



INVESTMENT UPDATE

You may have read in the press about the rising danger of “nonbank” financial institutions, and how their recent rapid growth has raised the risks to the US economy. In this month’s Investment Update, we take a semi-deep dive into the world of the nonbanks and examine the risks they’ve created, with some observations about what it means to bond investors.

First, some definitions: Broadly speaking, nonbank financial institutions include insurance companies, leasing companies, credit card companies, securities firms, mutual funds, hedge funds, and other asset managers, as well as all manner of financial intermediaries that connect banks with borrowers. But for the sake of brevity (and to keep it on-target for the bond market), we will focus on a fairly narrow group of nonbanks—namely, those which are involved in the US residential mortgage market.

We don’t need to remind you how much the US housing market—and the financial companies that serve it—can make or break the economy. It’s critical that such an important driver of economic growth is supported by a system that can stand up to the inevitable downturns in both the volume and market price adjustments of home mortgages. For better or worse, the mortgage market of 2018 is quite a bit different from that of 2008.

The biggest difference between the mortgage market of today and that of a decade ago is the rising dominance of nonbank lenders. Whereas traditional deposit-taking banks were the primary institutions homebuyers went to when looking to borrow money to buy a house ten years ago, today the primary lenders are new firms with names like LoanDepot, PennyMac and Freedom Mortgage. As the chart on this page demonstrates, in 2016 (the most recent full year of data available) nonbanks originated approximately half of all mortgages, up from just 20% in 2007; estimates put current origination at well over 50% for nonbanks.

There are some interesting tidbits lying behind the numbers in the graph. Notice that the nonbanks are supplying more than three-quarters of the loans going to GNMA, a far bigger percentage than those to the so-called GSEs (an acronym for government-sponsored enterprises, which includes the other two

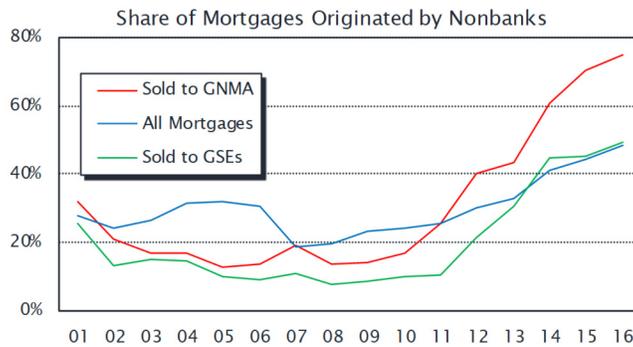
big mortgage agencies, FNMA and FHLMC). GNMA is different than FNMA and FHLMC, since essentially all of the mortgage loans going into GNMA securities come through the government-sponsored FHA and VA programs, which tend to serve lower income and first-time homebuyers. Nonbanks are more willing to underwrite these riskier loans than the larger traditional banks, for various reasons, some of which will be discussed below.

In order to examine the rise of nonbank mortgage lending, it’s helpful to take a step back and look at the mechanics of the mortgage market. When a prospective home buyer wants to purchase property, if they don’t have sufficient cash to pay for the house at settlement, they will need to find an institution that will lend them the difference. The mortgage lender serves that

function, providing cash to the seller of the property, and in return holding the deed to the house and a signed legal document which defines how the homebuyer will pay back the cash, plus interest. But where the mortgage lender gets its cash is a critical difference between bank and nonbank lenders.

Traditional banks have deposits that customers keep with the bank, which provide a relatively stable source of funds that they can use to lend to credit-worthy borrowers. Nonbanks, by definition, do not collect deposits, so they must get their cash from other sources. These sources are, again by definition, far less stable than the checking and savings deposits that bank customers supply. After the federal government suffered losses totaling hundreds of billions of dollars from defaulted mortgages during the financial crisis, new regulations were imposed on banks, but not necessarily on nonbanks. These regulations have been designed to strengthen the standards banks use to underwrite mortgage loans, to ensure that they still had “skin in the game” in case any of those loans went bad, as well as to ensure that the banks had ample capital to absorb losses in case of another housing crisis.

A Brookings Institution paper published earlier this year, co-authored by economists from the Federal Reserve Board and the University of California, Berkeley, details the economic risks associated with the rise of nonbank lenders, which is both a result—and a failure—of the more stringent regulations imposed on banks. This exhaustive (and exhausting!) study outlines how



Traditional banks have deposits



the post-crisis financial system created an opportunity for these smaller nonbanks, many of which embraced new technology, to grow aggressively to serve a resurgent US housing market as banks scaled back their own mortgage operations.

So, what are the dangers associated with the nonbanks? First, let's get back to the loans being put into the GNMA bonds. Someone qualifying for a loan under the FHA program can put down as little as 3.5% of the house's selling price, compared to a typical 20% down payment. In 2016, 85% of FHA loans were originated by nonbanks. Buyers with only a tiny slice of equity in a house are far more likely to walk away from their mortgage when the economy turns down (e.g., they lose their jobs, or have hours cut). Nonbanks are more willing to make these riskier loans because their profitability is dependent on the fees generated from originating and servicing new mortgages. Unlike a bank, with large and diversified sources of income, nonbank mortgage companies' revenues will significantly dry up if they cannot generate the origination fees charged to new homebuyers (and those refinancing older loans). They are particularly vulnerable during periods of rising interest rates, as potential homebuyers get priced out of the market when mortgage rates rise, and refinancing is no longer an attractive option for existing homeowners.

To make matters worse, these nonbanks are dependent on short term financing to fund their day-to-day operations to a much greater extent than traditional banks. In fact, much of their financing is provided by the now-heavily regulated banks that used to be the traditional providers of mortgage loans. These banks are even more sensitive to changing credit conditions than in years' past, and can quickly pull lines of credit from the nonbanks at the first signs of stress. In the case of GNMA securities (again, the majority of which are originated by nonbanks), the issuer is the originator/servicer of the loan, and that institution is expected to bear credit losses that are not covered by either FHA or VA insurance, even if that means wiping out the capital of the issuer. Further, for all government-backed MBS—GNMA, FNMA and FHLMC—the agency involved will go after the originator to recover losses if it can be proven that the originator of the loans violated the government's underwriting rules. Nonbanks, thinly capitalized and dependent on short-term financing, are especially vulnerable to these losses.

Write-downs stemming from the collapse of the housing market during the financial crisis, and the "claw back" of losses by GNMA and the GSEs from violations of the government's underwriting standards, have been a huge disincentive to the large banks from participating in the origination and securitization of mortgages. To the extent that nonbanks go bankrupt, the traditional banks could still be in line to suffer losses from the credit lines extended to nonbanks. Nevertheless, the banks have increasingly chosen to take that risk rather than the much more open-ended risk that the government will once again make the banks buy back mortgages they originated but which turned out not to meet the

government's underwriting rules. Further, banks are fearful of the financial and reputational risks that result from prosecution under the Department of Justice's False Claims Act, which has already cost banks more than \$6.5 billion since the financial crisis.

If it sounds like the banks and nonbanks are simultaneously at each others' throats and in each others' pockets, that's because they are. There has been an interconnected, co-dependent relationship that's grown over the past decade between the large, heavily-regulated and generally risk averse commercial banks and the smaller, lightly-regulated, and often privately-owned nonbanks. The Brookings paper identifies three separate risks that now exist as a result of the rise of nonbanks and the risk-shifting by commercial banks: Risks to consumers, risks to the government (and thus, taxpayers), and risks to banks and other creditors.

The risks to consumers from a large-scale failure of nonbanks would disproportionately impact borrowers with lower credit scores, a group that's broadly served by nonbanks. This would mean less available credit, especially for potential lower-income and minority home buyers, and could put measurable downward pressure on home prices, particularly in poorer neighborhoods.

For the government and tax payers, the nonbanks do not have the necessary capital to be able to withstand the putbacks and penalties that were collected from banks as a result of violations of underwriting rules after the financial crisis. In the next recession, GNMA and the GSEs would bear the brunt of losses in the case of failing nonbanks that also service mortgages (as many choose to do after the mortgage is originated and sold/securitized). The agencies would have to absorb the servicing—and any potential losses—from these potentially problematic loans if they cannot find a third party willing to buy the portfolio.

Fortunately, for the banks and broader credit markets, the Brookings' authors point out that the losses to banks from the failure of nonbanks would be somewhat limited. The warehouse lines of credit extended to nonbanks are secured by the mortgage loans themselves, credit lines that the banks would be quick to close at the first sign of trouble. These lines often have additional provisions to protect the banks, including personal guarantees, and flexibility to change the terms of the credit line if there has been a violation of the loan's covenants. The authors cited data from the Federal Reserve showing that lines to nonbanks represent less than 1/2 of one percent of the median bank's assets.

In other words, the government agencies and taxpayers appear to be in line to bear the brunt of the losses during the next housing crash. From our vantage point, it appears that, once again, regulators are playing catch up with a dynamic and nimble—but far more risky—player in the financial system. Last time around, that didn't end too well. 