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International Trade and Finance

Hearing on Comparison of International Housing Finance Systems

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Mr. Chairman, Ranking Member Corker and Members of the Subcommittee thank you for the opportunity to be here today. I am Michael Lea, Director of the Corky McMillin Center for Real Estate and Professor of Finance at San Diego State University. I have an extensive background in housing finance including senior executive positions at major mortgage lenders and as Chief Economist of Freddie Mac. I have been actively involved in the study of international housing finance systems for more than 20 years having done consulting and business development work in 30 countries and serving as Director of Research for the International Union of Housing Finance. I recently completed a comparative study of developed country mortgage markets that will be published by the Brookings Institution later this fall as well as a comparative study of mortgage instrument design released by the Research Institute for Housing America. I would request that both studies be entered in the record as they provide data support for the points I will make today.

In addressing the subcommittee today you have asked me to compare the structure and performance of major developed housing finance systems with a focus on Australia, Canada, Denmark, Germany and the United Kingdom. The three major issues you have asked me to emphasize are homeownership and affordability, the role of the government in mortgage finance and the dominant mortgage instrument, funding mechanism and underwriting standards. I will address each in turn.

## **1. Homeownership and Affordability**

The United State has a relatively high homeownership rate of 67 percent. This rate puts the U.S. in the middle of a group of 11 countries. Australia, Canada, Ireland, Spain and the U.K. have higher rates while Denmark, Germany, Japan, the Netherlands and Switzerland have lower rates. Countries in Northern and Western Europe have lower rates of homeownership in part because of significant social rental programs. Such programs are less significant in Southern Europe with corresponding higher homeownership rates.

Although many countries extol the virtues of homeownership there is far less intervention to support affordable owner-occupied mortgage lending in other developed countries. No other developed country has “housing goals” or Community Reinvestment Act legislation. Only Canada and the Netherlands have government-owned mortgage insurance agencies and in neither case is the insurance targeted to affordable housing.

Many European countries provide greater rental housing assistance than the U.S. Subsidized social rental housing is a significant sector of the market in Western and Northern Europe and the U.K. The housing is owned by municipal governments or non-profit groups. Subsidies take the form of rent assistance and financing assistance (e.g., municipal guarantees, state loans). Generally the assistance is available to all households who qualify (income targeting) and in some countries (Denmark, Netherlands) it is available to homeowners as well as renters. Australia and Canada have more limited assistance programs. They provide targeted rental assistance but do not support social housing to a significant extent.

The recession has had limited impact on homeownership in other countries but a more significant effect on house prices. High house prices in some countries limited homeownership opportunity prior to the crisis. No other country has experienced the magnitude of mortgage defaults and foreclosures that force households out of

homeownership. However, underwriting criteria have tightened worldwide which will ultimately have a negative influence on homeownership, particularly for first time homebuyers and self-employed borrowers.

House prices declined in all countries except Australia in 2008 and remained depressed in most countries in 2009. House prices increased significantly in Australia and Canada in late 2009 and 2010 and have risen in several other countries including the U.K. Only Ireland has experienced an extent of decline comparable to the U.S.

## **2. Extent of Government Involvement in Mortgage Finance**

The U.S. is internationally unusual in the extent of government involvement to support owner-occupied mortgage finance. No other developed country has a government-sponsored enterprise similar to Fannie Mae and Freddie Mac. Only Canada and Japan have government mortgage security guarantee programs equivalent to Ginnie Mae. Only Canada and the Netherlands have government-owned mortgage insurance companies. Australia sold its government mortgage insurer to the private sector in 1997.

For countries with government mortgage market support the market share of government-supported entities is far less than the current U.S. situation in which over 90 percent of mortgage credit is coming from government-backed institutions. In Canada approximately 50 percent of mortgages have government-backed mortgage insurance which is required for all loans over 80 percent loan-to-value (LTV). Approximately 25 percent of mortgages have been securitized with guarantees from the Canada Housing and Mortgage Corporation. A similar proportion of mortgages have been securitized in Japan with guarantees from the Japan Housing Finance Agency. Governments do not support mortgage securitization in other countries.

A minority of countries allows a tax deduction of homeowner mortgage interest. Only the Netherlands and Switzerland have unlimited deductibility. Denmark, Ireland and Spain limit the deduction and interest is not tax deductible in the other countries including Australia, Canada, Germany and the U.K. Households in these countries tend to pay down debt faster reducing mortgage risk. Tax-exempt bond financing programs for owner-occupied housing are also unique to the U.S. Australia, Canada and the U.K. have small first time homebuyer tax credit programs.

Mortgage regulation has been tightened in many countries as a result of the crisis. Canada and UK now require ARM qualification at higher than initial rates. Canada lowered the maximum LTV and term on bank originated mortgages. Both Australia and the UK have introduced suitability standards for mortgage lenders. Both the European Commission and individual country regulators are contemplating tighter underwriting parameters.

### **3. Mortgage Instruments, Funding and Underwriting**

The U.S. is internationally unusual in the market share of a long-term, fixed rate mortgage (FRM). Only two other countries have a dominance of this instrument: Denmark and France. Like the U.S. FRM, borrowers in Denmark can prepay their loan without penalty if mortgage rates fall. In France borrowers who refinance must pay a penalty and the typical term is shorter, 15 to 20 years. The Danish instrument adds a unique and valuable feature to its fixed rate mortgages. The Principle of Balance results in a one-to-one correspondence between a mortgage loan and a bond that finances it. If interest rates rise the borrower, through their mortgage lender, can repurchase the bond at a discount and cancel the mortgage. In this way the borrower can reduce debt and the likelihood of negative equity.

The dominant mortgage instruments in other countries correspond to one of two models – either adjustable rate mortgages (ARMs) or short to medium term fixed rate “rollover” mortgages. The dominant instrument in Australia, Spain and the U.K.

is an adjustable rate mortgage. Reliance on this instrument has been credited with reducing the incidence of default during the crisis. However it is clear that there is significant credit risk in the system if and when rates rise.

The dominant instrument in Canada and many European countries is the rollover mortgage. With this instrument the loan rate is fixed for a period of 1 to 10 years (typically 1-5) with a longer amortization period (25-35 years). Borrowers are subject to a prepayment penalty for refinance during the time the rate is fixed. The rate is re-negotiated at the end of the fixed rate period, adjusting to the market rate. Borrowers can manage interest rate risk by shortening or lengthening the fixed rate period at adjustment depending on the level and trend in rates.

The dominant mortgage instrument in individual countries reflects historical patterns, funding sources and government involvement. The U.S. is internationally unusual in its dependence on securitization for funding. Over 60 percent of the stock of mortgages has been securitized mostly through the government-backed entities. Today over 90 percent of U.S. mortgage funding comes through securitization. The highest proportion of loans securitized in other countries is approximately 25 percent in Canada, Spain and the U.K. The dependence on securitization in the U.S. is driven by two factors; the predominance of the FRM and the involvement of the government agencies. GSE and Ginnie Mae securities primarily fund FRMs. Government backing lowers the relative price of that instrument leading to a larger market share. Lenders depend on securitization to fund such loans because of the high degree of interest rate risk they entail (as evidenced by the savings and loan failures in the 1980s).

Mortgage lending in adjustable-rate countries is dominated by commercial banks. They prefer this instrument because it minimizes interest rate risk for the bank -- by passing it to the borrower. In Australia and the U.K. the rate is set for all borrowers at the discretion of the bank. Lenders typically lag the market in rate

adjustment. In times of rising rates banks cushion the interest rate shock with gradual rate increases.

Banks finance mortgage lending in rollover countries primarily through a combination of deposits and covered bonds,. Covered bonds finance approximately 20 percent of mortgage lending in the European area. Outside of Denmark the bonds are bullet instruments of varying maturities. Mortgages have prepayment penalties that facilitate match funding by covered bonds or a combination of deposits and interest rate swaps.

#### **4. Mortgage Performance and Underwriting**

The default and foreclosure experience of the U.S. market has been far worse than in other countries. Serious default rates remain less than 3 percent in all other countries and less than 1 percent in Australia and Canada. Of the countries in this survey only Ireland, Spain and the UK have seen a significant increase in mortgage default during the crisis.

There are several factors responsible for this result. First sub-prime lending was rare or non-existent outside of the US. The only country with a significant subprime share was the UK (a peak of 8 percent of mortgages in 2006). Subprime accounted for 5 percent of mortgages in Canada, less than 2 percent in Australia and negligible proportions elsewhere.

Second while some countries including Australia, Canada and the U.K. relaxed documentation requirements there was far less “risk layering” or offering limited documentation loans to subprime borrowers with little or no downpayment. There was little “no doc” lending.

Third, there has been less prevalence of negative equity in other countries. Although many countries allowed high LTV loans, the proportion of loans with little or no

downpayment was less than the U.S. and the decline in house prices in most countries was also less.

Fourth, loans in other developed countries are with recourse and lenders routinely do go after borrowers for deficiency judgments. Research in Europe and the U.S. has found that recourse reduces the incidence of default. With a much smaller proportion of loans that are securitized lenders are more apt to work with borrowers to restructure loans rather than go through a lengthy and costly foreclosure process.

Lenders have moved to tighten underwriting guidelines since the onset of the crisis. Downpayment requirements have increased, loan-to-income criteria have been tightened, there are fewer interest only loans available and in some countries the maximum mortgage term has been reduced. In most cases this has been at the volition of lenders and not imposed by regulators. To date there have been few government mandated minimum underwriting standards or product restrictions such as those in the Dodd-Frank legislation.

## **5. Conclusions**

There is no ideal housing finance system. Individual country arrangements reflect history, market structure and government policy. However, almost all developed country housing finance systems performed better during the crisis than that of the US. What can the U.S. learn from other countries?

First in no other country is there as much government involvement in the mortgage market. The combined effect of the various forms of government intervention undoubtedly contributed to the housing boom and bust in the U.S. Other countries have achieved comparable or higher rates of homeownership and well-developed, stable mortgage markets with much less government support.

Second, features of the Danish system offer the prospect of real improvement in the US housing finance system. It retains the core fixed rate mortgage product but makes it more consumer and investor friendly by adding the option to repay the loan through the bond market if rates rise. This feature would have reduced some of the negative equity build up in the US system during the crisis and the significant extension risk faced by mortgage security investors today. The Danish model could be adopted by the GSEs to facilitate its introduction with a transition to a non-government guaranteed bond market such as the one that exists in Denmark today.

Third, European style covered bonds can provide an alternative to funding through GSE securitization. The market is deep and liquid in Europe and has performed much better than the structured finance markets. The instruments are simple, bullet bond structures backed by a pool of conservatively underwritten mortgage assets and the capital of the issuer without government guarantees. Incentives are aligned as credit risk remains on the balance sheet of the issuer.

However, the fixed rate mortgages funded by covered bonds have prepayment penalties allowing issuers to meet strict asset-liability matching requirements. The recently passed Dodd-Frank financial reform legislation reinforces long-standing restrictions on the use of prepayment penalties that will hamper the development of a European style covered bond market

Fourth it should be recognized that the high proportion of FRMs funded through securitization in the U.S. is both the outcome of government involvement and a justification for its continuation. The risks inherent in the FRM realistically require it to be funded in the capital markets. Investors require government guarantees against loan or issuer default to invest in mortgage-backed securities with volatile cash flows. Thus the argument is made that we need to continue government support through the GSEs and/or Ginnie Mae to keep the mortgage market functioning. Their guarantees lower the relative cost of the FRM sustaining its dominance. The result is that the government backs the majority of all mortgages in the U.S.

If government guarantees for mortgage-backed securities were reduced or withdrawn over time the U.S. market would most likely achieve a more balanced mix of products and funding sources. Adjustable rate mortgages, medium term fixed rate mortgages and long term fixed rate mortgages all have a place in a robust mortgage market. Likewise, funding through deposits, bank bonds, covered bonds and securitization allows lenders to tap a variety of funding sources and manage the risks of the various instrument designs.

The experience of other countries shows that high rates of homeownership and stable well-developed mortgage markets can be achieved without the degree of government intervention that exists in the U.S. today. In that respect the U.S. clearly can learn much for international housing finance systems.

Thank you for the opportunity to appear before this committee.