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Hearing on Comparison of International Housing Finance Systems

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Mr. Chairman, Ranking Member Waters and Members of the Committee 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, business development and research in 30 countries and serving as Director of Research for the International Union of Housing Finance. I authored a comparative study of mortgage products released by the Research Institute for Housing America in 2010, a comparative study of developed country mortgage markets published by the Brookings Institution in 2011 and an academic journal article on the long term fixed rate mortgage in 2011. I would request that these studies be entered in the record as they provide information supporting the points I will make today.

In addressing the committee today you have asked me to address whether a sustainable housing finance system is possible without government guarantees and government sponsored enterprises (GSEs). In answering this question I will draw on the experience of major developed housing finance systems with a focus on Canada, Denmark, Germany and the United Kingdom. I will divide my remarks in three sections: First examining the incidence of guarantees and GSEs in major developed country housing finance systems; second summarizing the major features of the Canadian, Danish, German and British housing finance systems; and third

providing my thoughts as to what a system without government guarantees or GSEs would look like.

1. Guarantees and Government-sponsored Enterprises in Housing 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. Among 13 developed countries surveyed in my research, 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 directly support mortgage securitization in other countries.

It is important to note that all countries support housing finance indirectly through their banking systems. In most countries commercial banks are the dominant lenders. They are supported through deposit insurance and in some cases government support in crisis. This type of support differs from that given to US GSEs. It is a support to sustain and maintain a type of financial institution that is critical for the functioning of modern economies and that conducts a wide variety of

business. Commercial banks pay for this support through deposit insurance premiums and meaningful capital requirements. The GSEs have never paid user fees for their support and have operated with inadequate capital for most of their existence.

2. Major Mortgage Markets: A Comparison

Canada: The Canadian mortgage market is dominated by the top 5 commercial banks that have a 75 percent market share. The market is well developed with a mortgage debt-to-GDP ratio of 65 percent.

The dominant product is the roll-over mortgage which is a short term fixed rate instrument amortized over a longer term – typically 30 years. Rates are "rolled" or renegotiated when the fixed rate period ends. The most common period of rate fixing is 5 years but the borrower has a choice of fixed rate terms ranging from 1-10 years. During the time the rate is fixed (up to 5 years) the lender charges a penalty for prepayment. All loans over 80 percent loan-to-value are required to have mortgage insurance, which is provided by the government-backed National Housing Administration (NHA equivalent to the US FHA) or private mortgage insurance companies (which have a 90 percent backstop from the government). Approximately 50 percent of mortgages have mortgage insurance. There is no mortgage interest deduction in Canada.

The banks fund a majority of their mortgages on balance sheet with deposits. Canada recently passed a mortgage "covered bond" law to broaden funding options. The Canada Housing and Mortgage Corporation (CMHC) provides guarantees on pools of NHA insured loans that are securitized (similar to the Ginnie Mae program in the US – CMHC also operates the NHA program). Approximately 25 percent of outstanding mortgages have been securitized through this program. CMHC is a crown corporation with an explicit guarantee from the Canadian government. The

government caps its total insurance volume at C$600 billion and it recently reached this cap.

The Canadian mortgage market performed well through the crisis. Despite a run up and subsequent fall in house prices default rates have remained quite low (less than 0.5 percent). Canada had virtually no subprime market prior to the crisis. Canadian mortgages are full recourse to the borrower for deficiency judgments. The Ministry of Finance temporarily authorized CMHC to purchase mortgage securities during the crisis – an authority that has been terminated.

Denmark: The Danish mortgage market is dominated by 5 specialized mortgage credit institutions (MCI) that fund loans up to an 80 percent loan to value ratio. Commercial banks supply a small amount of unsecured "top up" loans above the 80 percent mortgage loan limit. Denmark has one of the highest mortgage debt-to-GDP ratios in the world at 101 percent.

Danish borrowers have a variety of mortgage instruments from which to choose. The traditional mortgage design is a long term (20-30 year) fixed rate mortgage prepayable without penalty (the same loan that dominates the US housing finance system – Denmark is the only other developed market that offers this types of mortgage). In addition, Danish borrowers can use an adjustable rate mortgage (ARM) in two forms: an indexed ARM using a Euribor index and a roll-over instrument that adjusts to the current market rate at the end of the fixed rate period. These loans are offered with and without a prepayment penalty. Mortgage interest is tax deductible in Denmark at a maximum 33 percent marginal tax rate.

Danish MCI are funded entirely through issuance of covered bonds and equity. The covered bonds are issued in accordance with the "balance principle" in which the loan is funded with the simultaneous issuance of a bond that corresponds to the individual loan. In so doing the MCI has no interest rate risk. The Danish system is very transparent and efficient. The mortgage note rate equals the bond coupon rate

and the MCI adds a 50 basis point fee for its administration. Another important feature is that fact that the mortgage bonds are corporate obligations of the issuer – as such the credit risk remains with the originator thus aligning incentives. The Danish covered bond market is the largest in Europe with over €345 billion outstanding.

As with US GSE mortgage-backed securities the bonds are pass-throughs of principal and interest. The individual bonds are part of larger series that are purchased by investors on a pro rata basis. An important feature of the Danish system is the buy-back privilege of borrowers. In the event of a market rate increase the bond trades at a discount. The borrower can purchase the bond in the market (usually through their lender) and present it to the lender to pay off the mortgage. In this way the borrower can deleverage by lowering their loan amount at a time in which house prices are falling, thus reducing the likelihood of negative equity. In a falling market interest rate environment the borrower can refinance her mortgage without penalty as in the US. There is no securitization or GSE in Denmark.

The Danish mortgage market performed exceptionally well during the crisis. The covered bond market remained open throughout the crisis ensuring a steady flow of funds without government guarantees. As in other developed countries, the Danish central bank did purchase mortgage bonds for a short time period in 2008 to ensure liquidity in the market. The Danish housing market experienced a greater boom and bust than most of the US yet Danish mortgage default rates remain very low (less than one percent). Danish mortgages are recourse obligations, which contribute to the low rates of default and foreclosure. Many borrowers took advantage of rising rates in 2007-8 to deleverage. Danish lenders have not offered sub-prime or limited documentation loans.

Germany: Germany has a diverse mortgage market with several types of lenders taking significant market share. The largest market share belongs to the savings banks that are owned by state governments. The second largest lending group is

cooperative banks that are mutually owned. Specialized mortgage banks and commercial banks are also significant originators. The market is stable and mature with a mortgage debt-to-GDP of 48 percent.

The German mortgage market has a unique institution, the Bausparkassen that provides second mortgages linked to a savings account. Households take out a Bauspar contract that promises a loan in the amount equal to the sum saved for a downpayment over a period 4-5 years. The typical financing package in Germany is 20 percent downpayment, a 20 percent Bauspar loan and a 60 percent first mortgage. The government provides small savings bonus upon completion of the Bauspar contract and most households have a contract. Mortgage interest is not deductible in Germany. The country is unique in that it has a (small) subsidy for savings rather than the more common mortgage debt subsidy.

Most German mortgages are rollover contracts with a fixed rate for 1-15 years over a 25-30 year amortization. There is a yield maintenance prepayment penalty for refinance during the fixed rate period up to 10 years. Savings banks also offer short -term adjustable rate mortgages.

German mortgages are funded with a mix of mortgage covered bonds and deposits. German covered bonds ("Pfandbrief") differ from those in Denmark in that they are issued against a portfolio of mortgage loans ('the cover") rather than a 1:1 loan-bond correspondence. The bonds are bullet maturities with a term equal to the fixed rate period of the loans. The Pfandbrief covered bond market is the second largest in Europe with over €224 billion outstanding. There are no government guarantees or government sponsored enterprises in Germany; however the state-owned Landesbanken traditionally provided wholesale finance to the savings banks. The European Central Bank (ECB) supported the covered bond market during the crisis with purchases. Covered bonds throughout Europe are eligible collateral at the ECB discount window.

The German mortgage market performed well during the crisis with very low default and foreclosure rates. Mortgage loans are full recourse in Germany. There were a number of bank failures but none were related to residential real estate lending. The German government injected funds into selected institutions and guaranteed bank liabilities to ensure access to wholesale funds in 2008-2009.

United Kingdom: The UK mortgage market is dominated by 5 large lenders: 4 commercial banks and one mutually owned building society with a combined market share of 90 percent. Prior to the crisis UK-style mortgage companies called centralized lenders funded by loan sale and securitization accounted for approximately 10 percent of the market but they disappeared with the collapse of wholesale funding markets. The UK mortgage market is large relative to the size of the economy with a mortgage debt-to-GDP ratio of 75 percent.

The dominant mortgage instrument in the UK is the short-term adjustable rate mortgage. There are two versions: a "tracker" loan indexed to Libor and a discretionary ARM ("standard variable rate") wherein the rate is set at the lender's discretion (typically following the Bank of England base rate). Initial fixed rate periods of 1-3 years with a modest discount are common. UK mortgage market exhibits significant churn as lenders aggressively compete for borrowers with the initial period fixed rates. A prepayment penalty during the fixed rate period and somewhat beyond is common. Mortgage interest is not deductible in the UK.

UK lenders are funded primarily with deposits. Prior to the crisis approximately 15 percent of lending was funded by securitization primarily by the centralized lenders. Large depository lenders have issued covered bonds and the UK has passed covered bond legislation. There are no government-sponsored enterprises and until recently no government mortgage guarantees. The UK government has proposed a guarantee program wherein the government will provide partial loss insurance for high LTV loans (over 80 percent) for a maximum of 7 years. An important difference

from the FHA program is the requirement that lenders take a first loss position (5 percent of loss over 80 percent LTV).

Prior to the crisis the UK was one of the more aggressive markets with sub-prime and limited documentation (self certification) lending. Sub-prime lending accounted for approximately 8 percent of UK lending. Unlike the US, however, British lenders did not typically layer risk (e.g., granting high LTV loans to sub-prime borrowers). As in the US this type of lending disappeared in the crisis.

The UK mortgage market has managed the stress of the financial crisis relatively well. Default and foreclosure rates are elevated but at 2.5 percent and 0.3 percent respectively they are well below US levels. UK non-conforming loans have high rates of delinquency but relatively low rates of foreclosure. The predominance of ARMs is an important factor – borrowers benefitted from sharply falling interest rates due to monetary policy easing. Unlike the US, negative equity is not a major problem and loans are full recourse (up to 6 years). Several large mortgage lenders including Northern Rock and Bradford and Bingley were nationalized as a result of an excessive dependence on wholesale finance to fund non-conforming mortgages.

3. A Vision of the Future

The U.S. mortgage market is internationally unusual in several respects: the large role of government in directing credit to the housing market (even before the crisis); the presence of GSEs and extensive use of government guarantees to promote securitization; the dominance of securitization as a funding technique; and the high market share of a long-term, fixed rate mortgage (FRM). These characteristics are interrelated. The origins of the GSEs lie in an expanding role of the government in the Great Depression. Securitization through the GSEs rose to be a dominant funding technique because of the wide-spread failure of savings and loans due to a government prescribed mismatch in which they were required to offer only long term fixed rate mortgages. The advantages of the GSE charter

allowed them to cement their role as the dominant funding source and in so doing enshrine the FRM as the major instrument. Today defenders of the GSE status quo point to the necessity of maintaining this instrument in its dominant position.

Before turning to the benefits and costs of the FRM, it is instructive to review the history of the GSE. This brief review will show that GSEs are largely an unintended consequence of decisions made for reasons other than explicitly subsidizing housing finance. The GSE story begins in the Great Depression. The FHA was created in 1934 as an independent, federally sponsored mutual mortgage insurance fund authorized to insure only the long term (up to 20 years) fully amortizing fixed-rate mortgage (FRM) with a maximum loan to value (LTV) ratio of 80 percent on new construction. The National Housing Act also gave FHA the authority to establish private national mortgage exchanges to "make a market" in these FHA-insured FRMs and thereby promote their use. However portfolio lenders refused to fund the FHA FRM because of its inherent funding risk. Thus the government created the National Mortgage Association of Washington (later changed to the Federal National Mortgage Association or “Fannie Mae”) to purchase FHA loans funded with Treasury debt.

The GSE charter was born in 1968 – not for the purpose of creating the secondary mortgage market but rather as political expediency to get the Association “off budget”. The Government National Mortgage Association—“Ginnie Mae”—was established at the same time with the sole purpose being to “manage and liquidate” the Treasury-financed FHA/VA-insured Fannie Mae portfolio. Ginnie Mae created the mortgage-backed security using the grantor trust statute to facilitate a sale of assets without corporate double taxation (at the trust and investor level). A major rationale for creation of the Ginnie Mae security was to pre-empt state security law restrictions. This new instrument provided an efficient funding source for FHA and VA mortgages – a role that Fannie Mae had traditionally done. Fannie Mae’s new owners, mortgage bankers, lobbied for and won the authority to invest in conventional, non-government insured mortgages. Fannie Mae funded its purchases with corporate debt through 1981. The savings and loans, seeing that the mortgage

bankers now had a GSE funding source, lobbied for their own leading to the creation of Freddie Mac in 1970. Politics rather than policy lie behind its creation.

While Freddie Mac and Ginnie Mae slowly developed the secondary mortgage market in the 1970s, savings and loans continued to build up their exposure to fixed rate mortgages. Federally chartered S&Ls were prohibited from offering ARMs and state-chartered S&Ls offered only a limited amount. This changed in 1981 when regulators and Congress realized that the sharp rise in interest rates had effectively bankrupted the entire industry. The S&Ls were allowed to issue ARMs and given accounting and tax relief to encourage them to sell FRMs leading to strong GSE growth during the decade. Fannie Mae was insolvent at the same time for the same reason but like the S&Ls allowed to grow out of its problems. It began securitizing loans in 1981.

GSE dominance grew as interest rates fell. Ever greater volumes of mortgages were refinanced as one of the main attributes of the FRM, the ability to prepay without penalty, became more apparent and borrowers refinanced their loans to lower payments and tap housing equity. Over time the interest rate sensitivity of borrowers grew and the mortgage industry became dependent on refinancing. The GSE MBS became a dominant trading instrument as investment banks and hedge funds speculated on prepayment risk. While the GSE securities stated they were not obligations of the US government, they were traded on investment bank "agency desks" and soon had the highest volume of trading in the fixed income market. The investment banks moved beyond market making to active investment, creating "proprietary trading desks" to structure and manage mortgage-backed security portfolios. In this way the entire mortgage securities market, not just the GSEs, became "too big to fail".

Which brings us back to the GSEs and the FRM. Securitization (more accurately capital market funding) is necessary to fund the FRM due to its inherent cash flow risk. It also turns illiquid mortgage loans into liquid securities. However, as other

panelists will attest, a government guarantee is not a necessary condition for securitization. A vibrant private label security market in jumbo FRMs existed before the crisis and will re-emerge if and when GSE loan limits return to normal levels. And the Danish market funds FRMs through non-guaranteed covered bonds. But the real question for policy makers is whether it is healthy to build a market around GSEs and the FRM.

The FRM has undeniable benefit. In addition to penalty free prepayment it is a simple, easy to understand instrument. It provides protection against rising interest rates for a long time period. However there are significant costs to the FRM. The interest rate and prepayment risks in the FRM are costly and difficult for investors to manage. A huge volume of derivative instruments is necessary for investors to manage the risks increasing systemic risk in the financial system. There is a premium for both the long term and the prepayment option that are paid by all users of the mortgage. The FRM causes instability in the mortgage market through periodic refinancing waves. The FRM can create negative equity in an environment of falling house prices. And the taxpayers are on the hook for hundreds of billions of dollars in losses backing the credit risk guarantees provided by Fannie Mae and Freddie Mac to support securities backed by the FRM.

If we move away from a housing finance system predicated on FRMs and GSEs what would emerge? As noted above, the FRM would continue to be offered but at a higher price reflecting non-subsidized financing. Borrowers would benefit through lower mortgage rates from moving down the yield curve selecting fixed rate terms consistent with their mobility patterns. Very few FRMs are held to term so supporting an instrument that has a fixed rate for 15-30 years is not essential to the workings of the housing finance system. In a non-GSE world, shorter term fixed rate instruments like the roll-over and hybrid ARM would provide rate and payment stability for up to 10 years. Lenders could safely finance these instruments through term deposits, interest rate swaps and covered bonds or through private-label securitization. Loans could be offered with and without prepayment penalties

providing borrowers with greater choice. And taxpayer risk would be substantially reduced through elimination of the GSEs.

4. 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 no other country has 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, no developed country has a GSE. GSEs were created primarily for political not policy reasons. The GSEs rose to dominance as a result of economic policy (falling interest rates), consumer protection policy (requirements for S&Ls to offer FRMs) and their government backing. It is fair to say that policy makers never intended to create a duopoly providing over 75 percent of all mortgage credit in the US.

Third, only one other country has the FRM as a major mortgage instrument. And that country, Denmark, has a safer and more efficient way to fund the FRM. The FRM has large costs to the consumer, lender and government. Continuation of its dominance should not be a public policy objective. A more balanced, market-driven system will provide a range of mortgage products and funding instruments addressing a wide variety of consumer and lender needs without exposing the taxpayer to undue risk. Average mortgage rates may be lower if borrowers switch to shorter term fixed rate and adjustable rate mortgages.

Finally it is important to keep in mind that the pre-GSE housing finance system in the US generated comparable levels of homeownership without the distortions caused by government guarantees, institutions and programs. The experience of other countries is that private capital can fund the vast majority of demand for housing finance. A high rate of homeownership and a stable mortgage market meeting the needs of consumers and lenders 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.