Banking Stability and the Basel Capital Standards

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In thinking about bank stability and the Basel Accord, rather than concentrating on whether the Basel Committee has gotten every little detail of the new Accord right—a task that can greatly affect banks' bottom lines—it is more appropriate for our present purposes to concentrate on some more general—and perhaps fundamental—questions.[1] How successful has the original Basel Accord been in accomplishing its stated goals? How successful will Basel II be in accomplishing those goals? Are those goals desirable? And perhaps the most fundamental question of all: Is the Basel Accord—that is, the international harmonization of capital standards—necessary or desirable to have a stable financial system?

Theoretical and Historical Background

In 1988 the Basel Committee on Banking Supervision completed the Basel Capital Accord after years of deliberations that followed the Latin American sovereign defaults of 1982. The Basel Accord was established with two fundamental objectives: to strengthen the soundness and stability of the international banking system and to obtain "a high degree of consistency in its application to banks in different countries with a view to diminishing an existing source of competitive inequality among international banks" (Basel Committee on Banking Supervision 1988). To that end, the accord requires that banks meet a minimum capital ratio that must be equal to at least 8 percent of total risk-weighted assets.

The Basel Committee on Banking Supervision concentrated on capital standards for two reasons: first, because Congress instructed

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[1]For a fuller treatment of the Basel Accord, see Rodríguez (2002).

banking regulators to work with regulators from other countries to make sure that banks had adequate capital bases (Kapstein 1991, Oatley and Nabors 1998); second, because capital serves as a buffer that protects bank deposits—or the deposit insurance fund—in case of losses on the asset side.

Are Banks Special?

Traditionally, banks and other providers of financial services have been subject to greater government regulation than most other sectors of the economy. Regulation of banks has historically come in the form of entry restrictions, limits on activities, geographical restrictions, reserve requirements, and capital requirements (Benston 1998: 18, 27–85; Kroszner 1998: 421; Kane 1997; Goodhart et al. 1998: chap. 9). Today, most regulation falls under the rationale of either consumer protection or safety and soundness considerations.

University of Chicago economist Randall S. Kroszner, among many others, argues that the main reason for government regulation of financial institutions has been to finance wars (Kroszner 1998: 419). But there has also been a long tradition among economists that goes back to at least Adam Smith who maintained that banks are different from other firms by the very nature of their activities—and because of that, some kind of regulation and supervision is justified.

Smith, of course, was alluding to the inherent instability of banks operating in a fractional reserve system, which, if true, merits their regulation (Smith [1776] 1937: 285, 308). Banks are financial intermediaries that take in deposits, which they then use to make loans and to invest in marketable securities and other financial assets. In the process, for the system as a whole, there is a multiple expansion of the money supply. Because banks' liabilities (i.e., the deposits they take in) are usually fixed in value and payable on demand, while banks' assets (i.e., the loans they give out and the securities in which they invest) are of variable value and not collectable on demand, it has generally been believed that banks are prone to failure and runs—the sudden withdrawal of funds by a large number of depositors who have lost confidence in the bank. In turn, this has the potential of negatively affecting solvent institutions through a contagion effect, which could adversely affect the entire financial system. This is the main justification for the regulation of the banking industry today.

Bank Runs and Federal Deposit Insurance

A fractional reserve banking system, in which banks loan out all or part of their deposit liabilities, is theoretically fragile and prone to

runs if depositors have incomplete information about the bank's activities and financial health (i.e., if depositors are unsure about the safety of their deposits and the bank's ability to return those deposits to them on demand).[2] Furthermore, a run on an individual bank could theoretically have destabilizing effects on other banks.

However, the private sector has traditionally been quite adept at dealing with this fragility and, before government-sponsored deposit insurance, took numerous steps to address it. First, banks would disclose their levels of capital to investors and depositors to put them at ease about the safety of their investments and deposits. Indeed, as Emory University economist George Benston (1998: 39) states, "Banks used to advertise prominently [in newspapers and inside their branches] the amount of their capital and surplus." It is worth noting that those levels used to be considerably higher than they are today.[3] Second, investors and depositors used to monitor the activities of banks and demand higher rates of return on their investments or higher interest rates on their deposits if they deemed that their banks were taking on investments that were too risky. Third, before government-sponsored deposit insurance, banks created private clubs and clearinghouses to help one another. Membership in those associations was restricted to those banks that met certain requirements with regard to levels of capital, activities of the bank, and risk profiles (Timberlake 1993: chap. 14). Fourth, banks had "option clauses" in their contracts that allowed them to suspend payments for a specific period in exchange for a higher rate of interest on the debt whose payments had been suspended. Those clauses, widely used in the Scottish free-banking period of the 18th century, had the effect of stopping panic runs and provided banks with breathing room to reorganize their assets without having to engage in fire sales. Finally, bank debt holders often signed covenants with banks that restricted the activities and investments in which banks could participate.

Market discipline by depositors and shareholders worked rather

[2]Douglas Diamond and Philip Dybvig (1983) have argued that depositors are likely to cause runs on banks when they have imperfect information about the solvency of the banks. When depositors think that their banks will fail, they will run on it and will actually cause those banks to fail. The failure of one bank can cause other banks to fail and thus create a banking panic. In the Diamond-Dybvig model, imperfect information creates third-party costs and thus justifies some kind of (government-sponsored) deposit insurance. For a criticism of this model, see White (1999: chap. 6) and Dowd (2001: chap. 3).

[3]As economist George Kaufman (1988: 17) has written, "The very threat of a run served as a powerful source of market discipline. At the turn of the century, capital ratios at banks were close to 25 percent and effectively higher, as shareholders at national banks and some state banks were subject to double liability up to the initial par value of the shares."

well to prevent runs and, when those occurred, to prevent them from spreading to other banks. Bank failures in the United States were on average lower for the period between the end of the Civil War and the end of World War I than those for nonfinancial firms. Furthermore, those banks that failed were usually insolvent *before* the run and did not fail as a result of it. In this regard, the existence of runs on insolvent banks has a salutary effect on the economy by eliminating from the financial system firms that have an incentive to engage in risky lending in an attempt to become solvent again, an attempt that could have negative externalities on other market participants. Even during the Great Depression, depositors were able to distinguish between banks that had liquidity problems but were solvent (i.e., banks whose net worth was greater than zero but that could not sell their assets in time to pay their debts) and banks that were insolvent (i.e., banks whose net worth was negative) (see Calomiris and Mason 1997).

However, the large number of bank failures during the 1920s and especially between 1929 and 1933 led to the separation of the banking industry across product lines and to the establishment of the Federal Deposit Insurance Corporation after the passage of the Banking (Glass-Steagall) Act of 1933.[4] Federal deposit insurance was established with three goals in mind: to restore confidence in the banking system, especially among small depositors; to protect the payments system; and to protect branching restrictions.[5] The establishment of the FDIC has had three effects: (1) depositors and shareholders no longer have an incentive to monitor the activities of their banks; (2) runs on banks have become rare, although runs had never been a problem for the stability of the financial system; and (3) by charging a flat premium, the FDIC has created a classic moral hazard problem, because it subsidizes risktaking by banks.[6]

[4]Bank failures in the 1920s averaged more than 500 per year. However, most of those banks had three common characteristics: (1) they were unit banks, that is, banks with just one branch; (2) they were located in agricultural states and tied to the local economy; and (3) they were located in states with taxpayer-financed deposit insurance schemes. Between 1929 and 1933, the number of banks in the United States contracted by about one third and the banking crises were so severe that they led to the National Banking Holiday—banks in the United States were closed for one week—in March 1933 (Friedman and Schwartz 1963).

[5]Eugene White (1997) shows how deposit insurance legislation was mostly passed to protect the position of unit banks—which were by and large small and located in rural areas—against the larger branching banks, which were better diversified and mostly located in urban areas.

[6]The Federal Deposit Insurance Corporation Improvement Act of 1991 that allowed premiums to be risk-adjusted to some extent was a step in the right direction toward mitigating

Does Deposit Insurance Justify International Regulation?

Government-sponsored deposit insurance is not a justification for setting *international* capital standards, unless there is financial contagion among countries. But that is not the case in a world of central banks and fiat money, the world in which we live today. Central banks can pump liquidity into the domestic banking system and thus insulate it from external shocks.

An approach to global financial stability that allows free entry for foreign-owned subsidiaries, national standards, and a territorial rule would be much better than an international capital standard that prevents regulatory competition among countries. If the foreign subsidiary of a Japanese bank wants to operate in the United States, it should be free to do so as long as it abides by the rules and regulations that apply to all banks, domestic and foreign, in the United States. Similarly, if the foreign subsidiary of a U.S. bank wants to operate in the European Union, that subsidiary should abide by the regulations set by EU banking authorities. With the exception of the banking sector, that custom has been the modus operandi for conducting transnational business. The Basel Accord, unfortunately, moved banking regulation in the opposite direction.

Basel I

The original Basel Accord (Basel I) was the wrong response to a real problem—the conflict between deposit insurance systems and the national regulation of capital standards—and, most likely, has made the global financial system less, not more, stable. Nor has it leveled the playing field. Since the 1970s, there have been more than 100 episodes of systemic banking crises in 93 countries, with the frequency and severity of the crises increasing in the last 15 years (World Bank 2001: 75).

To the extent Basel I has contributed to those crises, it turned out to be a project with very costly unintended consequences. First, among the shortcomings of the Accord, one must include the use of arbitrary risk categories and arbitrary weights that bear no relation to default rates, which incorrectly assumes that all assets within one category are equally risky or that one type of asset is, for instance,

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the moral hazard risks of having a system of taxpayer-financed deposit insurance. For an assessment of FDICIA and the reforms to the deposit insurance system that are currently being contemplated by the U.S. Congress, see Kaufman (2002).

100 percent riskier than another. Second, the risk assessment methodology is flawed in that it assumes that a portfolio's total risk is equal to the sum of the risks of the individual assets in the portfolio. No account is taken of portfolio effects that can greatly reduce the overall risk of a portfolio, or the size of the portfolio, which can greatly influence its total risk profile. Third, the accord gives preferential treatment to government securities. That means that banks need not hold any capital against those securities, if issued by OECD countries, or less capital than against loans to corporate borrowers, if issued by non-OECD countries. But as the sovereign defaults of Russia in the summer of 1998 and Argentina in early 2002 show, government debt is not a risk-free investment. Nor is a loan to many developing countries safer than a loan to a "Blue Chip" company. Finally, the existence of risk categories that create a divergence between economic risks and measures of regulatory capital has led to widespread regulatory capital arbitrage—that is, the assumption of greater economic risks without an increase in regulatory capital requirements.

In sum, Basel I, already adopted by more than 100 countries, failed to achieve its main goal and may have made the international financial system less, not more, stable. Indeed, it is widely acknowledged that assigning a 20 percent weight to short-term bank lending (as opposed to the 100 percent that lending to most private nonbank institutions carries) led to an increase in lending to Asian banks, which in turn contributed to the Asian crisis of 1997–98. Sixty percent of the $380 billion in international bank lending to Asia at the end of 1997 had a maturity of one year or less (Minton-Beddoes 1999: 11).

Basel I was also not successful in establishing a level playing field because it dealt only with capital standards and not with other differentiating factors such as legal and accounting systems and, more important, the size of the explicit (or implicit) government safety net, among banks.

For those reasons, the Basel Committee has been working to produce a new accord "to align regulatory capital requirements more closely with underlying risks and to provide banks and their supervisors with several options for the assessment of capital adequacy." The result is Basel II, a work still in progress expected to be finalized by the end of 2003 and fully implemented by the end of 2006.[7]

[7]The first consultative paper of Basel II was issued in mid-1999 and was 62 pages long. A second consultative package was issued in January 2001. That package was more than 500 pages long and of mind-boggling complexity. A revised version of the January 2001 package

Basel II

Basel II is based on three mutually reinforcing pillars: capital requirements, supervisory review, and market discipline. Risk-based capital requirements, however, continue to be the major focus. In particular, Basel II will add a new charge for operational risk and allow some banks to use their internal risk-measurement models to determine capital costs. Under the advanced Internal Ratings-Based (IRB) approach, banks supply their estimates of the probability of default, exposure at default, loss given default, and maturity to come up with the risk weight associated with a particular asset. That option, however, could turn into a regulatory nightmare, even in industrialized countries for at least three reasons. First, although banks are in a better position than regulators to estimate their risk exposure, giving them that option presents them with obvious conflicts of interest when the government acts as the ultimate guarantor of deposits. Will bank managers under those conditions knowingly or unknowingly underestimate the riskiness of their assets to lower their regulatory capital charges? Or will banks use one of the IRB approaches only to discover that their capital charges are significantly higher under that approach than under the standardized approach, as one of the quantitative studies conducted by the Basel Committee on Banking Supervision revealed, and then switch to the latter, because doing so will lower capital charges? They would certainly have an incentive to do so. Finally, how expensive is it going to be to implement the systems necessary to use the IRB approaches, not just for banks but also for the regulators that will have to determine whether those systems are appropriate or not? And will the benefits, in terms of lower capital charges, from the banks' perspective, and a more stable financial system, from the regulators' (and taxpayers') perspective, justify the costs? Preliminary results do not provide much hope for optimism.

U.S. bank regulators went a long way toward addressing some of those issues when they announced in February 2003 that only the 10 largest banks in the United States will be regulated under the Basel II framework and will be required to use the advanced IRB approach to measure their capital requirements and the Advanced Measurement Approach (AMA) to measure operational risk capital charges. The rest of the banking institutions will continue to be covered under Basel I and current U.S. bank regulations (Ferguson 2003). In doing

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was issued in April 2003. Although it has been trimmed down substantially from its predecessor, it is still an extremely complex document (see Basel Committee on Banking Supervision 1999, 2001a, and 2003).

so, however, regulators seem to have accepted some of the criticisms raised against Basel II—namely, that the benefits for the majority of banking institutions do not outweigh the costs of complying with a new regulatory framework that is far more complex than the one currently in place.

The issue of complexity is one that remains. William McDonough, former president of the Federal Reserve Bank of New York and until recently the chairman of the Basel Committee on Banking Supervision, has characterized the complexity of Basel II as a natural reflection of the advancement and innovations in the financial marketplace and the need for a more risk-sensitive framework (McDonough 2000: 8). To be sure, the financial marketplace is far more complex than it was 15 years ago when Basel I was being framed, and banking organizations are also more complex in their activities and in the ways in which they manage their risks. That, however, is not a justification for making the *rules* under which those large complex banking organizations operate equally complex.

Furthermore, Basel II's overly prescriptive approach could end up stifling market-based innovation in risk-management practices, which are still in their early stages of development. That has been a concern that both former Federal Reserve Board Governor Laurence Meyer, who is very supportive of Basel II, and current Comptroller of the Currency John Hawke Jr. have expressed (Meyer 2001; Hawke, Jr. 2002, 2003).

With regard to operational risk—another thorny issue that has yet to be resolved—it makes more sense to treat operational risk under Pillar II of the new framework, Supervisory Review, than under Pillar I, Capital Adequacy Standards. The type of events for which a separate capital charge for operational risk would be necessary (for example, an out-of-control rogue trader) are events that have a very low probability of occurring but a high cost when they do occur. Consequently, a capital charge, no matter how high, may not be enough to cover losses resulting from those events. Furthermore, coming up with a reasonable estimate of the probability of such an event occurring and the expected losses if it does occur is very difficult, if not impossible. Higher probability, lower-cost events tend to be provided against with general loss reserves because those losses are usually small. In this case, setting up a separate capital charge for operational risk could create some distortions.

Basel II is also a very vague proposal that gives national regulators a lot of discretion, in particular with regard to the validation of banks' internal systems and the disclosures necessary to use those systems for the determination of capital charges. That vagueness creates un-

certainty among market participants and regulators alike, which most certainly does not contribute to providing financial stability. It will make it easier, however, for regulators to engage in regulatory forbearance and be subject to corruption.

Finally, when we put all of the pieces together, how well will the new proposal work? Nobody knows and those in charge of the process probably do not want to think about the possibility that it may not work very well.

Is There a Better Way?

Bank regulations have become very similar to accounting principles in the United States: complex, opaque, and with a multitude of rules tailored to cater to every possible constituency. Also, the process by which those rules are adopted has become increasingly burdensome, lengthy, and politicized. A system that relies more on competition among different national regulatory regimes, not the harmonization of those regimes, is likely to produce more stability and soundness, and be fairer, than the current approach.

Once the Basel train gets going, however, it may become very difficult to derail it, which may be necessary if it does not work well. National regulatory regimes can be thought of as experiments that allow us to determine at a much lower cost what works and what doesn't. In that sense, competition is, as F. A. Hayek (1978) reminded us, a "discovery procedure." Thus, at the national level, the trend should be toward *regulatory simplicity* because regulators are unlikely to be able to keep up with the rapid pace of innovation in financial markets. If there are going to be minimum capital standards, necessitated by the existence of government-sponsored deposit insurance systems, a simple capital leverage rule with no risk weights would suffice, especially if an early intervention system is put in place, which would reduce regulatory forbearance, and if there is an added emphasis on market discipline through a subordinated-debt requirement and disclosure.

The rationale for enacting a subordinated debt requirement is clear. Subordinated debt—that is, uninsured debt junior to all other claims—is one of the most effective market mechanisms for relaying information about a bank's risk profile. Columbia University economist Charles Calomiris, a leading proponent of the subordinated-debt requirement and a member of the Shadow Financial Regulatory Committee, has summed up the benefits of a subordinated-debt requirement aptly:

> The most desirable feature of a reliance on subordinated-debt requirements is that they place the primary "regulatory" and "supervisory" burdens on sophisticated market participants with their own money at stake. Government regulators and supervisors have neither the adequate skills nor sufficient incentives to monitor continuously and control the conditions of banks [Calomiris 1997: 26][8]

Indeed, a subordinated-debt requirement would align the interests of subordinated-debt holders with those of the deposit insurance fund (and hence taxpayers), because they do not profit from a bank's risky investments if those investments turn out to be profitable, but they stand to lose their money if those investments are not profitable. For that reason, holders of subordinated debt would have a very strong incentive to monitor closely the activities of banks. At the same time, yields on subordinated debt provide the market's assessment of the risks taken by banks. Indeed, the interest paid on subordinated debt serves as a market-determined risk-adjusted insurance premium. Regulators could then limit the yield paid on subordinated debt, which would in effect limit the risks banks take, as measured by the market, not by the regulators themselves.

Conclusion

If Basel II does not work, when banking regulators gather again to design Basel III, they should put greater emphasis on market discipline, innovation, and competition among regulatory regimes. Those factors would help promote the safety and soundness of the international financial system in a superior way than either the old or the new Basel Accord.

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[8]There are numerous studies on subordinated debt. See, for example, Board of Governors of the Federal Reserve System (1999), Shadow Financial Regulatory Committee (2000), Evanoff and Wall (2000), and Board of Governors of the Federal Reserve System and United States Department of the Treasury (2000). The last two studies contain comprehensive lists of subordinated-debt proposals as well as empirical studies on the effectiveness of market discipline as exerted by subordinated debt.

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