The Mortgage Crisis: US Versus Denmark
(First of Two)

In 2002, I wrote an article contrasting the housing finance systems of Denmark and the US. Recently, both systems have been stressed by the world-wide financial crisis, prompting me to take another look. I was interested in how the crisis impacted the two systems, and whether this affected an assessment of their relative strengths and weaknesses?

The core of the Danish system is 8 specialized mortgage banks which originate all home mortgages, and a mortgage bond market where the loans are funded. Each new loan is immediately sold in the bond market as an add-on to the balance of an equivalent bond. If the new loan is a 30-year FRM for 1 million K, for example, it will be sold to investors as a 1 million K addition to an existing 30-year fixed-rate bond. There are bonds with fixed and adjustable rates, and within each category there are separate bonds for different terms.

Shopping for a mortgage in Denmark is easy. On a given day, all borrowers pay the same interest rate on a given type of loan. (Borrowers either meet the credit and other requirements, or they don't.). The interest rate on a new mortgage is the current market yield on the specific bond that will fund the mortgage, plus the mortgage bank's markup. Bonds are traded on the Copenhagen stock market, with yields readily available to everyone.

Danish mortgage banks do not adjust the interest rate for points, nor do they tack on a series of fixed-dollar charges to cover their expenses, as they do in the US. All borrowers in Denmark pay the same upfront fees: 1/10 of 1 percent of the loan amount plus a small fixed charge.

The strength of the Danish system is thus its transparency and low origination costs. Its major weakness, as it appeared to me in 2002, was that it did not serve as large a segment of the population as the US system. Loans are not priced for risk, so borrowers who have poor credit or who cannot make a down payment of 20%, are not served. In the face of a financial crisis, however, this "weakness" turned out to be a source of strength.

Both countries were afflicted by the loss of confidence in financial institutions, which was world-wide. Both governments responded by guaranteeing the liabilities of banks and other financial firms, including mortgage banks in Denmark. However, that guarantee did not include mortgage bonds, because it was not considered necessary. The Danish mortgage bond market continued to function normally during the crisis, which meant that new loans continued to be written as before.

In the US, in contrast, markets in mortgage-backed securities (MBSs) not guaranteed by a US Government entity (Fannie Mae, Freddie Mac or Ginnie Mae) ceased functioning. This is why loans larger than those eligible for purchase or insurance by a Government entity, which before the crisis were often placed in MBSs, are so expensive in today's market.

The market for private MBSs collapsed because investors incurred or anticipated that they might incur, horrendous losses, whereas investors in Danish mortgage bonds did not suffer any losses at all! One reason for this is that the Danish mortgage bond system is inherently stronger than the MBS system. A Danish mortgage bond is a liability of the mortgage bank issuing it and is supported by the capital, reserves and income of the bank, as well as by the mortgages that collateralize that particular bond. If the collateral supporting one bond happens to suffer large losses, the bond holders are nonetheless protected by the entire resources of the bank.

In contrast, each private MBS is designed to stand on its own bottom with adequate "credit enhancements", such as reserve accounts, excess cash flows, or insurance. If the credit enhancements on one issue out of 100 turn out to be insufficient, the investors in that issue will suffer loss, even though the enhancements in the other 99 are excessive. Any such losses can raise questions in the minds of investors regarding the soundness of other issues.

The second reason the MBS market collapsed and the Danish bond market didn't is the much higher default rate on mortgages in the US, and larger losses on defaulted mortgages because of greater depletion of borrower equity.

Home prices have declined in Denmark since the crisis erupted, though not quite as much as in the US. Single-family home prices were down 15% in the second quarter from their previous peak, while "owner-occupied flats" were down 28%. Despite the price declines, however, the great majority of Danish borrowers had substantial equity in their homes when the crisis struck. The widespread negative equity that emerged in the US – a major factor encouraging defaults and increasing losses when default occurs – had no counterpart in Denmark.

Why? A major reason is that in the US, down payments of less than 20% were the norm before the bubble, and no-down payment loans became increasingly common during the bubble. When the crisis hit, therefore, a substantial proportion of the homes purchased in the prior 2-3 years had no equity. In Denmark, however, the down payment requirement was 20% before the bubble and 20% during the bubble.

Erosion of down payment requirements was only one of the ways that the US housing finance system, much more than the Danish system, was weakened during the bubble period. The "quality" of new borrowers, meaning the array of financial and personal factors that affect the likelihood that they will default at some point, deteriorated much more in the US. There was no Danish equivalent of sub-prime loans to attract tenants into ownership who were not qualified to be owners. And Denmark did not have alternative documentation rules that allowed borrowers to claim higher incomes than they actually had.

Next week: Why mortgage lending standards deteriorated much more in the US.

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The Mortgage Crisis: US Versus Denmark
(Second of Two)

My first article indicated that the Danish housing finance system, which is tightly regulated but completely private, has emerged from the financial crisis barely scratched. The Danish mortgage bond market where all new mortgage loans are funded has functioned normally throughout. In contrast, the private secondary market in the US has shut down, leaving the system almost entirely dependent on the Federally-supported secondary market agencies, Fannie Mae, Freddie Mac and Ginnie Mae.

The mortgage crisis that erupted in 2007 had its genesis in the prior bubble period, when home prices were rising rapidly. Price increases reduce the perceived riskiness of mortgages, encourage investors to accept mortgages that in a stable environment would be viewed as unacceptably risky, and induce loan originators to increase loan volume by liberalizing their underwriting requirements.

While exact comparisons are not possible, the bubble in Denmark was roughly comparable to the bubble in the US. The average price of single-family homes in Denmark rose 60.4% between the beginning of 2004 and mid-2007 when prices peaked; that was an annual rate of increase of 13.6%. Yet the resulting relaxation of lending standards in Denmark was far less than in the US, which was a major reason why the mortgage defaults arising from the crisis were much smaller in Denmark. Here are some possible reasons why:

Risk Shifting: In the US system, lenders typically sell their loans, which may go through several hands before coming to rest in a security or a portfolio. Default risk is transferred with the sale. If potential buyers are willing to accept loans subject to more liberal underwriting rules, originators will liberalize them because it expands their market.

In contrast, the Danish mortgage bank that originates loans must hold them and retain the default risk. It is plausible that not having the option of passing the default risk to a buyer dampens the impulse to liberalize terms.

Regulation: Regulators in the US did not take any action to curb excessive mortgage liberalization during the bubble period. Regulatory responsibility for the thousands of mortgage lenders was divided among 4 Federal agencies and 50 states. By the time the Federal agencies got their act together in late 2006, the damage had already been done.

Whether the Danish regulator DFSA took any steps to restrain liberalization of lending standards during the bubble I don't know. The problem, if there was one, was much less severe than in the US. But DFSA could have done what needed to be done because it had sole authority over the 8 firms that originate mortgages in Denmark..

Transactions-Oriented Loan Originators: In the US, the incomes of the mortgage brokers and loan officers with whom borrowers deal depend almost entirely on the number and size of the loans they write. They were not responsible for the liberalized underwriting rules, interest only loans and option ARMs that emerged during the housing bubble, but they took advantage of these changes to do more deals, magnifying the overall impact.

In contrast, prospective borrowers in Denmark who contact a mortgage bank deal with a salaried employee. While interest-only loans and new types of ARMs were introduced by mortgage banks during the bubble period, the initiative for seeking these instruments remained largely with consumers.

Government-Sponsored Enterprises and the Affordability Lobby: The US had a particularly toxic combination of features that Denmark lacked: a pair of partly-private/partly-public secondary market agencies -- Fannie Mae and Freddie Mac -- and a political/social movement aimed at increasing the homeownership rate. This unholy alliance was by far the most important cause of the excessive liberalization of mortgage terms during the bubble. For readers interested in the details, I recommend Cause and Effect: Government Policies and the Financial Crisis by Peter J. Wallison, which is available at www.aei.org.

The two agencies were stockholder owned but received enormously valuable subsidies from Government, of which the most important was an implicit guarantee of their liabilities. The quid pro quo was their active participation in programs to help low-income and minority households to become homeowners. In 1992, Congress authorized HUD to set annual quotas for agency purchases of "affordable loans", expressed as a percent of their total purchases. Initially 30%, these quotas rose over time, through both the Clinton and Bush administrations, reaching 55% in 2007.

Meeting this objective required the agencies to liberalize their lending terms. Among other things, they reduced down payments to 3% in 1997 and to zero in 2001. The liberalized terms designed to help disadvantaged groups had to be extended to prime borrowers as well. This encouraged them to purchase more costly houses, make smaller down payments, purchase for investment in anticipation of further price increases, and cash-out equity by refinancing

Acquisitions of non-prime mortgage by the agencies increased rapidly beginning in 2004 and peaked in 2007 when the crisis erupted. Wallison estimates their holdings in 2008 at $1.5 trillion, This total included purchases of private securities in the market, which HUD allowed the agencies to count toward their quotas of affordable loans. The horrendous default rates and losses on these loans sealed the fate of the agencies, which in 2008 were placed in a Government-administered conservatorship.

Historically, most economists were skeptical or hostile to Fannie Mae and Freddie Mac. Usually, the reason was that only about half of the taxpayer-funded subsidy provided to the agencies was realized as a benefit by borrowers. We now see that that was the least of it. The more compelling argument against the mixed private/public model is that it corrupted the political process and destabilized the system. Not having any equivalent is one important reason why Denmark has weathered the crisis much better than the US.

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