The State of the Nation’s Housing

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Existing Home Sales Improved then Retracted, While New Home Sales Are Still in the Basement

Single Family Home Sales (Thousands, SAAR)

Sources: US Census Bureau; National Association of Realtors (R) through Feb 2010
Home Building May Have Bottomed, But At Very Low Levels

Housing Construction Starts (Thousands, SAAR)

Source: US Census Bureau through February 2010
Only Single Family Starts Sustained Its Rebound into 2010

Indexed Quarterly Value (Jan 2009 = 100)

Sources: US Census Bureau; National Association of Realtors.
Home Prices May Be Stabilizing

Real Single Family Home Prices (Indexed Jan 2000 =100)

Note: All prices are seasonally adjusted and inflation adjusted using the CPI-U for All Items.
Sources: S&P/Case-Shiller 20-city composite house price index (SA); National Association of Realtors (R), median single family home price (SA, in thousands); Federal Housing Finance Agency, purchase-only house price index (SA).
Housing Affordability Is the Biggest Plus
- And Interest Rates Matter

Notes: Monthly mortgage costs assume a 10% downpayment and Freddie Mac conventional 30-year fixed interest rates, and are adjusted for inflation by the CPI-U for All Items. Metro areas evaluated are the 79 metros in the National Association of Realtors® series for which there are data from every quarter 1989-2000 and 2009:3. Sources: JCHS calculations using the National Association of Realtors®, Median Existing Single-Family House Price and Moody's Economy.com, Average Household Income.
The Road to Recovery
Home Building Recoveries: The Top Line

- Takes sustainable turnaround in new home sales to bring single-family starts back – (it’s the demand)
- New home sales are the “Punxsutawney Phil” of housing and economic recoveries
- Employment growth lags new home sale turnarounds, typically by two quarters
- Only 1 recovery of last 4 failed after GDP turned around coming out of a recession
- It took a Fed-engineered spike in interest rates to derail the recovery, small increases in rates or home prices have not
Lasting Turnarounds in New Sales Started Just Before Sustained Turnarounds in GDP Growth

New Single Family Home Sales (000s, SAAR)

Note: Lightly shaded areas mark official recessions. Darkly shaded areas mark beginning of sustained recoveries in real GDP at ends of recessions.

Sources: US Census Bureau; US Bureau of Economic Analysis
Signs of Lasting Turnarounds in New Home Sales

**Before Sales Bottom:**
- Nominal mortgage rates were falling
- Real monthly payments were falling
- Inventory of new homes for sale were in decline several quarters

**After Sales Bottom:**
- Real GDP turned positive two quarters after new sales trough
- Total employment hit bottom two quarters after new sales trough
- GDP growth remained positive for next 8+ quarters of sales recovery
- Once employment turned, stayed positive at least 5 more quarters
- Inventory of new homes bottomed 1-6 quarters after turnaround
Past Rebounds in New Home Sales Lasted 4 Quarters Before Any Noticeable Declines, Failed Recovery Did Not

### Lasting Recoveries

- New Home Sales (000s, SAAR)
- Quarters After Trough: +1, +2, +3, +4, +5, +6, +7, +8
- Quarters Before Trough in New Home Sales: -4, -3, -2, -1, 1, +1

#### Second Double Dip Recovery
- Mid 1970s Recovery
- Second Double Dip Recovery
- Early 1990s Recovery
- Current

### Failed Recovery

- New Home Sales (000s, SAAR)
- Quarters After Trough: +1, +2, +3, +4, +5, +6, +7, +8
- Quarters Before Trough in New Home Sales: -4, -3, -2, -1, 1, +1

#### First Double Dip False Rebound
- Early 1990s Recovery
- Current

Source: JCHS tabulations of US Census Bureau data

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Strength of Employment Growth Has Mattered Most to The Strength and Sustainability of Past Starts Recoveries

Growth in Total Starts Through First 8 Quarters after Trough in New Home Sales (Percent)

Growth in Employment Through First 8 Quarters after Trough in New Home Sales (Percent)
Employment Losses This Recovery Are Staying Worse Longer

Employment Growth (Percent)

Quarter After Trough in New Home Sales

-2.0 -1.5 -1.0 -0.5 0.0 +0.5 +1.0 +1.5 +2.0

Mid 1970s Recovery
Early90s Recovery
Recovery After Second Double Dip
Current

Note: Quarterly Employment Growth Rates Around Troughs in New Home Sales
Source: JCHS Tabulations of US Census and BLS data
Falling Mortgage Interest Rates Have Given Less Lift to Sales Following the Current Trough

Indexed Mortgage Rate Relative to Rate at Trough (Percentage Point)

Quarter After Trough in New Home Sales

- Mid 1970s Recovery
- Recovery After Second Double Dip
- Early 90s Recovery
- Current

Source: JCHS Tabulations of Freddie Mac 30 Year Fixed Conventional Conforming Mortgage Rates
But Nominal Rates This Time Are At Very Low Levels

Nominal Mortgage Interest Rate (Percent)

Source: JCHS Tabulations of Freddie Mac 30 Year Fixed Conventional Conforming Mortgage Rates
Among Metros with Large Cyclical Permit Declines, It Took 3 Years Before Worst Decliners Saw Stronger Rebounds

Change in Annual Single Family Permits Among 50 Largest Markets with Declines >10% (Percent)

Note 15-20% Average Change

Median Peak to Trough Decline, 1980s to Early 1990s

After 1 Year | After 2 Years | After 3 years | After 4 Years

Ten Worst Declines in Permitting

All Other Metros

Ten Smallest Declines in Permitting

Note: Includes the top 50 homebuilding markets in that cycle, as ranked by permits issued in 1986. But excludes four markets that had insignificant (less than 10%) cyclical declines.

Source: JCHS Tabulations of US Census Data
Conclusions

- Key indicators of real turnaround in new home sales in place → except for timing of employment rebound
- Strength of the recovery is likely to depend on the timing and strength of job growth → key to watch
- The size of metro permit rebounds in the first years of last recovery were not related to size of prior declines
- The headwinds this time are strong and without precedent – high foreclosures/tightened standards
- Last quarter’s decline in new home sales bears noting
- History is an imperfect guide, but it’s all we get
- Consensus forecasts by others call for about 700,000-750,000 starts in 2010 and 1.0-1.15 million in 2011
The Pipeline of Serious Delinquencies Is Still Rising

Share of Loans 90+ Days Delinquent or In Foreclosure (%)

Source: Mortgage Bankers Association
Lending Standards Even in the Prime Market Have Tightened Dramatically

Share of GSE Originations (Percent)

2006
- "Better": FICO >750 & Original LTV <75
- "Good"
- "Worse": FICO <690 & Original LTV >85

2009
- "Better": FICO >750 & Original LTV <75
- "Good"
- "Worse": FICO <690 & Original LTV >85

Note: "Good" Loans Defined as all other loans not having high LTV & low FICO nor Low LTV & High FICO.
Nominal Annual Price Declines Have Been More Severe and Widespread than Any in Recent History

Share of the 73 Metros Covered by CMHPI since 1975

Note: Metros included are the 73 Metros fully covered by CMHPI data since 1975. Annual values are averages of quarters.
Source: JCHS tabulations of Freddie Mac CMHPI data.
Estimating Long-Run Demand

- Estimates are of long-run sustainable demand – not a prediction of actual completions and placements.
- Actual construction influenced by under or over supply entering and exiting the period.
- Household growth projected under two immigration assumptions and with headship rates held constant.
- Two methods used for vacancies and net removals:
  - Each projected separately and conservatively.
  - Using average ratio of completions plus placements to household growth for ten-year periods ending 1994-1998 (which contains the 87-91 housing cycle).
Recently Headship Rates for Younger Adults have Declined Slightly and Older Adults Have Increased Slightly, but…

Immigration Has Become an Increasingly Important Driver of Household Growth

Foreign Born's Share in Total Household Growth

- 1980s: 15.8%
- 1990s: 29.8%
- 2000 - 2005: 40.5%

Household Growth Is On A Higher Path But Immigration Is The Key Wildcard

Average Annual Household Growth (Millions)

- 1.15 million (1995-2000)
- 1.25 million (2000-2008)
- 1.48 million (2010-2020 assuming Census Projections of Immigration)
- 1.25 million (2010-2020 assuming half of Census Projections of Immigration)

Notes: To adjust for rebenchmarking, household growth in 2002-2003 is assumed to be the same as the average annual growth in 2000-2005. JCHS projections using 2008 US Census Bureau Population projections.
Sources: US Census Bureau, Housing Vacancy Survey; JCHS Working W09-5.
Summary of Findings

- Projection of separate elements yields 2010-2020 estimates of between 17.2 (low immigration) and 19.7 million (high immigration)

- The historic ratio of completions and placements to household growth yields 2010-2020 estimates of between 17.1 and 20.2 million

- Important caveats:
  - Projections of demand for single and multifamily homes completed + manufactured homes placed
  - Assumes enter and exit the period in market balance
  - Odds of being in perfect balance in both periods low
  - No ironclad measures of when markets are in balance

- Think of as underlying current of demand
# Impact of Entering Oversupply Assumptions on Projections for 2010-2020

(With Markets Assumed to be in Equilibrium by 2020)

<table>
<thead>
<tr>
<th>Assumed Oversupply Entering 2010</th>
<th>Average Annual Completions &amp; Placements 2010-2020 needed to maintain long-run average</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>1.72 - 1.97 Million</td>
</tr>
<tr>
<td>500 Thousand</td>
<td>1.67 – 1.92 Million</td>
</tr>
<tr>
<td>1.0 Million</td>
<td>1.62 – 1.87 Million</td>
</tr>
<tr>
<td>1.5 Million</td>
<td>1.57 – 1.82 Million</td>
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Notes: Ranges of annual average completions needed to maintain long-run average 2010-20
determined by applying both JCHS 2009 low and high household projections.
Sources: US Census Bureau, JCHS Household Projections, JCHS Working Paper W09-5; JCHS
Had Actual Demand Held Up to Long-Run Levels, Oversupplies Entering 2006 Would Have Been Worked Off

Notes: Finished Units are the sum of housing completions and manufactured home placements.

Sources: JCHS Calculations of data from the US Census and JCHS Research Note N09-1.
Owner Improvement Growth Exceeded Expectations 2000-2006 But Now Below Trend Line

Owner Improvements (Billions 2008$)

Note: Trendline growth calculated by applying low-immigration series 2009 JCHS household growth projections by age, hhtype and minority status to 1995-2000 percentage growth in AHS average owner investment within those categories.