What is different about this recession? Nonbank providers of credit loom large

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Introduction

A key difference between this recession and those of the past is the greatly increased importance of credit extension by entities other than banks – so-called "nonbank credit providers," or the "shadow banking system." This article begins by outlining the major reasons credit provision by nonbank entities, as compared to banks, "matters," and then quantifies the growth in the importance of nonbanks in overall credit provision. The investigation focuses first on the distinction between two major segments of nonbank credit providers: (1) traditional nonbank financial institutions such as insurance companies, pension funds, money market mutual funds and other such entities; and (2) the system of "structured finance" that has arisen around the pooling and securitization of underlying debt obligations. Structured finance, including in particular mortgage-backed securities (MBS) issuance and consumer credit and business credit asset-backed securities (ABS) issuance, has become an integral part of our credit extension system, and the next section of the article moves to an examination of its role over the 2001-2006 boom period, especially in the provision of credit to the household sector. Subsequently, the focus shifts to two crucial developments in structured finance-related credit provision: (1) the precipitous drop in activity across most segments of the structured finance market as the financial crisis unfolded; and (2) the anemic rebound to date of most segments of structured finance. Given the importance of credit provision via structured finance, the ensuing discussion strongly suggests that a moderate recovery, at least, in the contribution of the structured finance part of the "shadow banking system" is essential.

Nonbank Providers of Credit: Why Are They Important?

Banks are a special class of financial intermediaries whose deposit-taking and credit extension activities traditionally have been subject to relatively more intensive regulatory oversight than other financial service providers. The banking system is a major component of the credit provision system; nevertheless, there is growing awareness that other entities also play a significant role in credit provision. Perhaps less well-known are 1) why, conceptually, "nonbanks" are important, and 2) the size and nature of nonbank credit provision for the economy. A basic understanding of both of these points is an essential pre-requisite for a meaningful discussion of public policy choices addressing both the current financial turmoil, and the future financial landscape.

Nonbank providers of credit – sometimes referred to as "the shadow banking system" – matter for at least three reasons. First, this segment of providers is far larger now than in the past, including as compared to all previous recessions. A critical corollary, as illustrated below, is that the share of credit provided by the banking system is relatively smaller than ever before. Second, regulation and supervision are generally less stringent for this segment than for the banking system; and, broadly speaking, regulation for nonbanks focuses relatively more on investor/customer protection than on institution and system-wide safety and soundness, as is the case for banking. Third, from a crisis-management point of view, the ability of governmental authorities to influence or intervene in the shadow banking system is more limited in scope than it is for the banking industry. Monetary policy instruments are used to address financial crises, and these tend to rely on the banking system for effect (although note that open market operations operate through primary dealers, not all of whom are banks). In addition, the regulatory framework provides various tools for regulators to influence banks directly, using both formal methods (such as enforcement actions) and informal methods based on ongoing supervisory activities. Each of these shadow banking system facets presents special challenges for public policy, and complicates policy responses in times of financial stress.

Nonbank Providers of Credit: How Important Are They?

The Federal Reserve's *Flow of Funds* categorizes credit providers by type, and offers a comprehensive picture of credit flows and outstanding balances over time. Financial sector credit providers can be divided into three broad groups: (1) "Banks," composed of broadly similar depository institutions (operating under similar regulatory regimes) including commercial banks, bank holding companies, thrifts, and credit unions; (2) nonbanks providing credit via "structured finance" (i.e., mortgage-backed securities and other asset-backed securities); and (3) "All Other" nonbank credit providers. There is no single definition of the "shadow banking system," but one way to think of it is as the combination of the latter two groups.[1]

Figure 1 uses *Flow of Funds* data to illustrate trends in the shares of outstanding balances of debt held by – or credit extended by – each of these three broad groups, going back almost four decades.[2] Two trends are particularly striking. First, the share of credit extended by banks was halved over the period, declining from over 60 percent in 1970 to about 30 percent by the end of 2008.[3] Second, for nonbank credit providers, structured

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[1] This is probably as broad a definition of the "shadow banking system" as any; some would argue that within the structured finance sector, the GSEs should be excluded from the definition because traditionally they have been subject to regulatory oversight similar in concept to banking system-oriented regulation.

[2] Specifically, Figure 1 shows credit market assets held by components of the financial sector. The financial sector traditionally holds about three-fourths of all credit market assets, which together correspond to credit market debt owed across the economy. The two other sectors holding credit market assets are domestic nonfinancial providers and foreigners. This analysis focuses exclusively on credit provision by financial sector entities and therefore does not consider nonfinancial and foreign providers of credit.

[3] It is important to understand that in the *Flow of Funds* data (as illustrated in Figures 1, 2, and 3) debt held by (and credit extended by) banks (and bank holding companies, thrifts, and credit unions) includes only assets held on their balance sheets. Such assets include whole loans held in banks' loan portfolios, as well as various securities held in banks' investment portfolios that support credit extension. In particular, banks invest in mortgage-backed securities ("MBS") and other asset-backed securities ("ABS") where the underlying collateral, such as mortgage loans or credit card loans for example, have been pooled and packaged into securities, as described below.

finance greatly increased in relative importance, growing from 4 percent of credit provision in 1970 to over 30 percent by the end of 2008. Indeed, the growth in the relative importance of structured finance was largely at the expense of the banking sector's on-balance sheet share of credit provision, and by 2008 – as the current financial crisis blossomed – all three major groups of credit providers had approximately the same relative importance across the economy.

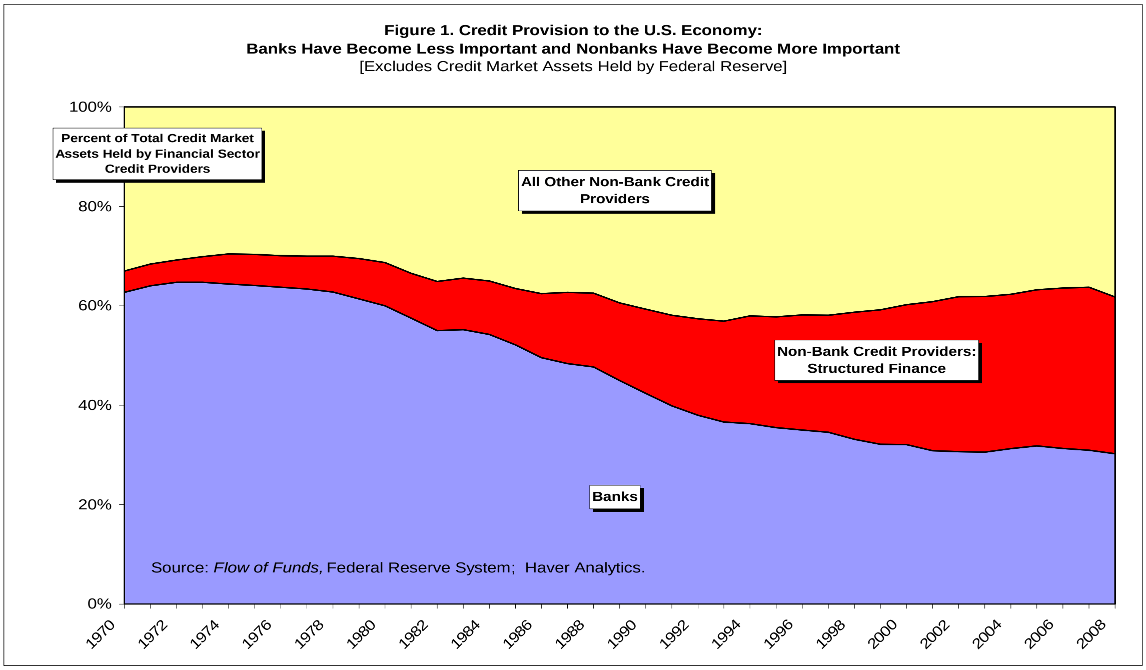
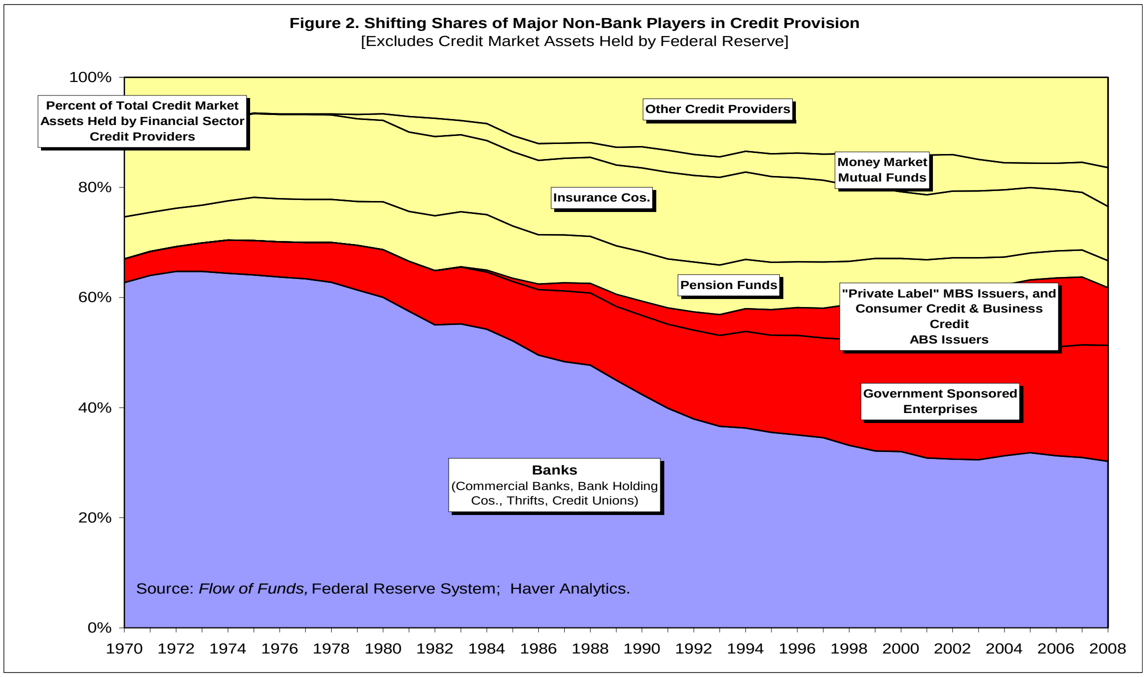


Figure 2 provides more detail on the major players within each broad group. Traditional entities, including insurance companies and pension funds continue to play significant roles, although over time each lost share as money market mutual funds grew in importance.[4] GSEs (government-sponsored enterprises, including Fannie Mae, Freddie Mac, Ginnie Mae, and the Federal Home Loan Banks) accounted for about two-thirds of all structured finance, with other mortgage and non-mortgage asset-backed securities issuers accounting for the remainder.[5]

[4] Other entities in this category include finance companies, brokers and dealers, funding corporations, mutual funds, close-end funds, exchange-traded funds, and REITs.

[5] These include "private label" or "non-agency" MBS issuers (who focused on securitizing subprime, Alt-A, and jumbo mortgages), and issuers of consumer credit and business credit asset-backed securities, including such components as credit card receivables, auto loans, and commercial real estate loans.



Structured Finance: Some Basics

"Structured finance" or "securitization" of economic assets such as mortgages, credit card loans, and auto loans is a financial innovation that first reached widespread use in the mortgage market in the 1970s. Two broad categories include mortgage-backed securities ("MBS") and (non-mortgage) asset-backed securities ("ABS").[6] The process of constructing these products is, generally speaking, as follows. Banks and other financial institutions originate credit such as home mortgage loans. The banks and financial institutions then group, or "pool," a large number of these loans together and sell the pool to an entity whose sole function is to buy, and subsequently re-sell, such pools of loans; one common term for such entities is a "special-purpose vehicle" or SPV.[7] A trust purchases the pools from the SPV and then repackages the pools of loans as interest-bearing securities, which it then "issues" or sells as mortgage- or asset-backed instruments into the marketplace. For non-mortgage ABS created by nonbanks, the trust generally works with investment banks that underwrite the sales. For a large part of the mortgage market, Freddie Mac, Fannie Mae, and other GSEs are the issuers of mortgage-

[6] This distinction is conventional, although some data sources and market observers use the term "ABS" in a generic sense to cover both (non-GSE) mortgage-backed and non-mortgage-backed securitizations. See, e.g., the Federal Reserve's *Flow of Funds* usage.

[7] The SPV "step" in the process results in bankruptcy remoteness for the trust, or actual issuer of the ABS, from any subsequent bankruptcy of the originating institution.

backed securities. Initial investors purchasing these securities can, in turn, resell them in the secondary market.[8]

The benefits of the pooling and securitization process are substantial and as a consequence structured finance has become a key component of the financial landscape. These benefits include the ability of banks, in particular, to facilitate the extension of a greater amount of credit than they otherwise could, were they to hold all the loans they originate on their balance sheets. By selling loans, banks do not have to hold capital against those loans or fund them, and can therefore re-deploy their capital and funding in support of additional credit extension.[9] In addition, the pooling process can result in a diversification of risk, by, for example, developing securitized assets backed by loans from different geographic regions and industries.

The problems that plagued the structured finance markets have been well-documented. Those included poorly structured deals; miscalculated creditworthiness ratings, by all the major ratings agencies, as they underestimated the correlation of defaults across pools of assets (particularly in CDOs, CDOs-squared, CDOs-cubed, etc.); an apparent over-reliance on those ratings by investors and regulators; and an over-emphasis on the part of some originators on fee-generation without sufficient consideration of a borrower's ability to repay. Nevertheless, it is important to note that these problems are not inherent defects of the securitization process.

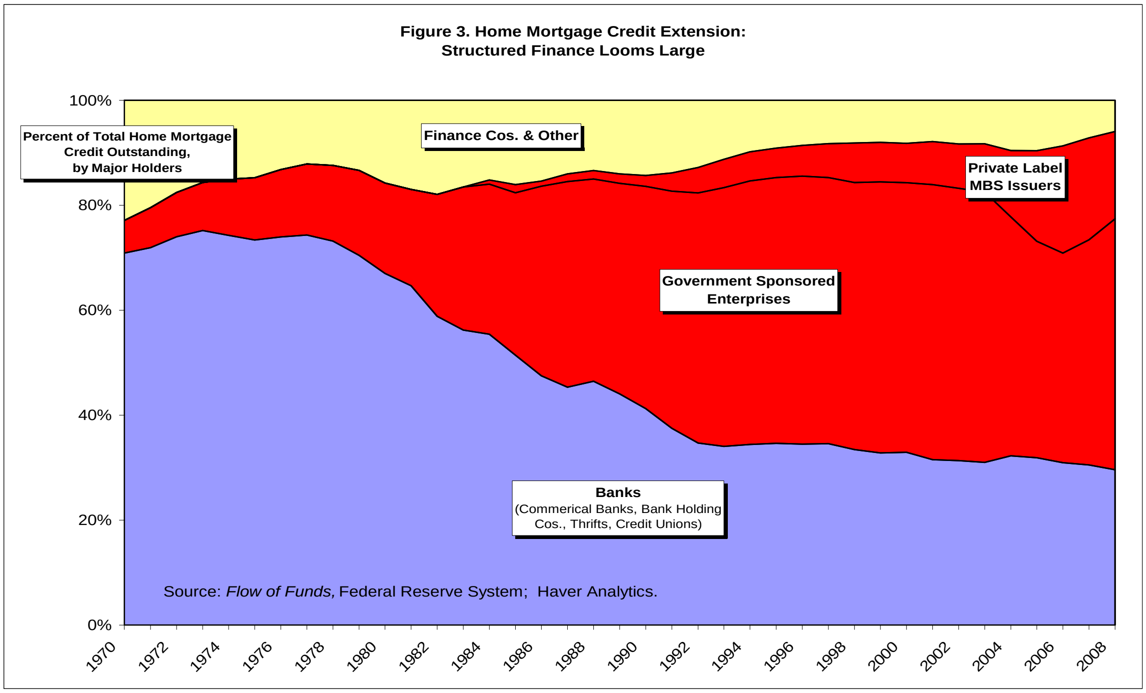
Credit Provision to Households: Banks vs. Structured Finance

The expanding role of structured finance relative to bank lending has been a big story in credit extension for the economy as a whole, as Figures 1 and 2 make clear, but for credit extension to households, it has been ***the*** story. That is especially true in the home mortgage market, as Figure 3 illustrates. In particular, the huge increase in the share of home mortgage credit held by the GSEs stands out: GSEs accounted for 48 percent of all home mortgage credit outstanding at the end of 2008, as compared to 30 percent held on balance sheet by banks. Also significant was the surge in the midst of the housing bubble of the share of home mortgage credit held by private label MBS issuers. At their height in 2006, these issuers held 20 percent of home mortgage credit outstanding, about two-thirds of which was backed by subprime mortgages and other non-traditional

[8] A number of variations on this process have been developed, including the "re-pooling" of, for example, mortgage-backed securities to create collateral for a new kind of security called Collateralized Debt Obligations or "CDOs," as well as re-pooling and re-securitization of these instruments into CDOs-squared ("CDO^2") and even CDOs-cubed ("CDO^3"). Most market participants agree that the re-layering of the securitization process greatly exceeded reasonable bounds, essentially because of widespread under-estimation, and therefore under-pricing, of the risks associated with these more exotic instruments. As a consequence, most market observers believe that it will be a long time, if ever, before such instruments re-emerge in quantity.

[9] There are important exceptions to this statement, most particularly in cases where banks sell loans "with recourse," that is, where the purchaser has the right to require the selling bank to take back, under well-defined circumstances, "bad" loans and replace them in the pool with "good" loans. Under these (very common) circumstances, banks do in fact have some degree of capital requirements.

mortgages.[10] As the housing bubble burst, the role of private label MBS issuers declined rapidly, to 16.7 percent by the end of 2008.



The significance of the recent decline in the role of private label MBS issuers is better illustrated by a consideration of net **new credit flows**. Looking at new credit flows also highlights important developments in consumer (i.e., non-mortgage) credit markets. The change in perspective allows us to shift from looking at how much credit is currently outstanding in the market place to a consideration of how much new credit is being generated in a given time period. That point of view coincides with present concerns about current and likely future credit creation, or lack thereof; and this, in turn, is important because new credit creation is likely to be a necessary complement to higher rates of economic growth.

Table 1 shows the relative importance of banks and nonbanks in the provision of new credit over the 2001-2006 boom period. The Home Mortgage Market column shows that as the housing market bubble inflated, banks provided, on average, less than 30 percent of the financing for new home mortgage credit, whereas structured finance funded over 60 percent. Further, although the GSEs account for the lion's share of home mortgage credit outstanding (as illustrated in Figure 3), over the bubble period they actually were responsible for extending less new mortgage credit than were private label issuers. In

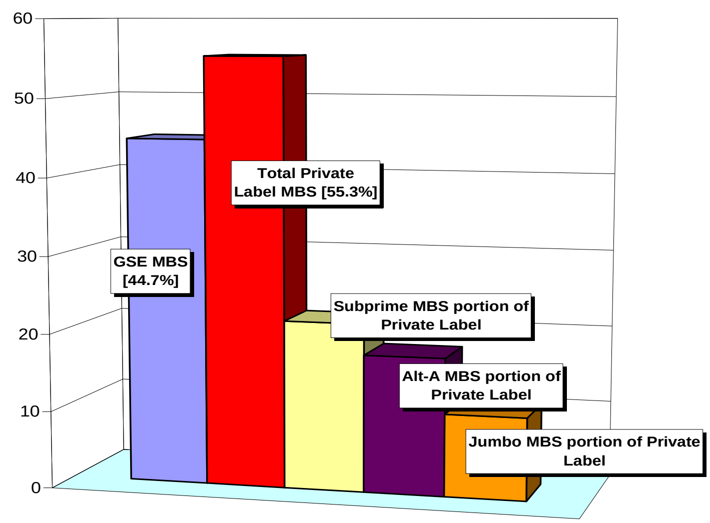
[10] The remaining approximately one-third of private label MBS were backed by jumbo mortgage loans, which are mortgages that exceeded the conforming limits set by the GSEs; that limit has varied over time, but currently indicates mortgages for amounts greater than $625,000.

Table 1. New Credit Provision to Households over the Boom
(share, in percent, of net credit extension, averaged over 2001-2006)

	Home Mortgage Market	Consumer Credit Market (Non-mortgage)
Banks	**29.1**	**37.9**
of which:		
Commercial Banks	***21.0***	***26.0***
Thrifts	***5.2***	***4.5***
Credit Unions	***2.9***	***7.4***
Structured Finance	**62.0**	**22.1**
of which:		
GSEs	***29.1***	-
Private Label MBS Issuers	***32.9***	-
ABS Issuers (Non-mortgage)	-	***22.1***
All Other	**8.9**	**40.0**

Source: *Flow of Funds*, Federal Reserve System; Haver Analytics.

Figure 4. Shares of MBS Issuance at Height of Housing Bubble
(Percent of MBS Issued in 2006)



Source: UBS *Mortgage Strategist* (June 10, 2008).

fact, by 2006, private label issuers issued 55 percent of all mortgage-backed securities compared to the 45 percent share accounted for by the GSEs. Furthermore, about 40 percent of private label issuers' MBS were backed by subprime home mortgage loans, as Figure 4 illustrates.

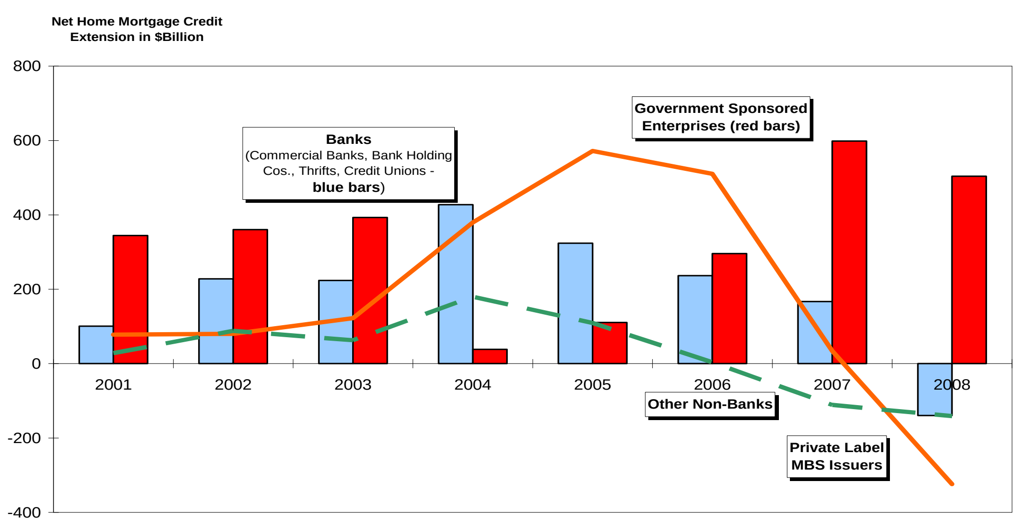
The bank-versus-nonbank mix over the bubble period was somewhat different for consumer credit extension compared to the home mortgage market, as the far right-hand column in Table 1 shows. Banks accounted for considerably more new credit provision for consumers (37.9 percent) as compared to ABS issuers (largely due to modest pullbacks in ABS issuance in 2003 and 2004, as Figure 7 below illustrates), but at 22.1 percent, structured finance consumer credit was still a substantial share.

Credit Provision to Households: Where Do We Stand Now?

Whether measured by outstanding debt balances or by new credit flows, it is clear that both structured finance and banks play significant roles in credit provision, especially in the home mortgage and consumer credit markets. What is really at issue currently is the nature of those relationships during the ongoing recession. An examination of the data highlights several stark changes.

Figure 5 examines trends in the provision of new mortgage credit annually over the 2001-2006 bubble period, and over the 2007-2008 bursting of the housing bubble. Several patterns are noteworthy. First, during 2008 there was a net decline in new bank credit for home mortgage loans (i.e., loans that banks chose to hold on balance sheet rather than to sell into the securitization process). That (net) negative flow was due to the combination

Figure 5. New Flow of Home Mortgage Credit Over Bubble and Bust

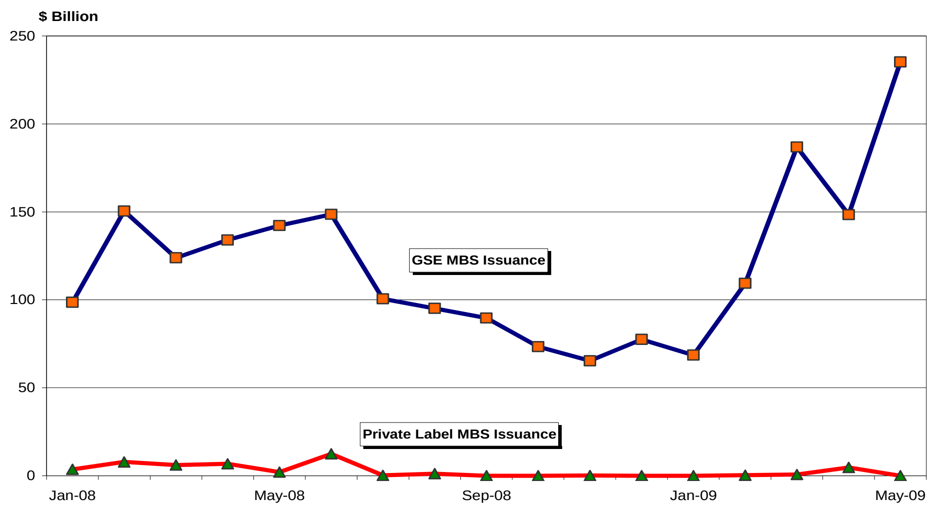


Source: *Flow of Funds,* Federal Reserve System; Haver Analytics.

of several factors, including the fact that a number of large banks and thrifts were merged into other banks, as well as the fact that banks generally tightened their lending standards.[11] Nevertheless, the decline in new mortgage lending by banks was greatly surpassed by the precipitous drop in private label MBS issuance, particularly as the subprime mortgage market shut down. On the other hand, banks and other mortgage originators continued to provide new mortgage loans underlying the substantial positive amount of GSE MBS issuance.

From Figure 5 it is clear that the recent "story" in the home mortgage market revolves more heavily around structured finance activity than around developments in the banking sector. Turning to the MBS market, Figure 6 looks at monthly data on issuance from the beginning of 2008 through May of this year.[12] It shows that there is no meaningful issuance activity in the private label MBS market, while the GSEs remain a strong source of new mortgage credit extension. Policymakers likely will bear this fact in mind as they debate the future of the GSEs.[13]

Figure 6. Flow of Home Mortgage Structured Finance During the Crisis:
GSEs the Only MBS Game Going
(Monthly Issuance of Mortgage-Backed Securities)



Source: Securities Industry and Financial Markets Association.

Figures 7 and 8 look at recent and current data on new flows of non-mortgage consumer credit in a manner parallel to the analysis of mortgage market trends. Figure 7 shows the

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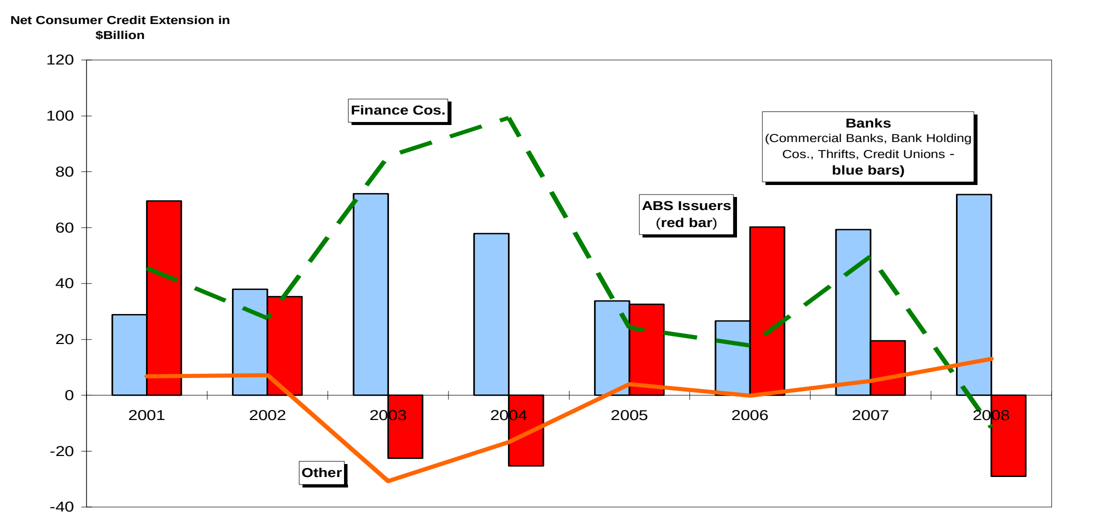
[11] See especially recent editions of the *Senior Loan Officer Opinion Survey on Bank Lending Practices*, Board of Governors of the Federal Reserve System.

[12] The new issuance data in Figure 5 is somewhat different from the Figure 6 <u>net</u> (inflows <u>minus</u> reductions) data.

[13] The Department of the Treasury's whitepaper *Financial Regulatory Reform: A New Foundation* (June 2009) outlines five major options "for the reform of the GSEs." See pp. 41 and 42 in particular.

wide swings in new consumer credit provision by banks, ABS issuers, and other entities. In contrast to the mortgage market, as the crisis took hold in 2007 and 2008 it was banks that continued to provide new flows of credit to the consumer credit market, while the structured finance sector on net decreased the flow of credit to consumers. Indeed, as of the end of 2008, very little new credit was being provided to consumers from any nonbank source.

Figure 7. New Flows of Consumer Credit Over Bubble and Bust



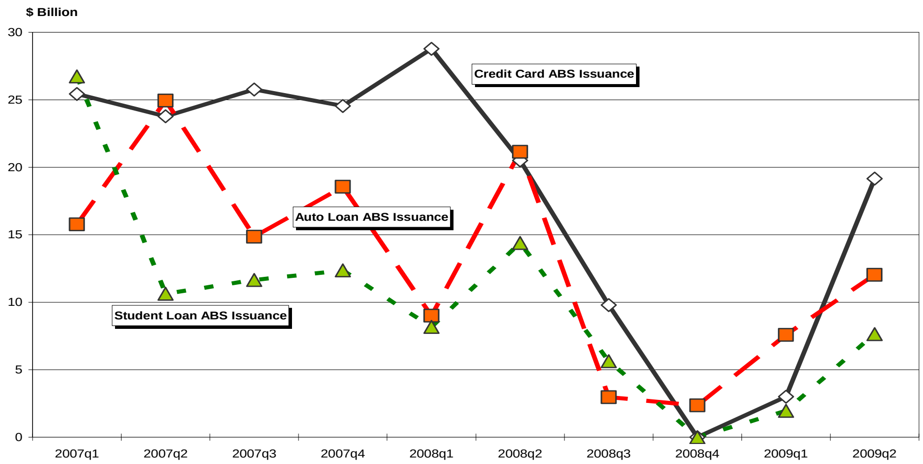
Source: *Flow of Funds* , Federal Reserve System; Haver Analytics.

Figure 8 focuses on the current state of play in the consumer ABS market by plotting quarterly data on issuance in three major component sectors over the emergence of the crisis through the first quarter of this year. Together, credit card ABS (36 percent), auto loan ABS (22 percent), and student loan ABS (18 percent) accounted for more than three-quarters of all ABS issuance in 2008.[14] Figure 8 shows that the consumer ABS market began at least a partial recovery as of the second quarter of 2009, assisted in large measure by the implementation of the Term Asset-Backed Securities Loan Facility ("TALF") program. Treasury and Federal Reserve efforts to encourage participation in the TALF program are aimed ultimately at restoring sufficient private sector funding for asset-backed securities markets.[15]

[14] Data from *Securitization Monthly*, Deutsche Bank (January 2009).

[15] A recently-released Federal Reserve report indicates that the TALF program has begun to stimulate at least a modest increase in asset-backed securities issuance. Specifically, in May 2009 there were "ABS deals worth a total of about $13.6 billion, of which $10.6 billion was financed through the TALF" (*Federal Reserve System Monthly Report on Credit and Liquidity Programs and the Balance Sheet*, Board of Governors of the Federal Reserve System [June 2009]). William C. Dudley, President of the Federal Reserve Bank of New York, noted in a recent speech that since March, when the TALF program was first

Figure 8. Consumer ABS Markets Plunged in 2008, Tepid Recovery So Far
(Quarterly Issuance of Selected Non-Mortgage Consumer Asset-Backed Securities)



Source: Securities Industry and Financial Markets Association.

Conclusion

This article began by observing that a fundamental difference between the current recession and previous ones is the significantly greater role played by nonbank credit providers – known also as the "shadow banking system" – as compared to the traditional banking sector. In large part, that distinction is meaningful because of the different – and generally more modest – measures that regulatory and monetary authorities can use to stimulate and steer responses by nonbanks compared to banks, a consideration that is especially important during the current extraordinary times in finance. In addition, particularly in the markets for credit extension to American households, it is clear that structured finance – mortgage-backed securities and consumer asset-backed securities – have become central.

A closer look at the most recent data in household credit markets yielded two key observations about structured finance, both of which have important public policy implications. First, in the home mortgage market, credit provision supported by GSEs' issuance of mortgage-backed securities is currently the main game going; this fact has significant implications for discussions of the future role of the GSEs. Second, while structured finance does not play the same dominant role in the consumer credit market as it does in the home mortgage market, ABS issuance nevertheless supports a considerable share of consumer credit. That fact adds urgency to policy discussions about stimulative measures, including in particular the TALF program.

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up and running, "TALF loans have accounted for a bit more than half of total issuance volume of ABS," a sign that the ABS market is not entirely dependent on TALF funding, as envisioned by the program's architects ("A Preliminary Assessment of the TALF," Remarks at the Securities Industry and Financial Markets Association and Pension Real Estate Association's Public-Private Investment Program Summit, New York City [June 4, 2009]). More recently, attention has turned to the commercial mortgage-backed securities (CMBS) market, which remains all but shutdown.