AUGUST 2000

Stabilizing Finance: The Case for Asset-Based Reserve Requirements

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During the 1990s, recurring bouts of global instability prompted repeated calls for a new architecture of international finance. But so far, the debate over new architecture has focused almost exclusively on the structural deficiencies of developing-country capital markets and on international financial transactions with these nations. As a result, three crucial and somewhat self-evident points tend to be overlooked. Financial markets in industrialized countries provide the resources that fuel the global system. Instability in these enormous markets poses the greatest potential threat to systemic soundness. And developed country markets have grown increasingly fragile as a consequence of widespread financial innovation and relentless deregulation.

Measures that improve developing-country financial systems are desirable on their own terms and may very well render the global system somewhat more sound. But they cannot address the dangers posed by turmoil in developed-country financial markets. Restoring global soundness requires the reconstruction of a coherent, comprehensive regulatory framework for these highly advanced and vulnerable markets.

The concept of asset-based reserve requirements (ABRR) provides a centerpiece for such a framework. Ultimately, financial instability arises when lenders and investors acquire assets without proper regard to risk. By varying the level of reserve requirements on asset categories, monetary authorities can adjust the relative attractiveness of various holdings, thereby discouraging unduly risky portfolio choices.

Central banks can and should apply this framework to all financial intermediaries on the basis of the assets they hold rather than on the basis of their corporate form (e.g. banks, securities firms, finance companies). This would create a level playing field and void incentives for customers to shift business from one intermediary to another – or for intermediaries to shuffle activities among their affiliates – simply to evade regulatory costs.

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Equally important, a system of ABRR can provide central banks with additional tools at a time when financial innovation and the relative shrinkage of the banking sector are blunting the power of monetary policy. In an era when monetary authorities are being asked to do more with less in terms of ensuring stability and prosperity, ABRR would make crucial contributions to the conduct of macroeconomic policy.

Diagnosing the Problem

The financial turbulence that spread from east Asia to Russia to Brazil during 1997-1999 supplied vivid evidence of the global system's vulnerability to crisis. These shocks followed on the heels of the 1994 Mexican meltdown, which itself threatened to generate a repeat of the 1982 Latin American debt crisis.

Since the late 1970s, the world has witnessed 69 banking crises that left national banking systems with zero net worth. Since 1975, there have been 87 currency crises that reduced the value of a nation's currency by at least 25 percent in a year and at least ten percentage points more than in the previous year.[1] In many instances – notably Latin America's "lost decade" of the 1980s and the more recent dislocations in east Asia – financial busts have cost societies dearly in terms of forgone growth and rising impoverishment.

In analyzing these recurrent crises, observers across the political spectrum have focused on the failings of developing-country financial systems.[2] Typifying official diagnoses of the problem, the International Monetary Fund (IMF) has emphasized the inadequacy of institutional arrangements that govern developing nations' financial markets and urged the introduction of better accounting standards, greater transparency and improved supervisory systems.

Critics of the broader global system have a different take. Some call attention to the incentives that shape transactions with developing countries, arguing that repeated recourse to public sector bailouts has created a profound moral hazard in international financial markets. According to this analysis, investors who believe they will be rescued when their holdings sour inevitably chase the higher yields on developing-country investments without proper regard to the risks.

Die-hard proponents of the moral hazard critique propose abolishing the IMF and the practice of bailouts with it. More moderate advocates seek to "bail in" financial institutions through new international bankruptcy laws that place the costs of financial busts on lenders by treating them collectively and equally. Meanwhile, progressive observers have argued for restoration of country capital controls, including a Tobin tax on foreign exchange transactions to discourage speculation and Chilean-style speed bumps that oblige investors to commit their funds to countries for a given period of time.

Many of these proposed solutions pose unique problems in terms of their conception or execution. For example, disbanding the IMF will not abolish periodic liquidity crises, which call for a lender of last resort that can prevent the problem from spiraling out of control. Establishing a workable international bankruptcy law would involve hugely complicated changes in creditor rights as well as equally contentious decisions regarding the assignment of legal jurisdiction. What unites all these reform proposals, however, is a shared belief that transactions with developing countries form ground zero for global financial explosions.

But focusing exclusively or primarily on developing countries ignores two salient facts. For every borrower there is a lender. And increased financial instability has afflicted industrialized countries just as much as the rest of the world.

For example, the Japanese recession that helped precipitate east Asia's troubles began with the bursting of Japan's asset bubble and deepened in response to the resulting debt overhang. Though triggered by Russia's default, the global financial crisis of October 1998 centered squarely on Wall Street and the imprudent actions of Long Term Capital

Management, a Connecticut-based hedge fund. In the early 1990s, America experienced a homegrown banking crisis that featured the technical insolvency of its largest depository institution, the near-bankrupting of the Federal Deposit Insurance Corporation and a savings and loan crash that eventually would cost taxpayers between two and three percent of GDP.

In 1990, a deep banking crisis hit the Scandinavian countries; ten years later, Sweden still endures higher unemployment rates as a result. In 1992, foreign exchange speculation forced an end to the European exchange rate mechanism while the British property market underwent a simultaneous collapse. And throughout the past decade and a half – from the 1987 crash to the NASDAQ break of April 2000 – a series of stock market plunges has revealed the susceptibility of U.S. equity prices to speculative run ups and rapid collapses.

Sources of Developed-Country Financial Instability

The increase in market turbulence has coincided with – and, in instances like the S&L meltdown, clearly stemmed from – financial innovation and domestic deregulation in industrialized nations. This process has piggybacked on a wave of goods market decontrol that reshaped major sectors such as trucking, airlines and telecommunications in the U.S. as well as privatized government-owned enterprises in countries from the U.K. to Brazil.[3]

In the U.S., the seeds of domestic financial deregulation were sown in the 1970s, when depository institutions complained that unregulated innovations like checkable money market accounts were putting them and their products at a competitive disadvantage. These innovations revealed the limits of a prevailing regulatory framework that segmented the financial system into three sectors: banking, securities and insurance. Prohibited from entering one another's business, each sector was regulated by a separate set of laws and supervised by specialized public agencies.

Instead of extending the regulatory net to encompass financial innovations, Congress and the Carter Administration took the first decisive steps towards "leveling down" regulation with the 1980 Depository Institutions Deregulation and Monetary Control Act, which allowed banks and thrifts to compete more easily for funds by eliminating interest rate controls. As nonbank financial firms continued to provide bank-like products and services throughout the 1980s and 1990s – and as the financial industry repeatedly pressed for deregulation in the policy arena – supervisory agencies, state legislatures, Congress and the courts gradually removed other restrictions on banks by allowing them to expand into previously proscribed geographic areas and nonbank lines of business. Passage of the Gramm-Leach-Bliley Act in 1999 completed this process by repealing Glass-Steagall Act restrictions on commercial banks engaging in securities and insurance activities.

As it helped break down regulatory barriers, financial innovation also affected the process of macroeconomic management by fostering automatic destabilizers that amplify the business cycle. As a result of these destabilizers, financial markets move pro-cyclically (i.e. they boom when the economy booms, and slump when the economy slumps) and have an outsized impact on the real sector, magnifying upswings and exacerbating downturns.[4]

For example, families' growing tendency to place their savings in variable-price assets instead of bank deposits means that household wealth now rises more pro-cyclically as the economy surges and stock prices rise. The increase in wealth induces households to cut saving and expand consumption at a time when the economy is already burgeoning. In the 1990s, households not only reduced savings but also incurred record debt levels by using their newfound wealth as collateral for loans that financed additional consumption spending. Consumers that took on fixed-price debt to purchase flexibly priced assets (such as real estate or stocks) increased the fragility of their balance sheets.

Composition of Household Financial Assets

Type of Holding	1979	1999
Deposits	25%	10%
Life Insurance Reserves	4%	2%
Pension Fund Reserves	14%	30%
Mutual Fund Shares	1%	11%
Corporate Equities	13%	23%
Equity in Non-corporate Businesses	30%	13%
Bonds & Notes	8%	6%
Other*	5%	5%

Source: Federal Reserve, *Flow of Funds*
* Includes security credit, bank personal trusts and miscellaneous

Home equity loans represent another financial innovation with a similar effect. In booms, housing prices rise, home equity grows and home equity loans enable consumers to borrow liberally against their houses to finance additional consumption. But like the movement of household savings into stocks and mutual funds, the growth of home equity lending poses considerable pro-cyclical risks on the downside of economic expansions. When housing prices tumble during a recession, many home equity borrowers may find themselves saddled with burdensome debts that restrict consumption and lower aggregate demand.

The phenomenal growth of loan securitization presents a similarly mixed bag of consequences. Rather than holding loans on their books, banks and other lenders now quickly bundle the credits into securities and sell them in the secondary market. The resulting steady stream of liquidity permits the banking system to finance much more economic activity than it could in earlier eras when banks exhausted their lending capacities over the course of a credit cycle. But by marketizing assets, securitization also leaves individual sectors and the broader economy vulnerable to sudden swings in investor sentiment – starkly demonstrated in 1998 with the abrupt shakeout in securities backed by subprime loans.[5]

In the international arena, innovations such as emerging market funds also tend to increase instability. Investors' growing interest in new markets has raised the debt ceilings of borrower countries – particularly when the world economy booms and terms of trade improve for these nations. However, when the global economy slows, this cycle goes into reverse. Developing countries that indulge in exuberant borrowing sprees face much more burdensome debt overhangs than they would in a system less prone to boom-and-bust behaviors.

Challenges to Monetary Control

In addition to affecting the pace and content of real-sector activity, financial innovation has profoundly changed the structure of the financial sector itself. More and more financial transactions now take place outside the deposit-taking sector, meaning (among other things) that the portion of firms and assets subject to the stricter rules associated with bank regulation has shrunk too. This dynamic further complicates the task of economic management.

Monetary policy works through central banks altering the level of bank reserves. In the U.S., the Federal Reserve seeks to adjust these levels through the purchase and sale of government securities in the open market. The efficacy of these operations depends upon a sufficient demand for reserves, so that a Fed-controlled change in supply triggers market imbalances that produce interest rate adjustments – initially in the banking industry, then throughout the financial sector and the economy.

However, the demand for reserves has been diminishing as the Fed has reduced reserve requirements on bank deposits, banks have funneled hundreds of billions of depositors' dollars into non-reservable sweep accounts and banking assets have shrunk relative to overall financial sector assets. As a result, the Fed, like other central banks, finds its ability to implement monetary policy significantly eroded.

At the same time, the Fed and other central banks must contend with the intensified capital mobility that has resulted from countries

Shares of Financial Sector Assets

Industry Segment	1979	1999
Banks & Thrifts	52%	22%
Insurance Companies	11%	8%
Pension Funds	17%	26%
Mutual Funds	3%	18%
Nonbank Lenders	5%	3%
GSEs & Federally Related Mortgage Pools	6%	12%
Other *	6%	11%

Source: Federal Reserve, *Flow of Funds*
* Includes bank personal trusts, security brokers & dealers, ABS issuers, REITs and funding corporations

abolishing controls on international financial transactions and from new technologies shrinking the cost of money transfer. These developments have sapped the ability of monetary authorities to control credit creation within their domestic economy and further weakened central bank leverage over the business cycle.

Moreover, the erosion of monetary control and the dismantling of financial regulations have undermined central banks' ability to fashion carefully targeted policy responses to sectoral imbalances. For example, having unilaterally discarded its authority to adjust margin requirements, the Fed found itself with only a diminished interest-rate tool to combat the inflationary dangers of soaring asset prices in the late 1990s.

Wielding that tool aggressively enough to cool the stock market's "irrational exuberance" inevitably threatens to slow the entire economy. And inflation-inducing activity in the real estate market or any other single sector would hamstring the Fed in similar ways, compelling it to raise the general level of interest rates and sacrifice public well being in order to redress a specific source of instability.

As central-bank policy tools grow weaker, new technology and increased mobility empower wealthholders to veto government policies they deem unacceptable by voting with their feet and exiting an economy. In fact, investors need not actually pack up and leave in order to exercise this veto. All they need is the implied threat. This dynamic helps explain the trend toward justifying monetary policy in terms of financial market expectations. A central bank that fails to meet these expectations will risk destabilizing the markets – a neat closed loop that effectively permits investors to set monetary policy.[6]

The ascension of investors in the monetary arena has helped produce a new regulatory paradigm. For the better part of 50 years, the New Deal's supervisory framework and the underlying goals of monetary policy called for government to regulate finance by harnessing it to public purposes such as full employment and expanded home ownership. The new paradigm works in reverse, with finance now regulating government. This new paradigm has been succinctly summarized by International Monetary Fund First Deputy Managing Director, Stanley Fischer (1997), who states bluntly that "market forces should be expected to exert a disciplining influence on countries' macroeconomic policies."

Regulating Industrialized-Country Financial Markets

Having repealed America's old segmented system of financial regulation, policymakers have put no framework of matching comprehensiveness in its place. Instead, the new Gramm-Leach-Bliley Act merely preserves a hodge-podge of overlapping rules and agencies without extending prudential supervision to firms that aren't regulated or standardizing it for firms that are. This vacuum in coherent regulation increases the threat of instability for both the domestic and global financial systems.

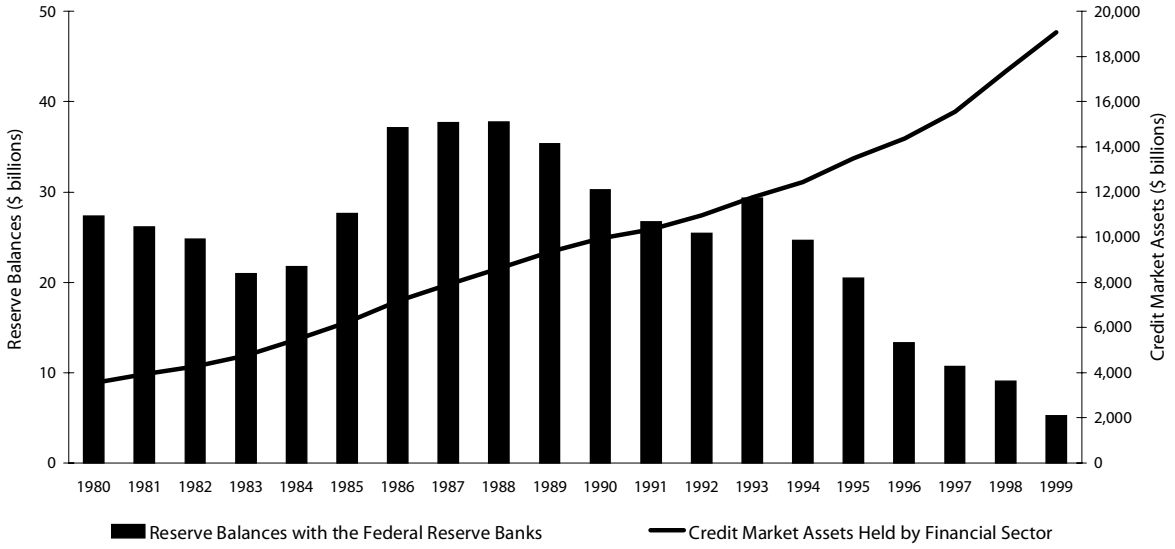
Filling this vacuum requires regulatory mechanisms far less vulnerable to arbitrage than were the rules that constituted the old segmented framework. Applied uniformly to all domestic financial firms – GE Capital as well as Citigroup, Fidelity as well as Prudential, Ameritrade as well as Charles Schwab – a system of asset-based reserve requirements (ABRR) could provide such a mechanism.

A RESERVE BALANCES CRUNCH

In order to regulate credit market conditions, the Fed requires U.S. depository institutions to set aside reserves against their transaction deposits. The current reserve requirement equals ten percent of demand deposits and other checkable accounts. Banks may comply with this requirement by holding cash in their vault or by maintaining non-interest-bearing funds in their account at the Federal Reserve Bank in their district. Today, however, this longstanding system of deposit-based reserve requirements is in deep trouble due to banks' successful efforts to cut back on the amount of reservable liabilities on their books.

Banks have accomplished this goal mainly by sweeping customers' deposits from transaction accounts into money market funds, which are not subject to reserve requirements. Between 1993 and 1999, the volume of sweep account deposits grew more than 60-fold, breaking the $300 billion barrier in the third quarter of 1998. Over the same period, reserve balances at Federal Reserve Banks sank from $29 billion to a paltry $6 billion, prompting the Fed to warn Congress that interest rates might become far more volatile as a result.

Reserve Balances and Financial Sector Assets



Source: Federal Reserve (year-end figures).
Note: Financial sector assets excludes assets held by monetary authority.

In response, members of the congressional banking committees have introduced a series of bills that would reverse the leakage of reserve balances by directing the Fed to pay banks interest on their required reserves. According to the Treasury Department (which opposes the proposal), the Fed's interest payments would cost taxpayers approximately $130 million in forgone revenues – funds the central bank would not rebate to Treasury with the rest of its surplus earnings. Though the Fed has given its blessings, Congress has not yet approved any of the interest-on-reserves proposals.

While reservable deposits and reserve balances have plummeted, the financial sector's assets have soared. Between 1993 and 1999, the ratio of financial sector credit market assets to reserve balances grew nine times over (from 400:1 to 3,629:1). A reserve requirement that targeted the ballooning universe of all financial sector assets rather than the shrinking universe of bank deposits need only take a small nick (i.e. non-interest-bearing reserves) out of all asset-holders in order to reinvigorate the monetary authority's leverage.

In the domestic context, a system of ABRR has both macroeconomic and microeconomic advantages. At the macroeconomic level, it can provide central bankers with additional policy instruments to contend effectively with phenomena like asset price inflation. At the microeconomic level, it possesses important stability properties that can remedy sectoral imbalances as they begin to emerge. Moreover, levying reserve requirements on domestic financial firms' international investments can also contribute to greater global financial stability.

In the process of leveling up the regulatory playing field, a system of ABRR would strengthen oversight of the asset side of financial firms' balance sheets. Under the existing system, prudential supervisors continuously monitor credit quality, frequently encourage regulated firms to maintain strong internal controls and sometimes jawbone or discipline banks when troublesome lending patterns emerge. However, these actions are firm-specific rather than economy-wide, restricted to regulated entities and typically focused on problems that have already emerged. By contrast, a system of ABRR would apply to the entire financial sector and could prevent asset allocation problems before they gather steam.

These new rules would confront the fact that excessive concentrations of balance sheet risk constitute the real source of financial fragility today. With deposit insurance, runs on financial systems no longer result from herd behavior by scared depositors but instead reflect investor beliefs about the inadequacy of the systems' underlying assets.

Instituting Asset-Based Reserve Requirements

How does a system of ABRR work? Financial intermediaries can be thought of as multi-input, multi-output firms. Their inputs are the liabilities that consist of the funds they obtain from depositors, bondholders and other creditors. Their outputs are the assets they acquire by making loans and investing in various types of securities.

Financial firms allocate their funds across the range of possible asset holdings so as to maximize profits. To seek an optimal allocation, intermediaries juggle their portfolio such that the profitability of different assets is equal at the margin. At this point, firms have no incentive to rearrange their asset holdings since they all yield the same marginal return. Like some other forms of portfolio regulation (notably, risk-based capital requirements), ABRR work by exploiting the fundamental logic embedded in this rule.

ABRR require financial firms to hold reserves against each class of asset, with the regulatory authority setting reserve requirements on the basis of its concerns with each asset class. One concern may be that the asset class is too risky; another may be that the asset class is expanding too fast and producing inflated asset prices.

By forcing financial firms to hold reserves, the system requires that they retain some of their funds in the form of non-interest-bearing deposits with the central bank. The implicit cost of forgone interest must be charged against investing in a particular asset category, and it reduces the marginal revenue from that asset type. As a result, financial firms will reduce their holdings of the relatively less-profitable asset type and shift funds into other asset categories that have become relatively more profitable.

The Benefits of ABRR

A system of ABRR that covers all financial firms would powerfully reinforce monetary authorities' existing control over short-term interest rates and increase the efficacy of monetary policy. By adjusting reserve requirements on all financial sector assets – rather than a narrow, shrinking pool of banking industry deposits – the Fed could engineer monetary policy moves that forcefully affect the supply of credit and effectively influence underlying patterns of real economic activity.

Moreover, ABRR would act as automatic stabilizers. When asset values rise or when the financial sector creates new assets, ABRR generate an automatic monetary restraint by requiring the financial sector to come up with additional reserves. Conversely, when asset values fall or financial assets are extin-

guished, ABRR generate an automatic monetary easing by releasing reserves previously held against assets.

In all of this, ABRR would remain fully consistent with the existing system of monetary control as exercised through open market operations. If the Fed wanted to engineer a general rise in interest rates it would conduct an open market sale, thereby reducing the supply of reserves and forcing intermediaries to pay more for reserves in the federal funds market. If it wanted to cut interest rates, it would purchase securities in the open market.[7]

In addition to its macroeconomic policy benefits, ABRR enable central banks to target sectoral imbalances without triggering the broad consequences associated with changes in the general level of interest rates.[8] For example, if a monetary authority wanted to prevent stock market inflation from generating excessive consumption, it could raise reserve requirements on equity holdings. This would force financial firms to hold some cash to back their equity holdings, which would lower the return on equities and discourage such investments.[9]

Central banks could respond to overheating property markets in exactly the same fashion. Rather than raising interest rates and slowing the entire economy, the monetary authority could impose higher reserve requirements on new mortgages and thereby raise the cost of mortgage lending. In countries like the United Kingdom, where localized housing booms (London) coexist with persistent regional economic problems (Scotland and the North of England), this solution offers a highly attractive alternative to the blunt instrument of indiscriminate interest rate hikes. Without recourse to this alternative, the Bank of England's decision to raise interest rates throughout 1999 hurt manufacturing by reducing domestic investment demand and by strengthening the value of the pound (which lowered exports and increased imports).

At the microeconomic level, ABRR can be used to allocate funds to public purposes such as inner city revitalization or environmental

WORKING MODELS?

Where's the real world evidence that a broad-based system of ABRR would work? Surprisingly, it may be as close as the modest office of a state insurance regulator.

For decades, state insurance departments have routinely identified insurers' assets by risk categories. The National Association of Insurance Commissioners' Securities Valuation Office, created in 1942, spearheads this classification process and maintains a database of 225,000 securities with nearly 28,000 issuers (Schedule D of insurance company annual statements offers more detailed portfolio disclosure than comparable reporting mechanisms for any regulated financial sector in the U.S.)

Armed with these classifications, state insurance commissioners require firms to hold reserves against their assets for soundness purposes. Following a series of large insurer insolvencies in the early 1990s, the NAIC upgraded its reserve requirements in 1992 by instituting an Asset Valuation Reserve (AVR) system that assigns risk weightings to an expanded universe of asset types. For example, classifiers may assign six different reserve factors to bonds and a wide range of reserve factors to other holdings, based on characteristics of the specific asset as well as the insurer's investment performance. To complement the AVR, the insurance commissioners created an Interest Maintenance Reserve (IMR) that helps regulate asset-liability maturity matches on insurer balance sheets.

Since the inception of the AVR/IMR tools, the insurance industry has enjoyed a run of general stability. Industry analysts credit the reserve requirements for helping to ameliorate risk. Perhaps most remarkable, the asset reserve requirements have been implemented by dozens of disparate state regulatory bodies that possess far fewer resources, individually and collectively, than do the amply endowed federal banking and securities agencies.

protection (Thurow, 1972: Pollin, 1993). By setting low (or no) reserve requirements on such investments, monetary authorities can channel funds into priority areas much as an assortment of government credit guarantee programs and government-sponsored secondary markets have expanded education and home ownership opportunities.[10] Conversely, ABRR can be used to discourage socially counterproductive asset allocations, such as the excessive short-term lending and speculative portfolio investment that fueled the recent east Asian financial crisis.[11]

Finally, ABRR would help prevent future financial innovations from undercutting the conduct of monetary policy (Friedman, 1999; Palley, 2000) and burdening taxpayers with the cost of replacing lost revenues from the Fed. If the future resembles the immediate past, unrestricted innovation in financial transactions will continue undermining demand for the liabilities of the central bank. As demand for these liabilities falls, the relevance of open market operations will decline correspondingly. So too will collection of seigniorage – the income governments reap when they print more money and levy reserve requirements – as economic agents increasingly use newer payment media (such as digital money) in place of cash.

Applying ABRR to the entire spectrum of assets held by financial firms would address both these problems. It would ensure a demand for the liabilities of the central bank, thereby ensuring the efficacy of monetary policy no matter what financial innovations take root. And it would hugely increase the demand for reserves, thereby restoring seigniorage revenues that have diminished with the decline in reserve balances. Indeed, seigniorage revenues would grow as the stock of financial assets grew.

ABRR vs. Capital Standards

Because of their flexibility and universal applicability, ABRR pose a superior alternative to capital standards in combating the problem of financial instability. Since their introduction in the Basel agreement of 1988, risk-based capital requirements have formed the regulatory community's major response to moral hazard. The theory is that forcing banks to put up more equity against higher-yield assets will discourage excessive risk-taking.

In practice, however, these capital requirements have failed to discriminate effectively between different types of risk. Moreover, they share the inherent limitations of all bank-centered regulations in a financial system where banks play a diminished role.

In addition, capital standards have strongly pro-cyclical qualities. During a recession, asset quality can deteriorate rapidly, requiring banks to raise more equity in order to maintain their required capital levels. Yet, this is exactly the time when banks experience the greatest difficulty raising capital – and the time they are most tempted to load up on government securities in order to ride out the storm. The result can be credit crunches that exacerbate a recession.[12] The Bank for International Settlements has acknowledged severe problems with the existing regime of capital standards and has revised its Basel rules by elevating the role of private credit agency ratings – itself a controversial and unproven scheme.

ABRR don't have these problems. Like capital standards, reserve requirements can be used to increase the cost of questionable loans to their originators or secondary market buyers. But if a risky loan defaults under ABRR, the reserves on that loan are freed up, giving the bank the liquidity it needs at a time of maximum stress. Under a risk-based capital system, the loan default simply eats into a bank's equity and forces it to find more or to cut lending.

ABRR do not alleviate the costs exacted by loan losses and don't diminish the importance of sound underwriting. Under a system of ABRR, poorly managed intermediaries that make reckless portfolio choices can still fail. But with ABRR, soured loans and institutional failure don't inexorably lead to widening liquidity shortages as they do in a supervisory system orchestrated around capital standards.

This key difference would make it easier for monetary authorities to expand the financial industry's lending capacity in times of reces-

sion. Rather than relying on reluctant investors to supply fresh capital to banks in an economic downturn, an ABRR system enables monetary authorities to stimulate counter-cyclical investment by directly reducing reserve requirements for all financial intermediaries.[13]

Conclusion: The Feasibility of ABRR

Proposals for a system of ABRR inevitably will encounter objections that it interferes with the free functioning of financial markets. But this criticism rings hollow. Monetary authorities already intervene through reserve requirements on deposits. Even more important, they intervene by setting interest rates that impact bond prices, equity prices and mortgage costs. Despite their public hostility to credit allocation, central bankers continuously channel credit to selected users in the process of adjusting interest rates and supervising banks.[14]

Indeed the feasibility of an ABRR system rests in large measure on the ease with which it could adapt proven elements of the existing monetary policy infrastructure (i.e. open market operations and deposit-based reserve requirements). Moreover, regulatory experience in the U.S. insurance sector demonstrates the technical feasibility of systematically classifying assets for purposes of risk reduction. Insurance regulation also shows that reserve requirements can readily be applied to those classified assets on an industry-wide scale. It does not require a large leap of faith to see insurance regulators' asset reserve requirements prefiguring a more comprehensive approach that promotes economic stability as well as diminishing financial risk.

The effectiveness of this approach does necessitate system-wide application. If applied only to banks, ABRR would simply encourage the further shift of financial intermediation outside the deposit-taking sector and further erode the effectiveness of monetary control. In order to succeed, reserve requirements must be set by asset type, not by who holds the asset.

Skeptics may insist that the effectiveness of an ABRR system also hinges on universal (or near-universal) adoption by national central banks in order to prevent financial firms from shifting assets across borders to avoid reserve requirements.[15] Though the emergence of the Eurodollar market offers a cautionary lesson in regulatory evasion, there are important reasons why such avoidance is likely to be limited in the face of ABRR. First, avoidance behavior would involve significant transaction costs that likely outweigh the costs of compliance. Second, asset ownership is recorded on country asset registers that ascribe title, making efforts to hide holdings inherently difficult – and potentially costly if the attempt compromises the owner's legal title.

For better or worse, all systems of regulation are subject to jurisdictional shopping, avoidance and evasion. If they were not, they would merely be irrelevant in an economic sense. The bottom line is that even in an era of widespread liberalization, financial markets still rest upon rules that affect asset prices and allocations. Indeed, it is impossible to imagine a financial system functioning without such rules.

The fundamental issue is whether competing rule-based regulatory frameworks deliver an appropriate level of benefits given the public costs of enforcement and the private costs of compliance. On this score, the case for ABRR is compelling. Implemented correctly, a comprehensive system of ABRR could fill the regulatory void that now exists and contribute to the restoration of sound domestic markets that are a prerequisite of a stable, prosperous international order.

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Endnotes

1. These numbers are cited by Rodrik and Velasco (1999).

2. See for example the report of the Council on Foreign Relations*, The Future of the International Financial Architecture* (1999). An exception, from the progressive side, is Blecker (1999).

3. Though frequently conflated by proponents, the decontrol of goods markets and deregulation of financial markets involve substantially different dynamics – as do international trade in goods and the international movement of capital (Bhagwati [1998] has eloquently pointed out the differences between these two types of global markets). Goods and financial markets differ fundamentally in their propensity for speculative booms and busts and their capacity to inflict collateral damage on the rest of the economy via panics and contagions. In most goods markets, the costs of production anchor prices; in asset markets, prices can be driven by investor psychology – including subjective projections of investors' future behavior. These qualitative differences are one reason why financial markets require unique regulatory treatment.

4. The growing importance of automatic destabilizers in the U.S. economy is discussed by Palley (1999).

5. Between May and November 1998, the stock prices of 16 subprime and high loan-to-value (LTV) lenders that had gone public since 1995 plunged by an average of 60 percent as the market dried up for securities backed by subprime credits. Foreseeing such events, Kaufman (1994) noted that the pervasive spread of securitization means "fewer assets will be sheltered from potentially volatile price changes, as is the case when loans are held on the balance sheets of traditional lenders."

6. The impact of financial capital movements on the conduct of policy is explored in Palley (1998a, 1998b).

7. The increased demand for reserves resulting from application of ABRR to the entire financial sector would also call for new trading eligibility rules that transform the existing interbank market for reserves into a market involving all financial intermediaries.

8. Tinbergen's (1952) targets and instruments approach to economic policy furnishes a formal construct for this argument. For policy to succeed, policymakers need one independent policy instrument for each independent policy target (i.e. one stone for each bird). Today, the monetary authority has multiple targets but only one instrument – a short-term interest rate.

9. ABRR could also require individual investors to hold reserves against equities in their brokerage accounts. Of course this might induce some investors to register equity holdings to their home address, but the leakage is likely to be small as there are significant transaction costs to holding equity certificates at home.

10. During the 1970s, Federal Reserve Governor Andrew F. Brimmer (1975) persistently advocated that the central bank institute a system of supplemental reserve requirements on bank assets in order to channel credit to priority borrowers. In 1971, Brimmer came within one vote of obtaining Board of Governors acceptance for the proposal.

11. This proposal has recently been advanced by D'Arista and Griffith-Jones (1998) and represents a specific application of ABRR.

12. Japan's prolonged recession during the 1990s offers a prime example of this unintended consequence of capital standards.

13. In principle, the ABRR and capital standards can co-exist and might even be viewed as complements. Under ABRR, a carefully tiered system of capital requirements could indeed reduce excessive risk-taking by banks. However, all the pro-cyclical problems of capital standards would remain.

14. Brimmer (1975) provides a behind-the-scenes look at Federal Reserve efforts to directly allocate credit in the 1970s. Central bankers' philosophical opposition to credit allocation could pose one of the greatest challenges to the smooth functioning of an ABRR system and leave it vulnerable to misuse. To preempt this challenge, lawmakers and citizens should take an active part in formulating an ABRR system and establish rigorous public oversight mechanisms to safeguard implementation of that system.

15. In theory, one or several countries could implement a system of ABRR unilaterally, thereby avoiding the complexities involved in multilateral reform of the financial architecture. Of course, having the Bank for International Settlements propagate such a system would promote its acceptance globally by the financial industry and diminish financial firms' ability to shop for more lenient jurisdictions.

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