

SPEECH

## Supervisory Implications of Rising Similarity in Banking

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#### Introduction

Thank you very much for the invitation to speak at the “U.S. Banking Forum.” It is a pleasure to be here to talk about the continued evolution of the U.S. financial sector. Before proceeding, I will emphasize that the views expressed today are my own and do not necessarily reflect the views of the Federal Reserve Bank of New York or the Federal Reserve System.<sup>1</sup>

It is now a decade since the financial crisis and the U.S. banking industry has made tremendous progress in terms of repairing its aggregate balance sheet and building greater resilience. Capital ratios are higher, liquidity pools are deeper, and we’ve seen fundamental improvements in risk management and governance. While there are still areas for continued progress, all of this should help financial firms provide critical intermediation services across a range of macroeconomic and financial market conditions. This progress reflects both the recognition by financial institutions of the need for greater resiliency in order to insulate themselves from shocks and a stronger, more comprehensive, forward-looking regulatory and supervisory framework.

Over the same period, we’ve seen continued evolution of the underlying business models for some of the largest U.S. financial firms in response to external forces. Firms are navigating statutory changes and a suite of new regulations that are still evolving and being implemented;<sup>2</sup> responding to investor pressures for higher returns in a rising rate and more competitive environment; and seeking to capitalize on fundamental technological advances, while managing the risks associated with cybersecurity and greater competition from potentially disruptive new entrants.

One recent observation is that the largest firms in the U.S. appear to be growing increasingly similar in terms of their underlying business models and strategies. This has implications for balance sheet structure, earnings profile, and organizational structure. For example, some firms traditionally focused on capital market activities, are shifting into lending activities, while other more traditional banks, are expanding capital markets activities. In both cases, this serves to diversify the individual firms, while also making them more similar in terms of the business strategies they pursue, the products they offer, and the customers they serve.

If firms are responding to the same exogenous forces, this might not be surprising. Indeed, similar observations were made in the late 1990s as the deregulatory forces that culminated in the Gramm-Leach-Bliley Act (GLBA) led to predictions of a few “financial supermarkets” that would offer the full range of financial services to all customers. More recently, industry analysts and commenters have pointed to the range of capital and liquidity regulations that may be pushing firms toward the same target state business model where large firms provide a wider range of financial services.

If true, an obvious follow-up question is whether this should be a concern from a supervisory and regulatory perspective. Today, I will discuss the premise that large banks in the U.S. have indeed become more similar and then consider some reasons why this might be a topic of interest for the official sector. I can think of several compelling microprudential and macroprudential reasons why this would be the case: the need for an appropriate risk management framework that is commensurate with evolving risks; the need for supervisors to ensure that our assessments are proactive and flexible enough to evaluate evolving firms; the potential for similar firms to become “systemic as a herd,” where a given shock leads to correlated responses and large-scale disruption in the provision of financial services; and the potential for firms to move away from areas of comparative advantage, which could diminish the overall efficacy of the financial sector.

I’ll conclude with some implications for our supervisory regime.

#### Environmental Context

The performance of financial firms in the decade since the financial crisis has been influenced by a broad range of external forces. I’ll focus on three factors impacting how financial services are provided and their impact on large firm similarity: the regulatory response to the financial crisis, the interest rate environment, and technological innovation.

#### *Regulation*

The U.S. official sector has taken meaningful steps since the financial crisis to promote greater resiliency and stronger risk management at the largest firms.<sup>3</sup> This includes: a greater focus on both the quantity and quality of loss-absorbing capital;

standards that focus on both short-term and long-term liquidity management and positions; activity restrictions; enhanced risk management standards and expectations; and new resolution and recovery regimes.<sup>4</sup>

I will focus on the capital side, where the largest banks face a number of regulatory standards and supervisory expectations that impact both capital positions and the firms' capital planning process. The standards include point-in-time regulations that target a simple leverage ratio and risk-based ratios. They also include forward-looking standards for both types of ratios that reflect estimates of potential capital needs across a range of plausible, but severe macroeconomic and financial conditions. These forward-looking estimates that result from our Comprehensive Capital Analysis and Review (CCAR) program are now an integral, and some would say leading, part of the post-crisis capital regime.<sup>5</sup>

The fact that firms must manage against multiple capital constraints has both intended and potentially unintended consequences. On the intentional side, this framework enhances robustness. Risk assessment approaches and models are imperfect and a capital regime that relies on a range of assessment techniques can increase robustness and mitigate the inherent uncertainty around risk measurement. It also provides a check against potential regulatory arbitrage.

A potential unintended consequence is pressure toward greater homogeneity of the largest banks. Think about a simple example of a firm with a low-risk balance sheet where the leverage ratio currently is binding, but the risk-based capital ratio is not. This firm may have incentives to shift out of low-risk assets into higher-risk assets in order to optimize its balance sheet and the corresponding risk-adjusted return on equity.<sup>6</sup> A key point is that different firms face different marginal capital requirements for holding the same asset, depending on the other attributes of their balance sheet and business model.

This type of response can impact both the size and the composition of a bank's balance sheet. Of course, the world is much more complicated than this simple example. Optimizing firms likely consider a number of capital factors such as the current point-in-time ratios, current post-stress ratios, and the potential impact of both types of ratios in the future, as well as other balance sheet influences such as liquidity ratios and the recovery and resolution regime.

Recent academic work has begun to explore this topic and I think it is an important area where regulators and supervisors concerned with optimal regulatory design can learn from the theoretical literature. Research suggests that in a world with multiple capital constraints, e.g., a leverage ratio and a risk-based capital, banks face incentives to do the same thing rather than specializing in areas where they each have a natural competitive advantage.<sup>7</sup> This type of academic work provides a conceptual framework for understanding how optimizing behavior against multiple constraints might lead banks to pursue similar strategies and become more homogenous over time.

### *Interest Rates*

A second dominant theme over the post-crisis period has been unconventional monetary policy, both in the U.S. and around the world, which has direct implications for the profitability and returns of U.S. commercial banks. The low rate environment experienced through 2015, for example, constrained bank earnings, particularly net interest income earned through traditional banking activities over this period. More recently, current and expected future returns on equity for large banks have improved, in part reflecting higher interest rates and net interest margins, as well as other factors such as lower tax rates and expectations for a stronger economy.

Despite recent improvements, earnings pressures over most of the post-crisis period have pushed banks to reassess business strategies. For example, some banks attempted to enhance returns by building capacity and reach in new businesses; some looked to benefit from scale and scope activities by leveraging existing infrastructure, technology, and processes to offer a broader set of services at lower cost; some looked to reduce risk through greater diversification, and others pulled back from activities outside of their core focus.

It is unclear what the net impact will be, but if all firms pursue the same strategies in search of higher risk-adjusted returns, greater similarity could result. This pressure is potentially stronger now than in the past due to the highly competitive nature of banking and this is an area for further study.

### *Technology*

A third theme is the emergence of "fintech", which I think of as the intersection between technological innovation and the provision of financial services. While innovation has always been a competitive driver in banking, there is a sense that both the pace of change and the potential impact have become more pronounced. As prices for technology services and capacity continue to fall and technological opportunities expand, more firms are able to adopt and leverage the latest technological breakthrough.

Scale is likely to remain a relevant factor in the deployment of the latest technology, but, at least among the largest firms, the playing field may be leveling as firms have the opportunity to benefit from direct investments, consultants, and third-party vendors offering the latest services. If the largest financial firms are responding to the same technological forces and pursuing the same opportunities, one might expect their resultant strategic choices to contribute to greater similarity over time.<sup>8</sup> Again, this is an empirical question that deserves further inquiry.

## *Next Steps*

An important next step is to look at the data to assess whether recent industry trends are consistent with the premise that large banks are becoming more similar. We examined a range of balance sheet and income statement items, market indicators, and organizational structure data to draw some preliminary conclusions. The results, reported in the appendix, are generally supportive of the notion of greater homogeneity among the largest banks, but a more rigorous assessment of these preliminary conclusions would be a fruitful area of investigation.

## **Why Do We Care?**

I now turn to a final question – does this matter for supervisors and regulators? I think it does. I will consider four potential reasons why this shift is relevant for the official sector's concern for safety and soundness and efficient financial intermediation: a firm's risk management approach, the evolution of supervisory focus, the development of macroprudential risks, and allocative efficiency of financial services.

I'll begin with our core microprudential focus on ensuring that banks develop and implement the appropriate risk management infrastructure for their evolving risks. While this is more linked to the changes in business models than greater similarity, the underlying drivers are the same.

As banks respond to environmental factors by expanding into new activities or shifting their strategic focus, they naturally face new risks and must adapt their risk management infrastructures along with their evolving business models. This entails ensuring the appropriate level of expertise about the new businesses; assessing that all relevant risks are identified, monitored, measured, and managed for each business line and the firm as a whole; and establishing the appropriate interaction with the enterprise risk management functions and Boards of Directors. These are core parts of supervisory expectations for traditional risk management and banks need to ensure that they are applied appropriately as they evolve.

Moreover, expansion into new activities can bring entirely new risks beyond the direct risks of each specific business. For example, a firm that expands by offering a broader set of products to its existing base of customers. This has the potential to introduce greater correlation of business line results and a different type of shock if a financial firm potentially loses multiple revenue streams should a single customer face distress. Alternatively, a firm might be inclined to use one business line to cross-subsidize another, which makes measuring and managing risks and allocating capital more difficult from a business line perspective. In both cases, the potential risks would need to be managed at the enterprise level to reflect these cross-business linkages.

A second implication is the need for the supervisory community to be responsive to the evolution of firms' strategies and business models. As firms evolve and pursue new strategies, supervisors need to understand those changes and assess firms accordingly. We must constantly evaluate the strategic focus of the firms we supervise and assess whether our approach and perspective are appropriate for the new activities. In a world with a core of diversified firms that are more similar, for example, cross-firm exams and horizontal analysis increase in value and supervisors might require broader skills.

Moving beyond individual firms, there is the potential for microprudential risks to transform into macroprudential ones. If firms expand, diversify and become more similar, each might become safer individually. The industry as a whole, however, might not be any safer or more resilient. If all firms are effectively the same, they could become "systemic as a herd" and susceptible to the same shocks in a way that leaves the aggregate provision of financial services more volatile.<sup>9</sup> The propagation mechanisms for an industry with a set of similar firms with a wider range of activities may be very different from one where firm heterogeneity can offset and smooth the impact of shocks. This suggests that supervisors and regulators should be concerned not just with the firm as an entity, but with the industry as a portfolio of firms where aggregate outcomes reflect both each firm's individual contribution and correlation properties across firms.

Finally, supervisors are concerned about the efficient provision of financial services and the ability of the financial industry to support the real economy. If firms' mix of activities is overly determined by the regulatory environment, firms will have incentives to expand into activities where they do not have a comparative advantage. As a result, the potential gains of specialization would be lost. This could make the provision of financial services less efficient overall.

Judging the cumulative impact of these changes in a comprehensive way that includes an assessment of costs, benefits, and risks is challenging, but seems an important goal for optimal policy design.

## **Conclusion**

A fundamental challenge for effective supervision is that the landscape is constantly evolving and adapting in response to a wide range of regulatory, financial, and technological forces. This type of dynamism is normal and inherently productive for the industry as firms continue to optimize in order to serve customers efficiently and satisfy investors, but it does raise issues that supervisors must consider. As I've discussed, one recent type of evolution is the trend toward greater similarity of the largest financial firms in the U.S.

In response, supervisors and regulators must continue their focus on taking a broad perspective on supervision and risks. It is not enough to look at individual business lines or products, but we should continue to focus on enterprise risk management that reflects each business and the interdependencies among them. Moreover, supervisors should be dynamic and continue to evolve as the supervised firms do. Finally, supervisors should continue to develop an industry-wide, macroprudential perspective to understand the impact of the continuing evolution of the U.S. financial industry.

To do this, supervisors need to continue to leverage our cross-firm, horizontal perspective to better understand how the industry is evolving and what it might mean for our objectives around safety and soundness of individual firms and the efficient provision of financial services for the economy as whole.

## Appendix [PDF](#)

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<sup>1</sup> I would like to thank Nicola Cetorelli, Bev Hirtle, Michael Holscher, Anna Kovner, Paul Licari, Jackie McCormack, Siobhan Sanders, Joao Santos, Katherine Tilghman Hill, and James Vickery for helpful discussions and analytical work.

<sup>2</sup> See *Getting It Right: Factors for Tailoring Supervision and Regulation of Large Financial Institutions*, Randal K. Quarles, July 18, 2018.

<sup>3</sup> See *Lessons from the Financial Crisis*, William C. Dudley, November 6, 2017, for reviews from a regulatory perspective; *Early Observations on Improving the Effectiveness of Post-Crisis Regulation*, Randal K. Quarles, January 19, 2018.

<sup>4</sup> Federal Reserve Board, *Consolidated Supervision Framework for Large Financial Institutions*, December 17, 2012.

<sup>5</sup> The latest CCAR results can be found at <https://www.federalreserve.gov/supervisionreg/ccar.htm>.

<sup>6</sup> See Dong Choi, Michael R. Holcomb, and Donald P. Morgan, *Bank Leverage Limits and Regulatory Arbitrage: New Evidence on a Recurring Question*, Federal Reserve Bank of New York Staff Report #856 for evidence of risks-shifting in response to the imposition of the supplementary leverage ratio in the U.S.

<sup>7</sup> See Andrew G. Haldane, "Multi-Polar Regulation," *International Journal of Central Banking*, June 2015, 11(3), 385-401; "Strengthening and Streamlining Bank Capital Regulation," Robin Greenwood, Sam Hanson, Jeremy Stein, and Adi Sunderam, *Brookings Papers on Economic Activity*, 479-565, Fall 2017; "Bank Capital Allocation under Multiple Constraints," Tirupam Goel, Ulf Lewrick, and Nikola Tarashev, October 2017, BIS Working Paper #666.

<sup>8</sup> A counterargument is that economies of scale and network effects from technology platforms could lead to greater specialization, e.g., payments or mortgage lending.

<sup>9</sup> See "CoVaR," Tobias Adrian and Marcus Brunnermeier, *American Economic Review*, Vol. 106(7), 1705-41 and "The Fundamental Principles of Financial Regulation," Markus Brunnermeier, Andrew Crockett, Charles Goodhart, Avinash D. Persaud, and Hyun Shin, in *Geneva Reports on the World Economy*, 2009 for a broad discussion and Empirical Evidence on 'Systemic as a Herd': The Case of Japanese Regional Banks, Naohisa Hirakata, Yosuke Kido, and Jie Liang Thum, January 2017, for an empirical example. The literature typically focused on small firms acting in the same way, but the same principle likely applies to large firms that behave similarly to amplify systemic risk.

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