a high chance of failure for principles-based regulation). See also Black, *Forms and Paradoxes*, *supra* note 385, at 456 (explaining the “trust paradox” and its role in the regulatory relationship).

395. Black et al., *supra* note 292, at 203–204 (explaining “shared understanding” means that all parties applying the rule agree on what it means).

396. Hector Sants, Chief Executive, Fin. Servs. Auth., Speech at the Reuters Newsmakers Event: Delivering Intensive Supervision And Credible Deterrence (Mar. 12, 2009), available at [http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0312\\_hs.shtml](http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0312_hs.shtml).

397. See *supra* Part I.B. (discussing Lessons 3 and 4 of the GFC).

398. See, e.g., the political environment for a “light touch” regulatory approach by UK’s FSA.

rules to capture financial innovations, the growth of activities outside the scope of regulation was also due to the competitive environment and political philosophy against slowing the pace of financial innovations.<sup>399</sup> An example is the introduction of the *Commodity Futures Modernization Act of 2000*, which formalized the unregulated state of OTC derivatives, notwithstanding efforts to curb their potential risks.<sup>400</sup> Furthermore, clear regulatory authority for supervision and enforcement is not meaningful if the rules-based regulator lacks the capacity to carry out its remit. The RAC offers a mechanism to reflect the interplay of various trade-offs for the optimal principles-rules balance.

In evaluating the suitability of principles and rules, guidance on what conditions are conducive to a more principles-based approach can be gleaned from the lessons of the GFC and the rich, critical literature on the debate between PBR and rules-based regulation (RBR).<sup>401</sup> The conditions to consider PBR include areas:

- (i) subject to constant change and innovation;<sup>402</sup>
- (ii) where great variations exist between different regulated entities and discretion for case-by-case review is important;<sup>403</sup>
- (iii) where the risks of abuse of broad principles are tempered by a functional and effective “interpretive community,” one that “collectively develops, on a rolling basis, the detailed content of statutory principles,”<sup>404</sup> along with oversight by industry associations, and appropriate incentives for compliance;<sup>405</sup>

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399. See, e.g., instances of such influence contributing to the transformation of the bank-based to market-based financial system.

400. Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, 114 Stat. 2763 (2000). See *Concerning the Over-the-Counter Derivatives Market: Hearing Before the Joint Economic Comm.*, 111th Cong. 1 (2009) (testimony of Brooksley Born, Former Chairperson, CFTC) (noting the failed attempt to call for oversight of over-the-counter derivatives).

401. See *supra* Part I.B (discussing lessons of the GFC); Black et al., *supra* note 292.

402. See, e.g., Lawrence A. Cunningham, *Principles and Rules in Public and Professional Securities Law Enforcement: A Comparative U.S.—Canada Inquiry*, 6 CANADA STEPS UP 253, 277 (2006), available at [http://www.tfmsl.ca/docs/V6\(5A\)%20Cunningham.pdf](http://www.tfmsl.ca/docs/V6(5A)%20Cunningham.pdf) (“The use of broad principles-based enforcement appears to be most common—and legitimate—when confronting novel or changing characteristics of the securities industry.”).

403. See, e.g., Black et al., *supra* note 292, at 202 (listing “[m]eeting the needs of different firms” as the third “critical success factor”).

404. Ford, *supra* note 285, at 277 (referencing additional articles on the concept of “interpretive community” in note 73 therein). Note that such a community can allow the industry participants, regulators, and possibly experts and other stakeholders to engage in ongoing communication around the content of regulatory principles. *Id.* at 261.

405. See Black et al., *supra* note 292, at 203 (listing “[d]eveloping and maintaining a constructive dialogue between regulator and regulated firm as to the expectations and responsibilities of each interpreting and applying the Principles” as the eighth “critical success factor”).

(iv) where there is sufficient regulatory capacity to provide effective oversight, taking into consideration the level of the regulated entities' resources;<sup>406</sup> and

(v) where soft law plays a large role and/or international coordination and cross-border enforcement is necessary or desirable.<sup>407</sup>

A more principles-based approach is the appropriate one, for the most part, to regulate hedge funds based on the list of factors above. It is a dynamic industry that greatly values its freedom and flexibility. Hedge funds are also restricted, for the most part, to wealthy individual and institutional investors who do not require the same level of investor protection as retail investors. The wide range of investment strategies and diversity across the industry call for a more case-by-case approach, recommending principles over rules. Allowing hedge funds to meet the regulatory objectives in a way that best fit their structure will also provide a competitive advantage in the global markets. The existing body of industry best practices form a solid foundation for an "interpretative community."<sup>408</sup> Most proposals for hedge fund regulation have also supported a more principles-based approach, with IOSCO's high level principles for hedge fund regulation as a prominent example.<sup>409</sup> However, the merits of a principles-dominant balance are in question, having witnessed the multitudes of implementation errors, notably ill-matched regulatory capacity, which may be the Achilles heel in the implementation of PBR.

In the proposed paradigm, the RAC facilitates calibration of the principles-rules balance with a set of factors to evaluate trade-offs against the regulatory objective.<sup>410</sup> In this case, principles and rules are assessed in the applicable context for their respective suitability to meeting the regulatory objective of systemic risk mitigation established in Part I.D.3. The preliminary list in Box 3 is extracted from the forgoing analysis of PBR, together with the lessons of the GFC. Accordingly, this list shares many of the same factors in Box 2 for the RIC.<sup>411</sup>

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406. See Coffee & Sale, *supra* note 72, at 752 (noting that "[t]hose with ample resources have greater incentive to contest the principle's application to them"). See also Black et al., *supra* note 292, at 203.

407. See *supra* Part I.C.1 and Part II.A.2.

408. See *supra* Part I.D.1 and Part I.D.2 (discussing the standards and guidelines for the hedge fund industry) and *supra* notes 200–201.

409. See IOSCO HEDGE FUNDS OVERSIGHT FINAL REPORT, *supra* note 16.

410. See Black et al., *supra* note 292, at 200 ("Developing criteria to identify the appropriate balance between Principles and other types of rules" is listed as the first "critical success factor"). See also Cunningham, *supra* note 284, at 1423–26 (considering trade-offs between principles and rules); Cunningham, *supra* note 402, at 269 (noting that the superiority of each approach depends on the context and the objective).

411. As in the case of Boxes 1 and 2, this list is preliminary and non-exhaustive for illustrative purposes of the example.

**Box 3**

1. Certainty versus flexibility
2. Industry market environment and market discipline<sup>412</sup>
3. Regulatory relationship
4. Industry characteristics<sup>413</sup>
5. Regulatory arbitrage
6. Regulatory capacity<sup>414</sup>
7. International competitiveness<sup>415</sup>
8. International soft law system<sup>416</sup>
9. Cost and benefit analysis<sup>417</sup>

The breadth of the above-listed factors entails extensive analysis beyond the scope of this Article. In applying the analysis of the RAC, I will focus on three factors relating to the principles-rules debate most prominently featured in the lessons of the GFC: certainty versus flexibility; regulatory relationship; and regulatory capacity.

**1. Certainty versus Flexibility**

The fundamental trade-offs involved here are between flexibility and predictability in respect of principles, and certainty and rigidity for rules.

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412. See, e.g., Ford, *supra* note 285, at 268 (identifying factors in the regulatory design process to include the “[n]ature of the industry being regulated, the roles of the various players in it, and the risks associated with that area of conduct . . .”).

413. See Black et al., *supra* note 292, at 202 (listing “meeting the needs of different firms” as one of the critical success factors).

414. This includes the ability and the will to regulate. Commensurate regulatory capacity to industry resources is critical under PBR, as illustrated by the downfall of the FSA. See Black, *supra* note 379, at 1058.

415. The implications of international competitiveness for the RIC are relevant to the formulation of the regulatory approach. For example, during the pre-crisis boom markets, the rhetoric of principles-based regulation was often embraced in policy discussions in respect of its flexibility and competitive advantage. See Black, *supra* note 319, at 17.

416. The prominent role of the global governance network in the post-crisis reforms and in the continuing work ahead makes facilitation of a financial soft law system a consideration in domestic regulatory design. Evaluating trade-offs of PBR and RBR against this factor incorporates the current regulatory landscape of the global financial system.

417. The costs and benefits of principles versus rules need to be evaluated in respect of their functions for ex ante supervision and ex post enforcement. For example, the benefit of lower legislative cost for more principles-based regulation may be surpassed by the greater implementation time and cost because of its judgment-based process. See Pan, *supra* note 235, at 1918–44 (discussing regulatory strategies and considerations for the selection choices). Given the heterogeneity of hedge fund industry makeup, this may also result in a disproportionately higher compliance burden for smaller funds with limited resources. For now, according to an initial hedge fund adviser survey conducted by Wulf Kaal et. al., the existing disclosure requirements appear to be at a workable level across the industry, though with greater impact on smaller funds, as expected. Wulf Kaal, *Hedge Fund Manager Registration Under the Dodd-Frank Act*, 50 SAN DIEGO L. REV. 243 (2013).

The pros and cons of each can be viewed from the *ex ante* supervision and the *ex post* enforcement functions of regulation. For example, the advantages of principles' fluidity on the *ex ante* provisions come at the cost of unpredictable enforcement actions for the regulated actors, along with more difficult and resource intensive enforcement for the regulator.

However, these trade-offs inherent in PBR may not be as great as at first glance, after accounting for certain paradoxes identified by Black. The potential vagueness of principles may be abated by the "interpretive paradox," which provides that "principles can be general yet precise."<sup>418</sup> Conceptually, therefore, the lack of precision may be amended by increasing "shared understanding" in the regulatory relationship through a strong "interpretive community."<sup>419</sup> Interpretation of the principles can also leverage the existing soft law system to fill in the contents of guiding principles, such as the PWG Principles on systemic risks and IOSCO's principles of hedge fund regulation. On the regulator side, compliance variances may not be as great as one would anticipate because the blurred boundaries of principles keep firm behavior more conservative and/or uniformed to avoid overzealous enforcement by the regulators.<sup>420</sup> This "principles paradox," as termed by Schwarcz, results in the regulated actors behaving as if subject to a rule from taking the most conservative interpretation of principles due to fear of liability.<sup>421</sup> It would suggest that, on balance, the perceived higher flexibility offered by principles is tempered by the less customized compliance in practice, both reducing somewhat the perceived benefit for the regulatees and the potential danger of creative compliance for the regulator.

In the present example, the challenge is finding a regulatory approach balance that meets the objective of global systemic mitigation. As Ford pointed out, the choice of principles and rules needs to "consider the role that particular regulatory requirements play in overall systemic stability and efficiency" and identify those areas which should not ". . . necessarily be subject to contestation, innovation and potential 'creep' through collaborative regulatory practice."<sup>422</sup> For example, a more prescriptive approach in setting rules and bright-line tests is better suited to the recent

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418. Black, *Forms and Paradoxes*, *supra* note 385, at 446.

419. See *supra* note 404 (explaining the function of an interpretive community) and *supra* note 395 (explaining the term "shared understanding"). Also, Ford argues that the "clarity and predictability" of a regulatory system is not dependent on whether it is principles-based or rules-based. Instead, it is a question of "whether regulators and regulatees have a shared understanding of what the regulations entail." See Ford, *supra* note 285, at 264 n.17.

420. Black, *Forms and Paradoxes*, *supra* note 385, at 469 (highlighting this as the "compliance paradox", referencing the analysis by Schwarcz).

421. Steven L. Schwarcz, *The 'Principles' Paradox*, 10 EUR. BUS. ORG. L. REV. 175–84, 176 (2009).

422. Ford, *supra* note 285, at 297.

disclosure data requirements to facilitate collection of consistent and comparable information for the goal of monitoring potential systemic risk.

Given the regulatory objective, and in the context of the fast paced, innovative and heterogeneous nature of the hedge fund industry, broad principles for the mitigation of systemic risk allow the regulator to keep up with financial innovations that may generate such dangers.<sup>423</sup> For present purposes, the *ex ante* supervisory functions for timely detection of hedge funds' potential systemic risks also takes precedent over *ex post* enforcement concerns. Therefore, on this factor of consideration, a more principles-intensive regulatory approach is appropriate, except with respect to disclosure or leverage requirements. In which case, rules-based definitions, calculations and categorizations are better suited to provide data consistency and comparability.<sup>424</sup>

## 2. Regulatory Relationship

The GFC dispelled what Black termed the “regulatory Utopia,” envisioned as United Kingdom’s former FSA moved to a more principles-based regime. This vision included a new regulatory relationship characterized by “shared understanding” through open dialogue and a “culture of compliance” in achieving better substantive compliance — it is one of mutual trust justifying discretion on the part of the industry to meet, and the regulator to enforce, the spirit of the law under broad principles.<sup>425</sup> Unfortunately, in practice, this paragon of regulatory relationship is vulnerable to potential downfalls from internal paradoxes, as well as implementation failures in the context of the prevailing market environment.<sup>426</sup>

Just as trade-offs are needed between principles and rules in the formulation of regulation discussed above, appropriate balance is also required in the implementation stage. The benefits of principles are hinged on the achievability of a well-functioning regulatory relationship envisaged in PBR. However, the U.K.’s Northern Rock debacle illustrated implementation failures associated with inadequate communication of details on expected behavior from general principles and the lack of a “culture of compliance” from within the firm to curtail undesirable risk

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423. Principles also provide the discretion for hedge funds to structure their compliance as suitable in their particular circumstances. However, such benefits are not achievable without adequate oversight.

424. See Ford, *supra* note 285, at 269.

425. Black, *supra* note 319, at 17.

426. This is not surprising given the scope for implementation failures through the “communicative paradox”, the “internal management paradox” and “ethical paradox” identified in Black, *Forms and Paradoxes*, *supra* note 385, at 447–48, 452–56.

behavior.<sup>427</sup> In theory, the role of industry in PBR should encourage a more ethical approach to compliance. However, as Black pointed out, “when compliance becomes a matter of risk management, non-compliance becomes an option.”<sup>428</sup>

Another challenge with PBR rests in the paradox that the desired end outcome is also one of the pre-conditions for its success. Black’s “internal management paradox” and the “trust paradox” are examples of such circular conundrum.<sup>429</sup> She contends that although principles can facilitate flexibility that allows for a more robust internal control system, it is unlikely to materialize unless such a function is already strong within the organization.<sup>430</sup> This is further complicated by the corresponding need for more expertise and resources on the part of the regulators. A similar problem beset the transformation of a top-down, command-and-control regulatory relationship to the envisioned one of “responsibility, mutuality and trust.”<sup>431</sup> Black contends that the latter relationship has to exist for principles-based regulation to work.<sup>432</sup> The issue of trust is, therefore, a pivotal consideration in evaluating the balance of rules and principles on the RAC.<sup>433</sup> Trust is, unfortunately, something in short supply in the post-crisis world.<sup>434</sup>

Even if the ultimate goal is to support a market driven regulatory process by providing more industry discretion, reliance on broad principles may not be feasible in light of the lack of public trust. It may be that, initially, a preponderance of rules prescribing the desired behavior or result is required to supplement the underpinning principles of systemic risk mitigation. As better data and understanding of risk transmission are developed, and trust within the markets and regulatory regime is reestablished, the balance on the RAC may be adjusted accordingly. From such perspective, the use of rules is prophylactic and not permanent as Ford suggests.<sup>435</sup> This approach would offer the benefit of time and experience for a meaningful evaluation of the viability of the “shared understanding”

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427. See Ford, *supra* note 285, at 290–291 (examining the post-mortem analysis of Northern Rock).

428. Black, *Forms and Paradoxes*, *supra* note 385, at 454.

429. *Id.* at 452–53, 456.

430. *Id.* at 452–453.

431. *Id.* at 456.

432. *Id.*

433. Black, *supra* note 319, at 34 (noting that “[w]herever that trust is lacking there is little scope for [principles-based regulation] to operate in any substantive way”).

434. See, e.g., Lagarde, *supra* note 296 (commenting on the lack of trust post-GFC).

435. Ford, *supra* note 285, at 298 (focusing on complexity, not with the issue of trust in discussing the use of prophylactic rules).

and “interpretative community” required to support an effective functioning PBR.<sup>436</sup>

The benefits of principles’ flexibility over rules are also impacted by hedge funds’ industry makeup. For one, its heterogeneity intensifies the regulator engagement under PBR, requiring greater resources and expertise to consider the context of a spectrum of funds in applying broad principles. Additionally, the disparity between the large funds in the minority and the average size of the industry majority creates concern of unequal voice in a principles-heavy regulatory relationship—one that would likely be dominated by funds with the highest AUM and superior resources to participate in the regulatory conversation.<sup>437</sup> This is a subject for further research and analysis.

### 3. Regulatory Capacity

Closely related to the issue of regulatory relationship is the challenge of regulatory capacity. This includes the ability to regulate, in terms of authority, resources and expertise,<sup>438</sup> as well as the disposition to regulate since it may be diminished by regulatory capture of varying degrees.<sup>439</sup> PBR has higher potential for regulatory capture<sup>440</sup> as a fine line divides the close collaborative relationship required to establish “shared understanding” and the merging of perspectives over time that reflect industry interests.<sup>441</sup> Regulatory capacity faces added hindrance from the diversity and complexity of hedge funds’ investment strategies.<sup>442</sup>

A few brief points should be noted on the remaining RAC factors of consideration. First, the effectiveness of principles and rules is greatly determined by the context of the market environment in which the industry operates<sup>443</sup> and the market discipline that constrains its behavior, namely

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436. See *supra* note 404 (explaining the function of an interpretive community); and *supra* note 395 (explaining the term “shared understanding”).

437. See *supra* Part I.A (discussing features of the hedge fund industry makeup). At present, however, these concerns are less relevant as the disclosure requirements are more rules-based and less reliant on regulatory communications to establish a “shared understanding”.

438. See Black, *supra* note 379, at 1058. See also Ford, *supra* note 285, at 289–290 (noting the fundamental need for adequate number of staff and access to information).

439. See Black, *supra* note 379, at 1058 (arguing that “[r]egulatory capacity is a composite notion comprising both resources and disposition”).

440. See *supra* Part I.B., GFC Lesson 4 and *supra* notes 74–75 and accompanying text, discussing regulatory capture phenomena like the industry “revolving-door” and “group think”.

441. See Dan Awrey, *Regulating Financial Innovation: A More Principles-Based Proposal*, 5 BROOK. J. CORP. FIN. & COM. L. 273, 313 (2010–2011) (identifying regulatory capture as a main challenge to implementing PBR).

442. Limitations of regulatory capacity, such as funding, need to be reflected in assessing the extent of benefits that can realistically be generated from the use of principles.

443. For example, the competitive nature of the hedge fund industry, by enhancing the natural selection process in weeding out struggling funds, may generate some rigor in market discipline. See Andrew Lo, *The Adaptive Markets Hypothesis*, Clarendon Lectures in Finance, Said Business



risk-taking in the example herein. This must be considered in the general legal and political environment, which will have significant impact on the implementation of each approach and ultimately determine its success.<sup>444</sup> The challenge, it would follow, is finding a balance of rules in the regulatory approach formula to explicitly address critical aspects of systemic risk mitigation and safeguard them from future shifts in policy agenda.

The need for a comprehensive and flexible regulatory system to reduce regulatory arbitrage opportunities makes PBR more desirable over static RBR that can be rendered obsolete by the next wave of financial innovations.<sup>445</sup> The ability to incorporate “country specific conditions, regulations, and public perceptions” necessary in the evaluation of shadow banking risks also facilitates a macroprudential regulatory approach.<sup>446</sup> In addition, the diversity in the funds’ investment strategies, culture, and composition of sizes makes a prescriptive, one-size-fits-all approach impractical and inefficient. In theory, principles should be better at addressing such differences through communications with the regulator, utilizing an “interpretive community,” and fostering a “culture of compliance” within the funds.<sup>447</sup> As noted in the preceding discussion, the internal tensions and paradoxes of PBR introduce practical complications to the theoretical visions.

PBR is also preferable to RBR in facilitating the functioning of a soft law system, as demonstrated by the process of the post-crisis reform efforts. This is evident from the close relationship between PBR and the network of international soft law, intertwined in many conceptual mechanisms of

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School at the University of Oxford (June 12, 2013) (referring to hedge funds as the “Galapagos Islands of Finance”).

444. Cristie Ford, *Macro- and Micro-Level Effects on Responsive Financial Regulation*, 44 U.B.C. L. REV. 589, 610–13 (2011) (referencing the impact of “agenda-setting power” and the failings of an agenda focused on financial innovation and reduction of regulatory burden at the expense of regulating the increased risks seen in the FSA’s implementation of principles). On the other hand, the GFC also revealed flaws in the United States’ more rules-based regime. The dominance of market fundamentalism as a driver in the United States’ financial regulatory philosophy allowed “irrational exuberance” to thrive, while new dangers from financial innovations in OTC derivatives were granted freedom from regulation.

445. To the extent that harmonization is the desired method of addressing regulatory arbitrage, the common goals and dialogue process under PBR can facilitate that process. Given the rising role of soft law in the global financial system, this issue warrants further observation and can impact the final tally of trade-offs between principles and rules. See Black, *supra* note 319, at 28 (noting that principles are used “[a]s part of the drive for harmonization of regulation across jurisdictional boundaries”).

446. See IMF, OCTOBER 2014 REPORT, *supra* note 6, at 69. See also *supra* Part I.B (GFC Lesson 1), note 66 and accompanying text (recommending a macroprudential approach).

447. See, e.g., *supra* note 294 and accompanying text.

regulation, such as “new governance”<sup>448</sup> or as a form of PBR termed “polycentric or network PBR” by Black.<sup>449</sup> Given that building a more transparent and resilient global shadow banking system via the development of the international soft law system is a regulatory objective in this case, a more principles-intensive blend of regulatory approach on the RAC would be better suited to the task.

In summary, the above factors of consideration address trade-offs involved in (i) the form of regulation, ranging from detailed, prescriptive rules of conduct to broad principles of regulatory outcome; and (ii) the regulatory relationship it creates, across a spectrum from the command-and-control, top-down relationship to the collaborative relationship based on “responsibility, mutuality and trust.”<sup>450</sup> The implications of discretion is especially pertinent for the PBR regulatory relationship, resting in the industry on the *ex ante* supervision, and in the hands of the regulator on the *ex post* enforcement process, both with potential for abuse. Therefore, such reciprocal reliance makes trust and “shared understanding” critical to the success of PBR. With recent history of grave market and regulatory failures, it is also a potentially fatal downfall for the implementation of PBR on a broad level at this time. However, even without formal adoption of PBR, it is possible to strive towards the goal of a PBR-styled regulatory relationship by using existing discretionary and rulemaking powers of the securities regulators.<sup>451</sup>

In the post-crisis world, the opacity and complexity that blindsided market participants and regulators alike made industry disclosure imperative, the nature of which is better served by more rules in the mix.<sup>452</sup> The preliminary assessment for the purposes of this example is consistent with the current regulatory approach in maintaining hedge funds’ freedom in their investment strategies, but subject to a more rules-intensive approach under the new registration and related disclosure requirements. This position is generally approximated by “▼” in Figure 4.

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448. See Ford, *supra* note 281, at 27–28 (describing “new governance” as an approach that emphasizes how change happens within complex real-life social systems instead of legal doctrine or formal jurisprudence). See also Awrey, *supra* note 441, at 284 n.58 (describing PBR’s relationship to “new governance”).

449. Black, *supra* note 319, at 13–15 (describing such functions at the international level, the IMF’s Financial Sector Assessment Program being one such example).

450. Black, *Forms and Paradoxes*, *supra* note 385, at 456.

451. See Ford, *supra* note 281, at 60 (citing the example of British Columbia Securities Commission’s shift towards PBR).

452. See Ford, *supra* note 292, at 46 (referring to disclosure requirements as an example where rules make sense to provide consistency in form). But see Ford, *supra* note 285, at 298 (qualifying that such rules-based requirements are prophylactic and not permanent).

**Figure 4**

#### **D. REGULATORY CONTINUUM MATRIX (RCM)**

The RCM is the proposed mechanism to categorize and track changes in hedge funds' regulatory state through the lenses of regulatory intensity and prescriptiveness. This paradigm is based on the two axes of RIC and RAC to examine hedge funds' position within the regulated and unregulated universe. The goal is to reframe the breadth and complexity of hedge funds' systemic risk concerns as basic trade-offs necessitated by their regulation. However, for illustrative purposes herein, this generalized discussion does not address the nuances needed for detailed policy prescriptions. It is an area subject to deeper analysis of the interplay of specific facts and circumstances.

Consistent with the stated approach of leveraging current soft law developments, the RCM builds on the analytical process established by the FSB. It is intended to supplement current systemic risk reform efforts by providing a simplified and forward-looking model in response to evolving needs for hedge fund regulation. By countering complexity in this way, it generates an overview of hedge funds in four levels of regulatory state and transcends detailed analysis that challenges comprehension.

In this Part III.D, application of the RCM continues the preceding example of hedge funds' potential systemic risk as CIVs and the associated need for further regulation. The analysis starts at the industry's current regulatory status in the RCM as determined by the preliminary positions on the RIC and RAC. Two scenarios are considered here using FSB's proposed policy tools for CIVs, which aim to: (i) manage redemption pressures under stressed conditions; (ii) manage liquidity risk; (iii) limit leverage; and (iv) restrict maturity of portfolio assets (collectively, CIV Toolkit).<sup>453</sup> In the first instance, I undertake the analysis by considering moves across the quadrants with one or more of these tools introduced in hedge fund regulation. I then follow with the use of the RCM to categorize

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453. The FSB recommendations provide a menu of specific tools, such as gates, suspensions, fees and side pockets to manage redemption pressures, which authorities can utilize as appropriate to mitigate financial stability risks in their respective jurisdictions. FSB 2013 RECOMMENDATIONS: SHADOW BANKING ENTITIES, *supra* note 15, at 11–17, ann. 2.

hedge funds in its four quadrants by the applicable combination of regulatory intensity and approach.

### 1. RCM to Monitor and Track Regulatory Status

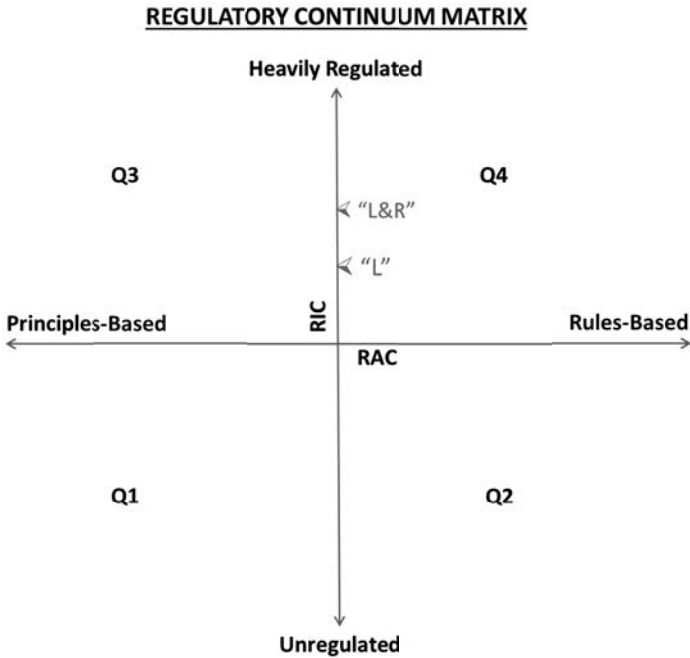
The RIC and RAC offer contextual adaptability to incorporate future developments by making adjustments in the level and the principles-rules balance of regulation accordingly. Rapid financial innovations in a transformative regulatory environment make timely identification and response to new trends and potential systemic risks in the financial system imperative.<sup>454</sup> The RCM provides a fluid framework to keep track of such changes and engage in analysis of reform proposals. This matrix can reflect rebalancing along the proposed regulatory continuums to assess and record appropriate adjustments as the underlying factors evolve over time. For instance, increased use of leverage or inadequate redemption restrictions can heighten hedge funds' susceptibility to runs, thereby shifting the SBRC position, and entail further regulation along the RIC. As more regulatory tools are added from the CIV Toolkit, the positions on the RIC moves up higher from Q1 and Q2 into Q3 and Q4.

The example here begins with the current regulatory position in the RCM, roughly approximated by Point "A" in Figure 6. This high-level estimation is derived from the intersection of the points on the RIC and RAC from Parts III.B and III.C.<sup>455</sup> Next, consider two situations where in one, leverage requirement is added, and in the other, both leverage and redemption restrictions from the CIV Toolkit are introduced. Evaluation of the need for such additional regulatory tools can be made using the list of factors in Boxes 1 and 2 to determine the extent of upward movement along the SBRC, and the RIC correspondingly. In doing so, such increase in regulation can be reflected on the RIC axis of the matrix. For instance, point "L" can approximate the addition of one tool on the RIC to manage leverage and point "L&R" can approximate the use of multiple tools to address leverage and redemption (see Figure 5). This process can be similarly applied for other recommended tools in the CIV Toolkit.

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454. *See supra* notes 195 and 243 and accompanying text (referencing financial market developments with potential systemic risk concerns).

455. This tentative position on the RCM is constructed from the foregoing examples examining CIVs' shadow banking risks and the need for regulation on the basis of the considerations described herein. It is intended for illustrative purposes only. *See supra* Parts III.A and III.B.

**Figure 5**

Next, the corresponding point on the RAC is used to reflect any necessary adjustments in principles-rules balance for the additional regulatory tools. For example, in calibrating the appropriate leverage limits, the regulatory approach will involve trade-offs between (i) the desired precision and consistency of rules to ensure compliance and effectiveness, and (ii) the flexibility needed to capture different investment strategies.<sup>456</sup> Similarly, regulation can dictate when and how to apply redemption gates with specific rules, or it can establish the regulatory goal for adequate measures to manage redemption pressures and leave discretion in the CIVs to establish customized restrictions.

By extending the rationale from the RAC analysis in Part III.C, a rough approximation of the corresponding point for “L” would move towards the more rules-based end of the continuum,<sup>457</sup> placing the intersection in Q4 (approximated by point “B” in Figure 6). Similarly, the corresponding point on the RAC for “L&R” would likely be less prescriptive, allowing for the desired discretion in redemption strategies to manage potential run risks.

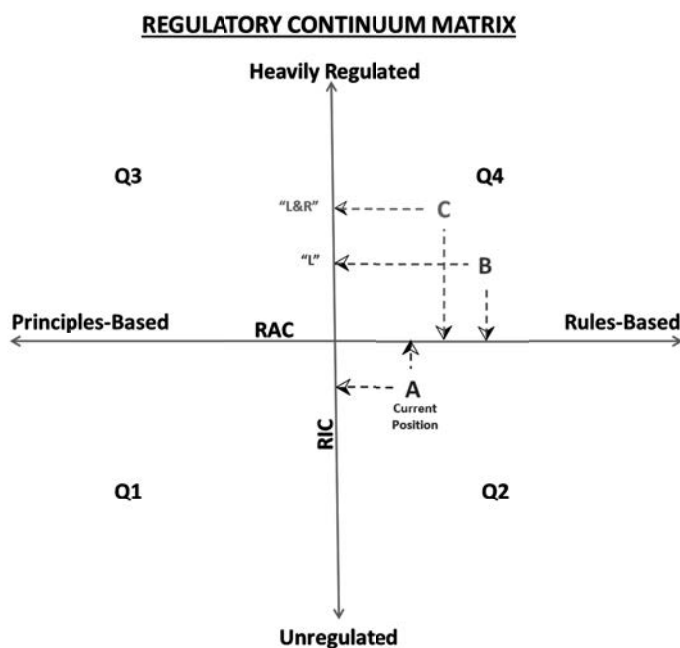
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456. See *supra* notes 23 and 322 and accompanying text (discussing the use and implications of leverage across different hedge fund strategies).

457. Applying the earlier analysis that uniform standards are needed for areas like disclosure, leverage restrictions would generally be better suited to bright-line tests of rules.

Therefore, compared with Point “B”, this position would be more towards the center of the RCM (approximated by point “C” in Figure 6), although the exact distance would depend on the weight of the various principles and rules at play. By recalibrating positions on the RIC and RAC to reflect changes in the hedge fund industry, the corresponding level of regulatory intensity, applied within a spectrum of industry discretion, can evolve accordingly. As the example illustrates, such positions of regulatory intensity and prescriptiveness can be tracked and compared in the RCM framework (see Figure 6).

**Figure 6**



## 2. RCM to Categorize Hedge Funds for Regulatory Purposes

As described in the foregoing, hedge funds can fall within four possible regulatory states in the RCM, ranging from Q1, the pre-GFC position with relatively low levels of regulation, to the most restrictive regulatory environment in Q4. Viewed from this perspective, Q1 would be the most preferable regulatory status to market participants, with the outer corner characterized by market fundamentalism guided by the invisible hand. In contrast, Q4 would be the least desirable, subject to the generally prescriptive, command-and-control nature of a regulatory relationship run under a heavy government hand. Outliers can be identified based on their variance from the norm on the RIC and RAC. However, even within each

quadrant, the RCM envisions a wide array of combinations in degrees of regulation and industry discretion.

As such, the proposed RCM may offer a framework for high-level categorizations of hedge fund regulation. It may also be used to plot subsets of hedge funds based on their particular characteristics and circumstances, as well as to chart various national hedge fund regulatory regimes. However, due to the exploratory stage of this thought experiment, the feasibility and utility of such hypothetical functions are subject to further consideration of the necessary specificity on definition, calibration, and classification.

#### IV. POTENTIALS, CHALLENGES AND FURTHER RESEARCH

##### A. POTENTIAL USES

Beyond providing a framework for the categorization of hedge funds and analysis for future reforms, the RCM has the potential as a tool in the implementation of regulation. Positions in the RCM may be individualized for a specific hedge fund, or based on a sub-sector of hedge funds, by regenerating the intersecting point of the RIC and RAC. One possibility is to group hedge fund sectors by investment strategies or size. For example, if a hedge fund is designated as a NBNI G-SIFI, it would fall in Q4, the highest category of regulatory intensity and prescriptiveness with prudential type regulation. In this way, classification of the sectors and significant outlier funds in the four quadrants can assist with the allocation of regulatory resources in a risk-based and proportionate manner, alleviating stress on limited regulatory capacity.

However, the preliminary stage of this proposal dictates a closer examination of the operational challenges, as well as caution for potential unintended effects. For example, such categorization may present moral hazard in weakening risk management of counterparties and institutional investors arising from reliance on such labels as risk ratings of the various hedge fund sub-sectors or individual funds.<sup>458</sup> The role of credit rating agencies in the unravelling of structured mortgage-based securities during the GFC is a sobering reminder of the dangers from misplaced reliance on risk ratings.<sup>459</sup>

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458. Careful consideration of the possibility that RCM categorizations are used as proxies for risk ratings is necessary to avoid demonstrated dangers with the credit ratings based system. The metrics for the proposed matrix are intended for regulatory purposes, and the resulting determinations may be ineffective or misleading for other purposes. As we have seen, misplaced confidence in the ratings as a predictor of future developments played an important role in the origins of the GFC. See TURNER REVIEW, *supra* note 10, at 76–77.

459. Credit rating agencies have been identified as an unregulated sector that contributed to the GFC through their role in rating structured credit products. See FCIC REPORT, *supra* note 49, at xxv (“The three credit rating agencies were key enablers of the financial meltdown . . . . Their

On the other hand, classification of hedge funds in the RCM may help instill incentive to strengthen risk-management and enhance the functioning of PBR with improved “shared understanding” and a more robust “interpretive community.” In the same way that the possibility for inclusion as a NBNI G-SIFI would discourage financial institutions from becoming too big or too interconnected to exceed the materiality threshold, the RCM designation may also incentivize hedge funds to avoid elevation onto the next quadrant. Such inducement may be further aligned to international standards by linking FSB’s policy tools to specific quadrants. Being cognizant of the corresponding increase in regulatory costs as a result of the use of higher leverage can serve as a cogent disincentive to excessive risk-taking.

Simplifying regulatory issues to focus on trade-offs in hedge funds’ benefits and systemic risk potentials also addresses opacity. The underlying analysis for RCM positions increases transparency of the risks that hedge funds create or engage in, and the extent to which such risks may be transferred to, the financial system. This process would also cultivate a PBR-style regulatory environment by serving as a pragmatic evaluator regarding movements in the RCM, thereby stimulating a forum for discussion. Hedge fund regulatory issues reduced to big picture concepts can reach a wider audience of invested citizens for a more robust “interpretive community” envisioned under PBR in the application of principles. In turn, this may offer a potential counterbalance to regulatory capture and political inertia to reforms.

Assuming sufficient uniformity in hedge fund data and consistent measurements for the continuums are feasible, the RCM may provide global comparisons of national hedge fund regulatory regimes. Differences in regulation by quadrant identify notable regulatory arbitrage opportunities. The recent crisis illustrated that a meltdown in one market can quickly spread to others and span across borders. In light of concerns over the growth and safety of shadow banking in China,<sup>460</sup> a framework of reference to monitor changes in this regard can aid detection of financial stability threats in a form accessible for public consumption. Such comparative regulatory status could be designed to supplement FSB’s review process and aid in rallying public support for political engagement.

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ratings helped the market soar and their downgrades through 2007 and 2008 wreaked havoc across markets and firms”). The post-crisis reforms on credit rating agencies are also instructive to the potential downfalls of the RCM (such as effectiveness in categorizing hedge fund risks and who will determine positions in the RCM) so as to avoid misplaced reliance and conflict of interests. See TURNER REVIEW, *supra* note 10, at 78–79.

460. See *supra* Part I.C.3 (discussing rising systemic risk concerns from the rapid growth of shadow banking in China).



Finally, the RCM can track changes in circumstances and economic trade-offs through determinations of the RIC and RAC placement in its applicable quadrants. In doing so, the proposed paradigm facilitates the self-critical learning to modify future actions and decisions, which Black identified as a key lesson from the experience of new governance techniques in the GFC.<sup>461</sup>

While this preliminary proposal may not be a panacea for the causes of the recent crisis, its theoretical potential makes an integral contribution to the prodigious GFC literature. By streamlining hedge fund regulatory concerns, the proposed paradigm can evolve with new developments and foster policy conversation to support a PBR-style “interpretative community.” With dialogue opened to a broader audience, it engages public interest to probe the effects of shadow banking risks on the real economy, which advances the goals of inclusive capitalism.

## B. IMPLEMENTATION CHALLENGES AND FURTHER RESEARCH

Despite potentially promising prospects, the inception stage of this proposal leaves much room for further deliberations. To start, the paradigm may be subject to criticism in that it is largely premised on idealized operation of the normative basis. Concerns that utopian visions of laudable ideologies may function differently in practice are understandable in light of the GFC. However, this proposal opens the reform dialogue to filter key issues for hedge fund regulation and explore possibilities to formulate its post-crisis regulatory course.

The Article presents a conceptual experiment, operating on broad stroke features of the SBRC, RIC, RAC, and RCM. As observed above, the resulting placements on the continuums and the matrix are crude estimates and may be arbitrary and tenuous in their current state. In particular, the subjective judgment on trade-offs in the underlying factors renders consistency in application inherently difficult, due to dependency on value and philosophy of the decision maker.<sup>462</sup>

As such, the fundamental challenges of the paradigm’s design are readily apparent, including definitional issues and measurement metrics, as well as operational concerns, such as the calibration mechanism for adjustments along the continuums. Importantly, development of the underlying factors of consideration, together with their weight and rank in the evaluation, remains to be defined. By focusing on the forest rather than

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461. Black, *supra* note 379, at 1062 (prescribing regulators to “observe and adapt, to engage in self-critical learning”). See also Ford, *supra* note 444, at 621 (asserting that “regulators failed to manage change in conscious ways—by failing to record their own learning or to track movement over time in the meaning of terms”).

462. BRUMMER, *supra* note 261, at 130–131 (noting that countries will weigh the trade-offs of stability and innovation differently).

its trees, the discussion herein is precursory and illustrative rather than exhaustive and conclusive. This proposal's end goal, among others, is simply to reframe the hedge fund conversation and widen dialogue related to charting a regulatory course for hedge funds in the post-GFC world—an objective reliant on seeing above the trees.

Another potential downfall is the danger of oversimplification, reflecting the conflict between the generalization needed to simplify issues at a high-level and the meaningful analysis required for more nuanced consideration of the facts and their context. However, focusing on the broader goals and principles in this way enables the SBRC, RIC, RAC and RCM to serve as visual tools to process the complexities of systemic risk and hedge fund regulation.<sup>463</sup> Whether the RCM can fulfill its intended purposes is also subject to a number of unknowns, such as the availability of hedge fund data, findings from the cost and benefit analysis, and limitations on its implementation relating to regulatory capacity and international cooperation.

Finally, one significant issue for the proposal remains unaddressed: who is responsible for constructing the RCM and conducting the underlying analysis for the SBRC, RIC and RAC? Even at a high-level basis, the data and examinations involved would be another unwelcomed regulatory burden for both the regulator and the market actors. The industry bodies may be a possible candidate for this role, subject to effective regulatory oversight. For one, they have better proximity and understanding of the hedge fund markets, thus providing them with an informational advantage over regulators. Hedge fund groups, like MFA and AIMA, have been actively involved in related financial regulatory reforms to counter perceptions of the industry's threat to financial stability. Regulators may be able to leverage these groups' access to their member hedge fund managers, depth of resources and self-professed eagerness to assist in a collective effort to mitigate systemic risks.<sup>464</sup> If such delegation of responsibilities

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463. See OFR, 2014 ANNUAL REPORT, *supra* note 23, at 80 (“Visualizations that support policymaking should focus viewers’ attention on the broader goals and principles that underlie policy choices.”).

464. Cf. Saule T. Omarova, *From Reaction to Prevention: Product Approval as a Model of Derivative Regulation*, 3 HARV. BUS. L. REV. 98, 103-4 (2013). Omarova proposes a product approval model for derivative regulation, placing the onus on the financial institution to apply and maintain qualification for the approval of new financial products. She insightfully contends that such a proposal would lessen informational asymmetries between industry and regulators and correct existing sub-optimal risk taking incentives. By analogy, the proposed use herein would also serve as a similar burden-shifting mechanism from the often out-matched regulator to well-endowed industry actors. However, careful consideration is required in this case to address lessons learned from the failed CSE Program in its devolution of regulatory discretion to industry. See *supra* notes 373, 392 and accompanying text (discussing the CSE Program and its implementation failures).

proves effective, it would also have positive implications for an SRO in the hedge fund regulatory landscape.

Academia may be another possible source of expertise in undertaking the analysis envisaged by the RCM. As noted throughout, the topic of post-crisis regulatory reform has garnered tremendous academic interest, resulting in extensive expertise and rich supply of scholarship. As such, the proposed project may appeal to future academic research, which could advance in tandem regulatory efforts of systemic risk detection and mitigation. For example, collaboration with outside scholars is sought after as a valuable supplement to the research capabilities of the Office of Financial Research.<sup>465</sup> The collaborative connections in academia can incorporate interdisciplinary and international perspectives in the financial stability analysis and recommendations. Academic involvement can also bolster objectivity of financial risk evaluation based on their specialized knowledge and reputational capital.

Such arrangements with industry bodies and academics can help bridge the public/private divide in the hedge fund sector<sup>466</sup> and contribute to an expert “financial interpretive community”<sup>467</sup> for critical analysis to develop regulation and mold industry best practices on an evolving basis. As this process matures, a solid foundation for PBR may then be available to support its envisioned regulatory relationship. Given the depth and complexity of the relevant issues, this is a subject open for further research and consideration.

## CONCLUSION

The inevitability of market failure from maturity/liquidity transformation, combined with recurrent asset price bubbles, warrant regulatory intervention in the shadow banking system. Extensive issues surround the goal of safeguarding the financial system from systemic risks of non-bank entities performing banking functions. The Article considers lessons from the GFC, together with hedge funds’ current regulatory

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465. See *Research Subcommittee: FR-14 Recommendations*, FINANCIALRESEARCH.GOV (Aug. 1, 2013), <http://financialresearch.gov/frac/2013/08/01/committee-meeting/recommendation/fr-14/>. The Financial Research Advisory Committee is intended to provide diverse perspectives in advising on the OFR’s research and data agenda. See also *Financial Research Advisory Committee*, FINANCIALRESEARCH.GOV, <http://financialresearch.gov/frac/> (last visited Mar. 21, 2015).

466. In this way, academia’s role in undertaking the RCM analysis connects the “means” of private hedge fund industry resources with the “ends” for public functions of the regulatory bodies. Cf. Robert C. Hockett & Saule T. Omarova, “Private” Means to “Public” Ends: Governments as Market Actors, 15 THEORETICAL INQ. L. 53 (2014) (extending, as a possibility by analogy in respect of public universities, its analysis of the government “market actor” role that straddles the traditional public/private divide of government and markets).

467. For a discussion of the term “financial interpretive community”, see *supra* note 299 and accompanying text.

landscape, to formulate their post-crisis regulatory objective and a policy paradigm for the prescribed tasks. The proposed RCM presents a simplified visual representation of the status of hedge fund regulation, supported by underlying analysis on regulatory intensity and approach. Therefore, the matrix offers contextual adaptability to monitor systemic risks, sustains visibility of such dangers lurking in the shadows, and promotes vigilance in securing financial stability.

This policy paradigm offers a thought experiment to reduce complexity through the perspective of regulatory trade-offs. The goal is to aid understanding and facilitate widened dialogue, on pace with the dynamic nature of hedge funds in the global markets. If achievable, it may help support public policy debates beyond the peak of the Regulatory Sine Curve and advance the ideals of inclusive capitalism. It must be observed that in focusing on the big picture, there is a risk of oversimplification; weaving yet another thread in the enduring theme of trade-offs presented here. Thus, the Article ends as it began, resting on the delicate balance of accords and concessions. While the RCM is conceptual rather than concrete, the postulations put forth herein sow the seeds for a paradigm shift concerning complexity in financial regulation and provides a mechanism to enable broader policy dialogues—inviting some sunlight into the shadows of finance.