Mortgage Madness

Residential mortgage borrowers hold a valuable option to default. Private investors will not return to this market as long as the government, as dominant lender, ignores this option. (Suggested sub-title / deck)

The erstwhile U.S. private residential mortgage market is dead. Like all dead things outside of fiction, it's not coming back. Not even in zombie form! We resurrect here the vanished world of pre-2007 mortgage underwriting, review the psychic damage of the Credit Crisis, and touch on the extreme importance of loan-to-value (LTV) for the impact of the borrower's default option in our morbid, post-Crisis reality. The sad and daunting realization is that no rational investor would fund a typical U.S. residential mortgage. Government is and will remain the lender for virtually all residential mortgages.

Pre-Crisis mortgage underwriting

Mortgage underwriting, the bank's analysis of borrower and loan data and characteristics to decide whether or not to lend, has always waxed and waned with the economic and competitive tides. Let's remember and ponder just a single aspect of the lender's review prior to the Credit Crisis beginning in 2007. In those "innocent days," our credit committee at a Wall Street asset manager often discussed the borrower's *willingness to pay* in the sub-prime RMBS bonds we considered purchasing.

Why should a borrower with a high-LTV mortgage give high priority to paying the mortgage? That was the persistent question around the committee table. We all agreed that homeowners dreaded the "stigma of foreclosure" both for the downfall visible to the neighbors and the negative impact on future credit availability. We averred that borrowers do not think of their homes as "mark-to-market assets" and would therefore not "walk away" from the house simply because its value fell below the outstanding mortgage amount. One committee member offered a testimonial of his brother as a typical sub-prime borrower! "Yes, he's often late with his bills because he's disorganized. But he would fight like hell to pay his mortgage to keep his family in their home!"

In summary, my colleagues and I were "fully invested," so to speak, in this positive thought that borrowers would be *willing* to pay their debts. All we really needed to do was study their *ability* to pay.

It is both painful and fascinating to observe that markets in a positive trend often rise slowly and methodically. With negative trends, it's usually just a drop off a cliff! That's one lesson that risk managers must always know *and feel*. The losses do not come to your firm slowly and methodically. Imagine an improperly loaded boat that is dangerously top-heavy. It may look and feel "normal," but it capsizes abruptly!

Visualizing loan-to-value

What caused the U.S. mortgage Crisis? Smart people write entire books on this subject! To be brief and yet reasonably complete and accurate, we blame fraud (of both the subtle and abject varieties) on the part of some lenders *and* borrowers, race-to-the-bottom competition among lenders to relax underwriting standards (especially for LTV), wilful enabling by the government and regulators, and the bankers' and borrowers' unhealthy affinity for refinancing. The securitization market, in particular, loved the refinancing. Not only did a refinancing give good performance to the existing securitization, it also generated banker fees for the new mortgage *and* new securitization!

All of these elements, with special emphasis on the refinancing, led to increased LTVs for the portion of homeowners participating in these "innovative" mortgage practices. Here's an easy visualization. Imagine house prices climbing and, as a consequence, homeowners refinancing their mortgages to *increase* the borrowing to match the increase in house price. Thus, LTV remains roughly constant at the limit of the most permissive lenders as house prices rise.

Now imagine house prices falling. As refinancing is the borrower *option*, the borrower need not refinance in order to pay down the mortgage debt. Rather, the debt remains constant as house value falls. The result is that LTV increases as house prices fall and often pokes above 100%. At that point the house is "under water" in that it is worth less than the remaining loan amount.

Protecting borrowers and punishing lenders

Without delving into painful detail, it's a fair summary to say that the Federal and state governments, regulators, and society chose to help and protect defaulting borrowers at the expense of lenders. The courts of many states lengthened the judicial process to permit borrowers to remain in their homes for extended periods without making mortgage payments. Popular financial pundits advised homeowners to force losses on banks through short sales regardless of their *ability* to make payments for underwater mortgages. Politicians blamed the lenders for the defaults of the borrowers.

The huge wave of sub-prime mortgage defaults decimated my asset manager employer. In the midst of the carnage, a young lawyer in the firm asked my advice about walking away from her mortgage. The house was worth less than the mortgage and she had "no real attachment to the house anyway." Amazing! I must have been stunned because I can't remember the rest of the conversation.

Perhaps, in a big-picture sense, this hostility to lenders has merit. Or, perhaps not. History abounds with episodes of populist uprisings against lenders. Let's not argue the issue because it's not relevant to the true question: Post-Crisis, why and under what terms should one make a mortgage loan?

Why make a mortgage loan? Keep LTV less than 60%!

The "willingness to pay" paradigm shifted seismically in the Credit Crisis. Homeowners do, in fact, view the house as a mark-to-market asset. When one estimates the walk-away choice as a Black-Scholes put option on the house value with strike price equal to the loan amount, there is tremendous value at high LTV! The rational investor must absolutely perform the calculation since the investor is *short* this option. One finds that

LTV must be less than 60% for the option value, expressed as a yield, to be well below the total mortgage yield.

Thus, rational mortgage underwriting requires rejection of loans with LTV greater than 60%. But this is not the market! Government agencies and entities such as Ginnie Mae, Fannie Mae, Freddie Mac, and the FHA make or guarantee loans with nosebleed LTVs of 90% and higher.

Government owns the residential mortgage market

Through these agencies and entities, the U.S. government owns the mortgage market. Given the huge downside to the investor of the homeowner's walk-away option, a non-government competitor cannot prudently match both the government's high-LTV standard and low mortgage rate. We are almost a decade past the Credit Crisis onset. Attendees of the recent ABS East 2015 conference continue to discuss when and whether the private residential mortgage market will return.

In our view, the private market is gone forever (or for twenty years, whichever comes first). Rational investors will return only with a solution to "willingness to pay." The only credible fix we can imagine for "willingness to pay" requires LTV less than 60% and the investor belief that mortgage contracts are enforceable. Optimistically granting the confidence in enforceability, a "new standard" LTV at or below 60% would find no takers today. As long as government remains a willing lender at high-LTV, the private market remains dead.

Joe Pimbley, FRM is a financial consultant in his role as Principal of Maxwell Consulting, LLC. His expertise includes enterprise risk management, structured products, derivatives, investment underwriting, training, and quantitative modeling. Joe is co-author of "Banking on Failure – Fixing the Fiasco of Junk Banks, Government Bailouts, and Fiat Money."