Among the questions posed by the organizers of this 50th Annual Conference on Bank Structure and Competition is how the “regulatory-supervisory framework has fundamentally changed.” I think one answer is that the aims and scope of prudential regulation have been fundamentally redefined since the financial crisis. Most significantly, a concern with financial stability and an increased emphasis on macroprudential regulation have informed major changes in both banking law and supervision. This salutary shift in perspective has important implications for prudential regulation. One is that prudential regulation must deal with threats to financial stability whether or not those threats emanate from traditional banking organizations. Hence the need to broaden the perimeter of prudential regulation, both to certain nonbank financial institutions and to certain activities by all financial actors.

A second implication – to which I will devote most of my remarks this morning – is that the aims of prudential regulation for traditional banking organizations should vary according to the size, scope, and range of activities of the organizations. By specifying these aims with more precision, we can shape both a more effective regulatory system and a more efficient one. That is, once we have specified the regulatory aims for a particular type of financial institution, we can more effectively rationalize and, as appropriate, differentiate the rules and requirements to be applied to each kind of institution.

The legacy of a unitary approach to bank regulation

When I was teaching banking law prior to my appointment to the Board of Governors, I noticed an interesting disconnect in the best casebooks in the field. An introductory chapter on the history and purposes of bank regulation revealed a complicated set of issues concerning changes in the structure and activities of banks, which, among other things, suggested that the rationales for regulating banks might vary depending on the size, business model, and affiliations of a bank. Yet the remaining chapters of the casebooks treated bank regulation as a more or less unitary endeavor – with prudential rules applicable in about the same way to the activities and affiliations of all banking organizations, and only to banking organizations.

To be sure, topics such as bank affiliations with nonbank financial institutions were, for practical reasons, more focused on larger banks. And there were a few measures directed at the more complicated balance sheets of larger banks, such as the Basel II internal ratings-based (IRB) approach to regulatory capital, although there was no evidence the underlying purpose of capital regulation differed. But in all the chapters elaborating applicable doctrine and rules, there was little hint that the purposes and principles of bank regulation might vary across the bank population. And, to the extent that nonbank financial institutions such as broker-dealers, investment companies, or insurance companies were covered, the pedagogical point seemed to be that the aims of regulating these kinds of firms were dominantly investor and customer protection – not prudential considerations such as limiting moral hazard, much less fostering financial stability.

The reason for this disconnect was, to a great extent, that pre-crisis statutes and regulations reflected what I have termed a unitary approach to banking regulation. The core of banking regulation could be explained with a relatively simple narrative, by which deposit insurance and access to the discount window had been granted to depository institutions in order to forestall runs and panics. The resulting moral hazard and the use of insured deposits as a funding source for these institutions justified everything from capital requirements to
limitations on banks getting into nonbanking businesses. Even when traditional banks were permitted to affiliate with other kinds of financial firms, laws such as the Bank Holding Company Act and section 23A of the Federal Reserve Act were oriented mostly toward protecting the insured depository institution and the federal deposit insurance fund (DIF) from possible depredation by those nonbank businesses. The activities of broker-dealers, for example, were relevant to prudential regulation only insofar as they affected an affiliated depository institution.

Of course, banking law had not only tried to protect the DIF from the risky activities of banks and their affiliates. It had also, albeit far less explicitly, tried to protect banks from nonbank competition and, to some degree, from each other. Just as banks were supposed to stick to their knitting – the business of banking – so everyone else was supposed to stay out of that business. But as we all know, the distinction between demand for commercial bank loans and for investment bank underwriting of public debt issuance was never absolute, and in the 1970s it began to erode more rapidly with the growth of capital markets and financial innovations such as money market funds.

The financial crisis has confirmed that the pre-crisis regulatory structure reflected a view of the financial system that was at once too broad and too narrow. It was too broad in that prudential rules generally applied to all banks and bank holding companies through a microprudential approach focused on the soundness of each individual bank. The rules were implemented somewhat differently, based on the size and relative complexity of banking organizations, and separate supervisory portfolios were created. But the principles informing regulation were basically the same whether the institution was a community bank or a holding company with a $1 trillion balance sheet whose failure might shake the entire financial system.

The prudential regulatory structure was too narrow in that it did not extend to firms and activities outside of banking organizations, even those that could pose a threat to financial stability, because the soundness of the federal deposit insurance system was not implicated. Thus Lehman Brothers, whose failure did seriously shake the financial system, was not subject to even the microprudential standards applicable to bank holding companies. The run on the repo market involved a wide range of market actors of different sizes, operating under different regulatory constraints.

Redefining prudential regulation

It is important to recognize that the statutory and administrative changes in regulation following the financial crisis were not only about strengthening existing regulation following 30 years of largely deregulatory measures that had preceded the crisis. The turmoil that attended the collapse of several large nonbank financial institutions, and the extraordinary government measures necessary to contain that turmoil, had quickly changed into a consensus – previously the minority view – that prudential regulation should be broadened to better safeguard the financial system as a whole. This perspective was embraced by Congress in the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), which directed federal banking and market regulators to add to their existing mandates the responsibility for protecting financial stability. Dodd-Frank provided numerous new authorities for executing this new mission.

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3 For example, restrictions on branching across state lines and, in some cases, within states limited competition significantly until they were loosened through statutory changes, such as the Riegle-Neal Interstate Banking & Branching Efficiency Act, P.L. 103–328 (1994).
One regulatory innovation in Dodd-Frank that is particularly salient for present purposes was the creation of different categories of banking organizations – largely, but not exclusively, on the basis of total assets – to which different regulatory requirements are to apply. Most prominently, section 165 requires that “in order to prevent or mitigate risks to the financial stability of the United States,” the Federal Reserve Board is to establish for all bank holding companies with at least $50 billion in assets prudential standards that “are more stringent” than generally applicable standards and that “increase in stringency” based on a variety of factors related to the systemic importance of these institutions. These standards must cover capital, liquidity, risk management, resolution planning, and concentration limits; the Federal Reserve may add other standards as it finds appropriate. Section 165 also establishes requirements for the establishment of a risk committee and for stress testing, but these are applicable in at least some respects to all bank holding companies with at least $10 billion in assets.

In implementing the section 165 requirement of increasing stringency for enhanced prudential standards applicable to banking organizations of increasing systemic importance, the Federal Reserve has essentially created several categories within the universe of banking organizations with $50 billion or more in assets. All firms in this universe will be subject to the basic enhanced standards, including supervisory stress tests, capital plan submissions, resolution plan requirements, single counterparty credit limits, and a modified form of the Liquidity Coverage Ratio (LCR) requirement that was part of Basel III. Firms with at least $250 billion in assets or $10 billion in on-balance-sheet foreign assets are also subject to the advanced approach risk-based capital requirements of Basel II, the Basel III supplementary leverage ratio, the full LCR requirement, and the countercyclical capital buffer provision of Basel III. The eight U.S. firms designated as global systemically important banks will be additionally subject to risk-based capital surcharges, the enhanced Basel III supplementary leverage ratio, tighter single counterparty credit limits, and a long-term debt requirement designed to support the effectiveness of orderly resolution processes. In addition, the supervision of these firms is overseen by the Large Institution Supervision Coordinating Committee (LISCC), an inter-disciplinary group created by the Federal Reserve Board in 2010.

Thus, there are regulatory categories for banks with $10 billion or more in assets, with $50 billion in assets, with either $250 billion in assets or $10 billion in foreign assets, and with a combination of large asset holdings and other characteristics that have resulted in their being designated of global systemic importance. In fact, Dodd-Frank creates another category of banks in making its provision on incentive compensation applicable to banking organizations with at least $1 billion in assets. Clearly, the unitary approach of the pre-crisis period has been abandoned. This is an important move in the right direction. But in terms of differentiating regulatory aims, Dodd-Frank really identifies only one additional objective – that of preventing or mitigating risks to U.S. financial stability. By developing this objective a bit more, and by introducing other salient considerations, we may be able to specify the

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4 Section 165 of Dodd-Frank also requires that these special prudential standards apply to any nonbank financial company designated as systemically important by the Financial Stability Oversight Council.

5 Dodd-Frank also uses the $50 billion threshold in other parts of the law, such as to define the universe of firms that must pay the Federal Reserve for the cost of examination and supervision, and that are subject to ex post assessments in the event that taxpayers were to bear any loss as a result of the resolution of a firm under Title II of the law.

6 The $250 billion/$10 billion threshold does not appear in Dodd-Frank. It was a pre-existing regulatory category created to identify the firms subject to the so-called advanced approaches risk-based capital requirements of Basel II.

7 For more on LISCC, including which firms are part of the LISCC portfolio, see www.federalreserve.gov/bankinfereg/large-institution-supervision.htm.
BIS central bankers’ speeches

varying aims of regulation for different kinds of banks in a manner that helps us rationalize applicable regulatory structures.

Specifying regulatory aims

Let me begin with what I regard as relatively straightforward cases in specifying regulatory aims – those of the very largest banking organizations and of small ones. The largest, of course, have commanded enormous attention, with too-big-to-fail concerns often dominating the public debate on regulatory reform in the aftermath of the financial crisis. There is now a consensus among banking authorities, both U.S. and foreign, that the failure of financial institutions of sufficient combined size, interconnectedness, and leverage could threaten the entire financial system, and, therefore, must be subject to a stricter regulatory regime.

The special regulatory aims for such institutions should reflect this systemic focus. The very large negative externalities associated with such failures could be realized through a classic domino effect or through contagion effects. As the financial crisis showed, losses in a tail event are likely to be correlated for large firms deeply engaged in trading, structured products, and other capital market instruments, and relying on similar sources of short-term funding. Thus, the regulatory framework should aim to reduce the chances of distress or failure at such firms to a greater extent than traditional, microprudential regulation would. Moreover, it should explicitly take into account the correlations and inter-dependencies in asset holdings and funding. Finally, the regulatory system should aim to offset the perception of too-big-to-fail status, which carries with it the possibility of funding advantages in normal times, and protection of creditors and perhaps even shareholders in highly stressed times. The systemic perspective and consequent aim of protecting financial stability argue for the stronger and broader regulatory measures that have been undertaken in recent years.

At the other end of the spectrum are community banks, conventionally defined as those with less than $10 billion in assets. The roughly 5,700 banks in this group constitute 98 percent of insured commercial banks in the United States, but hold just under 20 percent of the aggregate assets of all commercial banks. Indeed, 90 percent of community banks are what supervisors classify as “small” community banks – those with less than $1 billion in assets. While these banks will suffer the fallout from systemic problems, they are unlikely to cause such problems. The regulatory aim, therefore, is about as close as can be to the traditional microprudential bank regulatory aims of protecting the federal DIF and limiting the use of insured deposits by restricting the scope of bank activities. It is true that the relative lack of geographic and portfolio diversification in many community banks can make them vulnerable to localized economic problems. But that is just the kind of problem that traditional microprudential regulation has been concerned with addressing.

What, then, of the 80 or so U.S. banks that have assets of $10 billion or more, but are not among the eight large, complex institutions that have been designated of global systemic importance? Obviously they vary enormously in size, from just over $10 billion in assets all the way up to very large regional banks with hundreds of billions in assets. They bridge the $50 billion threshold for enhanced prudential standards established by Dodd-Frank. Yet, whatever their size, most banking organizations in this group are overwhelmingly recognizable as traditional commercial banks (though a few do have significant capital market or other activities).

It is with this similarity in mind that some executives of some pretty sizable banks have described their institutions to me as essentially a community bank, but with a bigger balance sheet. But there are at least two reasons why the aims for prudential regulation of such institutions might reach beyond conventional microprudential purposes. First, some at the higher end of this range may have a large enough systemic footprint that their stress or failure could have material effects on the rest of the financial system, though less than the LISCC firms. Second, more than one-third of U.S. commercial banking assets are held by these 80 banks. If a number of these banks simultaneously came under pressure or failed, a
harmful contraction of credit availability in significant regions or sectors of the economy could ensue, even if there were little chance of a financial crisis. Thus, particularly to the degree that there are correlations in the risks associated with loans held across such institutions, there should be a macroprudential objective in the regulation of at least some of these firms.

Of course, I would not lump all 80 of these institutions into the same category for purposes of specifying the aims of regulation. In particular, only a small fraction of these firms have a significant enough systemic footprint that their stress or failure would impose sizable negative externalities on the rest of the financial system. And the lines delineating the possible categories are not as easy to draw as for community banks and LISCC firms. Nonetheless, I will suggest in a few moments some possible classifications for this group of banks, along with examples of the varying regulations that might apply.

**Rationalizing the regulatory framework**

The preceding observations have portrayed the prudential regulatory framework as one that should be constructed with different aims in mind. With respect to all depository institutions, this framework maintains the traditional aim of protecting the DIF and limiting the use of insured deposits to engage in nonbank activities. With respect to banks of a certain size – even those predominantly involved in conventional lending activities – a macroprudential aim should be added. Finally, with respect to banking organizations of such size and complexity that serious stress or failure could pose risks to the entire financial system, a financial stability aim should be the basis for additional forms of regulation. As suggested in section 165 of Dodd-Frank, the stringency of these additional regulations should increase in proportion to the systemic importance of the banking organizations.

Let me now give a few examples of how specifying these aims can help us think through ways in which the current overlays of regulatory and supervisory requirements might be rationalized. In part, such a rationalization is motivated by the familiar goal of limiting regulatory costs that are not necessary to achieve a given set of regulatory aims, thereby lowering the cost of the underlying economic activity. But it is also motivated by the advantage to be gained if supervisory resources can be deployed where their payoff in achieving well-specified regulatory aims will be highest.

**Community banks.** I will begin again with community banks. Community bankers often argue that they are subject to a range of rules and requirements that are not really necessary given the relevant regulatory aim which, as previously suggested, is quite straightforward. That regulatory aim needs to be implemented with an eye to the context in which community banks operate. One obvious point of context is that any regulatory requirement is likely to be disproportionately costly for community banks, since the fixed costs associated with compliance must be spread over a smaller base of assets.

A second important point of context is the business model of community banks. As is well-known, over the past few decades they have substantially reduced their presence in lines of business such as consumer lending in the face of competition from larger banks benefiting from economies of scale. Today, as a group, their most important forms of lending are to small- and medium-sized businesses. Smaller community banks – those with less than $1 billion in assets – account for nearly a quarter of commercial and industrial lending, and nearly 40 percent of commercial real estate lending, to small- and medium-sized businesses, despite their having less than 10 percent of total commercial banking assets.

This state of affairs is not surprising when one considers that credit extension to smaller firms is an area in which the relationship lending model of community banks retains a comparative advantage. It means that community banks are of special significance to local economies. It also means that, particularly in rural areas, the disappearance of community banks could augur a permanent falloff in this kind of credit, at least a portion of which may not be maintained in the more standardized approach to lending characteristic of larger banks.
Banking regulators have taken a number of steps to try to avoid unnecessary regulatory costs for community banks, such as fashioning simpler compliance requirements and identifying which provisions of new regulations are of relevance to smaller banks. But a number of new statutory provisions apply explicitly to some smaller banks or, by failing to exclude any banks from coverage, apply to all banks. This means that smaller banks do need to expend at least some compliance effort. And, even where regulatory frameworks try to place a lesser burden on smaller banks, there may be some risk of “supervisory trickle down,” whereby supervisors informally, and perhaps not wholly intentionally, create compliance expectations for smaller banks that resemble expectations created for larger institutions.

It would be worthwhile to have a policy discussion of statutes that might be amended explicitly to exclude community banks (which, again, are generally defined as those with less than $10 billion in assets) from their coverage. In my view, two candidates would be the Volcker rule and the incentive compensation requirements in section 956 of Dodd-Frank. The concerns addressed by these statutory provisions are substantially greater at larger institutions and, even where a practice at a smaller bank might raise concerns, the supervisory process remains available to address what would likely be unusual circumstances. Indeed, relieving both banks and supervisors of the need to focus on formal compliance with a range of regulations less relevant to community bank practice would free them to focus on the actual problems that may exist at smaller banks.

Middle-range banks. As I have already suggested, financial stability and macroprudential aims do not apply equally to all 80 of the banks in this wide category of firms holding over $10 billion in assets, other than the LISCC banking organizations. While it is reasonable to adopt a macroprudential aim for all firms in this category, few of these banks have the kind of systemic footprint that would warrant extensive special regulation for financial stability purposes. In establishing requirements for firm (though not supervisory) stress testing and risk-management committees for all bank holding companies in this group, but mandating that only bank holding companies of $50 billion or more be subject to enhanced prudential standards, Congress has reflected a similar judgment. The key question is whether $50 billion is the right line to have drawn.

Experience to date suggests to me, at least, that the line might better be drawn at a higher asset level – $100 billion, perhaps. Requirements such as resolution planning and the quite elaborate requirements of our supervisory stress testing process do not seem to me to be necessary for banks between $50 billion and $100 billion in assets. If the line were redrawn at a higher figure, we might explore simpler methods for promoting macroprudential aims with respect to banks above $10 billion in assets but below the new threshold.

Were such a change to be adopted, bank holding companies with less than $100 billion in assets would not be subject to any of the enhanced prudential requirements of section 165 of Dodd-Frank; bank holding companies with assets between $100 billion and $250 billion would be subject to supervisory stress testing and a basic set of the section 165 requirements; and holding companies with $250 billion or more in assets would be subject to the supplementary leverage ratio, the full LCR, and the countercyclical capital buffer provision. Of course, this is not the only way to draw the lines, and there could be reasons for applying additional requirements to specific banks, even if they fall below the presumptive asset threshold. But I use this example to illustrate how the specification of aims and the progressive stringency of section 165 could be usefully combined.

Largest institutions. Specifying prudential regulatory aims in the context of community and middle-range banks suggests a rationalization that could possibly eliminate certain requirements as they apply to some of these banks. In the case of the LISCC institutions, however, I believe there are additional requirements needed to implement prudential aims associated with financial stability. These include capital surcharges and minimum amounts of “gone concern” loss absorbing capacity, among others. Most important is continued work on
the vulnerabilities posed by short-term wholesale funding and, more generally, by large
trading books, including maturity matched books of securities financing transactions. The
regulatory response to these vulnerabilities will likely require some combination of measures
directed at capital, liquidity requirements, and resolution procedures. There is also a need for
a complementary set of measures such as minimum margining requirements applicable to all
securities financing transactions, whether or not they involve systemically important firms.

But there are some opportunities for rationalization even with respect to regulation of the
larger institutions. While necessary new rules will now be applied to these institutions,
vestiges of the pre-crisis regulatory approach that did not rest on well-specified regulatory
aims are still in place and might sensibly be modified or removed. Most prominent in this
regard is the Basel II IRB approach for risk-weighted capital requirements. The IRB
approach, which generally applies in the United States to all bank holding companies with
$250 billion or more in assets, was developed a decade ago in an effort to align risk
weightings more closely to the increasingly sophisticated quantitative risk-assessment
techniques in the financial industry.

At the time of its development, the IRB approach seemed intended to result in a modest
decline in risk-weighted capital requirements, a goal that the financial crisis revealed to be
badly misguided. But even with the higher capital ratios required by Basel III, the IRB
approach is problematic. The combined complexity and opacity of risk weights generated by
each banking organization for purposes of its regulatory capital requirement create manifold
risks of gaming, mistake, and monitoring difficulty. The IRB approach contributes little to
market understanding of large banks’ balance sheets, and thus fails to strengthen market
discipline. And the relatively short, backward-looking basis for generating risk weights makes
the resulting capital standards likely to be excessively pro-cyclical and insufficiently sensitive
to tail risk. That is, the IRB approach – for all its complexity and expense – does not do a
very good job of advancing the financial stability and macroprudential aims of prudential
regulation. Yet a capital measure that incorporates these aims is precisely what is needed to
complement the traditional microprudential elements of our capital standards.

The supervisory stress tests developed by the Federal Reserve over the past five years
provide a much better risk-sensitive basis for setting minimum capital requirements. They do
not rely on firms’ own loss estimates. They are based on adverse scenarios that would affect
the entire economy and take correlated asset holdings into account. As we gain experience,
we have been enhancing the macroprudential features of the annual stress test exercise.
And, of course, the disclosure of the results helps inform counterparties and investors,
thereby increasing market discipline. They are undoubtedly a substantial amount of work for
both the banks and supervisors but, unlike the IRB approach, the benefits seem worth the
work.8

For all these reasons, I believe we should consider discarding the IRB approach to risk-
weighted capital requirements. With the Collins Amendment9 providing a standardized,
statutory floor for risk-based capital; the enhanced supplementary leverage ratio providing a
stronger back-up capital measure; and the stress tests providing a better risk-sensitive
measure that incorporates a macroprudential dimension, the IRB approach has little useful
role to play. We would continue to expect that firms practice sound quantitative risk
management using internal models and other techniques. Indeed, the qualitative assessment
included in our annual Comprehensive Capital Analysis and Review (CCAR) exercise is

8 Under the Federal Reserve’s Comprehensive Capital Analysis and Review program, bank holding companies
participating in the supervisory stress tests must demonstrate their capacity for sound quantitative risk
assessment and management, but not for purposes of setting regulatory capital requirements.

9 Section 171 of Dodd-Frank, popularly known as the Collins Amendment, requires that the federal banking
agencies establish minimum consolidated capital requirements for all banking organizations that are not less
than “generally applicable” risk-based capital requirements.
designed to ensure that the firms have this capacity. But, in light of all that has happened in the last decade, I see little reason to maintain the requirements of the IRB approach for our largest banks.

Of course, the IRB approach was agreed internationally as part of the Basel II framework concluded in 2004. It would be best if all the Basel Committee countries moved together to adopt standardized risk-weighted and supervisory stress testing requirements for all internationally active banks. This would be a somewhat complicated shift for a number of reasons, including the likely appropriateness of applying different adverse scenarios for different parts of the world and the challenges in conducting a peer review at the Basel Committee of supervisory stress tests by member countries. Yet, as documented by the Basel Committee's work on divergence in risk weightings by banks applying IRB methods, Basel II created its own problems of consistency and transparency. There is no reason to believe that the task of creating an oversight and review framework for supervisory stress testing would be any more difficult.

**Conclusion**

In practical terms, the unitary approach to banking regulation has been supplanted by various statutory, regulatory, and supervisory responses to the financial crisis. In particular, the aim of protecting financial stability has figured prominently in those responses, though a broader macroprudential aim can be detected as well. I have tried today to suggest that an explicit effort to specify relevant aims as they pertain to different kinds of banking organizations can provide a basis for rationalizing applicable regulatory frameworks – sometimes by paring back or foregoing regulation for certain kinds of firms, and sometimes by adding a regulatory measure where the relevant aim has not been adequately promoted by existing measures.

By design and necessity, I have offered only a handful of illustrations as to how this perspective might lead to certain regulatory changes. I look forward to debate on the merits of these, and other, possible implications of a more precise specification of prudential regulatory aims. I also look forward to seeing new editions of banking law casebooks that differentiate regulatory measures with an eye to these multiple aims and their differential application to various banking organizations.