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Towards a Better Financial System

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The financial system is fragile and distorted because current rules fail to counter the distorted incentives by banking institutions to borrow excessively and to remain opaque. Better-designed rules to reduce the reliance on debt and ensure that institutions use significantly more equity would enable the financial system to serve society better. Revising counterproductive tax and bankruptcy codes that, together with the extensive safety net offered to the financial system currently encourage dangerous conduct, would also be beneficial.

Introduction

A healthy and stable financial system enables efficient resource allocation and risk sharing. A reckless and distorted system, however, causes enormous harm. The cycles of boom, bust, and crisis that repeatedly plague banking and finance are symptoms of deep governance and policy failures. Reinhart and Rogoff (2009), who studied financial crises over many years and jurisdictions, conclude that crises are preventable but that governments are themselves part of the problem, either because they mishandle their own finances and borrow too much, or they fail to prevent recklessness by households and firms.

Despite efforts at regulatory reforms since the 2007-2009 financial crisis, too little has changed. The rules governing the financial system remain complex, inadequate and at times counterproductive. Improving the system requires a proper diagnosis of the problems, and the political will to create better rules and more accountability.

Lehman Brothers' bankruptcy in September 2008 had major ripple effects throughout the globe and was followed by a deep recession that affected hundreds of millions of people. When housing prices declined starting in 2007, heavily indebted U.S. homeowners began defaulting on their mortgages, exposing the great fragility of the global financial system and the failure of rules that were in place to prevent the excessive buildup of risk.

The mortgage defaults in the runup to the financial crisis were not large relative in magnitude to the global economy. They nevertheless led to a massive global crisis because of the pervasive use of short-term debt funding by banks and by other financial institutions, the risk these institutions took, and the significant complexity, opacity, and interconnectedness in the system. With little equity funding that could absorb losses on risky assets, many financial institutions became distressed or insolvent, triggering contagion and panic. To prevent a meltdown, central banks and governments provided extraordinary supports to the financial system, particularly to the largest global banks.

With extensive guarantees from the FDIC, trillions of dollars in loans from the Federal Reserve, and hundreds of billions in direct investments by the U.S. government through the Troubled Asset Relief Program (TARP), most U.S. financial institutions did not default and recovered quickly from the crisis (Tooze, 2018). Banks became highly profitable even as mortgage fraud and other wrongdoing led to more than $300 billion in fines over the last decade. Households, however, continued to suffer from the subsequent recession, exacerbated by heavy mortgage indebtedness and numerous foreclosures (Mian and Sufi, 2014).

A key cause of fragility and inefficiency in the financial system is the excessive use of debt funding by banks and by other institutions. The tax treatment of corporate debt and the various explicit and implicit guarantees banks enjoy perversely encourage and reward reckless risk taking and borrowing. Effective regulation of the funding mix of financial institutions is among the greatest "bargains" in financial regulation, bringing many important benefits at virtually no relevant cost. It will correct market failures directly and at a significantly lower cost than alternative and more complex regulations. Instead, current regulations are inadequate, and their flawed design creates additional distortions and risks to the system.

Combined with changes in tax and bankruptcy laws, which currently undermine financial stability, ensuring that banking institutions rely on more equity will bring many benefits, enabling the financial system to serve the economy better without generating as much unnecessary risk and harm. More equity would reduce the intensity of the conflict of interest between bankers and the public and the ability and incentives of the sector, and especially the largest institutions, to grow inefficiently large and to remain opaque, poorly governed, and dangerous.

In this essay, I first discuss the basic economics of corporate funding and why well-designed and effective regulation of banks' funding is highly beneficial. I then point to ways to improve the system and close with remarks that place this policy debate in a broader governance and political context.[1]

Corporate Funding and the "Specialness" of Banks

Corporations have many ways to fund their investments. In addition to borrowing, profitable corporations can reinvest their profits or issue new shares of equity. Shareholders absorb losses naturally through reduced value of their shares. If a corporation defaults or has insufficient assets to pay its debts, it becomes insolvent. Insolvency typically leads to a bankruptcy process and, at least, to creditors not being paid in full.

Governments do not usually regulate the funding mix of corporations; most corporations can borrow as much as they want if they can find lenders. The terms of loans are set through negotiations with lenders in private or public markets for corporate debt securities. Corporations may be able to save on their taxes by borrowing, since many governments, including the U.S., consider the interest paid on corporate debt as a deductible expense. Despite this tax advantage, it is rare for healthy corporations outside banking to fund less than 30 percent of their assets by equity, and many thriving corporations borrow little. Retained profits are often the favored source of funding that requires no new issuance of securities to investors.

Heavy borrowing has a dark side.[2] First, it increases the likelihood of bankruptcy, which depletes the assets through legal costs and disruptions. Second, it intensifies the fundamental conflicts of interest between borrowers (shareholders in the case of a corporation) and lenders regarding investment and funding decisions. The conflicts arise because borrowers benefit fully from the upside of any risk taken while sharing the downside risk with lenders. The decisions made by the managers and shareholders of an indebted corporation may harm creditors and, moreover, they may be inefficient by reducing the combined value of the firm to all investors.

Specifically, once debt is in place, corporate decisions are generally biased in favor of additional borrowing and riskier investments and against reducing indebtedness or making worthy investments that lack sufficient upside. Anticipating the possibility of default, bankruptcy and inefficient investments that harm their interest, creditors protect themselves by requiring higher interest and by placing conditions in the debt contracts. Distressed corporations therefore find it difficult to fund additional investments under favorable terms. Moreover, it is costly to write and enforce debt contracts that prevent excessive borrowing and risk taking, particularly when creditors are fragmented without restricting worthy investments that may benefit all investors.[3]

The funding mix of banks is starkly different from other companies, consisting almost entirely of debt and very little equity. Even with equity of as little as 3 percent or less relative to their assets (and with problematic measurements that might make the actual indebtedness even heavier), banks seek to make payouts to their shareholders and maintain extremely high indebtedness and borrow to fund more investment.

Because banks have little equity and much of their debt consists of deposits and short-term loans that can be withdrawn quickly, even small losses can cause default or insolvency. If depositors or other lenders become concerned about potential default and lose their trust, they may withdraw their funding, possibly in a panic to ensure they are paid before others. Indeed, concerns about insolvency are a major reason banks can run into "liquidity problems," suffer from runs and panics and lose their funding, or need support. Having more equity would reduce the risk of banks running into solvency. Pure liquidity problems that arise because assets cannot easily be converted to cash do not usually cause defaults in banking because central banks stand ready to lend to banks to prevent their defaults.

Deposits and short-term loans benefit from their ability to easily convert to cash. This "liquidity benefit" does not imply, however, that heavy indebtedness and little equity is efficient for banks. To the contrary, as discussed in Admati and Hellwig (2019), the outcomes in *laissez-faire* banking markets, without government intervention of any sort, involve excessive borrowing with inefficiently high likelihood of default that jeopardizes the liquidity benefits of banks' debt.[4] Regulation requiring more equity helps create beneficial commitments for banks to avoid the temptation of excessive borrowing that would result under *laissez-faire*.

The need for regulation is even stronger when there is collateral harm to the system or the economy from individual institutions, or many at the same time, becoming distressed or insolvent and possibly defaulting. Guarantees feed and enable the "addiction" to borrowing, associated with heavy corporate indebtedness explored in Admati et al (2018). Since depositors are passive and their claims not backed by collateral, banks will continue to borrow and take risk even if they are insolvent, unless they are stopped by regulators. Moreover, banks have incentives to repeatedly shorten the maturity of their debt to benefit at the expense of existing creditors or taxpayers, which Brunnermeier and Ohemke (2013) refer to as a "maturity rat race."

For example, banks can use some assets bought with depositors' funding as collateral for additional borrowing that has higher priority over deposits.[5] Deposits might be used, in particular, to purchase Mortgage-Backed Securities that are then posted as collateral to obtain more loans on favorable terms using "sale and repurchase agreements" ("repo") transactions. Such arrangements receive preferential treatment under current bankruptcy laws, making them ever more attractive. Rather than improve outcomes for society, however, these strategies exploit and endanger existing creditors and taxpayers.[6]

The mantra in banking that "equity is expensive" neglects to make the critical distinction between private and social costs. The "costs" of banks using more equity are *entirely private* and incurred by a small set of individuals who would be prevented from benefitting at the expense of others. From society's perspective, it is having *too little* equity in banking that is expensive. The "specialness" of banks is therefore that they are allowed to get away with being as inefficient and reckless as they are.[7]

Political economy, confusion and willful blindness are key to understanding why the financial sector is able to maintain its privileges and prevent beneficial regulations. Symbiotic relations between banks and governments create many forms of capture (Admati, 2016). Senator Durbin of Illinois captured the situation by declaring in 2009, just after the financial crisis, that banks "still own the place," referring to Capitol Hill. Those who benefit from the status quo are able to muddle the debate with misleading narratives.

Highly Beneficial: More Equity, Fewer Debt Subsidies

Prior to the expansion of safety nets for banking (in the form of central banks, deposit insurance, and implicit guarantees), banks maintained much higher equity levels than they have in recent years. As partnerships in the 19th century, for example, equity often accounted for 50 percent of banks' assets. Since owners were not protected by limited liability, depositors had recourse to the owners' personal assets if the banks' assets were insufficient. Equity levels of 20 or 30 percent of total assets were common early in the 20th century, and in the U.S. shareholders had double, triple or unlimited liability until the deposit insurance was established. As safety nets expanded, depositors and other creditors were less concerned and bank shareholders and managers chose to have much less equity and were able to do so without regulations to counter the incentives.

The financial system has become more complex and opaque in recent decades, as well as larger relative to the economy in many developed economies. The growth of securitization and derivatives markets enabled more risk sharing, but it also allowed institutions to take more risks and obscure them from stakeholders.[8] Regulators ignored risks that built up dangerously, sometimes hiding "off balance sheet" and in the entities in the so-called "shadow banking system." The growth of the financial sector and of the largest financial institutions has largely been driven by trading within the sector rather than investments in the real economy.[9] The 2007-2009 financial crisis became the "unintended consequences" of this massive regulatory failure. Not only were the regulations inadequate, their poor design introduced distortions that increased the fragility of the system and exacerbated the problems. For example, institutions incurred massive losses from investments that regulators had considered perfectly safe.

After the crisis, regulators sought reforms, but they failed to learn the full lessons and proceeded to maintain the overall approach, thus continuing to tolerate a distorted and fragile system. For example, one thorny issue is measurements of indebtedness, particularly in the context of complex derivatives and off-balance-sheet commitments. Accounting-based measures and the use of risk weights in an attempt to calibrate requirements to risk have made regulatory measures quite uninformative for indicating the true strength of any institution.[10]

Admati and Hellwig (2013a, Chapter 11) and Admati (2016) summarize the problems with the regulations and propose improvements as well as transition to a better system. Twenty prominent economists (Admati et al, 2010), for example, recommended *at least* fifteen percent, as compared to the 3 percent, in equity relative to total assets required by the 2010 Basel III international accord.[11]

With more equity, banks would be in a better position to serve the economy even after incurring losses without needing support. They will also be less likely to experience liquidity problems and runs. Moreover, when institutions operate with much more equity funding, any loss in the value of the assets is a smaller fraction of the equity, thus there is less need for distressed asset sales (or so-called "fire sales"). Better yet, by reducing the intensity of the conflict of interest between banks managers and shareholders on one hand, and their lenders and taxpayers on the other, banks with more equity suffer from fewer distortions in lending decisions, including excessive and inefficient risk-taking and underinvestment in some worthy loans.

The easiest way to implement the transition to higher equity requirements is to ban payments to equity until banks are better capitalized, and even requiring that some executive compensation come in the form of new shares rather than cash. It may also be useful for regulators to mandate minimum amounts of new equity issuance each year, with banks that cannot raise equity being viewed as failing a market-based stress test. Any institution that is too opaque, insolvent, or too big and inefficient to do so should not persist.

Instead of relying on market tests, regulators use so-called stress tests to reassure themselves and the public that the banks are safe enough. These tests set inadequate benchmarks for passing and are based on many strong assumptions. Moreover, they are unable to predict the market dynamics of the interconnected system in an actual crisis, which may come from an unexpected direction. As a result, they give false reassurances.

More equity also provides the easiest and simplest way to reduce the privileges and outsized power of the largest "systemic" institutions, often referred to as "too big to fail." These institutions are indeed enormously large, complex, and opaque, with assets in the trillions, much larger off-balance sheet exposures, and sprawling operations in many different areas and across the globe.

Vowing to avoid bailouts, the favored approach of regulators and the institutions themselves is to reassure the public that the institutions can "fail" without needing support and causing enormous collateral harm. This approach is flawed in many ways. First, it focuses on treatment of an outbreak in the financial system, when additional equity would act as an obvious preventative measure, reducing the likelihood of failure. Second, the notion that authorities will know just the right moment to trigger a "fail" scenario that would impose losses on creditors, and that the process of doing so would not cause the kind of ripple effect of the Lehman Brothers bankruptcy, is not credible. Indeed, in a crisis when many institutions are failing or near failure, the collateral harm of any process of dealing with the problem would be substantial.

Equity is the simplest, most reliable and most beneficial way to reduce those subsidies while also enhancing the health and safety of the system. Shareholders who are entitled to the upside and who absorb losses without the need to go through complex and costly triggers, are the most obvious candidates to bear the risk.

Suggestions that the largest institutions should be broken up by authorities fail to recognize that the size, complexity and recklessness of these institutions are *symptom* of failed markets and regulations. More equity would be useful because, in addition to reducing the likelihood of costly failure, it is likely, if done properly, to bring more market pressure from equity investors to cause the largest institutions to break up naturally, similar to how large conglomerates broke up in the 1980s and 1990s. Moreover, as seen in the Savings and Loan crisis of the 1980s and in many other banking crises, the failure of many small banks can cause as much disruption and harm, and may lead to bailouts. Thus, a system with many small but excessively fragile institutions taking similar risks and likely to fail at the same time can present preventable problems.

It is also important to change two sets of counterproductive laws that make the financial system more fragile, and safety regulations in banking harder, by creating a wider gap between what is good for banks and their managers and what is best for society. First, the tax code must be changed to neutralize the advantage of debt over equity funding. Even if banks pay more taxes, this does not represent a cost to society because taxes are used by governments on behalf of the public. The tax effect can also be balanced to have little effect on the taxes banks pay but in a way that does not reward excessive borrowing.[12]

The *Economist* (May 15, 2015) called debt subsidies "a vast distortion in the world economy." Subsidizing mortgage debt in the tax code makes little sense and has virtually no economic justification. Whereas such subsidies are said to support home ownership, they reward only *borrowing* to buy houses, thus increasing the fragility of households and of the economy to the harm from excessive use of debt (Mian and Sufi, 2015). If home ownership is a policy objective, there are better ways to encourage it, such as providing tax credits towards the down payment (the equity portion) in buying a house.[13]

In addition to the counterproductive tax code that encourages borrowing over equity funding, bankruptcy laws established decades ago, and revised in 2005, exempt certain repo and derivatives contracts from the normal rules governing creditor behavior in bankruptcy. The expanded "safe harbor" clause was promoted as a way to increase financial stability, but instead it has enabled and encouraged more fragile funding and caused more turbulence during the financial crisis. It further provides special privileges to certain stakeholders, typically other financial institutions, over other lenders. Despite these problems, the counterproductive law has not changed.[14]

Large banks also continue to be very opaque. [15] Their recklessness is also evident in the numerous scandals and tens of billions in fines for fraud and other misconduct they routinely pay. Evading rules can go undetected for extended periods, and ultimately leads to relatively small fines viewed as "cost of doing business" and little, if any, personal accountability for executives or the board. These effects breed lawlessness by individuals whose compensation rewards gambling and law evasion, and who rarely pay a personal price when they harm stakeholders and the public. Yet implicit subsidies appear to allow the banking sector as a whole, and particularly the largest institutions, to obtain privileged funding that do not fully reflect the risk they take and to remain profitable despite repeated scandals and fines. [16]

Flawed Excuses

The persistent failure to ensure financial stability and the muddled debate about the costs and benefits associated with higher equity are rooted in a mix of confusion and distorted incentives across the individuals in the private sector as well as in government. The situation has prevented engagement on the issues and enabled flawed claims to prevail, starting with an insidious confusion about jargon and continuing with subtly misleading claims or assertions based on inappropriate assumptions. For example, the regulation of banks' funding mix is referred to as "capital regulation," but banks are said to "hold" or "set aside" capital, falsely implying that equity funding, which includes funds to be used for making loans and other investment, is akin to idle cash or "a rainy-day fund" that cannot be used for lending. This confusion immediately raises imaginary tradeoffs between lending and equity capital, allowing lobbyists to get away with nonsensical claims (e.g., that increased capital requirements "keep billions out of the economy"). In fact, with more equity banks are better able to make worthy loans at appropriate prices and do so more consistently.

Admati and Hellwig (2015) list 31 distinct flawed claims made in the discussion and provide a brief debunking. Admati (2016, 2017a) describes the actions and the incentives of the many enablers of this situation and thus the dangerous system, including individuals in the private sector, policy, media and academia. Banking scholars are among the enablers when they build models based on the presumption that markets create efficient outcomes while ignoring critical governance issues and market failures (e.g., due to inability to commit), accepting the system and falsely assuming that ways to change are costly or infeasible.

Among the misleading narratives about financial crises is that they are akin to natural disasters and thus unpreventable. This narrative directs discussion to disaster preparation, akin to sending ambulances to the scene of an accident, rather than to prevention. Enablers also misleadingly use the past failure of regulation that resulted in the growth of the so-called shadow banking system as an argument against regulations. Worse, where simple and cost-effective regulations can help counter distorted incentives, regulators have instead devised extremely complex regulations some of which may not bring enough benefit to justify the costs but which allow the pretense of action.

Enablers often invoke the claim that we must maintain a "level playing field" in regulations and ensure the global competitiveness and success of "our" national institutions. The "success" of banks in Ireland and Iceland before the financial crisis, however, came at an enormous cost to their taxpayers. Just as we should not allow pollution even if another nation foolishly tolerates it, subsidizing recklessness in banking to help banks succeed while endangering our citizens and others is bad policy. Moreover, financial institutions compete with other sectors in the economy, including for scarce human capital. Their ability to attract bright individuals whose talents might be better used elsewhere creates additional and often invisible market distortions and harm, likely exacerbating inequality.

Concluding Remarks

Laws and regulations should be designed to reduce the conflict between individuals in the financial sector and what is good for society more broadly. Despite the efforts of some politicians, regulators, public-interest groups, commentators, and academics, new regulations do not fully reflect the lessons of the 2007-2009 crisis. A financial system meant to allocate risk and resources efficiently instead continues to distort the economy and endanger the public. Confusion and the politics of banking regulations remain obstacles to change.[17]

Politicians tend to see financial institutions as a source of funding for their favored causes, including political campaigns or other projects that appear to appeal to voters. Turning a blind eye to risk in banking is convenient. Implicit guarantees appear free, and policymakers who tolerate recklessness in banking rarely face political consequences. The public may be confused by the many flawed claims made by the industry and its many enablers and fall prey to short-sighted promises of cheap credit. Borrowing too much can cause great harm, particularly for the lowest-income households, yet lenders' own recklessness is tolerated.

In summary, despite a massive financial crisis and regulatory reform, the financial system remains too fragile. Powerful individuals benefit from the fragility, and from the excessive complexity of the regulation, and they get away with maintaining it. Change will not come easily given the entrenched interests of those involved, and the inertia of the system. Appropriate public understanding of the root cause of the problems beyond awareness of some of the obvious symptoms, such as the persistence of too-big-to-fail institutions and many misconduct scandals, and of the true tradeoffs of different policy choices is essential.

The financial sector is an extreme example of deep and broad problems in the nexus of corporate governance and political economy. Corporations claiming to maximize "shareholder value" often cause preventable harm when governments fail to act in the public interest.[18]

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Endnotes

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1 Numerous pieces and other materials on these topics are linked from this website on excessive leverage and risk in banking, https://www.gsb.stanford.edu/faculty-research/excessive-leverage as well as from my personal website https://admati.people.stanford.edu/

2 See Admati and Hellwig (2013a, Chapter 3).

3 Ensuring that managers would not pass up worthy projects that would have benefitted creditors and increase the total value of the corporation is also extremely challenging to do through debt covenants.

4 Admati and Hellwig (2019) builds on Admati et al (2018), which shows how the conflicts of interests and inability to fully commit cause heavy borrowing to become "addictive" and why the insights are particularly relevant in banking.

5 Insured depositors are so passive that they, and the banks, themselves forget that they are actually creditors and that deposits are part of the banks' debts. For example, John Stumpf, past CEO of Wells Fargo Bank, made the nonsensical claim that because his bank has a lot of retail deposits, it does not have a lot of debt, and he was quoted in a later story whose title referred to Wells Fargo Bank as "debt averse" saying "the last thing I need is debt." (The first quote is from "Wells Chief warns Fed over Debt proposal," Tom Braithwaite, *Financial Times*, June 2, 2013, the second is from "Fed's Disaster Plan Is Bitter Pill for Debt-Averse Wells Fargo," Jesse Hamilton and Ian Katz, Bloomberg News, October 29, 2015.) Of course, a truly debt averse Wells Fargo Bank could reduce its indebtedness by retaining its profits or selling new shares. These statements illustrate that despite their extreme indebtedness, banks do not experience the burdens and the market forces that affect other corporations.

6 A repo transaction is economically equivalent to secured borrowing, i.e., borrowing with the use of collateral, but a repo consists of a simultaneous "sale" of the collateral to the lender and a commitment to buy or repurchase it at a future point of time at a fixed price. Under safe harbor provisions in the U.S. bankruptcy code, many financial sector repo lenders can possess the collateral asset even if the borrower goes into bankruptcy that would typically freeze debt claims.

7 For a discussion of implicit guarantees and some of the efforts to estimate them, see Admati (2014) and Gudmundsson (2016).

8 See Admati and Hellwig (2013, Chapter 5) and Eisinger and Partnoy (2013).

9 See, for example, Haldane et al. (2010) and Turner (2010).

10 Singh and Alam (2018) show that current measures of indebtedness are misleading because they do not account properly for exposures off balance sheet. The authors assess these exposures to be larger than in 2007 just ahead of the financial crisis.

11 Cochrane (2013) captures the spirit of the answer, namely requiring enough equity that it no longer matters because the downside risk is borne by shareholders.

12 Roe and Troege (2018) discuss the distortion created by tax subsidies of bank debt and propose changes specific to banking.

13 Jorda et al. (2016) show that banks and households have become heavily indebted through mortgages in the second half of the 20th century and that mortgage credit has been important in understanding the increased financialization, the fragility of advanced economies, and the dynamics of business cycles.

14 Morrison et al. (2014) argue convincingly that the safe harbor rules for repos should apply much more narrowly and the 2005 law should be repealed and the 1984 version remain in effect. See also Partnoy and Skeel (2007) and Jackson and Skeel (2012), which also describe the similar bankruptcy treatment of derivatives.

15 Eisinger and Partnoy (2013), which examined the financial statements of Wells Fargo Bank, quotes many investors and accounting experts stating that the large banks are "uninvestible." See also Singh, Manmohan Alam (2018).

16 See Admati and Hellwig (2013a, chapters 8, 9 and 13) and Admati (2014) on the incentives for recklessness. A CNBC headline in March, 2017 captures the notion that fines are "cost of doing business" announcing: "Banks Have Paid $321 Billion in Fines Since the Financial Crisis (But They have Made Nearly $1 Trillion" (https://www.cnbc.com/2017/03/03/banks-have-paid-321-billion-in-fines-since-the-crisis.html)

17 Admati (2017a) cites some of the terms in social psychology that apply to the various blind spots in this area, such as willful blindness, collective moral disengagement. See also (Jost 2017) on system justification. Pfleiderer (2018) discusses the misuse of models in economics and finance. Many materials at various lengths, including videos and slide presentations with visuals, are available at https://admati.people.stanford.edu/advocacy

18 See Admati (2017b).

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