International Housing Construction Developments – Implications for Hardwood Utilization

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Abstract

This paper describes the current state of international housing markets, providing general and statistical information on regional housing markets and will posit implications for the future. The emphasis is on regions that use appreciable quantities of wood in housing construction, principally North America, Europe, and Japan. In the past 15 years, housing markets became an area of increased focus for United States hardwood producers. Market developments are described for housing permits, starts, new and existing home sales, and multi-family housing. In the United States, the housing market is still bottom-bouncing – new home construction, single- and multi-family, are at levels only witnessed during World Wars I and II and the Great Depression. A recovery is being abated by increasing inventories of unsold homes, 'shadow' homes, tougher lending practices, a persistent recession, and the specter of rising interest rates. Many estimates for a housing recovery project a number of years into the future. The Canadian housing market has rebounded from its dip in 2008-2009. The European housing construction market also is in decline, in large part due to the deterioration of Spain's housing market. The specter of bond defaults by Ireland, Portugal, Italy, Spain, Greece, and possibly Belgium hamper a meaningful recovery. As in the United States, increasing inventories of unsold homes in Ireland, Britain, and Spain, to list a few, are hindering a housing recovery. In Asia, China's change in construction regulations and the rebuilding of housing in Japan's tsunami zone should benefit hardwood producers.

1. Introduction

The 2011 global economy is still recovering from the most severe financial shock since the 1930's Great Depression and the largest economic decline since World War II. In spite of the aggressive use of Keynesian fiscal and monetary policy, numerous countries are struggling to gain firm financial footing, while concurrently moving towards fiscal austerity. Global economic growth began to decelerate broadly in mid-2010, and this slowdown is expected to continue into 2012 (Vos 2011). Thus, this crisis will have significant long-term global implications for the United States (U.S.) and other countries' housing markets. The world gross domestic product (GDP) is forecast to expand by 3.3% in 2011 and 3.6% in 2012 and developing economies are projected to expand by 6 or more percent in 2011-2012. In high-income countries, the projected GDP is 2.4% in 2011 and 2.7% for 2012 (The World Bank 2011). Vos (2011) estimated similarly, with a 3.1% global GDP in 2011 and 3.5% in 2012. Nearly all countries have employed 'cheap' money tactics (low-interest rates, quantitative easing, debt monetization) to aid the financial sector and stimulate economic activity. Current conditions include unemployment at consistently elevated levels and insipid consumer confidence – singularly or in combination, these may lead to housing markets weakening further. As in the U.S., European bank regulation is tightening and it appears that the banking and mortgage structure may be unable to sufficiently fund mortgages (Ball 2011).

Sovereign Eurozone and U.S. debt affects housing, both long- and short-term. Financing of this debt is in reality transferring demand from the future to the present, which may have short-run benefits but in the long-term may be deleterious. As such, mortgage availability and credit sources may worsen, as expanding government debt is in reality in competition with mortgage credit; simply, there may not be enough buyers for this debt. Sovereign debt is problematic and is reflected in increasing interest rate spreads found in Portugal, Italy, Ireland, Greece, and Spain. Ultimately, a world-wide monetary crisis may well hinge on the handling of Grecian debt. As a consequence, European housing markets, as in the U.S., remain subject to substantial unknowns arising from financial system shocks and the move towards fiscal austerity (The World Bank 2011,

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Vos 2011). Typically, investments in housing have averaged about 5% of U.S. GDP and housing services 12 to 13%; combined, both averaged 17 to 18% of GDP (Alexandre 2011). As a result, amplified attention is paid to the housing market due to its impact, by the financial media and differing levels of government, as it is a prime component of the U.S. economy.

1.1. United States Housing: The Collapse – Home Valuation and Debt Problems

The primary cause of the financial crisis was a faltering economy, which triggered the collapse in the value of U.S. mortgage-backed securities (Williams 2011a). The mortgage crisis was the effect of employment loss, increasing interest rates that resulted in many homeowners unable to make mortgage payments (variable rate and subprime loans), and collapsing home valuations. Other factors included: regulation, by law, banks were required to offer financing to buyers who would not have qualified under past lending requirements; 'liar' loans, subprime loans; and profligate lending practices. Eventually, these loans were placed into other financial instruments and given a risk level they did not merit; many were 'bundled' and sold to Freddie Mac and Fanny Mae. The recession then triggered the collapse, valuations declined precipitously, which led to the breakdown in the value of a large portion of U.S. mortgage-backed securities. The end result is that the housing market is still reeling from the recession and crisis. By May 2011, existing U.S. home prices have declined approximately 41% from the 2006 peak and new home values have fallen 17.5% from 2007s high. From the first quarter (Q1) of 2010 to Q1 2011, about 75% of U.S. homes lost value, and prices have now fallen for 58 consecutive months (Humphries 2010a, 2011b). Likewise, the Federal Housing Finance Agency (2011) home price index indicates prices decreased 2.5% in the 1st quarter of 2011 and 5.5% year-over-year. March home prices fell to 138.16 (May 20-City Composite Case-Shiller Home Price Index®), less than April 2009's value of 139.26, then the nadir of home price valuation (Guarino and Blitzer 2011). This fall also has erased 8 years of price gains. In view of that, U.S. home prices (U.S. Department of Commerce-Bureau of Census 2011a) still have critical consequences for the final valuation of mortgage securities as well as a resolution to the financial crisis (Figure 1).

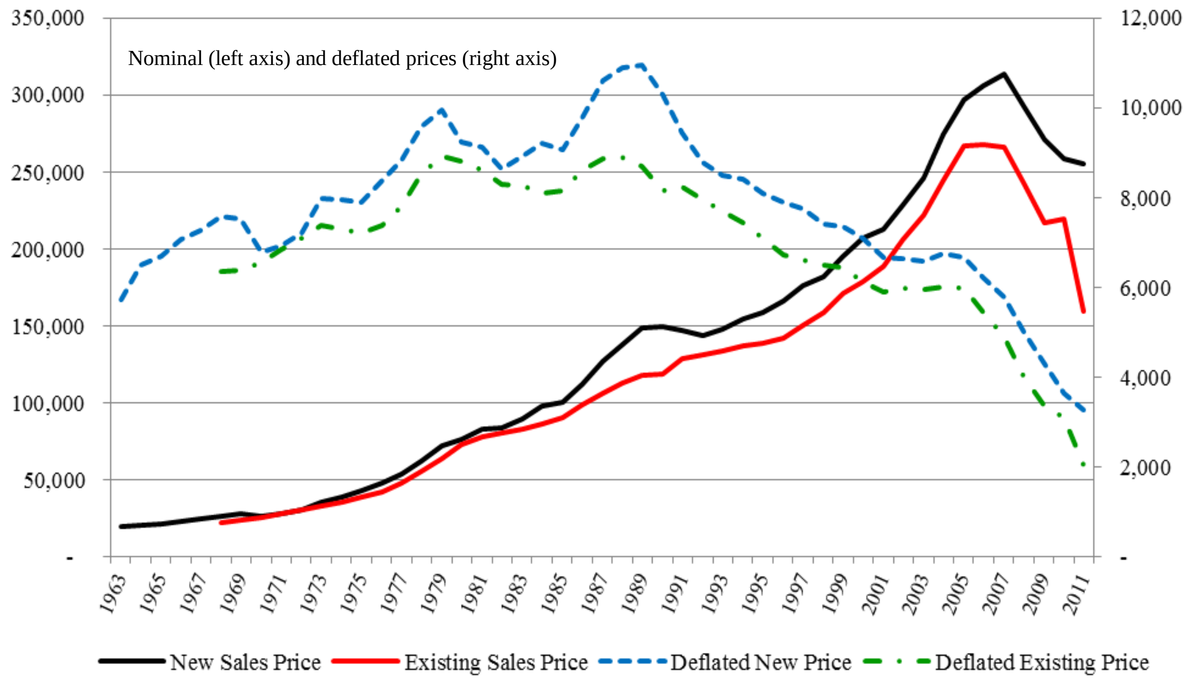


Figure 1. Historical nominal and deflated U.S. home prices (CPI deflator-1914 basis, U.S. Department of Commerce-Bureau of Census 2011a, Williams 2011b).

With valuations falling, mortgage delinquencies appear to have become the norm, increasing to nearly 10% of all mortgages by 2010s end; even prime loans had a delinquency rate approaching 7% (Alexandre 2011). There are several estimates for underwater or upside down mortgages; Calculated Risk (2010) reported nearly 5 million homes were underwater in 2009 and 14.8 million in 2010; of these, 4.1 million had greater than 50%

negative equity. By Q1 2011, roughly 12 million or 28.4% of all mortgages were underwater – a record (Humphries 2011b). CoreLogic (2011a) reported that 38% of borrowers with home-equity loans were underwater in Q1 and by comparison, 18% of borrowers without a home-equity loan were underwater. They also reported that about 10.9 million (22.7%) of all homeowners were underwater in Q1, down from 11.1 million, or 23.1% in Q4 2010. A product of negative equity is foreclosure, in Q2 2011, nearly 2 million homes were in the foreclosure process and an additional 1.5 million homes were seriously delinquent (Humphries 2011b). In April, mortgages in the 90+ day delinquency and foreclosure status exceeded monthly foreclosure sales by nearly 50:1; and 40% of borrowers in the 90+ day status have not made a payment in more than a year (Lender Processing Services 2011). According to RealtyTrac (2011), U.S. mortgage lenders own more than 872,000 foreclosed homes, are foreclosing on an additional one million homes, and may take possession of millions more in future years. Lastly, 5.3 million additional homes could be placed on the market if conditions were better (Humphries 2010a).

Falling valuations and unpayable debt not only affect consumer psyche, existing sales, new home sales and starts, they also have more dire consequences – from January 2005 to December 2010, it is estimated that 3.7 million U.S. homes have been foreclosed on and 8.5 million Americans (2.3 people per house) are living elsewhere. It is projected that by the end of 2016, this number may be 6.5 million homes and result in nearly 15 million displaced Americans (Butter 2011).

1.2. EUROPEAN HOUSING

The European housing market is at best a 'mixed bag.' In 2010, Norway, Sweden, Germany, France, and Belgium had increases in home prices. Ireland, Spain, Hungary, Portugal, and Greece registered decreases (Ball 2011), and considering their economic reality, will continue to do so. In Britain (U.K.), which also experienced an economic decline, home prices inexplicably rose. In March 2010, they were 9% higher than in 2009, and prices have risen slightly in 2011 (O'Donnell 2011). In the decade prior to the global recession, European home prices appreciated more than in the U.S., but have declined much less since the crisis began. However, in some of the hardest hit economies, Ireland, Spain, and Latvia, housing prices declined substantially (Shelburne 2010). This has contributed to a solvency crisis for some domestic banks, particularly in Spain. As a result, the possibility exists that European home prices may be overvalued, and this poses a downside risk for Europe's housing and economic recovery (Just and Mayer 2010). This was echoed by Ball (2011) as he wrote there has been minimal deleveraging of mortgage debt in the majority of countries where liabilities escalated excessively. Prospects for Europe, including the Euroconstruct[1] region, leading an international economic recovery are fragile. With this stated, Poland and Germany appear poised to have stellar economic performances going forward (Euroconstruct 2010).

Throughout Europe, home construction is sluggish and is lagging the overall recovery in most places (Ball 2011). From 2008 to 2010, European residential construction contracted by more than 20%, to 554 billion € (US$796 billion). In only 3 years, the gains of 13 years were erased. In 2009, an extraordinary decline in demand for all construction occurred, primarily residential, and resulted in an overall decline of Euroconstruct area building volumes (-8.4%, about 1.4 billion €). As a contrast, the GDP for all of Euroconstruct[1] region members declined by an average of 4%. The slump differed in severity among countries; building activity increased in Switzerland and Poland, while Spain (-21.5%) and Ireland (-32.2%) suffered stunning collapses (Euroconstruct 2010). Currently, conditions appear not to be improving as a contrast of March 2010 to March 2011's numbers indicate that construction values dropped by 4.9% in the European Union (EU)-17 and by 2.7% in EU-27 (Allen 2011).

1.3. RUSSIAN HOUSING

Russia is blessed with abundant forests and wood has been a primary construction material for hundreds of years. Yet in the 20th century this changed, as brick, steel, and concrete structures were typically built. Wooden houses were considered provincial and relegated to "dacha areas;" small, private residences. In 2007, wooden home starts increased by 21% compared to 2006 and by 2008 had declined by 4.7%. In 2010, wooden homes accounted for a 10.7% share of the total housing stock. The commissioning of residential houses in 2009 totaled 59.8 million m^2 and most wooden homes are built by private homeowners (Table 1, Burdin 2010).

[1] The Euroconstruct region is comprised of 19 countries. The western region includes EU-17 member states (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, the Netherlands, Poland, Portugal, Slovakia, Spain, Sweden, and the United Kingdom), jointly with Norway and Switzerland. Euroconstruct's western European countries are not the EU-27, but the first 17 countries listed above. Euroconstruct's analysis of eastern European construction also is based on the Czech Republic, Hungary, Slovakia, and Poland.

Between January and March of 2011, 107,000 new homes were built – about 9.3 million m^2, a year-over-year decrease of 2.2% (9.5 million m^2). For all of 2011, 63 million m^2 of housing are projected to be completed; in 2012 an estimated 67 million m^2 will be constructed. Projecting forward: 2013 – 71 million m^2; 2014 – 79 million m^2, 2015 – 90 million m^2, 2016 – 101 million m^2; 2017 – 110 million m^2; 2018 – 120 million m^2; 2019 – 131 million m^2; and in 2020 – 145 million m^2 of housing is estimated to be constructed (PMR Construction Russia 2011).

Table 1. Homes built in Russia by private homeowners from own resources, 2007- 2009 (Russian Federation Federal State Statistics Service (2011)).

(1000m^2 of floor area)

Item	2007	2008	2009
Owner-built homes, *of which*:	26,074	27,367	28,546
- walls constructed with stone and brick	19,848	20,752	21,225
- constructed with wooden walls	6,226	6,615	7,321

From 2000 to mid-2008, the average annual increase of home prices was 30% per year; and in the metropolitan areas, the increase was greater. In 2006, home prices increased more than 50%; however, since mid-2008, prices have slightly declined (Housing Finance Network 2011). The world-wide financial crisis took its toll on Russia too; non-state demand for residential property is problematic. In 2009, mortgage lending volumes decreased by six-times. To address this, Russian Federation governments reduced interest rates charged to the Mortgage Housing Credit Agency, from 9.5 to 6.5%.

1.4. ASIA: CHINA AND JAPAN HOUSING

1.4.1. CHINESE HOUSING

China, for more than a decade, has achieved double-digit annual growth and now is the world's third largest building market. Historically, China has shunned wooden residential construction. However, recent developments may be changing the perception of wooden home construction. This is due to municipal governments replacing aging cement-based public housing with larger, more modern wood-frame apartments, China's fast-growing middle class appears to be favoring detached, western-style homes, and, in the aftermath of the Wenchuan earthquake, Chinese authorities are realizing the advantages of wood construction. Both the Canadian and U.S. governments are actively promoting wooden housing in China. British Columbia's efforts include Wood First and Dream Home China. The U.S. sponsors the U.S.-China Build Program, a government and industry effort to promote U.S. building materials and technologies (International Wood Markets Group (IWMG) 2011). For example, Dream Home China built a wood-framed villa in Shanghai, renovation projects in Qingdao, and multi-family buildings in Beijing. Also, a wood-framed school was built in the Sichuan province as a consequence of the Wenchuan earthquake.

In 2009, Canada Wood & Forest Innovation won approval for a new wood-building code in Shanghai and built a six-story apartment building. The Chinese government is committed to building 10 million affordable housing units in 2011 and 35 million in the next 5 years (Stephens 2011). Of this total, nearly 7 million housing-unit starts per year are 'condo' style and 70% are mid-rise residential buildings, which are 4 to 6 stories tall (IWMG 2011). However, there are reports of a downside risk to the Chinese real estate market, primarily concerning 'Ghost' cities and vacant homes. For instance, it is suggested there are essentially vacant malls and cities, and upwards of 65 vacant million homes (Value Investors Portal 2011).

1.4.2. JAPANESE HOUSING

The Japanese people value wood highly, and Japan has historically built wooden homes. Eastin (2008) estimated that before 2011's Tsunami, 959,000 units were to be built in the years 2011 to 2015 and 824,000 units per year between 2016 and 2020. After the 2011 Tsunami, the Japanese government asked for 30,000 temporary homes. A conservative estimate is that more than 400,000 homes were lost in the tragedy and an estimated 100,000 to 150,000 buildings were destroyed. Compared to U.S. homes, Japanese houses are smaller, as they average about 1,021ft^2 and they utilize post and beam vs. the 2 by 4 platform frame.

2. CONSTRUCTION SECTOR DEVELOPMENTS

2.1. UNITED STATES CONSTRUCTION MARKET – A REVIEW

The U.S. housing market is still bottom-bouncing – searching for a base; April registered the lowest sales since the U.S. Department of Commerce-Bureau of Census began record-keeping in 1963 (Figure 2). By May 2011, existing U.S. home sales declined approximately 28% from the 2005 high and new home sales have fallen 72% from 2005s peak (SAAR). The National Association of Realtors (NAR, NAR 2011a, b, c) reports that 37% of existing home sales in April were foreclosed homes. In a historical context, U.S. housing starts are at levels not witnessed since the Great Depression and less than in the World War II era (Figure 2). It is not all dismal, CoreLogic (2011b) reports that in 20 states home prices increased in May. Their data does not include bank real estate owned properties. Yet, this market is still in a correction that began in 2008 and any rational estimates for a housing recovery should project several years into the future. The ramifications for the forest products industry are significant, as 40% of softwood lumber production is utilized in single-family homes – and overall nearly 70% of all softwood products are used in new housing starts (Schuler 2010). Currently, industrial markets consume more lumber than new housing, about 35%, and new construction is nearly 22% (Random Lengths 2011). Even with insipid new housing starts, building material prices improved slightly in 2010. Anecdotal knowledge suggests that about 50% of hardwood lumber products are utilized in housing – and the crash severely affected hardwood consumption. For instance, hardwood used in millwork manufacture fell 69% from 1999 to 2009; hardwood consumed in cabinet production declined 42%; and flooring consumption fell 64% (Johnson 2011).

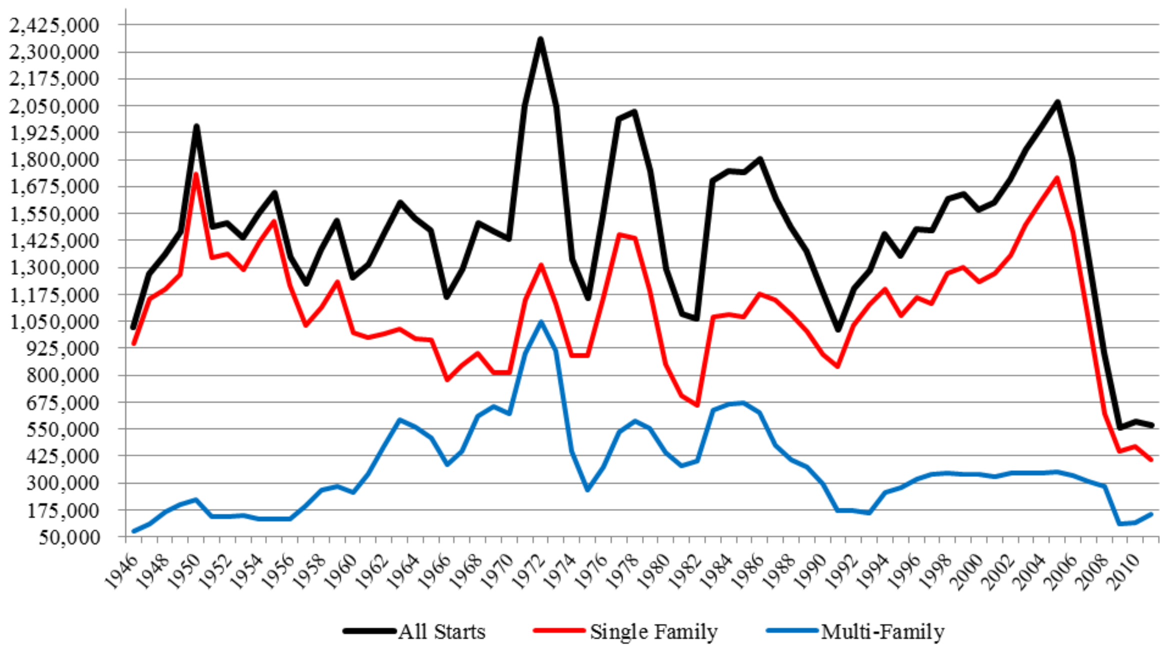


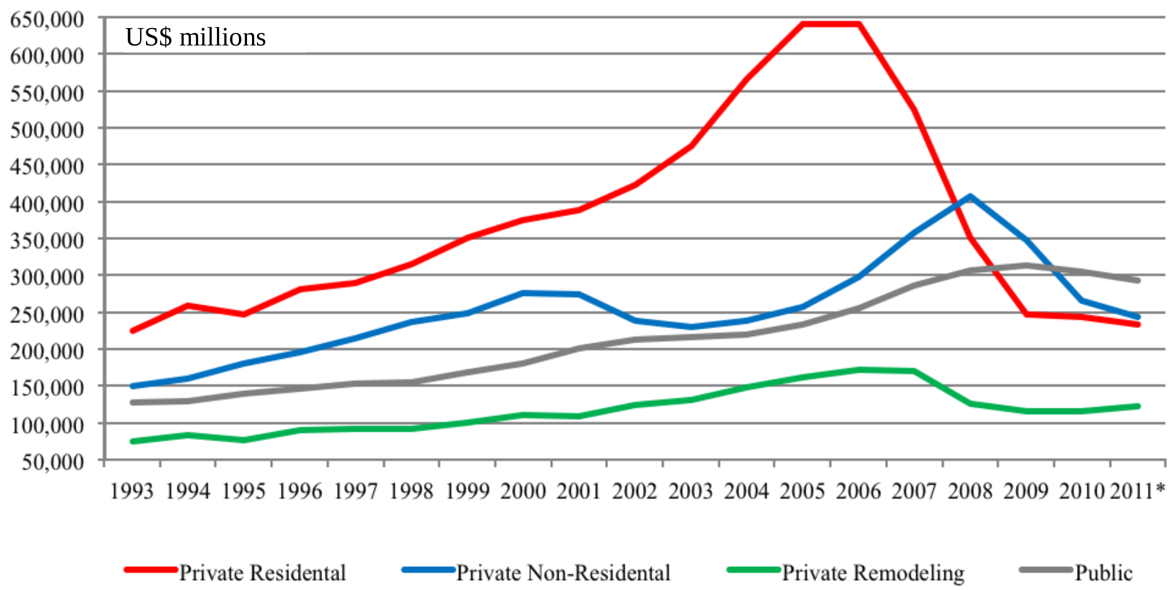
Figure 2. U.S. housing starts: 1946-2011 (SAAR, U.S. Department of Commerce-Bureau of Census 2011b).

Housing construction spending continues to trend lower (Figure 3). Total private residential construction spending fell 8% year-over-year from March 2010 to March 2011, to US$238 million; this is a US$426 million decline from the 2006s high (US$664 million, U.S. Department of Commerce-Bureau of Census 2011c). The Leading Indicator of Remodeling Activity (LIRA) estimated US$491.5 million was spent on remodeling in 2011, up 0.2%. The DIY home improvement market has recorded a 21% decline from 2005-2010 according to Mintel, and more than a quarter (28%) of DIYers reported they would like to undertake a major home renovation project but they do not have available funding. Mintel forecasts some growth in 2011 and if the housing market stabilizes, remodeling is projected to be positive through 2015 (Mintel 2011). This appears to be an opportunity, as 43.6% of U.S. homes are 51 years or older (56.7 million units) and the median age of a home in the U.S. is 37 years. Nearly 25% of the U.S. housing stock is 20 years old or less (32.3 million homes) and 31.6% of homes are 21 to 50 years old (41.1 million units) (U.S. Department of Commerce-Bureau of Census 2011d).

2.1.2. UNITED STATES CONSTRUCTION OUTLOOK FOR 2011

Overwhelmed consumers, unemployment, inflation, mediocre household formation numbers, delinquencies, shadow inventory, more stringent mortgage requirements, continuing foreclosures, and a potential for rising interest rates all are a detriment to the housing market. Foreclosures drive existing home prices down substantially – thus, all home sales and starts suffer due to a very competitive market. The April 2011 data (U.S. Department of Commerce-Bureau of Census 2011b) for new housing starts were disappointing, projecting an annual rate of ±550,000 units – the lowest number of starts since 1946 (Figure 2). A colossal hindrance to starts and sales is 'Shadow' homes; Core Logic (2011c) estimates 1.8 million homes and Capitol Economics estimates that 5.1 million homes are in limbo (Ricciardi 2011). Obfuscating both single- and multi-family demand are job losses among first-time homebuyers and would-be renters, and a supply that is inflated by owners and banks who are trying to rent or sale repossessed homes. Anecdotally, several analysts have stated that credit lending is anemic and hinders housing starts and sales; however, The Federal Reserve (2011) reports that mortgage financing increased – from US$9.865 trillion (in 2006) to US$10.070 trillion (nominal basis) at 2010s end. With that stated, and adding more misery, the June Mortgage Bankers Association (2011) report indicated that mortgage applications decreased by 3% in May and by 15% year-over-year basis as of May 2011.

Another potential bright spot is multi-family housing and the construction of rental units; multi-family starts dipped below the past 40-years average (Figure 3) in the past decade. Many individuals may look more favorably to renting than owning at this juncture. All data, unfortunately, indicates that housing is in a 'double-dip' recession.



* Estimate for 2011: Joint Center for Housing Studies 2011

Figure 3. U.S. construction spending, 2000-2011 (Joint Center for Housing Studies 2011, U.S. Department of Commerce-Bureau of Census 2011c).

2.2. CANADIAN HOUSING CONSTRUCTION MARKET

The Canadian housing market continues to rebound from the effects of the recession, with 189,930 starts recorded in 2010 (Canada Mortgage and Housing Corporation (CMHC 2011)). CMHC forecasts 179,500 starts in 2011 (range: 166,600 to 192,200) and 185,300 for 2012, with increases in British Columbia, Alberta, and Ontario. Of this total, 82,700 single-family and 96,800 multi-family starts are projected for 2011. Overall, 452,100 existing home sales are expected in 2011 (range: 398,500 to 485,500) and 461,300 in 2012. Mortgage rates are expected to average 3 to 3.7% for 2011 and 3.5 to 5.5% in 2012. Employment is estimated to increase, reducing the unemployment rate from 7.6 to 7.3% in 2012. Generally, new mortgages are 25-year instruments (CMHC 2011). There are several factors for Canada's resilience to the global recession. It is blessed with a rich supply of petroleum reserves, mineral resources, agricultural products, forest products, and other desired resources; and as important, the financial sector was restrained by the Canadian Parliament – so, they did not create the ill-fated financial products as were created in the U.S.

2.3. EUROPEAN CONSTRUCTION MARKET – A REVIEW

2.3.1. REVIEW

The top European building nations – Germany, Britain, Spain, Italy, and France, combined, are smaller than the world´s biggest building markets of the U.S. (US$950 billion), Japan (US$725 billion), and China (US$508 billion). The overall value of the European construction market is steady; however, housing starts may soon decline to 1998 levels (206,000 completions). Of notable concern to the European market is the deterioration of the housing market in Spain, where 20% of Europe's home construction occurred in the housing peak. The collapse in Spanish home-construction is the foremost factor for European housing completion declines, from greater than 2.5 million units (2007) to a projected 1.4 million in 2011. In 2009, 43% of all building was in the home construction sector; in 2006 it was 48%. In 2009, the new home construction investment percentage was 40%; in 2006 it was more than 50%. Europe's home construction contracted by 554 billion €, or more than 20% from 2008 to 2010 (Euroconstruct 2010). The decline did not result from an unusual increase in home values (e.g., as in Spain, U.K., France, Ireland, and Sweden). Rather, home prices continually increased, resulting in homeowners using their homes as a source of cash (e.g., borrowing money and using the house as collateral), purchasing property beyond their ability to make payments, and speculators (i.e., house 'flippers' who buy and sell houses fast). Once the real estate bubble burst, many owners were stressed financially. Housing overproduction will have a negative impact on new starts in the future (Euroconstruct 2009).

By 2013 new residential construction is projected to be in a slight upward trend, the share of new home building, however, will not increase significantly (Euroconstruct 2010). Nearly 75% of all home construction is in five European countries: Germany, France, Spain, Italy, and the U.K. In contrast to 2006, Germany, France, Italy, and the U.K. have increased slightly and Spain's share declined by 50% in 3 years, falling from 18 to 9%. In Europe, the housing bubbles were concentrated, with Spain and Ireland being most notable (Just and Mayer 2010). European home prices (in certain countries) appreciated more than in the U.S., but have decreased much less since the crisis began (Euroconstruct 2009). Regarding housing valuations, the correction in the U.S. is far more advanced than in Europe. Spain, Ireland, and The Netherlands will likely experience further price adjustments; Italy, France, and possibly the U.K. will require adjustments too – as current valuations pose a threat to the banking sector and economic growth. As in the U.S., housing sales and starts with variable rate mortgage may weaken rapidly if interest rates rise (e.g., Spain, Ireland, U.K., and Sweden, Just and Mayer 2010).

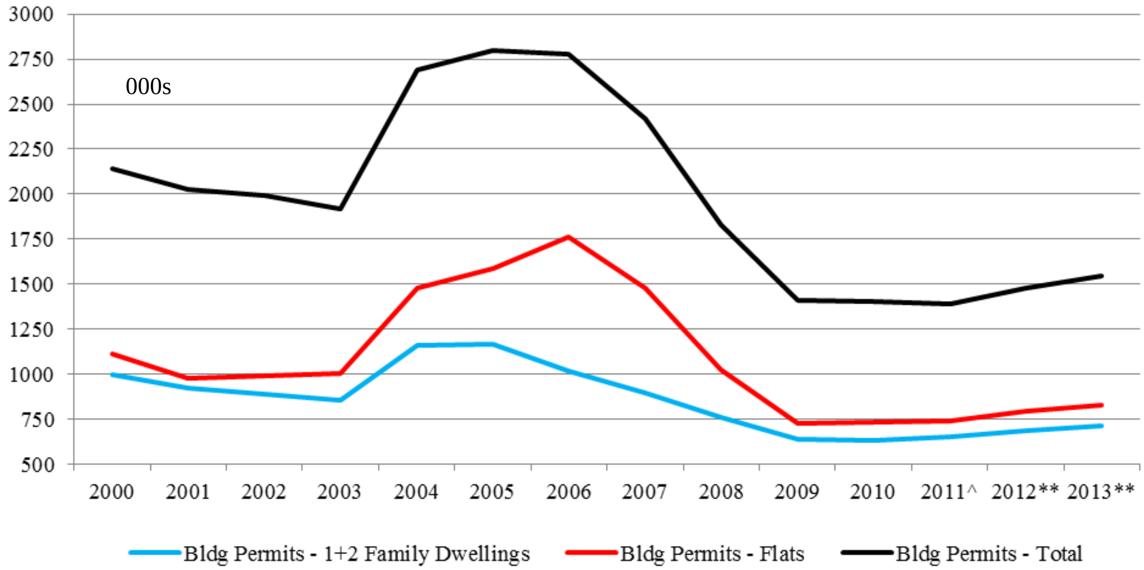
2.3.2. EUROPEAN CONSTRUCTION TRENDS

2.3.2.1. NEW HOUSING TRENDS

New home construction in the Euroconstruct region is eerily similar to the U.S. – the number of permits and completions are trending downwards (Figures 4 and 5). Economic conditions, which include a bifurcated European economy, persistent unemployment, consumer uncertainty, and rising interest rates, are obfuscating a recovery in new home starts. Reviewing 2006 data, a record 2.38 million homes were completed: 1.55 million multi-family (flats) and 836,800 1+2 family homes. In 2011, it is projected that about 623,000 (927,000 less units, about a 60% decline) multi-family units and 523,000 (314,000 fewer units, approximately a 37% decline) 1+2 family dwellings are to be built compared to 2006. Projections for 1+2 family dwellings and flats are not expected to approach 2006 and 2007 levels in the foreseeable future. In 2006, more than 33% of all flats completed were in Spain and now European building numbers reflect the housing crash in Spain. New home construction epicenters may arise; for instance, Germany, where nominal starts occurred in the past decade, in the medium term Germany may see an increase in new home construction. Spain, the past home construction leader, will suffer continual declines (Euroconstruct 2010).

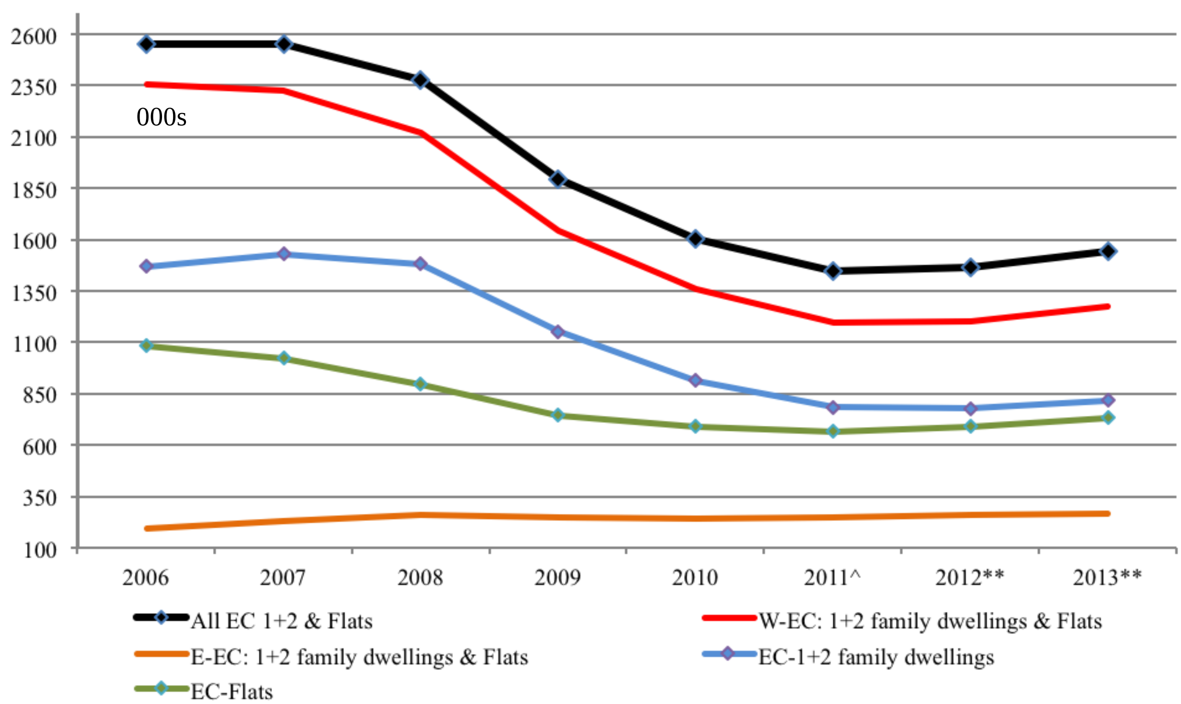
2.3.2.2. EUROPEAN CONSTRUCTION OUTLOOK FOR 2011

Future home building in Europe will be mixed, albeit in some areas construction is flourishing again and others are floundering. In spite of the economic threats, a thin housing recovery is forecasted for 2011, about a +1.6% to 2% gain, and somewhat higher for 2012 – a 2.5 to 3% gain (Figures 4 and 5).



^ Estimate for 2011
** Forecasts for 2012 and 2013 (Euroconstruct 2010)

Figure 4. Euroconstruct region building permits (Euroconstruct 2010).



^ Estimate for 2011
** Forecasts for 2012 and 2013 (Euroconstruct 2010)

Figure 5. Euroconstruct region housing completions (Euroconstruct 2010).

In absolute terms, the housing market in 2013 is expected to be 602 billion € (US$815.2 billion), nearly 8% less than in 2008 (Euroconstruct 2010). Housing renovation and modernization is expected to receive renewed impetus in the upcoming years with growth projected to be 1 to 2% per year (Euroconstruct 2010). Historically, renovation and home remodeling has been steady, and renovation and home remodeling have been supported by government renovation programs. However, this sector declined too, 3% in 2009. It is expected that renovation and modernization will continue, at a rate of 1 to 2% per year (Euroconstruct 2010). As in the U.S., caveats to construction are that housing may be susceptible to increasing interest rates in areas with housing needs; new home supply has been reduced greatly and current building is at low-levels; mortgage restrictions (loan ratios, reduced or elimination of government aid) affect several markets. Banks are becoming insolvent in Spain, Ireland, Greece, and Portugal, and mortgage systems and markets have yet to normalize (Allen 2011, Ball 2011).

Threats to an Euroconstruct housing recovery are the fiscal austerity moves by Ireland, Greece, Portugal, and Spain. All are reducing spending by wage freezes, elimination or curtailments of some social programs (e.g. freezing pensions, reducing bonuses and pay cuts for government employees, cuts to pension subsidies, reduce public-sector benefits, etc.), and extending retirement ages, among other measures. The net result is less money flowing through a particular economy, from the government, businesses, and the public. These reductions may prolong and deepen a recession. Finally, the handling of Grecian debt crisis may well portend the solvency of the European Union and ultimately, world financial systems.

3. CONCLUSIONS

Most home purchasing consumers are apprehensive; and as such, it appears that there are not enough non-apprehensive buyers to jump-start the world housing markets. In the U.S., consumers do not anticipate a rising standard of living for the next several years (Curtin 2011). This is critical, as consumer confidence is now tepid at best, and consumer spending is 71% of the U.S. GDP (U.S. Department of Commerce-Bureau of Economic Analysis 2011). There are several factors that hinder a meaningful housing recovery: a continuing high-level of foreclosures, strategic defaults (U.S.), shadow inventory (U.S.), high-levels of unemployment and under-employment, consumer confidence, household formations, increasing fuel prices and other raw materials, government housing regulations, and lethargic economies. Exceptions can be found in Canada, China, Germany, and Poland. Combined, these factors suggest that sales, starts, and prices may be weak for some time. No one is certain about the effect of adjustable-rate mortgage (ARM) resets on the housing markets in the U.S. or Europe, and ultimately their effect on the worldwide economy. In the U.S., Credit Suisse estimates that US$1 trillion of ARMs will be reset through 2012 (Fox 2010).

There appear to be opportunity areas for new housing construction worldwide, U.S. Hardwood producers should consider targeting these areas and countries and develop a marketing strategy to tap them. Rental home construction may be a growth area and the home remodeling and renovation market appears to be steady at this point in time. With this stated, the current condition of the housing market is unparalleled. If there ever was a 'perfect storm' for crushing a housing market, we are experiencing it at present: persistently high unemployment, a lethargic economy, a record number of underwater homes, liar loans, worthless or nearly worthless collateralized debt obligations, increasing delinquencies, record default volumes and 'strategic' defaults, mounting foreclosures, 'robo' signing and a foreclosure debacle, anemic demand, years – not months of home supply (official plus unofficial estimates), failed intervention programs, attenuated household formation numbers, and steep price declines, all contribute to the housing crisis.

Financial markets are pricing in a strong recovery for the developed markets and may be susceptible to any negative macro, corporate, and/or sovereign events (Ball 2010, Euroconstruct 2010). The financial austerity efforts by several countries, Federal and State governments in the U.S. and in the Euroconstruct region will have an effect on the housing market. The reduction of spending means that less money is flowing through an economy, and thus, no sluicing of a particular economy. Rational estimates of a sustainable housing recovery should project several years into the future; if the U.S. economy does not improve, it may be a decade.

Lastly, the hardwood industry might consider giving thought to what the home construction sector and associated markets will look like when we arise from this crisis. Will there be a 'new normal' for housing – will we have a greatly reduced average start number? From this, will there be more multi-family homes as in Europe or as in other regions? Less government regulation, no Fannie and Freddie, and possibly reduced interest benefits for home purchases? A return to traditional mortgage requirements? Greatly reduced and permanently decreased home prices? Permanently lower home ownership rates? Smaller homes? And finally, will there be a reduced desire to own a home – are any of these possible or all of them; or are there other possibilities? We should consider starting the dialogue now in order to be prepared for the 'new normal' in the housing market.

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