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<th>Housing Scorecard</th>
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<td>New Housing Starts</td>
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<td>Disclaimer</td>
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## February 2014 Housing Scorecard

<table>
<thead>
<tr>
<th>Category</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Starts(^A)</td>
<td>▼0.2%</td>
<td>▼6.4%</td>
</tr>
<tr>
<td>Single-Family Starts(^A)</td>
<td>△0.3%</td>
<td>▼10.6%</td>
</tr>
<tr>
<td>Housing Permits(^A)</td>
<td>△7.7%</td>
<td>△6.9%</td>
</tr>
<tr>
<td>Housing Completions(^A)</td>
<td>△4.4%</td>
<td>△21.9%</td>
</tr>
<tr>
<td>New Single-Family House Sales(^A)</td>
<td>▼3.3%</td>
<td>▼1.1%</td>
</tr>
<tr>
<td>Existing House Sales(^B)</td>
<td>▼0.4%</td>
<td>▼7.1%</td>
</tr>
<tr>
<td>Private Residential Construction Spending(^A)</td>
<td>▼0.8%</td>
<td>△13.5%</td>
</tr>
<tr>
<td>Single-Family Construction Spending(^A)</td>
<td>▼1.1%</td>
<td>△13.6%</td>
</tr>
</tbody>
</table>

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

Source: \(^A\) U.S. Department of Commerce-Construction; \(^B\) 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>February</td>
<td>907,000</td>
<td>583,000</td>
<td>12,000</td>
<td>312,000</td>
</tr>
<tr>
<td>January</td>
<td>909,000</td>
<td>581,000</td>
<td>8,000</td>
<td>320,000</td>
</tr>
<tr>
<td>2013</td>
<td>969,000</td>
<td>652,000</td>
<td>10,000</td>
<td>307,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>-0.2%</td>
<td>0.3%</td>
<td>50.0%</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>-6.4%</td>
<td>-10.6%</td>
<td>20.0%</td>
<td>1.6%</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>February</td>
<td>1,018,000</td>
<td>588,000</td>
<td>23,000</td>
<td>407,000</td>
</tr>
<tr>
<td>January</td>
<td>945,000</td>
<td>599,000</td>
<td>27,000</td>
<td>319,000</td>
</tr>
<tr>
<td>2013</td>
<td>952,000</td>
<td>600,000</td>
<td>31,000</td>
<td>321,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>7.7%</td>
<td>-1.8%</td>
<td>-14.8%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>6.9%</td>
<td>-2.0%</td>
<td>-25.8%</td>
<td>26.8%</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>February</td>
<td>886,000</td>
<td>631,000</td>
<td>14,000</td>
<td>246,000</td>
</tr>
<tr>
<td>January</td>
<td>849,000</td>
<td>607,000</td>
<td>14,000</td>
<td>229,000</td>
</tr>
<tr>
<td>2013</td>
<td>727,000</td>
<td>573,000</td>
<td>10,000</td>
<td>147,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>4.4%</td>
<td>4.0%</td>
<td>-30.8%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>21.9%</td>
<td>10.1%</td>
<td>28.6%</td>
<td>67.3%</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>February</td>
<td>440,000</td>
<td>261,800</td>
<td>5.2</td>
<td>4,600,000</td>
<td>$189,000</td>
<td>5.2</td>
</tr>
<tr>
<td>January</td>
<td>455,000</td>
<td>260,800</td>
<td>5.0</td>
<td>4,620,000</td>
<td>$187,900</td>
<td>4.9</td>
</tr>
<tr>
<td>2013</td>
<td>445,000</td>
<td>265,100</td>
<td>4.1</td>
<td>4,950,000</td>
<td>$173,200</td>
<td>4.6</td>
</tr>
<tr>
<td>M/M change</td>
<td>-3.3%</td>
<td>0.4%</td>
<td>4.0%</td>
<td>-0.4%</td>
<td>0.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>-1.1%</td>
<td>-1.2%</td>
<td>26.8%</td>
<td>-7.1%</td>
<td>9.1%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

* All sales data are SAAR

Source: U.S. Department of Commerce-Construction: [www.census.gov/construction/nrs/pdf/newressales.pdf](http://www.census.gov/construction/nrs/pdf/newressales.pdf); NAR® [www.realtor.org/topics/existing-home-sales](http://www.realtor.org/topics/existing-home-sales); 3/20/14
Existing House Sales

National Association of Realtors (NAR®)

February 2014 sales data:

Distressed house sales: 16% of sales –
(11% foreclosures and 5% short-sales)

Distressed house sales: 15% in January
and 25% in February 2013

All-cash sales: increased to 35%; 33% in January

Investors are still purchasing a substantial portion of
“all cash” sale houses – 21%;
20% in January 2014 and 22% in February 2013

First-time buyers*: increased to 28% (26% in January 2014)
and were 30% in February 2013

* Historically – 40%
February 2014 Construction Spending

February 2014 Private Construction: $360.35 billion (SAAR)

-0.8% less than the revised January estimate of $363.21 billion (SAAR)
13.5% greater than the February 2013 estimate of $317.42 billion (SAAR)

February SF construction: $183.31 billion (SAAR)
-1.1% less than January: $185.31 billion (SAAR)
13.6% more than February 2013: $161.33 billion (SAAR)

February MF construction: $37.42 billion (SAAR)
2.6% more than January: $36.47 billion (SAAR)
29.7% greater than February 2013: $28.85 billion (SAAR)

February Improvement construction: $139.62 billion (SAAR)
-1.3% less than January: $141.43 billion (SAAR)
9.7% more than February 2013: $127.24 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 February – this can be considered normal for a winter month. The bright spot was increasing housing permits – which may hold promise for the future. Housing completions data also was positive.

As pointed out 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).

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 January increased slightly),
5) strict home loan lending standards,
6) new banking regulations, and
7) global uncertainty.
In our January 2014 housing report, I erroneously reported the number of permits instead of the number of starts in slide 4.

Also, on slide 4, 2012 was not changed to 2013.

On slide 15, the mistake from slide 4 was copied, reporting permit data instead of sales data.

Please find the corrected slides as they should have been included in January 2014's housing report on slides 11 and 12 below.

A corrected version of the January 2014 housing report can be found at the VT wood products housing reports site (http://woodproducts.sbio.vt.edu/housing-report).

My apologies!
## New Housing Starts (corrected)

<table>
<thead>
<tr>
<th>Month</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>January</td>
<td>880,000</td>
<td>573,000</td>
<td>7,000</td>
<td>300,000</td>
</tr>
<tr>
<td>December</td>
<td>1,048,000</td>
<td>681,000</td>
<td>23,000</td>
<td>344,000</td>
</tr>
<tr>
<td>2013</td>
<td>898,000</td>
<td>614,000</td>
<td>11,000</td>
<td>273,000</td>
</tr>
<tr>
<td>M/M change</td>
<td>-16.0%</td>
<td>-15.9%</td>
<td>-69.6%</td>
<td>-12.8%</td>
</tr>
<tr>
<td>Y/Y change</td>
<td>-2.0%</td>
<td>-6.7%</td>
<td>-36.4%</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

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

Single family starts, Thousand units, SAAR

Source: Census (http://www.census.gov/const/www/newresconstindex.html)
Still lots of problems to deal with:
- economy is getting better, albeit very slowly
- government debt issues – all levels of government – exacerbates the job problem
- European economy getting better(slowly) – some deflation risk
- China is slowing too
- Housing’s main problems - Weak domestic economy; slowing world economy; weak job market; weak income growth; high debt levels; tight credit environment, and dysfunctional government

• Two major concerns –
  (1) can the economy (and housing) stand on its own without Fed stimulus ???
  (2) Uncertainty is a key reason holding back job creating investments. 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
  (3) OK, here another concern. 120 million working age people collecting a check from “Uncle Sam” (doesn’t include retired people on SSI).
Some additional housing issues:

A. This economic recovery is much slower than usual
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
Housing, economy, and wood products

They are “joined at the hip”
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 – mediocre housing activity

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

Following housing bust in 2008, wood prices fell and production capacity was reduced. So, when housing starts increased, there was an imbalance between demand and supply of wood products. The price mechanism brings demand and supply into balance. Initially, prices fell almost 50% – this instigated production cutbacks of 50% or more – then, as housing begins to turn around, prices increase – this encourages Production increases for wood products – and the cycle starts over.

Sources: Prices – Random Lengths (http://www.randomlengths.com); starts (Bureau of Census (http://www.census.gov/construction/nrc))
Job situation is not good – we’re creating about 180,000 per month (net basis) and approximately 30% are part time jobs with little or no benefits (health care, retirement, etc.), and poor pay. And, it will only get more challenging as baby boomers retire. This will put more stress on government services like Social Security and Medicare. Where will we get the money to invest in the future?

As long as this scenario continues, demand for goods and services will remain weak. There are no “quick fixes” – government Stimulus (QE, etc.) helps, but is not enough. Long term Solution is R&D, education, infrastructure investment, fix the tax system to encourage investment/discourage consumption, and fix health care.
Employment situation - our biggest problem - it’s getting better, but the jobs recovery remains weak by past standards, and many jobs 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

Source: U.S. BLS (www.bls.gov)
Unemployment remains high and will remain relatively high for several years – but, it’s getting better “slowly”

**There are about 19 million people either unemployed, underemployed, or have stopped looking for work – they are not buying houses**

Employment - - We’re still 2.5 million below pre recession levels

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. --- underemployment is a big problem
Other economic issues –

- The workforce is shrinking and labor force participation rate is lowest since WWII. Some implications – more problems funding social programs and there will be more labor shortages.

- Capacity utilization remains below 80% - that means firms won’t invest and that means weak job growth (and weak income growth).

- Inflation not a problem yet – I’m not surprised because demand remains weak.

- 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.

- Major questions going forward are inflation, disinflation, deflation, or continued weak growth (disinflation is weakening inflation, i.e., today) whereas deflation is general fall in prices (i.e., 1930’s). My guess is continuing weak growth (less than 3% GDP) with moderate pick up in inflation. There are too many headwinds for stronger growth, and deflation is just too ugly to contemplate.
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, demand for goods and services and GDP will remain relatively weak. All this is actually creating a skill shortage.

% of civilian adult population, that are working

Too much incentive for people to collect welfare!!!

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 4 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
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

Source: Census (http://www.census.gov/const/www/newresconstindex.html)
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.

**Housing share (%)**

- **Single family collapse**
  - Following housing bust – then
  - Brief resurgence due to HEMP/HAMP, other Federal support programs

- **Multi family (includes multifamily rentals and condos Which are classified as multifamily, but they are owned)**

Source: Census (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)

Note: some multifamily are condos which are owned/not rented.
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? Best guess – more rental housing.

Source: Census (http://www.census.gov/housing/hvs/files/qtr412/q412press.pdf)
New Single Family Home sales is the key statistic to watch – Sales drive housing starts – this drives demand for wood products! Problem is weak job market.

Resale market – higher prices and mortgages slow the rebound

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

Feb 2014 – 4,600

Source: NAR (http://www.realtor.org/research)
Remodeling to pick up as confidence improves, house prices increase, and the economy picks up.
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 implications for the wood products industry? Also, what are the implications if house sizes get 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, for that to happen, requires JOBS!
Here is an excellent video (about 90 minutes) on CSPAN (http://www.c-spanvideo.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.
Some conclusions – housing continues to improve albeit slowly

(1) Economy will muddle along until 2015? Depends on world economy, China, Europe, ..... Question – can the US 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
(4) This means less demand for wood products in housing – industry needs to find some new markets!!
(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 good paying jobs with benefits.
(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?
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