Brian P Sack: Dollar asset markets – prospects after the crisis

Remarks by Mr Brian P Sack, Executive Vice President of the Markets Group of the Federal Reserve Bank of New York, at the Financial Markets Association ACI 2010 World Congress, Sydney, 26 March 2010.

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Introduction

The recent financial crisis provided global capital markets with the most significant stress event that they have faced in many decades. For U.S. asset markets, this episode revealed a wide range of outcomes in terms of their ability to function though a period of stress. Some markets demonstrated remarkable liquidity and an unparalleled status as a safe haven for investors; others simply fell apart as investors shied away from illiquid assets with too much complexity and opacity and too much exposure to counterparty risk.

Indeed, for many of the markets involved in the intermediation of credit in the U.S. financial system, the crisis revealed structural deficiencies that made the system unstable. Once revealed, this instability required an immediate and forceful policy response to limit the damage. As certain markets ground to a halt, policymakers took extraordinary actions to mitigate the damage to the broader financial system and, ultimately, to the real economy. Those actions, which included a range of liquidity facilities launched by the Federal Reserve and by central banks around the world, proved effective and brought the financial system back from the brink of a complete meltdown.

However, the provision of emergency liquidity and other forms of support were only a bridge to bring the financial system to a more stable point. It is now necessary to work towards creating a more robust financial system that addresses the structural deficiencies that brought us to the brink in the first place. Many reform initiatives are now being debated, with the discussions involving a range of market participants, central banks, regulatory agencies and the U.S. Congress. It is important that these initiatives result in outcomes that reduce the chances and consequences of another financial crisis; and it is equally important that they not impede the effective functioning of financial markets during normal periods.

My comments today will review the lessons that can be drawn from the performance of U.S. financial markets during the crisis and will describe some of the changes that may occur as we migrate toward a more stable and effective financial system.

Capital markets that demonstrated resilience

In many ways the crisis underscored the unique characteristics of dollar-denominated asset markets. This can be seen in one simple fact: Despite the fact that most of the troubled housing assets at the root of this crisis were dollar-denominated, the dollar rallied sharply during the depths of the crisis. This pattern at least partly reflected strong investor demand for particular dollar-denominated assets in response to the financial turmoil.

U.S. Treasury securities clearly stand out in this regard, as they again proved to be a key safe-haven asset. The combination of the size and liquidity of the market and the risk-free credit status of the instruments made Treasury securities extremely appealing at the height of the financial turmoil. Treasury bill yields actually went negative for a time after the Lehman bankruptcy, as investors were willing to pay for the opportunity to hold this instrument. Longer-term Treasury yields also declined sharply, with the ten-year yield falling to nearly 2 percent at one point.

While government securities around the world benefitted from safe-haven flows during the crisis, there are several features of Treasury securities that made them stand out even relative to other sovereign markets. At more than $7 trillion, the size of the Treasury market provides investors with a homogenous asset class in which they can place large amounts of funds. Moreover, Treasury liquidity seems to compare favorably to the liquidity of other sovereign debt markets, whether measured by average daily trading volumes, turnover ratios or other metrics. The Treasury market is supported by a sound and extensive infrastructure for trading, deep financing markets, sizable derivative markets and an active dealer community.

This is not to say that Treasury market liquidity was not tested during the crisis. Liquidity did suffer some in the face of greater volatility, strong investor flows and deleveraging by primary dealers. Despite these strains, however, investors were able to continue to trade Treasury securities in decent size at reasonable cost and with transparent pricing throughout the crisis.

The effective functioning of sovereign credit markets was a critical development in the crisis, as it allowed fiscal authorities around the world to respond aggressively in a manner that helped stabilize financial and economic conditions. In the United States, net borrowing through marketable Treasury securities jumped from about $200 billion in 2007 to $1.4 trillion in 2009 – a shift that was achieved through a notable increase in issuance across all maturities. But the appetite for Treasury securities kept up with the increase in issuance, with auction coverage in 2009 even exceeding that seen in 2007. Moreover, the increase in gross issuance appears to be behind us, as the U.S. Treasury Department has indicated that the next adjustment to its issuance of coupon securities is likely to be towards smaller sizes.

Markets for almost every asset class outside sovereign debt were adversely affected by the financial crisis. However, important distinctions can still be drawn across these affected asset classes in terms of their relative performance. While some markets completely shut down and have had difficulty recovering, others demonstrated aspects of resilience.

The markets for U.S. equities and non-financial corporate bonds fall into this latter category. To be sure, holders of these instruments suffered sharp capital losses as the crisis unfolded. But a portion of the re-pricing was fundamental, in that it was driven by a significant revision to the economic outlook rather than to poor market functioning. Indeed, equity markets continued to operate throughout the crisis, in that investors were able to transact and price discovery was occurring. The same was true for most high-quality corporate bonds, even though that market had more notable episodes of illiquidity. The fact that these markets held up better than others in part reflects that they were less dependent on the availability of leverage and on the continued value of the assets as collateral.

Moreover, the crisis did not reveal any major structural flaws in equity and corporate bond markets, thus paving the way to a vigorous recovery of those assets. Indeed, risk premiums on both of these assets have narrowed sharply since early 2009, and corporate bond issuance has rebounded impressively. This recovery has been driven by market forces. Firms have been motivated to issue bonds in order to reduce their reliance on bank funding and other sources of short-term credit, while investors have realized that corporate yield spreads offered appealing returns given that firms in most sectors appear fairly healthy.

Lastly, while not a U.S. asset market, it is worth mentioning the performance of the foreign exchange markets, particularly for this audience. Foreign exchange markets also functioned relatively well during this period of turmoil. This resilience has been highlighted in recent reports issued by the Foreign Exchange Committee in the United States and by similar bodies abroad. Broadly speaking, trading in spot foreign exchange markets remained transparent, accessible and relatively liquid. There were signs of strain in particular segments of these markets, such as dislocations in forward exchange rates and a notable decline in the liquidity of currency swaps. However, market participants were generally able to execute trades and manage currency exposures in these markets on an uninterrupted basis. The resilience of foreign exchange markets owed in part to the availability of CLS Bank for eliminating time gaps in the settlement of different currencies, to the efficient collateral exchange achieved through credit support annexes and to the standardization of trade documentation.

Credit intermediation and market disruption

While those capital markets demonstrated meaningful resilience to financial stress, that was not the case for other parts of the financial system – namely, those involved in more complicated forms of credit intermediation. Many of the most acute problems were driven by a build-up in leverage in which large amounts of opaque, illiquid, long-term assets were financed by short-term liabilities. These activities took place both in traditional financial intermediaries and in what is often referred to as the shadow banking system.

The shadow banking system performs a function similar to that carried out by banks and other financial institutions. In particular, it takes the short-term, highly liquid investments that households and other investors want to hold, and it uses them to fund the longer-term, relatively illiquid loans that businesses and households demand to finance their economic activity. However, while a bank performs this transformation of maturity, liquidity and credit risk from end to end within a single institution, the shadow banking system involves a wide range of institutions and markets in the process.

In particular, the shadow banking system has included money market mutual funds, enhanced money funds, other real money accounts and securities lenders as providers of short-term funding; banks, industrial loan companies, independent finance companies and other non-bank firms as originators of private credit; and an array of entities including structured investment vehicles (SIVs), securities arbitrage conduits, real estate investment trusts, broker dealers, clearing banks, hedge funds, mortgage insurers, monoline insurers and credit rating agencies as part of the maturity and credit transformation between the lenders and the borrowers.

Given the number of steps and firms involved, the process of intermediating credit through this system was a complicated one. However, it is not the multiplicity of steps itself that was problematic; indeed, analogous steps would be taking place within a financial intermediary in the traditional banking system. What was problematic was that these steps involved a wide range of firms that did not have adequate coverage under any one regulatory umbrella and that did not operate with the benefit of either government-guaranteed liabilities or the Federal Reserve's discount window.

The shadow banking system grew rapidly in the years leading up to the crisis. By the middle of 2007, the volume of outstanding credit that was securitized had reached more that \$4 trillion. If the debt securitized by the government-sponsored enterprises (GSEs) is included, the amount of securitized credit had reached \$9.5 trillion in 2007. Clearly, the shadow banking system was not in the shadows, but was a market-based credit intermediation system that was at least on par with the banking system in terms of its importance to the economy.

Moreover, this system was not completely separate from the traditional banking system. In fact, much of the risk that the shadow banking system had assumed was ultimately borne by banking organizations. Banks had provided backstop lines of credit and had other contractual or reputational reasons to absorb structured credit and other assets back onto their books once they could not be financed in the shadow banking system. In effect, regulated banks functioned to some degree as the lenders of last resort for the shadow banking system.

The entire financial system, both in the banks and outside, got caught. It was holding too much risk on too narrow of terms, it did not have sufficient capital, and it was too leveraged and dependent on short-term funding. As it became clear that the value of the U.S. housing stock had to decline considerably, these financial conditions complicated the adjustment. Indeed, what started as a seemingly narrow concern about subprime residential mortgagebacked securities cascaded into a widespread and abrupt re-pricing of credit more broadly and a desperate scramble for liquidity.

As market participants and investors came to realize that the system was overexposed, they began to withdraw funding. Credit lines were reduced, lending terms shortened and demand shifted towards high-quality collateral. Major funding markets came under tremendous strain and experienced run-like threats, including the triparty repo market, interbank lending markets, money market mutual funds and the commercial paper market. Facing significant redemptions, money market mutual funds withdrew from wholesale funding markets, including from both secured and unsecured commercial paper programs, which further exacerbated those dynamics. The withdrawal of funding raised the possibility of fire sales of assets, which, in a vicious circle, further heightened concerns about financial exposures and accelerated investors' flight to safe and liquid assets. Asset-backed securities markets virtually shut down as distressed asset sales by SIVs and other entities prompted sharp spikes in secondary market spreads.

The fact that the regulatory structure had allowed the shadow banking system to operate with less capital and liquidity than the regulated banking system added to the stress of the situation. However, banks and other traditional financial institutions were caught up in the same dynamics. In part, their involvement reflected the connection between the banking system and the shadow banking system noted earlier. As the shadow banking system came under pressure, regulated banks had to provide funding by extending lines of credit or by absorbing assets onto their balance sheets. As such, the shadow banking system effectively collapsed onto the regulated banking system.

The bottom line is that the entire system was suffering from a self-reinforcing cycle of liquidity runs and concerns about the solvency of financial institutions. An effective policy response had to address both aspects of this cycle.

Responding to the demand for dollar liquidity

It took government actions on many fronts to stabilize the financial system. Many of these efforts were aimed at addressing the solvency problems facing the financial sector, including the injection of capital into financial institutions and two of the housing GSEs. These efforts were critically important to the recovery of financial markets. However, I will focus my remarks on another important part of the government response – the actions taken by central banks and other government entities to address the liquidity strains in the markets.

Central banks around the world responded vigorously to the erosion of liquidity conditions. The lender-of-last-resort function of central banks proved to be critical for supporting market functioning and stemming contagion.

For the Federal Reserve, this function had to evolve in response to the nature and location of the liquidity disruptions it sought to address. The Fed's traditional lender-of-last-resort tools are designed to ensure adequate liquidity for depository institutions. But the liquidity strains went beyond the banking sector and into the market-based credit system. The traditional tools were not adequate to address the problems faced in this more complicated intermediation system, and hence the Fed had to innovate – under extreme market conditions and with little time to spare.

While some of the innovations were still aimed at depository institutions, most of the facilities introduced were intended to address liquidity pressures at sets of firms in various financial markets, including primary dealers, money market mutual funds, commercial paper issuers and holders of asset-backed securities. In the end, these facilities effectively backstopped many of the different components of the shadow banking system.

The efforts to ensure that the system had adequate liquidity also involved other government programs, such as the Federal Deposit Insurance Corporation's (FDIC) debt guarantee and the U.S. Treasury Department's money market guarantee. Those programs in effect broadened the insurance provided by the FDIC on bank deposits to other liabilities in the banking and shadow-banking systems. The combination of the liquidity and guarantee programs was instrumental in stabilizing the financial system.

It is also worth noting that the demand for dollar funding proved to be global in nature, as financial institutions around the world faced an elevated need for dollar funding in response to market stress. This need was met by the liquidity swap lines that the Federal Reserve set up with fourteen central banks around the world. These swap lines provided dollar funding to foreign central banks so that they could inject dollar funding into their own markets, in order to address the funding demands of institutions operating during their market hours.

The broad intent of all of these facilities was the same – to keep an extreme increase in the demand for liquidity from significantly disrupting the functioning of financial markets and impairing the flow of credit to the economy. The facilities, along with other efforts from governments, helped to halt the downward spiral and to alleviate the pressure on global financial institutions and markets. In the absence of such effective actions, the implications of the crisis for real economic performance would have been much worse.

The success of the programs has been apparent in a number of dimensions. Most clearly, the degree of counterparty concern and liquidity hoarding in the money markets has diminished, as reflected in the decline in term funding spreads. Moreover, issuance of both commercial paper and some types of asset-backed securities has rebounded, and it has done so increasingly without reliance on the Fed's liquidity support.

It is also worth noting that the exit from the Federal Reserve's liquidity facilities has been quite smooth. At their peak, these facilities provided about $1.5 trillion of short-term dollar credit. Today, the remaining balance across them is well under $100 billion. This reduction was achieved without creating any significant problems for financial markets or institutions. That success largely reflects the effective design of those programs, as most were structured to provide credit under terms that would be less and less appealing as markets renormalized. This design worked incredibly well, as activity in most of the facilities gradually declined to near zero, allowing the Fed to simply turn them off with no market disruption.

Overall, central banks were able to accommodate the most extreme shift in the demand for liquidity that has been seen in a generation, and to do so in ways that responded to the specific needs that arose in a market-based credit system.

Structural changes in dollar asset markets

Although U.S. authorities managed to provide the financial system with sufficient liquidity and support to stem the market panic, they must now find a way to foster more enduring changes that will result in a sounder financial system. The crisis revealed significant structural flaws, but reforms are being debated to address many of these issues.

Some of the required changes are associated with the oversight of large and interconnected financial institutions. The reform efforts underway in Congress are intended to address several points of weaknesses, including gaps in the coverage of systemically important firms and the absence of a resolution process for an orderly wind-down of failing firms. In addition, regulatory standards are being reevaluated to strengthen capital and liquidity requirements and to improve the risk capture of those standards.

The crisis also revealed weakness related to specific financial markets involving structured products, housing-related GSEs, over-the-counter (OTC) derivatives, triparty repo and money market mutual funds. Reforms are underway in each of these areas. For securitization markets, the U.S. Congress as well as regulators are considering changes to ensure incentives are properly aligned and that there is sufficient transparency around the underlying assets. For the housing GSEs, reforms are beginning to be crafted to reach an appropriate model, as described in the testimony by U.S. Treasury Department Secretary Geithner earlier this week. For OTC derivatives, financial reform legislation contains provisions to increase the transparency of the market and to clear trades through central counterparties. For the triparty repo market, a task force is considering recommendations to make the market more robust to weather financial strains among its participants. And for money market mutual funds, the U.S. Securities and Exchange Commission has offered a reform proposal to better prepare those institutions for abrupt changes in investor demands.

As you can see, the efforts are extensive and affect many different areas. Together, they should be aimed at achieving some common goals. We should have a system in which regulatory arbitrage is not the primary driver of where or how financial activity or innovation takes place. We should have a system in which government support is well defined and is priced correctly. We should have a system in which investors receive adequate, accurate and timely information to make independent judgments about credit risk through the life of a security. And we should have a system that ensures adequate capital and liquidity standards for firms with deep and intertwined linkages to the financial markets. Overall, the reforms in these markets, along with the regulatory reforms to the oversight of financial institutions, should result in more robust system of credit intermediation, whether it is taking place through traditional intermediaries or through the markets more broadly.

This reform process faces several important risks, though. First, there is a possibility that the process will stagnate or end up incomplete, given that the issues are complex, the stakeholders are numerous and the solutions are not always obvious. Second, there is a risk that, with so many efforts taking place in so many areas, the results will not fit together into an effective, cohesive solution. And third, there is the risk that the pursuit of reform will be overly zealous, resulting in a set of restrictions that will significantly undermine the functioning of financial markets during normal periods and thereby impede employment and growth.

On this last point, it is worth making a few observations about the functioning of financial markets as we think about how to encourage a safe and yet efficient financial sector. These points may be obvious but are worth emphasizing.

First, securitization is a powerful vehicle that should play an important role in the intermediation of credit in the economy. Securitization can be quite effective at transforming illiquid assets into negotiable securities and transferring risk to a more diversified set of holders. To be sure, the expansion of securitized credit was much too extensive, and its subsequent collapse was terribly disruptive, contributing significantly to the damage to the economy. However, those developments do not mean that securitized credit, if structured properly, should not return in size. Reform efforts, to be effective, should foster development of a securitization market that properly aligns incentives and provides adequate transparency about risk transfer.

Second, the use of derivatives is integral to the broader functioning of financial markets and the intermediation of credit. Derivatives allow for the redistribution of risks through hedging activities, and they foster improvements in price discovery and market efficiency by facilitating appropriate investments in long and short positions in some types of assets. But while OTC derivatives already provide important benefits, more could be done to enhance the robustness of this market. The measures under consideration promote greater use of central counterparties, increased regulatory and public transparency, wider involvement of exchanges and electronic trading platforms for actively-traded products, and stronger operational and risk management practices.

Third, the financial system cannot operate efficiently without leverage. The preferences of businesses and households in their regular economic activities require that intermediation and maturity transformation be conducted somewhere in the financial system. Of course, much of the turmoil we witnessed across financial markets was due to the build-up of excessive leverage in the system, and we cannot miss the chance to learn from this painful lesson. But we should also understand that a reduction in leverage to near zero in the financial system is not desirable, as it would significantly reduce the efficiency of credit intermediation. Instead, discussion should be focused on how to make the use of leverage less procyclical, to identify those sources of leverage that are most productive and to better monitor the vulnerabilities that can result from excessive leverage.

Conclusion

The crisis offered a rare view into how our capital markets function under extreme stress. Those circumstances revealed vastly different degrees of robustness across alternative segments of our financial system. At one end of the spectrum, markets for certain dollar assets demonstrated considerable resilience to financial stress and were extremely appealing to investors in stress circumstances. At the other end, the crisis highlighted that segments of U.S. credit markets had structural shortcomings that must be addressed to ensure the viability of these markets going forward. Those shortcomings have necessitated two waves of policy response. The first wave was aimed at putting out the fire. To that end, the crisis demonstrated that U.S. and global authorities have the ability and willingness to respond in a manner that meets dollar funding needs in a time of crisis and that promotes broader market stability. The second wave is aimed at building a sounder financial system for the future. Those efforts are still underway, and the reform process may be long and involved. However, I am hopeful that many of the shortcomings are likely to be addressed, and that we will emerge from this episode with a more robust and efficient financial system.