Comments and Discussion

COMMENT BY

ANDREI SHLEIFER This fascinating paper by Gary Gorton and Andrew Metrick provides an extremely useful overview of the shadow banking system, puts it into historical perspective, explains how it is responsible for the financial crisis, and makes a proposal for how to fix it. Yet the paper is much more than an overview, and in some crucial ways it provides a highly distinctive perspective. This perspective consists of four propositions.

First, starting with the widely accepted notion that the defining feature of the shadow banking system is securitization, the paper goes on to argue that the essential aspect, indeed the raison d'être, of securitization is maturity transformation, that is, the transformation of long-term financial instruments, such as mortgages, into short-term securities, such as repos and commercial paper. Securitization became so massive, in the authors' view, not so much to create allegedly safe long-term securities through diversification and the tranching of risky debt, as many economists have argued, but rather to use these securities to provide fodder for short-term finance. Long-term securities, in this view, served mainly as collateral for short-term borrowing instruments. It is the demand for short-term securities from money market mutual funds and other short-term investors that made securitization possible.

Second, the paper argues that the abrupt withdrawal of short-term finance was responsible for the financial crisis. Because investors in short-term securities expected complete safety, the realization that these securities might be at risk caused them to withdraw financing on very short notice. This withdrawal took the form of rapidly rising haircuts on repo transactions or even runs. When the dealer banks that engineered the maturity transformation faced this withdrawal of short-term finance, they had to liquidate the positions they had financed with short-term debt, triggering massive losses, declines in their balance sheets, and reductions in their ability to finance either their existing holdings or other investments.

Third, among the several different forms of short-term finance associated with the maturity transformation, the real culprit for the increase in financial fragility, in the authors' view, is the repo. Repo financing of asset-backed securities (ABS) holdings was particularly aggressive because by law repos are bankruptcy remote: the parties extending such collateralized finance do not become part of the bankruptcy estate should the borrower default. Such regulatory protection of repo finance, Gorton and Metrick maintain, caused it to grow to gigantic levels. Its withdrawal, or the sharp increase in its cost, is therefore primarily responsible for the crisis.

Fourth, in the light of the above three points, the paper argues that the route to financial stability is to regulate repo financing of ABS holdings. This would be done by, first, forcing all ABSs to be rated by a government-regulated agency and sold to specialized narrow banks; second, restricting the quantity of ABSs that can be financed with repos and the terms of that financing; and third, more closely regulating the lenders in the repo market, particularly the money market mutual funds.

As I explain below, all four of these distinctive propositions are, to varying degrees, controversial. I am not suggesting that I know that they are wrong. Rather, my goal is to point out that information is extremely limited even today about exactly who were the various buyers of ABSs, what was the extent of maturity transformation, and even what were the main sources of financial fragility. We do know by now that the Federal Reserve did not collect the information that would today, 2 years later—let alone in 2008—enable us to answer these questions with confidence. We also know that neither the Federal Reserve nor many of the major market participants, such as AIG and Citibank, understood the vulnerability of shadow banking at the time of the crisis. What really happened is still largely a matter of guesswork. It may well turn out that Gorton and Metrick's assessments are correct, and then in retrospect they will look like geniuses, but my intention is to identify the areas of extreme uncertainty in our knowledge today.

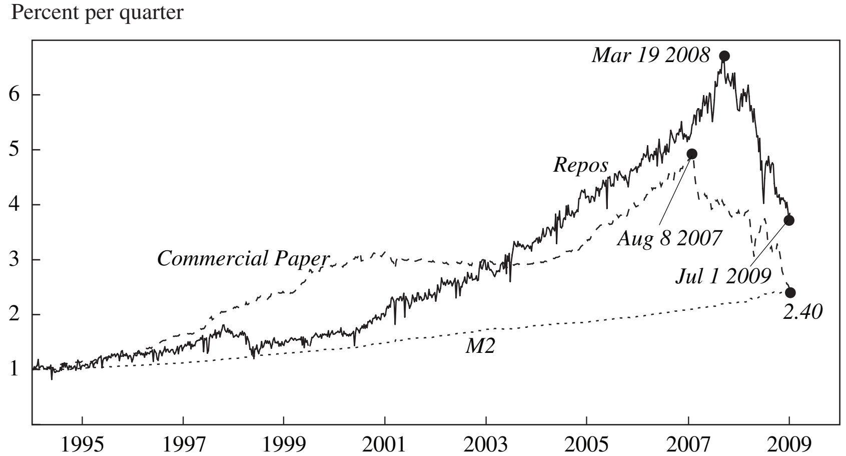
To begin, the fundamental assumption of the Gorton and Metrick narrative is that securitization was, to a first approximation, all about providing fodder for short-term riskless finance. For this to be the case, it must be that nearly all ABSs, or at least the lion's share, were financed short-term by their holders. It is surely the case that a good deal of ABSs went into structured investment vehicles (SIVs) or were held by dealer banks themselves, and in these instances, short-term finance was common. Yet at least some, and possibly a good part, of ABSs were acquired by pension funds, insurance companies, and even government-sponsored enterprises. For those buyers, short-term financing was probably much less important. The reason this observation is of some consequence is that Gorton and Metrick's regulatory proposal would require that all ABSs be maturity transformed, which presumably would prevent their being sold to investors in long-term securities. I am far from certain that this would be desirable.

Gorton and Metrick's second assumption is that the withdrawal of this short-term finance was responsible for the crisis. This assumption seems plausible, since sharp reductions in short-term financing did occur around the time of Lehman Brothers' failure, but even here there are some issues. First, the reductions in short-term financing of long-term positions in ABSs began in the summer of 2007, as the market for asset-based commercial paper dried up. This withdrawal of short-term financing was countered by several liquidity interventions from the Federal Reserve, which successfully delayed the collapse of the markets until the fall of 2008.

Second, and more important, it is far from clear whether the withdrawal of short-term financing in August and September 2008 actually precipitated the collapse or was, alternatively, its consequence. After all, bad news about both housing and commercial real estate was coming into the market throughout 2008, making it increasingly clear that several of the major financial institutions were insolvent. Was the withdrawal of short-term finance a response to this realization of insolvency, or did it actually precipitate the insolvency? Following Douglas Diamond and Philip Dybvig (1983), economists often use the term "run" to describe a multiple-equilibrium situation, in which a bad equilibrium with a run can occur despite solid fundamentals. Such a run does not seem to be a good description of what happened to Lehman and other banks in 2008. The withdrawal of short-term finance surely undermined bank balance sheets, but it seems to me at least as plausible that this withdrawal was a response to an already incurable situation rather than its cause. And if that is the case, regulating short-term finance might not be as high a priority as Gorton and Metrick indicate.

Gorton and Metrick's third assumption, namely, that repo financing of ABSs was the source of instability in the financial system, is the most controversial. Dealer banks relied on a variety of short-term financing mechanisms, including not only repo but also prime brokerage and commercial paper. Prime brokerage enabled dealer banks to use the assets they held on

Figure 1. Overnight Repos and Commercial Paper of Financial Institutions Outstanding, 1994–2009



Source: Adrian and Shin (2010).

behalf of their brokerage clients as collateral for their own borrowing. The withdrawal of those accounts was apparently extremely costly to Bear Stearns and perhaps other dealer banks. Commercial paper is, of course, the most traditional form of short-term financing and was hugely important in the years before the crisis. Indeed, the SIVs, which were the institutions most centrally involved in the maturity transformation, financed themselves with commercial paper, and not with repos. My figure 1, taken from Tobias Adrian and Hyun Song Shin (2010), shows outstanding volumes of repos and commercial paper around the time of the crisis. The two series show extremely similar patterns of extraordinary growth before the crisis, followed by a rapid collapse. How do Gorton and Metrick know that, even assuming that the withdrawal of short-term finance in August and September 2008 was at the heart of the crisis, it was repos rather than commercial paper that tipped the balance? Lehman, after all, defaulted on its commercial paper. This issue is critical since commercial paper is not an innovation but a very old financial instrument (the Federal Reserve's 1913 charter gives it responsibility for that market), and in particular it does not enjoy the legal advantages with respect to bankruptcy that repos do. It would seem a bit audacious to lay the blame on repos' bankruptcy remoteness when commercial paper financing follows a nearly identical pattern of growth and decline.

There are some further reasons to doubt that repos were the straw that broke the camel's back. Most fixed-income repo financing uses government or agency bonds as collateral. ABSs are used as collateral in only a relatively small share of the repo market, and it seems highly doubtful to me that repo financing of their own ABS holdings was important for dealer banks. There is no evidence that the repo market in government or agency paper malfunctioned badly during the crisis. Moreover, many dealer banks are just intermediaries in repo financing: they borrow securities from hedge funds and provide them with short-term financing, and then lend these securities on to cash-rich, often foreign, banks and borrow cash from them. So long as the dealer banks can count on getting the hedge funds to cough up additional cash when the haircuts on loans rise, the situation is stable. To elevate ABS repos to the prominence in the crisis that Gorton and Metrick wish to assign to it, they need to provide a good deal more evidence.

These reservations bring me to their policy proposal, which of course would require a major regulatory overhaul of the whole shadow banking system. Let me not focus on the question of whether, if the underlying assumptions of the Gorton and Metrick analysis are correct, their proposal would be a good idea. I understand that the Federal Reserve Bank of New York considered a similar proposal a while ago and decided against it because it was impractical. Let me instead come back to the three assumptions.

First, if implemented, the proposal to allow only narrow funding banks to purchase ABSs would deprive buyers of ABSs not interested in short-term instruments of access to these securities. If, as the authors believe, securitization reduces the cost of capital for desirable investment projects, and if much of the demand comes from investors uninterested in short-term finance of their positions, shutting off this demand might not promote efficiency.

Second, if short-term finance was not the culprit during this crisis, but instead the problem was, for example, the failure of financial intermediaries to understand the risks of the securities they were holding, it is not clear how the proposal addresses the central problem. Would the world be a safer place if dealer banks maintained large holdings of ABSs, or provided guarantees to SIVs, without relying on short-term finance? Presumably, when these institutions are subject to capital requirements and other regulations, they still face huge pressure to shrink their balance sheets when they suffer losses.

Third, and perhaps most important, if ABS repos do occupy the central position in the crisis to which Gorton and Metrick have elevated them, then the singular focus on this market might leave the system as a whole just as fragile as it was before. If the government raises the cost of one form of short-term financing and does nothing else, presumably the dealer banks will turn to other forms. I agree wholeheartedly with Gorton and Metrick that the existing financial infrastructure failed miserably during the crisis, but I would wish to have a bit more confidence that we are wrecking and replacing the parts of it that are actually rotten rather than the ones that are not.

In this regard, let me make one final point, to which I have already alluded. It seems to me that the fundamental cause of the financial crisis is that market participants, as well as the regulators, did not understand the risks inherent in ABSs and other new types of securities. They did not expect that home prices can fall so much and so fast and in so many places at once. They did not understand correlations in home prices and defaults. They used incorrect models. It is not just the ratings agencies that messed things up, but the whole market misunderstood the risks, as is clear from the fact that the price of risk was extremely low in the summer of 2007 and did not rise much in the months after that.

As long as market participants do not understand the risks of the securities they are buying, whether these securities are ABSs or prime money market fund shares or something that will be invented in the future, and see profit opportunities in places where there are none, the financial system will adjust to meet their demand (see Gennaioli, Shleifer, and Vishny 2010). One implication of this is the standard point that providing the intermediaries with bigger cushions of capital and liquidity is desirable. But perhaps a deeper point is that in such environments where important risks are misunderstood, shutting down one mechanism whereby investors and intermediaries pursue their profits is unlikely to work. They will try to realize their dreams through other instruments instead. Regulating a particular instrument, or a particular segment of the market, to solve a more fundamental problem is highly unlikely to work.

REFERENCES FOR ANDREI SHLEIFER COMMENT

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