March 2014 Housing Commentary

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# March 2014 Housing Scorecard

<table>
<thead>
<tr>
<th>Category</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Starts</td>
<td>Δ2.8%</td>
<td>▼5.9%</td>
</tr>
<tr>
<td>Single-Family Starts</td>
<td>Δ6.0%</td>
<td>△1.9%</td>
</tr>
<tr>
<td>Housing Permits</td>
<td>▼2.4%</td>
<td>△11.2%</td>
</tr>
<tr>
<td>Housing Completions</td>
<td>▼0.2%</td>
<td>△7.7%</td>
</tr>
<tr>
<td>New Single-Family House Sales</td>
<td>▼14.5%</td>
<td>▼13.3%</td>
</tr>
<tr>
<td>Existing House Sales</td>
<td>▼0.2%</td>
<td>▼7.5%</td>
</tr>
<tr>
<td>Private Residential Construction Spending</td>
<td>Δ0.8%</td>
<td>△16.0%</td>
</tr>
<tr>
<td>Single-Family Construction Spending</td>
<td>Δ0.2%</td>
<td>△13.2%</td>
</tr>
</tbody>
</table>

M/M = month-over-month; Y/Y = year-over-year

Source: ^U.S. Department of Commerce-Construction; "National Association of Realtors® (NAR®)
# New Housing Starts

<table>
<thead>
<tr>
<th></th>
<th>Total Starts*</th>
<th>Single-Family Starts</th>
<th>Multi-Family 2-4 unit Starts</th>
<th>Multi-Family 5 or more unit Starts</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>946,000</td>
<td>635,000</td>
<td>19,000</td>
<td>292,000</td>
</tr>
<tr>
<td>February</td>
<td>920,000</td>
<td>599,000</td>
<td>10,000</td>
<td>311,000</td>
</tr>
<tr>
<td>2013</td>
<td>1,005,000</td>
<td>623,000</td>
<td>26,000</td>
<td>356,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>2.8%</td>
<td>6.0%</td>
<td>90.0%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>-5.9%</td>
<td>1.9%</td>
<td>-26.9%</td>
<td>-18.0%</td>
</tr>
</tbody>
</table>

* All start data are presented at a seasonally adjusted annual rate (SAAR)

# New Housing Permits and Completions

<table>
<thead>
<tr>
<th></th>
<th>Total Permits*</th>
<th>Single-Family Permits</th>
<th>Multi-Family 2-4 unit Permits</th>
<th>Multi-Family 5 or more unit Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>990,000</td>
<td>592,000</td>
<td>28,000</td>
<td>370,000</td>
</tr>
<tr>
<td>February</td>
<td>1,014,000</td>
<td>589,000</td>
<td>23,000</td>
<td>402,000</td>
</tr>
<tr>
<td>2013</td>
<td>890,000</td>
<td>599,000</td>
<td>25,000</td>
<td>266,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>-2.4%</td>
<td>0.5%</td>
<td>21.7%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>11.2%</td>
<td>-1.2%</td>
<td>12.0%</td>
<td>39.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total Completions*</th>
<th>Single-Family Completions</th>
<th>Multi-Family 2-4 unit Completions</th>
<th>Multi-Family 5 or more unit Completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>872,000</td>
<td>602,000</td>
<td>12,000</td>
<td>258,000</td>
</tr>
<tr>
<td>February</td>
<td>874,000</td>
<td>626,000</td>
<td>9,000</td>
<td>239,000</td>
</tr>
<tr>
<td>2013</td>
<td>810,000</td>
<td>591,000</td>
<td>5,000</td>
<td>214,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>-0.2%</td>
<td>-3.8%</td>
<td>33.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>7.7%</td>
<td>1.9%</td>
<td>140.0%</td>
<td>20.6%</td>
</tr>
</tbody>
</table>


* All data are SAAR
# New and Existing House Sales

<table>
<thead>
<tr>
<th></th>
<th>New Single-Family Sales*</th>
<th>Median Price</th>
<th>Month’s Supply</th>
<th>Existing House Sales B*</th>
<th>Median Price B</th>
<th>Month’s Supply B</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>384,000</td>
<td>290,000</td>
<td>6.0</td>
<td>4,590,000</td>
<td>$198,500</td>
<td>5.2</td>
</tr>
<tr>
<td>February</td>
<td>449,000</td>
<td>260,900</td>
<td>5.0</td>
<td>4,600,000</td>
<td>$188,300</td>
<td>5.0</td>
</tr>
<tr>
<td>2013</td>
<td>443,000</td>
<td>257,500</td>
<td>4.2</td>
<td>4,960,000</td>
<td>$184,000</td>
<td>4.7</td>
</tr>
<tr>
<td>M/M change</td>
<td>-14.5%</td>
<td>11.1%</td>
<td>20.0%</td>
<td>-0.2%</td>
<td>5.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>-13.3%</td>
<td>12.6%</td>
<td>42.8%</td>
<td>-7.5%</td>
<td>7.9%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

* All sales data are SAAR

Existing House Sales

National Association of Realtors (NAR®)

March 2014 sales data: 4.59 million houses sold (SAAR)
February 2014: 4.60 million (SAAR) and March 2013: 4.96 million (SAAR)

Distressed house sales: 14% of sales –
(10% foreclosures and 4% short-sales);
16% in February 2014 and 21% in March 2013.

All-cash sales: decreased to 33% in March 2014; 35% in February 2014.

Investors are still purchasing a substantial portion of
“all cash” sale houses – 17% in March 2014, and
21% in February 2014 and 19% in March 2013;
Seventy-one percent of investors paid cash in March 2014.

First-time buyers*: increased to 30% (28% in February 2014)
and were 30% in March 2013

* Historically – 40%
March 2014 Construction Spending

March 2014 Private Construction: $369.80 billion (SAAR)

0.8% more than the revised February estimate of $367.01 billion (SAAR)
16.0% greater than the March 2013 estimate of $318.73 billion (SAAR)

March SF construction: $185.66 billion (SAAR)
0.2% more than February: $185.36 billion (SAAR)
13.2% greater than March 2013: $163.99 billion (SAAR)

March MF construction: $39.15 billion (SAAR)
4.4% more than February: $37.50 billion (SAAR)
32.5% greater than March 2013: $29.53 billion (SAAR)

March Improvement C construction: $144.99 billion (SAAR)
0.6% more than February: $144.15 billion (SAAR)
15.8% greater than March 2013: $125.19 billion (SAAR)

The US DOC does not report improvements directly, this is an estimation. All data is SAAR and is reported in nominal US$. 

Conclusions

Several housing market indicators declined in March. Historically, March is one of the better months for housing – so, April and May data need to be scrutinized carefully. March’s housing bright spot was increasing single-family starts – which may hold promise for the future.

As in written in previous months, the near-term outlook on the U.S. housing market remains unchanged – there are potentially several negative macro-factors or headwinds at this point in time for a robust housing recovery (based on historical long-term averages). Once the economy improves, we should expect to see housing activity increase as well.

Why?

1) Lack-luster household formation,
2) a lack of well-paying jobs being created,
3) a sluggish economy,
4) declining real median annual household incomes (though February increased slightly),
5) strict home loan lending standards,
6) new banking regulations, and
7) global uncertainty
Housing comments – March 2014

Economy getting better albeit slowly, but there are some issues:
- government debt – all levels of government – exacerbates the job problem
- European economy getting better (slowly) – some deflation risk;
  China is slowing too as they focus on domestic economy versus exports (1st qtr 2014 GDP was 7.4%, slowest in 18 years)
- Housing’s issues - Weak domestic economy; slowing world economy; weak job market; sluggish income growth; high consumer debt levels; tight credit environment
- main problem is uncertainty stemming from dysfunctional government

- Two key questions –
  (1) can the economy (and housing) stand on its own without Fed stimulus?
  (2) Uncertainty is a key reason holding back job creation. Ex., impact of health care legislation; Dodd/Frank; dysfunctional “Washington.” Also, demand is a problem - too many jobs are low income, no health care, no benefits.
Some additional issues impacting housing:

A. This economic recovery is much slower
B. Mortgage rates are trending upward as the Fed pulls back on QE/money printing
C. There is a growing trend to multi family versus single family and this has implications for the economy and demand for wood products (here is link to NAHB article on housing’s impact on the economy, job creation, tax revenue, etc.

Housing, Economy, and Wood Products
Housing’s contribution to GDP (%) – historically, it is almost 20% of the economy when you include housing services and fixed investment, but today it is down to 15%. In reality, it is even more important when you include purchased furniture, landscaping, general maintenance, etc. Key reason why the economic recovery remains muted.

Housing services = gross rents paid by renters (include utilities) + owner’s imputed rent (how much it would cost to rent owner occupied homes) + utility payments

RFI (residential investment) = construction of new SF and multifamily structures, remodeling, manufactured homes, plus broker’s fees
Housing starts and wood product prices – Economics 101

75% of structural wood products go to housing (new construction plus remodeling).
50% or more of hardwoods go to housing-related activities.

Sources: Prices – Random Lengths (http://www.randomlengths.com); starts (Bureau of Census (http://www.census.gov/construction/nrc).

**U.S. Softwood Lumber**

- New Residential*: 40%
- Res Remodeling: 30%
- Industrial: 16%
- Non-res: 12%
- Export: 2%

**U.S. Structural Panels**

- New Residential*: 53%
- Res Remodeling: 19%
- Industrial: 17%
- Non-res: 10%
- Export: 2%

*New Residential incl. SF, MF, and Mobile Homes

Source: Lumber – WWPA; Panels - APA
Employment situation - our biggest problem - it’s getting better, but the jobs recovery remains weak by past standards, and many jobs (e.g., temporary ones) Don’t include health care or retirement benefits (because they are Often part time jobs) – those kinds of jobs don’t encourage people to buy houses

Net change in non farm payrolls – monthly, thousands

We need 100,000 – 150,000 net new jobs/month
To keep up with new entrants to workforce
300,000/month to bring unemployment down

Stimulus spending effect

March  +192,000

Source: U.S. BLS (www.bls.gov)
Unemployment will remain relatively high for awhile longer – but, it’s getting better !!!!

**There are about 20 million people either unemployed, underemployed, or stopped looking – they are not buying houses**

Slowly, employment is improving from the worst recession since the 1930’s
Private sector payrolls are back to where we were in January 2008
But, we need 7.2 million more jobs just to keep pace with population growth
But, things are getting better
More Signs of Improvement

Source: Challenger, Grey, Christmas
WSJ( [http://wallstreetcheatsheet.com/politics/5-charts-to-explain-labor-market-health.html/?a=viewall](http://wallstreetcheatsheet.com/politics/5-charts-to-explain-labor-market-health.html/?a=viewall) )
Where the growth is --
30% of jobs created in past 5 years are “temporary jobs” – little or no health care, retirement, salary – i.e., these people don’t buy houses, cars, eat out, etc. --- again, underemployment is a big problem
Temporary jobs keep increasing as firms cut expenses (D. Paletta/WSJ) – main reason income gain is weak
Other economic issues –

- The workforce is shrinking and labor force participation rate is lowest since WWII. Main implication – there will be more labor shortages in the future.

- Inflation not a problem yet - why? About 70% of inflationary price pressure comes from increasing wages. If you want to predict when inflation will become a problem, watch two metrics – wages and employment. (http://www.bls.gov/news.release/pdf/empsit.pdf; http://www.bls.gov/data/)

- Going forward, unemployment will be a huge drag on the federal (and other government levels) budgets – implications for taxes, spending, domestic programs, and job creation.

- Income growth (inflation adjusted) has been weak for two decades.

- We need to invest more (infrastructure) and consume less - that will make us more competitive globally, and that will create more good paying jobs.
Labor force participation rate is shrinking –

Major problems for social programs with our aging population – fewer people paying taxes, but more people collecting SSI, Medicare, etc. Also, we will see more labor shortages in the future.

% of civilian adult population, that are working


March 2014 – 63.2% participation rate

Source: BLS
Economic growth - 2.6% in 4th qtr – still weak considering we have had “free money” now for 5 years – and, much of 3rd qtr growth was due to inventory building, and not demand
GDP for 2013 was 1.9% - nothing to write home about
NAR’s latest Economic and Housing Outlook – 2015 is the year for housing to return to “normal”

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Housing starts (000)</td>
<td>1016</td>
<td>1433</td>
</tr>
<tr>
<td>Single</td>
<td>734</td>
<td>1013</td>
</tr>
<tr>
<td>Multi</td>
<td>363</td>
<td>420</td>
</tr>
<tr>
<td>Resales (000)</td>
<td>4976</td>
<td>5257</td>
</tr>
</tbody>
</table>

My comment: good conservative forecast, and I agree with 2014. But, I would leave multi family (MF) at 35% for 2015 also – This would give us 500,000 for MF leaving single family at 930,000 for 2015. (later in this note you will see some rationale for higher multi family numbers)

GDP per capita – rate of growth per decade

We over consume – borrow to spend what we don’t earn
So, we accumulate debt – consequently, we don’t invest enough for our future
Result – weaker economy – this is a “no brainer”

Source: BEA (http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm)
this type of economy not sustainable – insufficient investment in infrastructure, R&D, education makes us less competitive and this leads to reduced standard of *living* and less housing demand

Consumer spending 70%  
(Consumption of goods & services by/for the consumer) – *less of this too*

Net Exports (-4.6)% - if we invest more and consume less, this figure will improve

Government spending 19%  
*less of this*

Non residential investment  
11% - *we need more of this*

Residential Investment (new construction plus R&A/remodeling) 5.3%

*This will improve if we “get our act together”*

Source: BEA (http://bea.gov/national/nipaweb)
U.S. Economy 2013

- Consumer spending 68.5% (consumption of goods & services by/for the consumer) – less of this too

- Government spending 19%

- Net Exports (-3.0)% - if we invest more and consume less, this figure will improve

- Non residential investment 12.2% - we need more of this

- Residential Investment (new construction plus R&A/remodeling) 3.0%

This will improve if we “get our act together”

Source: BEA (http://bea.gov/national/nipaweb)
Recent Housing statistics

Background:
Markets are getting better –
Have we turned the corner? – Probably, but the climb back will remain muted until we see economic growth of 3% or more for an extended period of time!!!
Starts are finally turning the corner, but growth is elusive

Single family starts, Thousand units, SAAR

Slow grind upward

March -- 635,000

Source: Census (http://www.census.gov/const/www/newresconstindex.html)
The rebound in 2014 has been slow so far

 Delay of Gain

An expected spring rebound in the housing market has been slow to materialize as asking prices in some markets are denting demand...

Change in home value since the end of 2011 for select markets

Las Vegas
Riverside, Calif.
Phoenix
Sacramento
Tampa, Fla.
U.S.

Sources: Zillow (home-value index); Credit Suisse (Buyer Traffic Index based on 40 U.S. markets); National Association of Realtors (Pending Home Sales Index)

Following slides address some multi family issues
Multi family share is increasing – will it continue?
Yes – here are three drivers: financial/cost (tight credit and mortgage carrying cost big problem for buyers); social trends (suburban life Losing its appeal to many Americans); and demographics (aging population Downsizing). In addition, many young people can’t find good jobs so they rent.

Source: Census [http://www.census.gov/construction/nrc](http://www.census.gov/construction/nrc)
Multifamily rentals at highest level in 4 decades
Here is excellent article outlining interesting trends --

(http://online.wsj.com/news/articles/SB10001424052702304020104579429280698777544?KEYWORDS=new+home+building+is+shifting+to+apartments&mg=reno64-wsj)

![Graph showing multifamily rental apartments built as a share of total U.S. housing starts: As of 2013, the share was 30.8%. Source: U.S. Census Bureau, The Wall Street Journal.

Note: some multifamily are condos which are owned/not rented.)
Determination of number of “rental units” isn’t as simple as I thought!

Issue #1 - definition of multi family versus single family (as defined by Census)
Issue #2 – some single family units are built to rent

#1 - Multi family classification includes rentals and some units owned by occupants (e.g., Census when reporting housing starts, classifies condos as “multi family”, Yet, these many of these units are owned by occupants and not rented.

(http://www.census.gov/construction/chars/definitions/#one)

#2 - In addition, some single family homes are built to rent. The next slide shows “multi family rentals” as percentage of total housing starts
Approximately 3 – 5% of single family homes are built to rent
Rental Housing Stock

Using the 2009 American Housing Survey, the data show that 30% of all housing units in the United States (about 40 million units) are renter-occupied or vacant for-rent.

Source: NAHB (http://eyeonhousing.org/2011/07/20/the-rental-housing-stock/)
Rental units are not simply multi family high rises. A recent Harvard study (http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs_americas_rental_housing_2013_1_0.pdf) - interesting read – good charts and data – thought provoking analysis,…..
Shift from suburbia to urban redevelopment? More people are moving back to the cities – most prevalent with young people and empty nesters

Implications for detached SF versus rental units?

Central city share of metropolitan residential building permits

Source: residential construction trends in America’s Metropolitan regions
Large metropolitan regions with largest share of infill construction
Parking lots, underused commercial properties, and former industrial sites are being replaced by condominiums, apartments, townhouses, and small-lot single-family homes. These are examples of residential infill or building new homes in previously developed areas - another trend suggesting smaller homes and more rental units?

As rentals increase in popularity, rental prices escalate

According to a recent study by Zillow, in more than 90 cities, median rents, excluding utilities, exceed 30% of household income (30% is the metric often used to gauge affordability)

A sign for builders to build even more rental units?

Source: Sheila Dewan, NYT, (http://www.nytimes.com/2014/04/15/business/more-renters-find-30-affordability-ratio-unattainable.html?_r=0)
Incomes are falling as rents increase

Median monthly renter income (2012$) vs. Median monthly rents $2012

Source: HJCHS (http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs_americas_rental_housing_2013_1_0.pdf)
Homeownership rates have been falling for the past seven years – when the economy gets back to normal, will people go back to single family or will we see more renting? There will be impacts on wood products demand.

Source: Census (https://www.census.gov/housing/hvs/data/q413ind.html)
Wood Products Use per Unit

Source: Wood Products Council Table #7 and #13, ES4, 2006

(*Lumber includes BFE of engineered wood per unit)
New residential markets – 2013 basis

Single family dominates!! – any switch to multifamily/rental has major impact on wood consumption

Lumber – BBF; Panels – BSF(3/8);

Source; WPC, Wood used in New Residential Construction, table #7, 2009
New Single Family Home sales is the key statistic to watch – sales drive housing starts – this drives demand for wood products!

Not much improvement since 2009

March 384,000

Source: Census (http://www.census.gov/const/www/newressalesindex.html)
Resale market – higher prices and mortgages slow the rebound

Single family (incl condos), Monthly, Thousand units, SAAR

March 2014 - 4590

Source: NAR (http://www.realtor.org/research)
Remodeling to pick up as confidence improves, prices increase, and the economy picks up

Source: HJCHS  (http://www.jchs.harvard.edu/remodeling-gains-expected-continue-2014)
Median Age of U.S. Housing Stock

In 2011, half of U.S. homes were 37 years old or older. Good news for remodeling business – in fact, over time, we will emulate Europe where remodeling expenditures routinely exceed expenditures on new construction.

Bottom line – when economy returns to normal, demand for shelter will strengthen.

Question – what will the mix be between detached single family and multi family housing and what are the implication for the wood products industry? Also, implications if house size gets smaller??

Most of you have seen this article by Craig Adair and myself and it is three years old, but there is some material there that addresses the question posed above as it relates to the wood products industry

Another issue to ponder – the role of the federal government in housing. There is a huge federal presence – more than in any other country. Federal agencies (Fannie, Freddie, FHA, VA, etc.), control over 90% of the residential mortgage market. That means there is too much temptation to influence housing according to political whims. Fannie, and Freddie are still in “conservatorship” – i.e., wards of the state, and therefore depending on taxpayer support.

The real key to a housing recovery is the return of mortgage purchase business – i.e., owner occupant buyers in lieu of “REFI” business and speculators paying cash for distressed sales which are then rented. Again, that requires JOBS!
Here is an excellent video (about 90 minutes) on CSPAN (http://www.cspanvideo.org/program/HousingandG). Experts from academia, private sector, government, etc. discuss what is right and wrong with today’s housing market. Lots of good charts, discussions, etc.

Here is a good article about why housing is getting better only slowly, understating the importance of well-paying jobs (NYT, April 27, 2014) (http://www.nytimes.com/2014/04/27/upshot/the-housing-market-is-still-holding-back-the-economy-heres-why.html?_r=0)
Some conclusions – housing continues to improve albeit slowly

(1) Economy will muddle along until 2015? Depends on world economy, China, Europe, ….. Question – can the economy “stand on its own” without QE?

(2) What will housing look like in the future? My guess – smaller homes; higher percentage of renters; and more people moving back to the city – this is due to demographic trends and changes in social values

(4) This has implications for demand for wood products in housing

(3) We’re in “uncharted waters” territory right now (i.e., massive money printing) to date, it has helped prevent worsening of economy, but, certainly hasn’t had the impact the FED had hoped for (i.e., jump start the economy)

(4) Problems going forward are higher interest rates and continuing uncertainty.

(5) The key to a recovery in housing and the economy is the job market - it’s really that simple!!!!

(6) Longer term, housing demand will hinge on the footprint of the Federal government – will they continue to promote housing to the degree they have in the past? My guess is the federal government will slowly reduce its footprint on housing and let the private sector play a larger role. Financing will be one of the 1st changes.
State of the United States Housing Market and Implications for the United States Wood Industry

Moulding & Millwork Producers Association
51st Annual Meeting
May 1, 2014
Savannah, Georgia

Delton Alderman
United States Forest Service
Forest Products Marketing Unit, Madison, WI and Northern Research Station-01, Princeton, WV

Urs Buehlmann
Virginia Tech
College of Natural Resources and Environment
Department of Sustainable Biomaterials
Blacksburg, VA

Al Schuler
United States Forest Service - Retired
Housing Demand Overview

Factors Influencing Housing Demand

Key Variables
Economic

United States Housing Indicators:
Demographics
Housing Permits, Starts, and Completions
Existing and New House Sales
Construction Spending
Residential Remodeling
Projections

Conclusions
United States Housing


U.S. Softwood Lumber

- R&A: 30%
- Industrial: 16%
- Export: 2%
- NR: 12%
- New Residential*: 40%

U.S. Structural Panels

- R&A: 19%
- Industrial: 17%
- Export: 2%
- NR: 10%
- New Residential*: 53%

*New Residential incl. SF, MF, and Mobile Homes

Source: Lumber – WWPA; Panels - APA
Housing Demand Factors

Factors Influencing Housing Demand

Household Formation

United States Census Bureau: household = occupied housing unit.

In any year, the sum of single- and multi-family units is about equal to the number of U.S. households\(^1\) (132 mm houses; 75 mm owner occupied and 40 mm rentals; about 18 mm vacant\(^2\)).

Demographics

Changes in the size and composition of the U.S. population shift the demand for housing units (with constant house prices).

The growth of the U.S. population over time has increased aggregate demand for housing units\(^1\).

Source: \(^1\) http://www.kansascityfed.org/publicat/econrev/pdf/13q4Rappaport.pdf; \(^2\) http://www.census.gov/housing/hvs/data/q413ind.html
Housing Demand Factors

Factors Influencing Housing Demand

Technology

Rapid advancements in automobile technology allowed people to live further from where they worked -- helping fuel demand for single-family housing

Public Policy

Public investments in highways after World War II allowed people to live further from where they worked\(^1\)

Housing Replacement

Disaster, dilapidation, other uses, etc.

Source: \(^1\) http://www.kansascityfed.org/publicat/econrev/pdf/13q4Rappaport.pdf
Housing Demand Factors

Factors Influencing Housing Demand

Housing Price

As relative house prices increase, the number of housing units demanded will decrease.

Business Cycle

Households tend to reduce housing expenses when jobs become scarce and increase them when jobs become plentiful.

Lifetime Income

Long-run trend increases in real income have caused many households to increase spending on housing.

Housing Demand Factors

Factors Influencing Housing Demand

Real Median Income

Inflation-adjusted household income – “Real” income

Median inflation-adjusted household income generally increases or decreases with the business cycle\(^1\)

Employment → “Jobs”

Well-paying jobs are important – if not critical

Source: \(^1\) http://www.kansascityfed.org/publicat/econrev/pdf/13q4Rappaport.pdf
## United States Housing Forecasts: 2014

<table>
<thead>
<tr>
<th>(000s)</th>
<th>New House Sales</th>
<th>Single-Family Starts</th>
<th>Multi-Family Starts</th>
<th>Total Starts</th>
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<tbody>
<tr>
<td>APA - The Engineered Wood Association</td>
<td>730</td>
<td>365</td>
<td>1,095</td>
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<tr>
<td>NAHB</td>
<td>607</td>
<td>820</td>
<td>326</td>
<td>1,146</td>
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<tr>
<td>Barclays</td>
<td></td>
<td></td>
<td></td>
<td>1,200</td>
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<tr>
<td>BMO (Montreal)</td>
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<td></td>
<td></td>
<td>1,240</td>
</tr>
<tr>
<td>Fannie Mae</td>
<td>518</td>
<td>768</td>
<td>338</td>
<td>1,106</td>
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<tr>
<td>Forest Economic Advisors</td>
<td>753</td>
<td>365</td>
<td></td>
<td>1,095</td>
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<tr>
<td>Ivy Zelman &amp; Associates</td>
<td>735</td>
<td>325</td>
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<td>JP Morgan</td>
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<td>1,080</td>
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<tr>
<td>MBA</td>
<td>497</td>
<td>750</td>
<td>335</td>
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<td>Merrill Lynch</td>
<td>517</td>
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<td>RBC</td>
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<td></td>
<td></td>
<td>1,329</td>
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<tr>
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<td>1,200</td>
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<tr>
<td>UBS</td>
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<td>1,150</td>
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<tr>
<td>Wells Fargo</td>
<td>535</td>
<td>800</td>
<td></td>
<td>1,140</td>
</tr>
</tbody>
</table>
Home Construction vs. Demand

Economists estimate that the United States should build around 1.5 million new housing units a year to meet long-term demand. They have undershot since 2007.

Source: Census Bureau, Zillow.com

United States Housing Starts

Housing Starts: Actual, Trend, and Sustainable Levels

Source: NAHB: http://eyeonhousing.org/2014/04/16/housing-starts-reverse-winter-slump
United States Housing Forecast: 2014-2018

Source: US DOC and Wells Fargo Securities, LLC

Source: https://wellsfargo.mworld.com/econ/alerts.asp; 4/23/14
United States Housing

Source: National Federation of Independent Business and Wells Fargo Securities, LLC

Source: https://wellsfargo.mworld.com/econ/alerts.asp; 4/8/14
United States Housing

Firms Expecting Economy to Improve
Net % of Firms Expecting Economy to Improve Over the Next 6 Mo.

Source: National Federation of Independent Business and Wells Fargo Securities, LLC

Source: https://wellsfargo.mworld.com/econ/alerts.asp; 4/8/14
United States Housing

Source: National Federation of Independent Business and Wells Fargo Securities, LLC

Source: https://wellsfargo.mworld.com/econ/alerts.asp; 4/8/14
United States Housing

Source: Board of Governors of the Federal Reserve System
2014 research.stlouisfed.org

Source: http://research.stlouisfed.org/fred2/series/M1
United States Housing

Velocity of M2 Money Stock

Source: Federal Reserve Bank of St. Louis
2014 research.stlouisfed.org

Source: http://research.stlouisfed.org/fred2/series/M2V
GDPplus is a measure of the quarter-over-quarter rate of growth of real GDP in annualized percentage points. GDP_E and GDP_I are quarter-over-quarter rates of growth of expenditure and income-side measures of real GDP in annualized percentage points, respectively.
United States Housing

Architecture Billing Index

SECTOR
Institutional Firms Continue to See Challenging Business Conditions

Graph represents data from March 2013 – March 2014 across the three sectors.
50 represents the diffusion center.
A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease.
3-month moving average.

Commercial/Industrial: 49.6
Institutional: 49.0
Residential: 52.1

Source: http://www.aia.org/practicing/AIAB103625; 4/25/14
United States Housing

Architecture Billing Index

REGIONAL
Sunbelt Firms Still Reporting Growth

Graphs represent data from March 2013 – March 2014 across the four regions. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.
United States Housing

Nonfarm Payroll Employment

Quarterly average of monthly changes, thousands of persons

Monthly Change
Feb. 175
Jan. 129
Dec. 84
Nov. 274
Oct. 237

Source: Bureau of Labor Statistics/Haver Analytics

United States Housing

Private Sector Employment

Figure 1. Net Change in Private Sector Employment (in thousands)

<table>
<thead>
<tr>
<th>Industry Type</th>
<th>Jobs Lost</th>
<th>Jobs Gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-wage industries</td>
<td>-3,579</td>
<td>2,603</td>
</tr>
<tr>
<td>($20.03-$32.62)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-wage industries</td>
<td>-3,240</td>
<td>2,282</td>
</tr>
<tr>
<td>($13.73-$20.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower-wage industries</td>
<td>-1,973</td>
<td>3,824</td>
</tr>
<tr>
<td>($9.48-$13.33)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

jobs lost: January 2008 to February 2010
jobs gained: February 2010 to February 2014

Source: NELP analysis of Bureau of Labor Statistics
Note: Wage ranges are updated from earlier reports to adjust for inflation and are in 2013 dollars. At the time of publication, employment data for disaggregated industries was only available through February 2014.
"March ‘14 median income: $53,043, 4.0% less than the median of $55,261 (June ‘09); the end of the recent recession and beginning of the “economic recovery”.”

United States Housing

Source: http://research.stlouisfed.org/fred2/series/M2V
United States Housing

“260,000 Graduates In Minimum Wage Jobs”


United States Housing

Source: Federal Reserve Bank of New York

Source: http://seekingalpha.com/article/1971281-student-debt-bad-loans-or-bad-education?source=email_macro_view_dem_0_50&ifp=0; 1/28/14
United States Housing Permits

In Thousands

Source: US DOC
United States Housing Starts

In Thousands

Source: US DOC
United States Housing Starts

In Thousands

Source: US DOC
United States Housing Starts

More of the homes being built are for multiple families

Single-family home construction remains moribund, while building activity for larger projects, most of them intended as rentals, has recovered strongly. Projects such as apartment buildings and blocks of rowhouses, now account for their highest proportion of overall homebuilding since the early 1980s.

Proportion of housing permits issued for structures with 5+ units

Source: Census Bureau

U.S. Households and Housing Starts

Ave HH/Yr: 1.2 mm
U.S. Housing: Income and Starts

Source: http://research.stlouisfed.org/fred2/series/M2V; Sentier Research
United States Housing Sales

New Single-Family Home Sales

Source: Census Bureau/Haver Analytics

Source: http://www.richmondfed.org/research/national_economy/national_economic_indicators/pdf/allCharts.pdf
United States Housing

**Pushing Prices**
Median sales price of new homes sold

Source: Commerce Department | WSJ.com

United States Housing

Spring Swoon

New homes sold, change from a year earlier

Source: Commerce Department | WSJ.com

United States Housing Sales

Existing Single-Family Home Sales

Source: National Association of Realtors/Haver Analytics

Source: http://www.richmondfed.org/research/national_economy/national_economic_indicators/pdf/all_charts.pdf
United States Housing Market

HOUSING MARKET REMAINS TIGHT

Source: U.S. DOC National Association of Realtors. *seasonally adjusted by TD Economics
United States Housing

Mortgage Applications for Purchase
Seasonally Adjusted Index, 1990=100

Weekly Figure: Apr-4 @ 180.3
Up From 175.6 on Mar-28
8-Week Average Down 16.1% From Same Period Last Year

Source: Mortgage Bankers Association, FHLMC, U.S. Department of Commerce, Federal Reserve, and Wells Fargo Securities, LLC
United States Housing

Payment Shock

Home sales slumped after mortgage rates rose

Home sales, change from year earlier

Median monthly payment, change from year earlier*

*Assumes 20% down payment on median priced home

Source: National Association of Realtors, Freddie Mac | WSJ.com

United States Housing

First-Time Home Buyers
Share of Existing-Home Sales

Source: U.S. Department of Commerce, National Association of Realtors, CoreLogic, and Wells Fargo Securities, LLC
United States Housing

Home ownership rate: 64.8% was 0.2% less than the first quarter 2013 rate (65.0%)
United States Housing

Homeownership Rate by Householder Age Group

“… under 35 saw a drop of 60 basis points to a homeownership rate of 36.2%, the lowest level since the Census provided a breakout by age.”

United States Home Owners vs. Renters

Annual Change in Occupied Units, In Thousands

Renters: 2013 @ 525.5 Thousand
Homeowners: 2013 @ -76.5 Thousand

Source: U.S. DOC and Wells Fargo Securities, LLC
Source: https://wellsfargo.mworld.com/econ/alerts.asp; 4/8/14
United States Housing

First quarter 2014:
median asking rent of vacant for rent units → $766

Median Asking Rent for Vacant for Rent Units, 1995-2014

Source: www.census.gov/housing/hvs/files/qtr114/q114press.pdf
United States Housing

Rental vacancy rate: 8.3% was 0.3% less than the first quarter 2013 rate (8.6%)

Source: www.census.gov/housing/hvs/files/qtr114/q114press.pdf
United States Construction Spending

Source: US DOC
United States: Housing and GDP

Residential Investment as a Share of the Economy

Despite an uptick the last two years, housing activity remains a smaller share of GDP than it was in even the worst of the post-World War II era recessions.

Source: Bureau of Economic Analysis

United States: Housing and GDP

Source: US DOC
United States Construction Spending

Share of Owner-Occupied Housing
Year Structure Built - 2011

- 1969 or earlier: 41%
- 1970 to 1979: 17%
- 1980 to 1989: 13%
- 1990 to 1999: 14%
- 2000 to 2009: 15%

Source: Joint Center for Housing Studies, U.S. Department of Commerce, NAHB, and Wells Fargo Securities, LLC
United States Remodeling

BuildFax February 2014 Remodeling Index

Source: http://www.buildfax.com/bfri/

4/4/16
US BFRI: 3,020,136
United States Remodeling

National Association of the Remodeling Industry
First-quarter 2014 Remodeling Business Pulse Index

Source: www.nari.org/media/releases/article.asp?SECTION_ID=2&ARTICLE_ID=1691#sthash.UXE654Mw.dpuf
United States Remodeling

Remodeling Market Index (RMI)

Overall RMI

Source: NAHB; http://eyeonhousing.files.wordpress.com/2014/04/rmi-14q1-chart.jpg
United States Remodeling

Leading Indicator of Remodeling Activity
In Billions, 4-Q Moving Total, Harvard Joint Center for Housing Studies

Source: Joint Center for Housing Studies, U.S. Department of Commerce, NAHB, and Wells Fargo Securities, LLC
United States Remodeling – Opportunity?

92,960,508 homes: 40 years old or older – 63.8% of ALL homes

Source: www.census.gov/compendia/statab/cats/construction_housing/housing_units_and_characteristics.html
United States Remodeling – Opportunity?

Source: https://www.census.gov/compendia/statab/cats/construction_housing/housing_units_and_characteristics.html
United State Housing Size

United States Mortgages

Average Price (in 000s) of New Homes Purchased with Conventional Mortgages

Future U.S. Housing Demand

Deferred Renters/Owners Will Drive Demand

18-34 Year Olds, in millions

- Pent up rental demand from 1.5 million "excess" 18-34 Yr. olds living at home
- LT Avg % of 18-34 Yr old population living at home = 27%

Source: U.S. Census Bureau, Raymond James & Associates, Inc.
Projected U.S. Single-Family Starts

Structural change in the housing market include:
- a dramatic correction in median wealth of U.S. households as home values declined
- declining home ownership rates.

“… a gradual rebound in single-family housing starts, reaching the logarithmic trend line by 2020:
± 1.1 million
close to the long-run historical norm and within the range of current housing expectations
but much lower than recent RPA scenarios with similar or higher population growth.”

Projected U.S. Households

Structural change in the housing market include:
- a dramatic correction in median wealth of U.S. households as home values declined
- declining home ownership rates.

Occupied U.S. Single-Family Housing Units

Extrapolated Trend (based on 1990-to-2000 growth)

Demographic-Projected Trend

Actual

2012 Gap = 1.6 million (2.0 percent of demographic-projected trend)

Sources: Census Bureau, author’s calculations.

Occupied U.S. Multi-Family Housing Units

Projected U.S. Single-Family Starts

Projected U.S. Multi-Family Starts

Future Wood Markets – New Products

Cross-Laminated Timber

Source: bruteforcecollaborative.com
Future Wood Markets – New Products

High-Rise Timber Structures

Source: www.binderholz.com
Threats to Housing

World Debt or “Leverage”
China – hard or soft landing?
U.S. economy stalls or heads lower?
  • No recovery in real medium income
  • Burdensome and increased costs due to new lending regulations
What if there is “no” Eurozone recovery?
Other world events?
Opportunities

Bigger homes for those who can afford them

We may see smaller homes – why?

Affordability for the average American
Stock houses with limited amenities?

If this occurs – how will producers position their products?

What products will be offered?

Manufactured housing could possibly make a comeback
For the U.S. housing market to improve – the overall economy needs to improve in conjunction with real median incomes increasing

Headwinds:

- New and existing regulations
- Rising energy and raw material prices
- Economic uncertainty
- Continued consumer “blahs”
- Decline in “real” median incomes

The BIG question? Will the U.S. housing market continue its sluggish increase

“While there are positive trends in the housing market, Administration officials caution that the economy is still healing from the Great Recession. While there is good news in the March Scorecard, it's clear the housing market is still in the recovery phase of the cycle.”

-- Kurt Usowski, Deputy Assistant Secretary for Economic Affairs, U.S. Department of Housing and Urban Development

Source: ³ http://www.huduser.org
Questions?

Thank You

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