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Can a Danish import fix U.S. housing finance?

When it comes to mortgage finance, the Danish perform the ultimate balancing act

BY LINDA LOWELL

» **WELL, 'YES' SAYS ABSALON**, a joint venture between the Danish financial system and George Soros and headed up by financial markets veteran Alan Boyce.

Absalon has already assisted the development in Mexico of a mortgage credit system applying basic characteristics of the Danish model and relying on Danish securities infrastructure (Hipotecaria Total, or HiTo, first security issue December 2007) and is promoting it in a number of other countries.

Since our housing finance system self-destructed, Absalon has been pressing the case for adopting key elements of the Danish system in the U.S. — Soros with op-ed pieces in prominent financial media while Boyce has been making the rounds with regulators, think tanks, and committees. Let's be clear — if there is a profit motive, it is to be enriched in common with the rest of the citizenry by the creation of a firm foundation for housing finance and the externalities that accompany homeownership.

Now, with private mortgage lending at a crawl, private MBS securitization dead, and the future of the GSEs and the government's role in housing finance a jump ball, Soros and Boyce see a real opportunity to give the Danish system a foothold here.

And I like the idea so much I've cleared the counters, scrubbed the sink, put the dishes away, and set the Danish model afloat in this month's Kitchen Sink.

PROOF'S IN THE PUDDING

The Danish approach deserves careful consideration in Washington — and a chance at life from the powerful lobbies scrambling to reserve all future mortgage-lending

profits for themselves. In operation since 1797, it's time tested. It's resilient, having survived numerous occasions of economic and political turmoil, including a few Sovereign Bankruptcy Events, the Great Depression, World War II, two oil crises in the 1970s and the dot.com bubble. Throughout, not a single mortgage bank has ever been declared bankrupt; nor has a mortgage bond produced by the system ever defaulted.

The system was tested again in the financial crisis. Although Denmark's housing bubble was more aggressive. Danish home prices peaked at 200 percent to 300 percent (depending on property type) of their 1995 levels in 2007 — a full year after U.S. prices stalled at about 240 percent of 1995 levels. But home price deflation is more moderate in Denmark, with prices down around 15 percent from the peak, or back to early 2006 levels, compared to almost 30 percent in the U.S., where about 6 years of price gains have been given back.

The key to price stability in Denmark was the much better credit performance of Danish borrowers: the delinquency rate in Denmark is still measured in basis points, while in the U.S. delinquencies are currently running around 10 percent. To an important degree this reflects the fact that Danish mortgage bond markets remained open while private MBS markets shut down in the U.S. and European mortgage bond markets came to a halt following the collapse of Lehman Brothers.

In Europe the jumbo covered bond market (here jumbo doesn't refer to loan size, but to the size of bond issues) saw no issuance during the last quarter of 2008, while the Danish mortgage market was able to refund heavy volumes of

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resetting ARMs, purchase bonds from investors unable to find liquidity in other instruments, and finance ongoing housing activity.

These feats were accomplished despite the fact that Danish households have a much higher ratio of mortgage debt to disposable income than do U.S. households. According to “The Danish Mortgage Market” (BIS Quarterly Review, March 2004), in 2003 Danish household debt was 192 percent of disposable income, compared to 81 percent for U.S. households. Moreover, the total volume of mortgage loans as a percent of GDP was 101 percent in Denmark, 81 percent in the U.S., while home-ownership rate in Denmark was 59 percent, compared to 68 percent in the US.

EVEN BETTER THAN DANISH PASTRY

The Danish mortgage credit system is governed by legislation, most recently tweaked by the 2007 The Danish Mortgage Loans and Mortgage Bonds Act. By law, residential mortgage loans are made with recourse to the borrower, may not be extended for more than 80 percent of the property value (60 percent on second homes) and are limited to terms of 30 years or less. (Commercial real estate mortgages are similarly governed.)

Borrowers have the right to prepay in whole or part at any time. Loans are not due-on-sale, but may be transferred to a new property owner with the mortgage bank's approval.

A variety of loan products are available. In addition to fixed rate loans, several types of adjustable-rate mortgages have been introduced, and there is even an interest-only loan offering.

Appraisals are performed according to strict guidelines established under law and reported to the Danish Financial Services Authority (FSA, *Finanstilsynet*) for control purposes. If the FSA takes exception, it will carry out a second valuation; if it confirms the original value was too high, the FSA will instruct the mortgage bank to reduce the size of the loan to achieve the legal maximum LTV.

In event of default, the mortgage bank can repossess and force sale of the property. Forced sales in Denmark are carried through by enforcement courts, which are part of the ordinary court system. The process is typically completed within six months.

Take note: these are not free-money, bet-the-house loans, and this system is not geared to maximize the rate of home-ownership. The 20 percent equity stake is mandatory (and can be easily monitored, because all rights and claims on a property are registered and ordered by rank through the national land registry system).

The borrower has an equity stake (and that equity stake is protected by applying the same lending standards to all

borrowers). The borrower is on the hook for any portion of the loan that cannot be recovered by forced sale.

Strategic default would be a highly unattractive option in the Danish system. Appraisal fraud would be virtually impossible.

BALANCE — A SOCIAL GOOD

Since inception in the 18th century, Danish mortgage lenders have funded mortgage loans by issuing negotiable debt securities. These are covered bonds: the bonds are direct obligations of the issuer, and both bonds and collateral remain on the mortgage bank's balance sheet. All credit risk is retained by the mortgage bank (full skin in the game!), while interest rate risks are passed to the bond investor. The mortgage bank has every incentive to carefully underwrite the borrower's ability and willingness to repay the loan.

A provision of the law — the Balance Principal (or Balanced Book Principal) — matches loan provisions to bond provisions, preventing the institution from taking any significant currency, interest rate or liquidity risk. In effect, a new loan is funded by the issuance of a matching bond with the same amount, interest rate, and maturity and payment characteristics.

In practice, the mortgage bank sets up bond series, or *Realkreditobligationer* (RO), which are “tapped” to fund the loan. That is, the mortgage bank adds the mortgage to a pool of identical mortgages — 30-year fixed mortgage expiring in 2040 with a 4.75 percent interest rate, and the same payment characteristics for instance. As mortgages are added, more bonds in the series are issued.

Everyone who takes out the same loan gets the funded at the prevailing bond price. The loan rate is nothing other than the market rate. The borrower pays a margin, on top of the bond payments, to cover the mortgage banks' credit, underwriting and servicing costs and to provide a profit.

Mortgage banks are highly profitable. And highly competitive, but the terms on which they compete, fees and services are also highly transparent. As Boyce puts it, Danish mortgage banks can be thought of as mortgage insurance companies that provide their customers with valuable financial advisory services (which include refinancing assistance when mortgage rates go down or home prices go up).

A series remains open for three years (so it is possible to add loans with shorter maturities than the original bond maturity). However — and this is a critical point — mortgage banks do not offer loans based on bonds priced above par, so a series may be closed and later reopened as bond prices move. Open or closed, the bond series has been trading freely, generating transparent price data.

Tap issuance of discount-priced bonds directly links the mortgage borrower to the capital markets. Borrowers can readily verify that they are paying the market interest rate, as easily as we can check the price of a listed stock. (No long hours of rate shopping, comparing rates, points, fine print, filling out forms and calculators online!) There is no premium pricing, no shaving off of servicing or guarantee fees, no jacking up the rate to build in premium to defray origination, legal appraisal, title insurance, registration and other fees and taxes. Or to pay the broker. Nor are there points to pay up front, no buying down of the rate. There is no room for sharp practices by brokers or opportunistic lenders. No need for consumer protection agencies.

BALANCING PREPAYMENTS AND DEFAULTS

The balance principle governs prepayments as well: a prepayment is matched by an identical reduction in the outstanding bonds that funded the loan. Borrowers effect this reduction in either of two ways. They may repay the principal at par in cash, usually by taking a new loan. Alternatively, they may buy the corresponding bonds in the market at market price and deliver them to the issuing mortgage bank, again funding the purchase by taking a new loan. This “delivery” option is only attractive to a borrower when bond prices have declined and the bonds are trading at a discount.

That is, the delivery option is appealing only when interest rates have gone up. The normal consequence of persistent increases in interest rates is a decline in home prices. The delivery option — or as Boyce refers to it, the redemption option — enables homeowners to reduce their debt in line with a loss of home value. To fund the redemption, the homeowner issues a new mortgage with a higher coupon and lower balance (reflecting the decline in appraised value). Not only does this reduce the debt on the homeowner’s balance sheet, it lowers the overall amount of debt in the system.

Put plainly, de-leveraging need not be accompanied by a destructive increase in defaults, foreclosures and modifications. As Boyce told me, “The Danish system turns every borrower into a shock absorber for the financial system, creating very valuable counter-cyclical benefits.”

If only U.S. homeowners had possessed this option in 2006 and 2007! Homeowners would not today be trapped in unaffordable, unrefinanceable, underwater mortgages. The Fed would never have had to buy all those MBS in an effort to lower mortgage rates. Yes, the Fed did force mortgage rates to new historical lows, but it did not accomplish its policy objectives. Home sales were not goosed, and only highly credit worthy borrowers having equity in their home were able to refinance. ▶

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Last December, Boyce tried to promote this beautiful mechanism to the House Financial Services Committee holding a hearing on covered bonds (the Danish model would make the covered bond approach more effective). As he put it, “In this sense, the optional redemption mortgage puts households more nearly in the same situation as corporate treasurers, who have the ability to purchase their own debt back at a lower value in the open market if the value of that debt falls.”

These mechanisms also shelter the mortgage bank from loss in the event of a default. When a borrower defaults, the mortgage bank is required to buy back the loan, either by passing cash through to bond holders or by buying back the bonds in the market. The cost of removing the mortgage from the pool is the lower of market or par. This significantly mitigates the risk faced by the mortgage bank.

STRICTLY REGULATED PRIVATE INSTITUTIONS

Danish mortgage banks are monoline institutions that specialize in property finance (they lend on commercial properties as well, ranging from shops to industrial, municipal housing, agriculture and renewable energy). Closely monitored by the Danish FSA, they are prohibited from making loans that do not meet the eligibility criteria imposed by legislation and from funding through any means other than bond issues. That means, in particular, that they do not take and lend deposits. Mortgage banks’ required capital base is set at a minimum of 8 percent of risk-weighted assets.

This regulator has clout and uses it. Listen to Boyce: “The Danish FSA is a unitary regulator, empowered with an excellent database of all the loans (paid off, current, delinquent, past due and in application phase) in the system. They are able to prevent certain loans from being funded, and ex post [to] force loans to be reduced in size. The FSA is efficient, and is subject to neither regulatory arbitrage nor capture.”

Seven Danish mortgage banks issue mortgage bonds, but two account for more than 72 percent of issuance, four for over 94percent. About 75percent of these lenders’ portfolios are composed of owner-occupied, rental or subsidized housing. The small number of issuers supports the market liquidity of outstanding bonds. (Source: “Danish Mortgage Bonds,” Danske Markets, September 2008.) Several of these institutions are affiliated with commercial banks, while others operate on a standalone basis. Mortgage banks that do not have their own distribution networks or use the branch networks of banking parents, serve borrowers by agreement through other financial institutions distribution channels and via realtors.

DESIGNED TO PROTECT THE INVESTORS WHO FURNISH THE CAPITAL

Danish mortgage bonds are described in the Danish law as “gilt-edged securities.” First line of defense, the monoline mortgage banks whose obligation it is to pass through cash flows from borrowers to investors.

To the bondholders’ eye, mortgage banks are very clean credits, their business simple: making real property mort-

gage loans, advising borrowers and facilitating strategic refinancings. The balance principle means interest rate and prepayment risk has been shifted to investors, tap issuance means they are not subject to warehouse risk and have no pipeline hedging costs; no warehouse or interest rate risk means that the 8percent required capital is deployed only to protect against credit risk.

Second line of defense is the collateral — the specific loans funded by the specific issue — and the regulatory arrangements that assure timely bond payments in the unlikely event of an issuer’s bankruptcy. Those guidelines include appointment of a trustee by the FSA instructed to meet all payment obligations in timely fashion.

The trustee has the authority to issue new mortgage bonds as needed to refinance maturing mortgage bonds (for instance, bullets backing mortgages with rate resets) and to issue subordinated debt to raise liquidity. The trustee may not pay any other creditors until all mortgage bond obligations are satisfied.

Danish mortgage bonds are accordingly highly rated: double- to triple-A depending on the issuer. Indeed, Moody’s 2002 report on the sector is titled “Danish Mortgage Bonds Are Highly Secure Financial Instruments Benefiting from Supportive Legislation.” In it Moody’s says, “These regulations are the most detailed and restrictive Moody’s has seen so far and therefore provide significant support for the Danish mortgage system.”

RESULT: A BIG, LIQUID BOND MARKET

Denmark is only the fourteenth largest economy in Europe, but it boasts the largest mortgage bond market, indeed one of the largest covered bond markets. The mortgage bond market is over four times larger than the Danish government bond market.

Liquidity is further enhanced by the large sizes reached by some series. A 2006 report by the International Monetary Fund noted that the 10 largest mortgage bonds account for approximately 25 percent of total mortgage bonds outstanding (“Technical Note: The Danish Mortgage Market: A Comparative Analysis”).

Secondary trading is supported by an agreement among a consortium of eight dealers to make markets in upwards of 60 series. Fixed income analysts at Danske Bank estimate an average daily turnover of EUR 45 billion in the series supported by this agreement.

Reflecting — and supporting — the liquidity of the sector, Danish mortgages bonds are also included in Barclays’ family of fixed income indices (formerly Lehman indices). Not surprisingly, foreign investors held 11percent of the market as of August 2009.

SIMPLER BOND INFORMATION EQUALS BETTER TRANSPARENCY

Regular readers of the Kitchen Sink know that I put little credence in the complaint, now elevated to regulatory credo, that issuers of private U.S. MBS did not provide sufficiently detailed information on transaction structures or underlying collateral for investors to properly evaluate the potential risks and rewards in the securities.

Instead, U.S. MBS are challenging analytically. Measuring, modeling and projecting prepayment and credit performance is tough enough assuming a single standardized mortgage loan packaged into a single standardized security structure. However, the U.S. market is characterized by a wide array of diverse securities. Even Ginnie and GSE pass-throughs, albeit guaranteed and highly standardized, must be analyzed on half a dozen or more dimensions if they are not traded as generics in the TBA market. The number of dimensions is increased exponentially for private MBS. Multiply that by thousands of securities and you have, for unsophisticated, overeager or infrastructure-poor investors, OPACITY.

If we think about the U.S. MBS market in this way, claims that it lacks transparency are more understandable. (It also should remind critics that additional disclosure isn't really the solution.) Making good relative value comparisons is both an art and a science, honed by investors and traders through years of experience using an arsenal of computer-based data tools. Investors who used short cuts (rating and yield bogeys, for instance) might as well have been blindfolded.

In this same sense, the Danish model provides much greater transparency. To be sure, there are fewer moving parts and fewer bond series. But the real "transparency" of Danish mortgage bonds derives from its broad standardization of mortgage loans: the tap method of discount issuance, the underwriting requirement that borrowers have significant equity investments in their houses and be personally responsible for repaying the loan, and the ability of borrowers to refinance that loan to a lower principle amount if the property falls in value with bond prices.

It should not be asserted, as I have seen some writers do, that the Danish system is more transparent because it provides more disclosure, that it somehow supports real-time data. Standardized data is widely available: from issuers (typically easily accessed online lookups), market makers and data providers such as NASDAQ OMX. All transactions (exchange or OTC) are recorded and published with a short delay. Summary bond data (type, maturity, rating, coupon, circulating volume, is the series open/closed, etc.) is updated daily, reflecting the fact that an active issue is tapped daily.

Preliminary data on prepayments is updated weekly, permitting bond holders forward looking information on prepayments that will be realized at the next payment date (usually quarterly). By contrast, prepayments in the U.S. are only known after the fact, but they are reported monthly along with other changes at security and collateral levels. For Danish mortgage bonds, cash flows, final paydowns (and the distribution ▶

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The key to price stability in Denmark was the much better **credit performance** of Danish borrowers.

between scheduled and prepaid principal) are published quarterly (though announced in advance, prepayments are made on the loan's scheduled payment date).

Indeed, authors of "The Danish Mortgage Market" in the March 2004 BIS Quarter Review commented on the "richness" of the information available to investors in U.S. MBS regarding borrowers and loans. Information provided in the Danish setup is limited. "This may be because the relatively less risky Danish securities offer no, or at best very limited, incentives for separate production of information by individual issuers. In contrast, not only is the information provided in the U.S. market more detailed, it is becoming ever more so." (Psst! BIS, tell the SEC and the FDIC, please!)

SHOULD WE TURN DANISH?

The Danish real estate finance system has much to recommend it. It has endured for centuries and chugged right through the worst of the international financial crisis. (The biggest danger facing it now is imposition of knee-jerk Basle Committee and European Commission regulatory initiatives designed to prevent problems that occurred elsewhere during the crisis, but that's another story.)

Even in the current economic downturn the delinquency rate is very low in Denmark, and foreclosures can be counted in the hundreds.

There's no dumping of properties back into housing markets at distressed prices, so the Danish housing bubble is deflating gently, like a party balloon that slowly drifts from the ceiling to the floor. There is no "class division" between the responsible borrowers whose real estate wealth is depreciating and the others, being bailed out at taxpayer expense.

The Danish system is government-enabled, by law and regulation, but otherwise private. Both the risks and the profits remain in the private sector. There are no government guarantees, but neither are there opportunities or incentives for lenders to manipulate or dupe consumers. It relies on the profit motive, it promotes private ownership and it is grounded on personal responsibility.

These are fundamentally, quintessentially American values are they not? Boyce is right, this is a "once in a lifetime opportunity to 'get it right'" in the U.S. The public will to make meaningful change is frittering away with every passing moment. Adopting key elements of the Danish system could resolve a number of problems at once.

The government can do this: redeploy the GSEs to tap issue balance principal MBS. They can do it as government agencies putting government guarantees on securities, or on the Danish model, reconstituted as properly capitalized private entities (either way, the portfolios have to be

stripped away to remove all interest rate risk from the balance sheet).

Two profitable, properly incentivized private enterprises should entice others to enter the arena. New entrants might be startups or subsidiaries of other financial institutions, but their operations would be subject to the same specific legal framework.

(Boyce's scenario merges the two for efficiency and creates a single Treasury-owned guarantor of balance principle MBS. With its warrants for GSE stock, Treasury holds the cards to do this today. In Boyce's plan, legislation would provide longer term for privatizing this model. Boyce's proposal is laid out in a paper presented at the American Enterprise Institute Highly recommended as well for his take on underlying questions ranging from securitization transparency to covered bonds and a fine bibliography.)

What kind of incentives? Securities backed by recourse loans to borrowers putting 20 percent down securitized in balance principle MBS should receive the lowest possible risk weightings from bank regulators (insurance regulators should follow suit, not discounting interest rate risk).

There's room here for higher LTVs. Use good old-fashioned private mortgage insurance, the way they did back in the day. Subject junior mortgages to registration and monitoring by a new, unitary regulator (that knows what it's doing, please) with notice to other lien holders and insurers.

There's even room for private, subprime lending on balance sheets or funded by securitization subject to whatever rules the Congress, the FDIC and the SEC can dream up. Unfortunately, new entities — that are not subject to any apparatus put in place to fight the last securitization war — will spring up to make dodgy home loans.

So why not skip the securitization rules and just make rules for the loans? Assume that homeownership is earned by demonstrated ability to save a downpayment. By consistently paying debts. Old-fashioned credit criteria.

Will the government do it? I'm doubtful. Not unless everyone who reads this agrees with Soros and Boyce and me spreads the word, and all together we recommend this solution to our elected representatives. Because the FDIC, SEC, Fed, Treasury and Congress will continue to stand outside the mess and propose cosmetic changes to the broken apparatus. They will make band-aids.

Whether in thrall to the status quo or powerful lobbies, law and policy makers will not do anything that doesn't leave open the possibility that in three, five, however many years it takes for housing and households to recover from this debacle, the mortgage grifters can return to sell chances to cash in on rising home prices to people with no business borrowing that much money. 🏠