VEHICLE SALES OUTLOOK
20th Annual Automotive Outlook Symposium
Federal Reserve Bank of Chicago

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BUSINESS ENVIRONMENT OVERVIEW

Global
• Global economic growth in the 2% – 3% range in 2013
• Major central banks undertaking a policy of low interest rates and asset purchases
• Japan’s government and central bank targeting a weak yen to stimulate the economy

Americas
• U.S. economic growth in 2% – 2.5% range this year supported by housing recovery
• U.S. fiscal policy drag restraining growth in 2013; housing sector recovery a major offset to budget cuts
• Sub-par economic performance in Brazil; elevated risks in Argentina and Venezuela

Europe
• Euro Area recession to continue in 2013; some early signs of stabilization are beginning to emerge
• Policy actions have contained the crisis, but unemployment remains high

Asia Pacific Africa
• Economic recovery in China in the 7.5 – 8% range; India’s growth remains significantly below trend
• Good potential for growth in ASEAN markets supported by domestic demand
GLOBAL INDUSTRY SALES

Mils. Units

4.6% CAGR

2003 2005 2007 2009 2011 2013

Europe 19
U.S.
China
Other

2013 Global Volume Of 80 - 85 Million Units
U.S. SALES FUNDAMENTALS

Near-Term Factors

• Modest economic growth in 2 – 2.5% range
• Slowing manufacturing expansion
• Wide swing in consumer sentiment
• Favorable credit conditions and improving household balance sheet
• Continued improvement in employment and income dynamics
• Fuel pricing influences segment choice
• Low interest rates

Long-Term Factors

• Vehicle stock age -- above 11 years
• Number of new drivers -- over 2 million in 2011
• Household formation by mid-decade
U.S. KEY ECONOMIC INDICATORS

**Consumer Sentiment Index**
- 2008: 78.4
- 2009: 55.8
- 2010: 83.7

**Manufacturing PMI**
- 2010: 33.1
- 2013: 50.7

**PCE and DPI (3mma Pct. Chg. YoY)**
- 2008: 2.02
- 2010: 0.88

**GDP (Pct. Chg. YoY)**
- 2009: 3.28
- 2009: (4.58)
- 2013: 1.80

PCE: Personal Consumption Expenditure  
DPI: Disposable Personal Income
U.S. KEY ECONOMIC INDICATORS

S&P

1,539.7
1,570.7
April Average
757.1

10.4% YTD April
13.3% April OYA

Case-Shiller House Prices (Pct. Chg. YoY)

18.3
9.3

Household Net Worth (USD Trils.)

67.4
66.1
56.1
51.4

Financial Obligations Ratio (% DPI)

18.3
15.5
U.S. TOTAL NEW VEHICLE SALES

Mils. Units

<table>
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<th>Fleet</th>
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<th>Total</th>
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<tr>
<td>2013</td>
<td>15 - 16</td>
<td>15 - 17</td>
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</tbody>
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Mid-Decade

SLIDE 7
U.S. FULL-SIZE PICKUP SALES AND HOUSING STARTS

Housing Starts, SAAR 12-Month Moving Average

FSPU Sales 12-Month Moving Sum

Mils. Units


2.36 2.70 2.09 1.13 1.76 0.85

1.61
U.S. AVERAGE AGE OF CARS AND TRUCKS

Source: R. L. Polk
SUMMARY

- U.S. industry sales recovery continues, reaching 15 – 16 million units in 2013
  - Housing sector advances
  - Household balance sheet repairs
  - Interest rates remain low
  - Job market improves
- Near-term risks center around restrictive and uncertain fiscal policy
- Long-term industry sales supported by household formation, population growth, and replacement demand returning to trend
BACKUP
NORTH AMERICA PRODUCTION AND CAPACITY

Mils. Units

2011       2012       2013       2016

Production: 16.8   17.0   17.6   19.4
Excess:      3.7    1.6    1.6    1.9

Memo: Excess as Pct. of Production
28%        10%        10%        11%

Source: IHS Automotive, Q1 2013