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A Look Back at Merton Miller's "Financial Markets and Economic Growth"

by Charles W. Calomiris, Columbia Business School

When Don Chew suggested that I comment on Merton Miller's article on the East Asia crisis, which was first published in this journal in 1998 and is reprinted at the top of this issue, I was understandably reluctant.[1] As any student of finance can tell you, Professor Miller was a giant in the field of financial economics. On top of the many honors earned during a long and distinguished career, he was awarded a Nobel Prize in 1990. And since his death in 2000, his reputation as the "father of modern finance" has only continued to grow. But Miller's reputation aside, it also seemed unfair to criticize remarks made 14 years ago, especially by a colleague who is no longer around to defend himself. But I came to agree with Don that the arguments in Miller's classic statement on banking and capital markets are worth revisiting, in large part because some of them have proven to be remarkably prescient in anticipating the events of the recent crisis, but also because others have turned out to be over-simple or wrong.

As a brief look at today's global economy would show, Professor Miller was clearly right to characterize U.S. banks as fragile institutions, whose fragility has contributed greatly to financial and macroeconomic volatility. And I strongly agree with his discussion of the shortcomings of the Asian model of bank finance-driven growth, especially considering the dominant roles of the Japanese *keiretsus* and Korean *chaebols* in determining the allocation of bank funding. I also agree with Miller's view that these, and many other, banking systems often concentrate their lending risk too much on a particular sector, namely real estate. And I am in emphatic agreement with his point that the protection of banks through deposit insurance and other bailouts has often created extremely costly moral-hazard problems that encourage excessive risk-taking. Professor Miller is also right to point to the widespread practice of regulatory forbearance—the failure of regulators and supervisors to ensure the timely recognition of bank losses—as a major contributor to the risk of bank failures and their disruptive effects on the economy. As Miller made clear in his article, the main effect of such forbearance has been to allow banks to run down their capital ratios after experiencing losses. And, finally, I agree with the main thesis of the article—namely, that, in Miller's words, "having a wide spectrum of financial markets available keeps a country from having to put all its development eggs in one basket, as it were—and, in particular, from relying too heavily on commercial banking."

But Professor Miller makes other statements about the tradeoffs between bank-based and market-based finance, and their implications for the risk of the financial system, that I find either overly generalized or misleading. He views banks as fragile largely because of their maturity mismatch and describes banking as "a 19th-century technology" that is inherently "disaster-prone." But the history of banks and banking, particularly outside the U.S., provides some evidence that is strikingly at odds with this argument. Many banks have demonstrated their ability to manage the interest rate risk and liquidity risk challenges that are inherent in the traditional liquidity transformation function of banking—that is, the use of "demand" deposits and other short-term liabilities to fund longer-term assets such as loans to businesses. The last time Canada had a banking crisis of any kind was the 1830s, when it twice experienced systemic suspensions of convertibility. Since then, that nation has avoided panics, suspensions of convertibility, or waves of bank failure. As a large commodity exporter, Canada has experienced pronounced business cycles throughout its history. But unlike the U.S., which has suffered either major banking panics or waves of bank failure over and over again since the 1830s—in 1857, 1861, 1873, 1884, 1890, 1893, 1896, 1907, the 1920s, the 1930s, the 1980s, and 2008–2010—Canada's banking system has enjoyed a very stable history. And Canada has not been alone in this. In fact, the unstable history of U.S. banking has been the exception among developed countries during the 19th and early 20th centuries.

As discussed in my new book with Professor Stephen Haber of Stanford University, *Fragile Banks, Unlikely Partners: Why Banking Is All About Politics and Always Has Been* (forthcoming Princeton University Press), the instability of banking, both today and historically, is best understood as a politically driven choice—one where outcomes reflect the rules under which banks operate, including barriers to

1. Merton H. Miller, "Financial Markets and Economic Growth," *Journal of Applied Corporate Finance*, Vol. 11 No. 3 (Fall 1998). The article is reprinted in this issue.

entry and special privileges and protections that banks and some of their borrowers enjoy. For example, the striking differences between the banking histories of the U.S. and Canada reflect fundamental differences in banking system structure and regulation, which in turn reflect differences in the political allocation of power over banking. In essence, Canada's centralization of government authority, along with some other initial conditions, promoted a strong constituency in favor of stable banking. In the U.S., by contrast, the fragmented political control of bank chartering under federalism initially favored powerful local alliances of bankers and agrarian populists, which produced a fragmented and unstable banking system. More recently, a new coalition of big banks and urban populists has promoted a new kind of instability in the U.S.—an instability that reflects the risks stemming from the combination of subsidized housing with "too-big-to-fail" protection.

The East Asian banking systems that Miller criticizes were clearly politically controlled sources of funds whose generous and unconditional lending permitted an unsustainable leveraging of unproductive companies, thereby enabling them to avoid competition-induced improvements in their productivity. At its core, this was a political problem, not a failure of banking *per se*.

Professor Miller is right to say that securities markets can help to diversify the risk of the financial system. The problem, however, is that in making this statement, he exaggerates the relative advantages of markets vs. banks. Should the subprime crisis be described as a banking crisis or a market crisis? In fact, it was both, and the two aspects were closely related. Indeed, as a logical matter, it is almost impossible to distinguish between market-based and bank-based finance when thinking about the U.S. financial system. Is ABCP a form of market-based or bank-based finance? How about repos, bonds backed by credit card receivables, CDOs, and RMBS, and CMBS? Financial intermediaries, including commercial banks, play fundamental roles in the issuance of all these securities, whether as underwriters, dealers, brokers, guarantors, servicers, or originators—and such intermediaries often retain considerable risk related to those securities as part of their intermediation function in support of the issuance process.

The reason that markets cannot diversify away all risk is that markets inherently have limited capacity to bear *some* types of risks. Financial intermediaries, whether originating loans for their own portfolios or facilitating the sale of securities, specialize in dealing with difficult information and control problems. More specifically, companies seeking to raise new capital face an "information asymmetry" problem—the possibility that the managers of the company significantly know more about the firm's prospects and value than outside investors. The role of intermediaries in such cases is to "certify" the value of such offerings by putting at risk not only their reputations with their investors, but also—mainly for incentive reasons—some of their own capital. And because intermediaries generally bear significant risk related to their market transactions, and so become major repositories of risk in their own right, there are important linkages between intermediaries and the financial markets whose activities are supported by those intermediaries.

And this has always been true. The Bank of England started out as a monopoly bank charged with the single task of restructuring sovereign debt by encouraging existing debtholders to convert their debts into stock of the Bank of England (what we would today call an "equity-for debt-swap"). The creation of bills of exchange as negotiable instruments in the 16th and 17th centuries—an important legal and financial innovation that promoted the transferability of debts within a network of banks—had the effect of integrating capital markets throughout the world by the 18th century, and permitted the financing of international trade at low cost. And the important thing to keep in mind here is that these bills were all IOUs of bankers.

The reality, then, is that securities markets and banks depend on each other; and because of this interdependence, they can transmit risk to each other during crises. Economic historians have traced the international transmission of financial crises during the 18th and 19th centuries—crises that disrupted both banks and markets—to disruptions in the flows of bills of exchange that have been identified as stemming from counterparty risks. During the recent crisis, of course, the collapse of securities prices created losses for banks, which in turn caused funding problems for banks as their declining capital and rising counterparty risk led to the collapse of markets for interbank claims, including interbank deposits, repos, and ABCP (which relied on bank guarantees). At the height of the crisis, money market instruments—including commercial paper, ABCP, repos, and interbank deposits—proved to be risk-intolerant in the sense that investors became unwilling to hold them (even with higher promised rates of interest) when their risk rose sufficiently. The resulting off-loading of securities turned out to be a major source of illiquidity risk in securities markets during the recent crisis. The funding illiquidity problems of banks, including even the largest institutions, contributed further to the collapses of securities, as intermediaries dumped risky assets in search of liquidity.

Indeed, one of the most interesting phenomena illustrated by the recent crisis was *investors' desire to own large quantities of riskless securities, even when they were offering negative real rates of return*. Bank guarantors are the market participants that effectively provide that supply of riskless assets either by securitizing and segmenting assets into (supposedly riskless and risky) "tranches" or by issuing money market instruments themselves. And there is an important lesson here—namely, that the risk preferences of investors appear to *require* the

active involvement of "banks"—that is to say, financial institutions that absorb much of the ultimate source of risk that underlies the security issued into the market.

This lesson, in turn, raises questions about Professor Miller's argument that MMMFs represent a new, lower-risk model of what capital markets or non-bank intermediation can achieve without the participation of banks. Recall that MMMFs themselves hold mainly commercial paper, which is a nearly riskless money market instrument that can be created through several complex alternative processes of financial intermediation. All commercial paper (whether ABCP, dealer-placed paper, or other) has bank backing of some kind, and is rated by a rating agency. Furthermore, there is substantial evidence that commercial paper dealers often stand ready to make markets in commercial paper to facilitate its liquidity and preserve the reputations of issuers and dealers (sometimes including the repurchase of paper at above-market prices). In other words, MMMFs invest in commercial paper only after several other intermediaries expend substantial resources limiting the riskiness of commercial paper.

Furthermore, Professor Miller's assertion that MMMFs can avoid the kind of problems seen during banking crises has been belied by recent events. One can no longer write today that "not a single case of failure or even massive withdrawal-runs from those institutions has occurred." Many academics, myself included, have argued that MMMF shares should be allowed to vary in price to avoid runs that can happen only because of the $1 pricing convention per share that market participants insist upon. And yet, MMMF investors have vigorously opposed that proposal. One might suspect, perhaps too cynically, that their opposition reflects their expectation that the $1 pricing convention creates the possibility of the free government protection that we observed during the crisis.

Finally, Professor Miller is right to identify credit crunches as a frequent outcome of banking crises. But it's important to recognize that there is more at work here than regulatory overreaction. There is a fundamental connection between bank losses and bank lending, which is the other side of funding liquidity risk. By ignoring that connection, Miller underestimates the extent to which post-crisis credit crunches have resulted from private bankers' desire to preserve the viability of their franchises. My own research shows that long before regulatory minimum capital ratios were introduced into U.S. banking (around 1980), banks faced strong pressures to address the concerns of depositors about their risk, and this typically caused banks to cut credit sharply in the wake of loan losses. During the 1930s, as I discuss in the article that appears later in this issue, banks cut lending dramatically after experiencing large loan defaults and losses.

Why do these disagreements matter? My 30-plus years of research on, and experience with, the banking industry have led me to conclude that banks and markets will continue to depend upon each other and grow together, just as they always have. The policy implications of this mutual dependence are important, with major consequences for the real economy. Research and experience have also made it clear that there is no easy solution to the problem of ineffective prudential bank regulation that has bedeviled so many countries in recent decades. As Professor Miller, along with legions of bank and finance scholars, have pointed out, the challenge facing regulators is how to deal with the problem of controlling risk in a financial system that effectively protects banks from the consequences of their own mistakes. Thus, we need to focus our attention on fixing our banking system instead of trying to sidestep our regulatory failures through the creation of imagined anonymous markets that have been mistakenly assumed to be able to function without banks.

One thing that history has taught us is that, while banks may be necessary to the efficient functioning of markets, government bailouts of banks are neither a desirable nor a necessary feature of a properly designed financial system. There are many examples of banking systems that functioned effectively, without financial crises, and without government guarantees of banks' solvency. Indeed, the historical evidence suggests that they functioned well not in spite of the lack of such guarantees but *because* of their absence.

History also teaches us that it is naïve to think that one can easily legislate away a flawed bank safety net. Protection of banks is created by a political equilibrium, and coexists with other aspects of banking structure, and other government policies (notably, "affordable housing"). Our banking system will be able to function properly only if we make the difficult and comprehensive *political* choices that will simultaneously (1) reform prudential regulation to make it credible, (2) eliminate the moral-hazard problems associated with "too-big-to-fail" protection, and (3) remove the sources of government subsidies in housing finance and elsewhere that have promoted the destabilizing leveraging of risky real estate throughout the financial system.

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