If Not Now, When?

Financial Reform Must Not Await Another Crisis

Anat Admati

Graduate School of Business

Stanford University

Martin Hellwig

Max Planck Institute for Research on Collective Goods

Bonn

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In the first ten chapters of our book *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It,* we discuss banking and the economics of funding as it applies to banks. We show that bankers have strong incentives, particularly in a system in which governments provide explicit and implicit guarantees to much of their debts, to choose a funding mix that is highly fragile and involves much short term debt and very little equity. These incentives, however, are based entirely on private considerations and none of them suggests that this funding mix is efficient, let alone essential, from society's perspective. To the contrary, everything banks do, which includes taking deposits, providing liquidity and making loans and other investments, can be done even better with a funding mix that includes significantly more equity relative to debt than they have now. Such a funding mix would be safer and it would make for a less distorted system that would be less likely to harm creditors and taxpayers.

Excessive indebtedness has a polluting effect on the financial system and on the broader economy. Therefore, it is essential to have effective regulation of the funding mix of banks and other financial institutions so as to make sure they maintain sufficient ability to absorb losses on their investments. In Chapter 11 of the book, which is attached (without endnotes), and which will be the basis of the presentation at INET, we make a set of policy recommendations that advocate immediate action to recognize weak banks and strengthen viable banks. We argue that the proposed Basel III capital regulation is insufficient, and we discuss the key weaknesses of the proposed regulation. Beyond continuing to permit excessive borrowing, the attempts to fine-tune the regulation using risk weights, and the use of debt-like securities as substitutes for equity, have significant flaws. We outline some of the principles that would help make capital regulation more effective.

Our book takes its title from Andersen's tale about the emperor's new clothes, which are said to be invisible people who are stupid or incompetent. People in the story do not dare say that the emperor is naked. *The Bankers' New Clothes* shows that many of the arguments given in opposition to tighter restrictions on bank borrowing have as much substance as the emperor's new clothes, some of them being outright nonsense, which can only be maintained if it is not questioned. Others are flawed in other, sometimes more subtle ways. Whereas some who are involved in the debate may not have sufficient background or understanding of the issues to be able to evaluate the claims, and might superficially find them convincing, the politics of banking

is such that, often, nobody has an interest in questioning claims that are made by lobbyists and others. The book aims at providing a framework for thinking about the issues that allows people to form their own judgments and debunk invalid claims. These claims include also the need for "level playing fields" in the global economy or the need to beware of pushing activities into the unregulated "shadow banking system." We also discuss other issues and challenges associated with maintaining a stable financial system, such as governance and risk controls and financial disclosures. The presentation will touch briefly on these points.

Excerpts from the book and additional links to other writings are available at bankersnewclothes.com.

ELEVEN

If Not Now, When?

Time . . . has a trick of getting rotten before it is ripe.
Francis M. Cornford (1874–1943), English classical scholar, Microcosmographia Academica, *1908*

We have argued that if banks have much more equity, the financial system will be safer, healthier, and less distorted. From society's perspective, the benefits are large and the costs are hard to find; there are virtually no trade-offs. Yet the claim is often made that this reform would be costly to realize in practice. Banks are said to be unable to raise equity by issuing new shares, implying that higher equity requirements would reduce bank lending. Reduced lending, it is claimed, would hurt the economy, which has yet to recover fully from the sharp downturn in 2008.[1]

Because of such concerns, Basel III, the new international agreement on requirements for bank equity, has a long transition period, until 2019.[2] The slow transition was intended to avoid abrupt shocks from the new regulations. However, this meant that the insufficiency of bank equity was not dealt with right away. The resulting solvency concerns contributed greatly to financial turbulence in 2011.

It is actually best for the financial system and for the economy if problems in banking are addressed speedily and forcefully. If bank equity is low, it is important to rebuild that equity quickly. It is also important to recognize hidden insolvencies and to close zombie banks. If handled properly, the quick strengthening of banks is possible and beneficial, and the unintended consequences are much less costly than the unintended consequences of delay. This is true even if the economy is hurting.

The long transition period is not the only flaw of Basel III. Other flaws are the very low level of equity that is still permitted and the complexity of the regulation. Regulations that attempt to fine-tune equity requirements using quantitative risk models and stress tests can be easily manipulated. Flawed regulation has caused excessive fragility in the past; it has diverted banks away from making loans to small- and medium-sized enterprises and toward investing in tradable assets. Basel III maintains this flawed approach with hardly any change.

"Now Is Not the Time"

After the financial crisis of 2007–2009, the equity level of banks has not been much increased. Basel III, the international agreement designed to increase bank equity, has a transition period that will last until 2019. In 2011, the European government debt crisis raised serious concerns about the solvency of European banks. These concerns caused U.S. money market funds and other investors to stop lending to many European banks.[3] The loans were partly replaced by loans from central banks, but this did not reduce the solvency problems.[4] Because European banks were operating with little equity, they were correctly seen as being very vulnerable.

As we are writing this in October 2012, the European government debt crisis is still unresolved. The focus has moved from Greece and Greek government debt to Spain, Spanish banks, and the Spanish government.[5] The numbers involved and the risks for French and German banks are probably larger, but there seem to be fewer concerns about their solvency than there were in 2011 about the effects of a Greek default.

A major difference between 2012 and 2011 is that in the meantime European banks have been forced to increase their equity. This resulted from a decision made at the October 2011 summit of the leaders of the European Union.[6] The immediate aftermath of this decision seemed to confirm the view that equity requirements must be imposed judiciously, not when banks are in trouble and the economy is doing poorly.[7] However, the higher equity levels that banks had as a result of the requirements have contributed to the greater robustness of European banks in 2012.[8]

From the banks' perspective, the time is never ripe to increase equity requirements or to impose any other regulation. As for the regulators, when the industry is doing poorly, they worry that an increase in equity requirements might cause a credit crunch and harm the economy. When the industry is doing well, no one sees a need to do anything.[9] The discussion is governed by the "Principle of Unripe Time," as the English classicist Francis Cornford called it, the principle "that people should not do at the present moment what they think right at that moment, because the moment at which they think it right has not yet arrived."[10]

The Principle of Unripe Time is a bugbear. In banking, being scared by this bugbear can be very costly.[11] For example, in Japan in the 1990s, the authorities failed to force their banks to recognize losses from bad loans that they had made. There was a fear that doing so might show that the banks were insolvent and that this would disrupt the financial system. The banks continued to lend to bad borrowers while reducing their lending to new firms. As a result, economic growth was lacking. The denial of solvency problems and deferral of resolution in banking was a major reason the Japanese crisis lasted for more than a decade, with huge economic and social costs.[12]

In Chapter 3 we discussed the distorted and potentially dangerous behaviors of borrowers in distress and particularly those in hidden insolvency. The Japanese experience shows that these concerns are relevant to banks. Weak banks do not serve the economy. In lending they may continue to roll over loans to their existing distressed or insolvent clients and even provide them with additional funds in order to avoid having to acknowledge losses; this behavior hurts the economy by maintaining unsuccessful old firms and restricting funding for potential new firms. Distressed or insolvent banks also tend to take excessive risks to gamble for survival or for resurrection. Allowing weak or insolvent banks to continue operating—and especially supporting them with loans or loan guarantees—is costly and inefficient.[13]

When large banks and even an entire banking system are in trouble, politicians and supervisors fear that strict enforcement could cause a credit crunch and a recession.[14] They believe that the time is not ripe to resolve the problems. Instead they allow insolvent or highly distressed banks to continue

operating, and, if necessary, they provide bailouts.[15] Research on banking crises, however, has shown that failing to deal with banking problems early and forcefully often results in more serious crises and in more severe credit crunches and recessions later.[16] Kicking the can down the road can be very expensive.

Sometimes the concern is not just about the distress or hidden insolvency of individual banks. Individual banks may run into problems because there are too many banks in the market. When there is too much capacity, competition can be very intense, and banks may find it difficult to earn the interest margins or the fees that they need in order to cover their costs. Although such a situation may please the banks' customers, at least for a while, it may endanger the financial system because banks may take undue risks in order to have a chance of surviving.[17] If excess capacity in banking is the underlying source of the problems, government or central bank support for the banks can perpetuate the problems by preventing the needed adjustments.[18]

The crisis of 2007–2009 and subsequent developments in Europe have weakened many banks. Although some of the banks' losses have been recognized and some banks have disappeared, there are many indications and a strong suspicion that many losses may still be hidden and that there still may be too much capacity in banking. Investors are therefore not willing to pay much for banks' shares, and banks' stock prices are relatively low. As discussed in Chapters 6 and 7, this unwillingness manifests itself in the fact that the stock market values of bank equity are significantly below the banks' reported book values.[19]

In the United States, banks are making fewer new mortgages and not recognizing losses on existing loans.[20] This is similar to what happened in Japan in the 1990s. Yet authorities in Europe and the United States have been reluctant to address the continued weakness of many banks. The lessons from the past have not been learned.

Strengthen Banks Immediately!

The easiest way to increase the health and stability of the financial system is to ban banks from making cash payouts to shareholders and to require banks to retain their earnings until they have significantly more equity. These mea-

sures would bring immediate benefits and have no harmful side effects on the economy; they would strengthen banks most quickly and directly and would entail no "unintended consequences."

What will happen if banks do not pay their shareholders and retain their earnings for a while? If there are worthy loans to be made, the banks can make these loans using their retained earnings rather than by additional borrowing. Successful companies use retained earnings as a key source of funds for new investments. In fact, retained earnings are the most popular source of funding for corporations.[21] If banks find no worthy loans to make, they can use retained earnings to pay some of their debts or to invest in marketable securities that will earn appropriate returns. In all these cases, the banks' equity levels will increase without harming the banks' ability to make loans.

How will shareholders feel if banks retain their earnings and refrain from making payouts to the shareholders? Shareholders of companies that have little or no debt, like Apple, are happy if the money is invested productively, because the added value of the investments will be reflected in the value of their shares. Whatever Apple does with its earnings, even if it invests in Treasury bills and awaits an opportunity to invest quickly in the future without needing to raise funds, shareholders are entitled to all of Apple's profits, now and in the future, and the value of their shares will adjust to reflect the investments.[22] If the shares are traded on an exchange, shareholders who need cash can create homemade dividends by selling some of their shares.[23]

What about banks, more than 90 percent of whose funding comes from debt? As we discussed in Chapter 3, once debt is in place, borrowers' attitudes toward risk in investment and additional borrowing are affected by the overhanging debt. Highly indebted borrowers tend to be biased toward taking more risk in investment and toward more borrowing. The presence of debt makes risk more palatable to a borrower because he benefits from the upside but shares the downside with his creditors, and possibly with others that provide insurance for creditors. This is a fundamental conflict of interest that is due to borrowing and is particularly strong when borrowing is heavy.

Because banks are heavily indebted, their actions affect not only their shareholders but also their depositors and other creditors, the deposit insurance fund, and the public. Payouts to shareholders are a way for banks to

maintain or increase their indebtedness—an analog to the case, discussed in Chapter 3, of a borrower's (Kate in our example) taking a second mortgage to finance consumption or other investments.

When bankers make payouts to their shareholders rather than retaining the funds for investments or to pay debt, they effectively resist reducing their indebtedness and instead choose to maintain or increase it. Paying shareholders may keep shareholders happy for a while, but it harms society. As discussed in Chapter 8, managers might also take too much risk for which their shareholders are not sufficiently compensated. From the policy perspective, there is no reason to allow banks to endanger the public by making payouts to shareholders. If a bank is sufficiently healthy that its debt is perfectly safe even after making payouts to its shareholders, the situation is the same as that of Apple, which has no debt, and there is no conflict of interest with creditors. As long as the debt is paid for sure, shareholders bear the upside and the downside of all investments, just as in a company like Apple.

If shareholders bear the downside as well as the upside of all investments, they may not actually lose much when payouts are delayed. For the most part, when payouts to shareholders are made, the value of the equity declines by exactly the amount of the payouts; shareholders' total wealth is therefore independent of whether payouts are made. Therefore, as long as shareholders bear all the risks—and aside from the tax subsidies associated with debt (which we discussed in Chapter 9)—shareholders' wealth is not affected if payouts are prohibited.[24]

Prohibiting payouts does lower the value of a bank's shares if the bank's solvency is questionable, and the ban on payouts makes the bank safer. In this case, some of the costs of a payout to shareholders may be borne by creditors and possibly by the deposit insurance fund or the public, because the bank is more likely to fail if it makes the payouts. Conversely, if the debt is made safer, the benefits of a ban on payouts will accrue to creditors and possibly to the deposit insurance fund or the public. Moreover, society as a whole will benefit from a ban because, if the bank is safer, it will be in a better position to make good loans and provide other services.

In 2007 and 2008, U.S. regulators allowed banks to make large dividend payments. They allowed this even after the subprime crisis broke into the

open in August 2007.[25] The payouts weakened banks significantly. The amounts that the largest banks had paid to their shareholders were equal to about half of the funds that the government provided them subsequently through TARP. Had the banks not made those payouts, there would have been less need for government support in the fall of 2008.[26]

Since 2011 the Federal Reserve and authorities elsewhere have allowed most banks to make cash payments to shareholders even though banks are still weak and some of them have still not reached the level of equity required under Basel III. Profitable banks could reach Basel III equity levels much more quickly if they retained their earnings. It makes no sense to delay the implementation of Basel III on the grounds that banks need time to adjust and at the same time to allow payouts that make the adjustment slower. Allowing the payouts before the new equity levels have been reached benefits the banks and harms the public.[27]

Healthy banks do not need to wait for equity to be built internally by retaining profits. Such banks can immediately become safer by raising new equity from investors, and regulators can require them to do so. New shares can be sold to existing shareholders (in a so-called rights offering) or offered to new shareholders.[28] Funds raised in this way can be used to make loans or other investments or to pay back debts.

Bank managers, and possibly shareholders, would resist a requirement that they issue new shares for the same reasons that they resist a ban on payouts—debt overhang and the potential loss of taxpayer subsidies. As noted earlier, however, none of these concerns relates to any cost to society.[29] It is legitimate to ask that more of the downside risk be borne by the banks' managers and shareholders than by creditors and taxpayers.

Requiring banks to reach a particular ratio of equity to assets may have harmful side effects if banks respond to this requirement by making fewer loans rather than increasing their equity levels through retained earnings or by issuing new shares.[30] A reduction in lending, however, can be prevented if, instead of a target ratio, the regulation specifies an amount of equity that must be reached.[31]

If a bank is unable to raise new equity because it has no profits to retain or cannot sell shares, there is reason to suspect that the bank is highly distressed

or even insolvent.[32] In such a case, supervisors should step in, examine the loans and other assets one by one, and assess their values and the likelihood of future losses. Doing so is costly, but it is essential in order to avoid having dysfunctional zombie banks. Closing insolvent banks early is an important task for supervisors.[33]

When an entire banking system is affected, intervention is all the more important; once the assets have been assessed and investors are confident that the bad assets have been cleaned out, the remaining "good banks" can be sold on the market again, as happened in Sweden in the 1990s. As part of the cleanup, it may also be important to reduce the size of the banking sector.[34] If losses have been caused by too many banks' being engaged in reckless competition, then, as we discussed earlier, the underlying problems will not disappear unless the size of the banking sector is reduced.[35]

Beyond Basel: Increase Equity Requirements Substantially!

In addition to the unnecessarily long transition period, Basel III has two other major flaws. First, its equity requirements are far too low. Second, for the most part the required equity is related not to a bank's total assets but to what is called "risk-weighted assets," which are just a fraction of total assets. Basel III requires that banks have equity equal to at least 7 percent of their risk-weighted assets by January 1, 2019.[36]

It can make a great difference whether the 7 percent equity requirements relate to the total assets of a bank or to its risk-weighted assets. For example, the roughly €55 billion in equity that Deutsche Bank had on its reported balance sheet at the end of 2011 represented more than 14 percent of the bank's risk-weighted assets of €381 billion but only 2.5 percent of the bank's total assets of €2.2 trillion.[37] More generally, when a European bank proudly proclaims that it has 10 percent "core capital," we can safely bet that its equity is less than 5 percent of its total assets—quite likely only 2 or 3 percent.[38]

The idea behind risk weighting is that if the assets banks hold are less risky, less equity may be "needed" for a bank to be able to absorb potential losses. The simplest way to think about the notion of putting "risk weights" on different assets is to imagine that each of the assets of the bank has a separate equity requirement that depends on the risk of that asset. For example,

because cash is not risky, banks are not required to back their holdings of cash with equity. A bank that has $1.8 trillion in loans and $200 billion in cash is required to have the same amount of equity as a bank that has just $1.8 trillion in loans.

The minimum required equity is also the same if a bank in the United States has $1.8 trillion in loans and $200 billion in U.S. government securities instead of cash. And in Europe, a bank that has €1.8 trillion in loans and €200 billion in Spanish or Greek government debt is not required to have more equity than a bank that has €1.8 trillion in loans and €200 billion in cash. The regulations presume that such government debt is as riskless as cash, but in Europe this presumption was proven wrong when Greece defaulted on its debt in March 2012.[39]

Whatever the merits of stating equity requirements relative to risk-weighted assets may be in theory, in practice many banks have used this feature of the "Basel approach" to reduce their equity to a very small fraction of their total assets. When equity is 2.5 percent of a bank's total assets, a 2.5 percent decline in the value of assets is enough to wipe out the equity and make the bank insolvent. Since 2007 several large banks have had this experience and become insolvent (Lehman Brothers, Washington Mutual) or would have become insolvent if they had not been bailed out with taxpayer money (UBS, Hypo Real Estate, Dexia). In some cases, the losses that wiped out the equity came from assets that had been considered as riskless as cash by regulators and therefore had not required any backing by equity at all.[40]

The United States has never fully implemented Basel II for commercial banks, largely because Sheila Bair, chair of the FDIC at the time, believed that the Basel II approach to risk weights was problematic. This lack of implementation helped FDIC-insured banks to be stronger than European banks or U.S. investment banks regulated by the Securities and Exchange Commission, which allowed the use of risk weights.[41] In a major innovation, Basel III proposes to introduce regulation based on a so-called leverage ratio. This regulation will set a minimum level for equity relative to total assets. Basel III fixed this minimum level at 3 percent.[42]

If this number looks outrageously low, it is because the number *is* outrageously low. When the agreement was announced in September 2010, Martin Wolf's column in the *Financial Times* was appropriately titled "Basel:

The Mouse That Did Not Roar."[43] He sarcastically noted that the claim that the requirement triples the previous requirements "sounds tough, but only if one fails to realize that tripling almost nothing does not give one very much."

Banks' having 3 percent equity is akin to Kate's having $9,000 in equity and a mortgage of $291,000 funding a $300,000 house. As we have seen, if Kate borrows so much, a very small subsequent drop in the value of the house can put her mortgage underwater, with more owed than the house is worth. For banks, this type of situation means distress or insolvency.

If bank equity is as low as the regulation allows, we must be prepared to see recurrent bank failures and banking crises, with large costs to taxpayers and significant and lasting damage to the economy. At these low levels of equity, banks—and bank regulators—are gambling on their combined ability to properly assess risk weights and on the banks' ability to avoid losses that would bring distress or insolvency. What we have seen since 2007, however, shows that none of these abilities can be trusted. The required bank equity should be *much* higher than the 3 percent of total assets proposed in Basel III.

History provides some guidance. As discussed in Chapter 2, for much of the nineteenth century, when banks were partnerships whose owners were fully liable for their debts, it was common for banks to have equity on the order of 40 percent or even 50 percent of their total assets. Around 1900, 20–30 percent equity for banks was common in many countries. These equity levels were not mandated by any regulation. Rather, they emerged naturally in the markets in which the banks' owners and managers, depositors, and other investors interacted.

The decline that occurred subsequently in the twentieth century was closely related to governments' needs for finance in World War I and to the development and repeated extensions of the various safety nets by which governments support the banking industry, from explicit guarantees provided by deposit insurance to the bank bailouts and implicit guarantees for too-big-to-fail banks.[44] As discussed in Chapter 9, the ever-increasing safety nets that support banking have made it attractive and possible for banking institutions to "economize" on equity and increase their borrowing. Governance and control problems, discussed in Chapter 8, have also contributed to a decline in bank equity levels.

The notion that banks cannot be made much safer at their own expense is flawed. Banks and their creditors should be in a position in which public support and bailouts most likely will not be needed. Requiring that banks' equity be at least on the order of 20–30 percent of their total assets would make the financial system substantially safer and healthier. At such levels of equity, most banks would usually be able to cope on their own and require no more than occasional liquidity support.[45]

Because the use of deposits and other forms of short-term debt can give rise to inefficient runs, deposit insurance in the style of that offered by the FDIC benefits society. Central banks' occasionally providing liquidity support to sound banks can also be beneficial. However, the banks' safety net distorts the incentives of bankers and their creditors, inducing them to take or to tolerate excessive risks from borrowing and risky investments.

Requiring significantly more equity is the most straightforward way of counteracting these distortions; it simply asks banks to reduce the risk of their distress that harms others. Banks can do so by raising equity at market prices, determined by the same investors and in the same markets where other companies in the economy raise their funding. Regarding banks' economizing on equity at the expense of others, the Nobel laureate Merton Miller, whose attempt to discuss capital requirements with bankers was featured in Chapter 7, said, "I can't help smiling at complaints from bankers about their capital requirements, knowing that they have always imposed even stronger requirements on people in debt to them."[46]

Much higher equity requirements should be imposed on all institutions that offer banking services to the public, in particular services in connection with payments.[47] In addition, significant equity requirements should be imposed on other institutions that are systemically important in the sense that their distress, insolvency, or default could significantly destabilize and harm the system.[48]

Determining who should be subject to capital regulation requires regulators and supervisors to keep track of where risks build up in the system. As discussed in Chapter 6, hedge funds can become systemically important, and the crisis has shown that insurance companies should be watched as well.[49] Equity requirements for different types of institutions might differ. In some

cases—for example, that of investment banks that can take uncontrollably large risks in securities trading and derivatives or that of institutions serving as central counterparties in derivatives trading—it might be appropriate to have particularly high equity requirements because the systemic risks that these institutions' activities create are very large and because derivatives markets can be used to take and hide substantial risk.[50]

There is no legitimate reason for the proposed Basel III requirements to be so outrageously low. These requirements reflect the political impact that the banks have had on the policy debate and the flawed and misleading claims that are made in discussions about banking regulation—the bankers' new clothes.

Without proper evaluation of the social cost and benefits, the approach taken by regulators has been based on the misplaced notion that there are significant trade-offs for society associated with much higher equity levels for banks. The approach has been to require that banks have the minimum amount of equity to "get by," and no more. As we have shown in this book, however, the view that there are significant trade-offs is flawed. The purported trade-offs do not exist.

The research that has been offered in support of the proposed regulation understates the benefits and makes up fictional "costs" for substantially increasing equity requirements. For example, practically all of the studies that have been provided in support of Basel III assume that there is a cost to society when banks issue new equity, but these studies do not provide a satisfactory explanation of this assumption. In particular, the studies fail to take full account of the key distinction between the private costs of equity to banks and the costs to society.[51]

When analyzed more properly from society's perspective, the long-term benefits of much higher equity requirements are large, and the costs are hard to find.[52] There is therefore no reason whatsoever to economize on banks' equity to the extent that proposed regulations do. If the adjustment to higher equity levels is handled properly, the transition need not take long and need not have harmful side effects on bank lending.

Among the advantages to the stability of the financial system of banks' operating with much more equity is the fact that losses to banks' assets de-

plete equity much less intensely and thus do not require as much of an adjustment as when banks have less equity. A loss of 1 percent in the value of a bank's assets wipes out fully one-third of the bank's equity if it has only 3 percent of its assets in equity but reduces its equity by only 4 percent if the bank's equity represents 25 percent of its assets. If the bank wants to sell assets to restore the relation between equity and total assets or for other reasons following a loss, it must sell 32 percent of its assets if the initial equity was 3 percent of its assets but only 3 percent of its assets if the initial equity was 25 percent. The contagion effects of deleveraging through distressed sales after losses are much smaller if the initial equity is much higher.

Another important benefit to the system of requiring much greater bank equity would be that financial institutions would have more confidence in each other. Financial institutions routinely borrow from and lend to each other in order to smooth fluctuations in their funding that might be due to customers' transfers, withdrawals, and deposits. If banks had greater confidence in each other, this smoothing would be less vulnerable to disruptions and would work more efficiently.

Many have argued that the Basel III requirements are too low.[53] Even among advocates of higher equity requirements, however, few advocate levels as high as we do.[54] Most seem to take the equity levels of recent decades as a reference point. For several reasons, however, this is problematic. First, the equity levels of recent decades were artificially low because banks and their creditors had become used to the government safety net. Second, the increases in the intensity of competition in financial markets that we have seen since the 1970s have decreased the banks' ability to withstand shocks. Third, the high degree of interconnectedness in the system that has come with financial innovation and with globalization has magnified the potential fallout from the failure of a systemically important financial institution for the global economy. Moreover, institutions tend to be exposed to the same shocks and therefore run into trouble at the same time. All these concerns lead to the conclusion that the levels of equity banks have had in recent decades do not provide appropriate guidance as to what bank equity should be.[55]

Since 2010, when we became more outspoken about the need for an ambitious reform of capital regulation, we have engaged in many discussions on

the subject, yet we have never received a coherent answer to the question of why banks should *not* have equity levels between 20 and 30 percent of their total assets.[56] (A caveat on providing specific ratios is that their meaning will depend on accounting conventions.)

Some would say that banks cannot raise so much equity. Such concerns are misplaced. First, as we emphasized, any bank that is profitable should be able to increase its equity by retaining its earnings. For 2012, for example, JPMorgan Chase has been planning to pay around $19 billion to its shareholders. If it retains this money instead, its equity will increase by this amount, roughly 10 percent of its book value, and a higher percentage of its market value.[57] If viable banks avoid making payouts to shareholders and raise new equity, the 20–30 percent range for equity relative to total assets should be achievable fairly quickly.

Second, when it comes to raising equity from investors, there is no distinction between bank stocks and other stocks. All stocks are held by the same investors, who value them using the same criteria. New shares can be sold to investors at prices that are appropriate given investors' assessments of risks and returns. Diversified investors such as pension funds and mutual funds buy a broad mix of stocks, and there is nothing special or different about banks' stocks relative to other stocks.

Third, if banks have no profits that they can retain or if they cannot raise new equity, they may already be insolvent or they may not have viable business models. Such banks should be forced to leave the market, like other companies that do not have viable business models. It may be, in fact, that the current size of the entire banking sector is too large, and some downsizing may be called for. If this is actually the case, using public support to maintain existing institutions is highly inefficient.

Nobody knows what the proper size of an industry is. Finding this out is one use of a market system in which profitable firms thrive and nonviable firms are forced out. In banking, this market mechanism has been distorted by guarantees and bailouts, by excessively cheap borrowing, and by the artificial prevention of bank failures. Higher equity requirements that impose greater liability on bank shareholders and that lower the value of the subsidies may lead the industry to shrink to a more appropriate size. Requiring

more equity would reduce the distortions and allow markets to operate more successfully, benefiting the broader economy.

Beyond Basel: Abandon the Illusion of Fine-Tuning

As we stated earlier, Basel III specifies equity requirements for banks relative to their risk-weighted assets rather than their total assets. The leverage ratio approach, which specifies equity requirements relative to total assets, is considered a backstop to eliminate the most extreme abuses of the risk-weighting approach. There has been resistance even to the very lax leverage ratio requirement, however. Some of this resistance comes from institutions in the industry that would be directly affected even at a 3 percent equity level; some comes from regulators and others who like the sophistication of risk weighting.[58]

The risk-weighting approach gives the impression of being scientific; the risk of each of a bank's assets is measured "scientifically," and equity requirements are determined on the basis of these measurements. It may seem obvious that a rule based on science is better than a crude rule.[59]

Such reasoning has dominated the work of regulators from many countries who have been meeting in the Basel Committee for Banking Supervision.[60] The first international agreement, concluded in 1988, had only crude categories for distinguishing between assets according to their risks. Since then, regulators have been searching for the holy grail of the "right" risk weights. Basel II, concluded in 2004, was considered to be doing it properly, but the financial crisis showed that Basel II was flawed.[61] Basel III attempts to correct some of the flaws in Basel II, but it has not changed the overall approach.[62]

The risk-weighting approach is extremely complex and has many unintended consequences that harm the financial system. It allows banks to reduce their equity by concentrating on investments that the regulation treats as safe. Banks might also use derivatives to shift the risks of their investments to others, and this can increase interconnectedness. An example would be a bank's purchase of credit default swaps in order to insure against the credit risk of debt securities held by the bank. As we saw in Chapter 5, such credit insurance served to justify treating mortgage-related securities as perfectly safe; it was also a source of systemic risk and played an important role in the government's decision to bail out AIG.

Banks have developed various techniques for "risk-weight optimization" that allow them to choose investments that are in fact riskier than the supervisors believe and have return prospects reflecting these risks so that, on average, returns are higher than the returns on investments that are in fact safer.[63]

In theory, risk weights are meant to adapt equity requirements to the risks of the banks' investments; in practice, the weights are determined by a mixture of politics, tradition, genuine and make-believe science, and the banks' self-interest. In this mixture, some important but real risks are completely overlooked.[64] For example, as mentioned earlier, a bank in the euro area need not use any equity when investing in euro-denominated Greek or German government debt if the investment is funded in euros. Within the euro area, such debts have been treated as riskless even after the Greek default of March 2012.[65]

Since the mid-1990s, banks have been allowed to use their own models to assess the risks of their investments.[66] Regulators allowed this because they realized that banks generally have better and more up-to-date information about these risks, as well as better techniques for evaluating them. Despite the obvious problems that the crisis exposed in the risk-weight approach, the pervasive view among regulators and many others—including politicians, banking experts, and much of the financial press—is that it is good to use "scientific" techniques to fine-tune risk measurements.

However, in the process of determining how best to measure risk, the purpose of regulation was lost. Regulators and others overlooked the fact that the banks' interests in measuring and managing risks are not the same as the public interest in having a safe financial system; the possibility that banks might use their control over risk models to manipulate risk measurement in their own interest was neglected. Regulators and others also neglected the implications of risk weighting for the banks' investment strategies.[67] Even when there are no manipulative intentions, there are reasons to believe that the risk-weighting approach might be fundamentally flawed.[68]

Basel II contributed greatly to the fragility of the global financial system in 2007–2009. Bank leverage was so high because, in the run-up to the crisis, many banks had used the right to compute equity requirements on the basis of their own risk models to economize on equity, treating risks as non-

existent if it served their interests.[69] Banks' investments had been concentrated in assets for which such manipulation of risk assessments was easy as opposed to assets for which such manipulation was difficult. This explains why so many funds went into mortgage-related securities as opposed to small-business lending.[70] The funds that went into mortgage-related securities ultimately served to finance the construction of many residential buildings that are now standing empty and rotting, an awful waste that was encouraged by the regulation.

In Chapter 5 we noted that the increased interconnectedness in the financial system was one reason that something as relatively small as the U.S. subprime crisis could upset the whole world. This interconnectedness was partly due to the Basel approach to computing equity requirements on the basis of risk weights. An example of this, which we have repeatedly mentioned, was the excessive use of credit default swaps to justify ignoring credit risk and having no concerns for the credit insurer's ability to pay.

Another example was the practice of repeatedly creating layers of securitization that was discussed in Chapter 5.[71] At each stage in this process, some poorly rated securities would be put into a package, new securities would be issued with claims depending on the returns of the securities in the package, and some of the new securities would be given the best possible credit rating, AAA, so that banks would be able to hold the securities with hardly any backing by equity.

All this was done because banks wanted investments that would not require them to have much equity and that would allow them to raise ROE with little concern for possible losses. By creating an artificial demand for AAA-rated securities, the regulation made it attractive to create such securities. Effectively, therefore, the regulation contributed to the complete breakdown of market discipline in mortgage lending and securitization and, later, to the complete breakdown of many markets. The buyers had no realistic way to find out what the credit risks were, and the sellers had no incentive to do so. The outbreak of the crisis in the summer of 2007 was triggered when the riskiness of these securities was suddenly seen and the supposedly extremely safe AAA ratings, which equated the risk of these securities to that of U.S. government debt, were replaced by much lower ratings.

The attempt to fine-tune equity regulation is based on an illusion. Besides the problems of corruption by politics and manipulation by the banks, the risks themselves are changing all the time, and even the banks lack the information necessary to measure them properly.[72] For example, the risks of counterparties' defaulting may change as the counterparties change, as happened when AIG sold many more credit derivatives over time. The ability to convert assets into cash may suddenly change when investors realize that they know too little about these assets, as happened in the case of mortgage-related securities in 2007. Asset price risks may also change because other investors incur losses and have to engage in fire sales. All these developments could not be predicted in time on the basis of the information that the banks had. Given these limitations, it is dangerous to rely exclusively on the fine-tuning of risk measurements, no matter how "scientific" the quantitative risk models of banks are made out to be.[73]

Empirical research on the financial crisis has actually shown that a high ratio of equity relative to risk-weighted assets did not mean that a bank was safe. By contrast, a high ratio of equity relative to total assets, without risk weights, meant that the bank was in a better position to deal with the crisis.[74]

Despite the experiences of the financial crisis, trust in the fine-tuning of risk measurements on the basis of the banks' quantitative models has not disappeared. Except for the proposed introduction of the leverage ratio, Basel III provides little substantial change. Regulators and supervisors are also relying on models in the periodic stress tests they use to determine whether banks have "enough equity." Such tests have been carried out in the United States in 2009, 2011, and 2012 and in Europe in 2010 and 2011.[75]

Analogous to the stress tests used in engineering or medicine, stress tests in banking are intended to check whether banks have enough equity to withstand some shocks, such as an economic recession leading to defaults of borrowers or a stock market decline. This approach, however, is no more scientific or trustworthy than the one used to fine-tune equity requirements.

Predictions of what would happen under the specified stress scenarios are based on models developed by banks and regulators. Stress tests, like risk measurements, are therefore subject to the limitation that something like the dynamics of contagion discussed in Chapter 5 is not captured in the models,

and in fact there would not be enough data to do so. In addition, of course, the predictions are colored by the politics of how the stress tests are done and by the self-interest of banks, and possibly regulators, in constructing their models.

Given these limitations, it is hardly surprising that in 2010 as well as 2011, some European banks that had passed the stress tests with flying colors went into distress and had to be bailed out shortly afterward.[76]

"Anything but Equity"

In another misguided effort at fine-tuning that allows banks to cut corners, at times capital regulation treats some debts as if they were equity. For example, a bank might issue debt that gives investors the right to receive a fixed interest payment every year except for years in which the bank does not earn a profit. From the shareholders' perspective, such a security is a kind of debt, because those who hold the security have priority over shareholders' receipt of dividends. Some regulations, however, say that this type of security is like equity because the bank is not required to make payments if it incurs a loss.

Under Basel II, many such hybrid securities (as they are called) were counted toward equity requirements even though they were not in fact equity. The notion was that investors in these securities would participate in losses just as shareholders do. In the bailouts of 2007–2009, however, government support saved the holders of these hybrid securities, along with depositors and other creditors, from losses.[77] Governments seem to have been afraid that if these hybrid securities were actually made to share in banks' losses, there might be another "Lehman event."[78]

The clear lesson is that only equity can be relied on to absorb losses in a crisis. The drafters of Basel III tried to apply that lesson, but, especially in Europe, bankers have been lobbying strongly to get other securities approved as equity-like.[79] Their approach can be called *anything but equity.* The search for anything but equity to absorb losses has recently focused on so-called contingent convertible bonds, often referred to as co cos, long-term bonds that can be converted to equity when some trigger event occurs.[80] The idea is that some creditors would be forced to become shareholders if the bank's equity were depleted by losses.

There are numerous complications with this approach, along with serious reasons to doubt that it would be effective or reliable. If a bank were to come near one of the triggers meant to begin the conversion of some debt into equity, there might be turmoil, because the conversion would benefit some investors and harm others, and many participants, including the bank's managers, might take actions to influence whether the trigger was hit. Such actions might result in panic in the markets for these securities or for the bank's shares.[81]

Co cos may be better at protecting the safety of the bank than simple debt. However, they are clearly less reliable than equity. There is no valid reason for non-equity alternatives to be considered instead of equity when using equity would be simpler and more effective in achieving the goals of a stable and healthy financial system.[82]

The effort to include anything but equity in capital requirements is entirely based on the bankers' new clothes.[83] It seems to reflect the flawed focus on ROE that we discussed in Chapter 8. As long as the equity-like security is not actually equity, it has the same effects as debt in calculating ROE. Bob Diamond, then CEO of Barclays, stated in April 2011, "Barclays is counting on being able to fund part of its capital requirements with new contingent convertible instruments, or co cos, which will not dilute ROE numbers."[84]

The attraction to non-equity securities may also reflect a concern for maintaining the tax subsidies associated with borrowing if such securities can be classified as debt for tax purposes.[85] However, this observation only suggests that a tax code that gives banks a penalty for equity and encourages debt or anything but equity is perverse and should be changed. Compromising financial stability to give banks a tax break makes no sense.

How to Make Equity Regulation Work

It is important to determine what laws and regulations should mandate, but what happens if they are violated? In principle, if a bank has too little equity, the supervisor must intervene and force the bank to increase its equity while threatening to take disciplinary action against the bank, including revoking its license and closing it down.

The threat of closing a bank may not be credible if the bank is large and highly interconnected with other banks. The supervisor may also be afraid that, if a bank is shown to have lost a lot, people may raise questions about its past supervision. Rather than close the bank, the supervisor may therefore prefer to overlook the bank's losses, allowing it to maintain delinquent loans on its books without acknowledging losses. As we've already discussed, this can be very dangerous and costly.

We must get away from the simple dichotomy of having enough versus not enough equity and more carefully consider what supervisors should do when a bank's equity is reduced. On this point, Basel III goes in the right direction. The 7 percent requirement that we mentioned has two components, an equity requirement of 4.5 percent and a so-called capital conservation buffer of 2.5 percent of risk-weighted assets. The idea is that if equity lies between 4.5 percent and 7 percent, a bank will be forced to retain its profits and avoid paying dividends so as to rebuild its equity internally, but it will not need to raise new equity right away.

This idea can be applied to equity requirements at the much higher and safer levels that we propose. For example, a requirement of equity in the amount of 20–30 percent of banks' total assets, as we suggested earlier, could be managed in such a way that banks would be expected to have at least 30 percent equity in good times. If banks incurred losses that reduced their equity below 30 percent but not below 20 percent, they would be instructed not to make payouts to shareholders but to rebuild their equity, at least by retaining earnings. Some payments, such as those to managers, might be made with new shares.[86] If banks' equity went below 20 percent, however, it would be appropriate to require them to rebuild their equity immediately, if necessary by issuing new shares.[87]

More generally, it makes sense to have a graduated system of equity requirements involving different responses of supervisors and banks depending on how little equity the banks actually have. In the United States, the Federal Deposit Insurance Corporation Improvement Act of 1991 provides for a graduated system of responses involving various "prompt corrective actions" depending on how serious a problem is. Extending this approach

would allow us to get away from a regime in which infringements of regulatory requirements immediately raise the question of whether a bank should be closed.

The practical implications of specifying any ratios of equity relative to assets depend critically on the rules that determine which assets and liabilities are listed on a bank's balance sheet and how their values are determined. The principle here should be that any investment or commitment that exposes the bank to risk must be included. Investors and regulators must be able to evaluate the risks. For example, banks should not be allowed to keep entities off their balance sheets to which they are promising liquidity support or other guarantees. And derivative positions that might cause fragility should be included rather than netted and ignored.[88]

Equity ratios based on accounting conventions do not always indicate solvency concerns in a timely manner. Such ratios would not always have pointed to problems through the fall of 2008 because, as discussed in Chapter 6 and earlier in this chapter, they are not adjusted to losses in a timely manner and banks may be able to manipulate them.[89] Regulators should consider other information, such as stock prices and other market indicators, in trying to maintain the safety and soundness of the financial system. Any concerns about the buildup of risks should lead to prudent steps, such as a ban on payouts to shareholders, to prevent the depletion of equity. Maintaining sufficient equity levels using such tools can be a powerful way to make sure that we can rely on the financial system to support the economy.

Supervisors must keep in mind that their basic job is to protect the public. Concerns about the details of regulatory requirements, accounting rules, and other measurements must not divert attention away from this objective. If risk is said to disappear because it has been hedged, who has actually taken on this risk? Spreading risk or passing it on is beneficial only if the institutions that bear the risk are able to do so without problems. Otherwise the very shifting of risk that regulation encourages can harm the financial system and the economy.

Regulators should also be more concerned with risks of rare events. Dangers should not simply be neglected if they are expected to occur with a probability of less than 1 percent. If such events occur, the damage to the

financial system and the economy can be great, and this possibility should be taken into account even if the probability is thought to be small.

It is useful to compare equity and other regulations meant to keep the banking system safe to speed limits and other rules for trucks carrying explosives or other chemicals on a highway through a settled area. Speed may be easier to measure than the equity levels of banks, but the key objectives of protecting the public are quite similar.

Trucking companies may argue that they have excellent drivers, and therefore the speed limit need be no lower than seventy miles per hour. They may also argue that their drivers can take care of themselves, and therefore no public regulation of rest breaks is needed. Lower speed limits or mandated rest breaks for drivers, they might also say, would make the transportation of goods by trucks more expensive and reduce economic growth. The response might be a debate on whether the trucking companies' risk models are taking adequate account of sudden side winds or of ice on the road, but after the first disaster authorities would likely conclude that protecting people might be more important than fine-tuning the regulations.

The same considerations that apply to trucks, airplanes, or nuclear reactors should apply to banks. Public safety must be the focus. A remarkable difference, however, between much higher equity requirements and safety measures in many other contexts is that high equity requirements are such an incredible bargain to society: the significant benefits of much more equity are actually free!

If truck drivers had to drive more slowly or stop for thirty minutes every two hours and could not drive at night, they would drive fewer miles each day, and this might increase the cost of transportation. By contrast, increasing equity requirements from 3 percent to 25 percent of banks' total assets would involve only a reshuffling of financial claims in the economy to create a better and safer financial system. There would be no cost to society whatsoever.[90]

Why has capital regulation failed so miserably, and why, despite the crisis, hasn't it been fixed? The answer has much to do with the politics of banking, where invalid claims are often successful with conflicted regulators and politicians. We take up the political issues in the final two chapters of the book.