# THE FPDA $\Theta$ MOTION \& CONTROL NETWORK 

Fluid Power Survey Results March 2014

## Highlights

## Background:

- The February survey had 40 respondents comprised of 33 distributors and 7 manufacturing firms.


## Highlights:

- The February FPDA Index produced a reading of 55.8 down from January's reading of 63.5. Momentum moderated the most, albeit still remained positive, in the new orders, sales, and pricing indexes in the month. The broader ISM strengthened from January lows to 53.2 in February.
- Weather remained a drag in February, with sales reported up 1\%, slowing from 3\% last month and a net 36\% of participants indicated sales fell below expectations compared to $11 \%$ last month due to bad weather.
- Orders have been running 300-400bp ahead of sales growth in Jan/Feb supporting the $6 \%$ growth forecast for 2014 (up from 5-6\% prior). Backlog levels improved significantly again in February with $51 \%$ of sources reporting higher backlog sequentially vs $49 \%$ in January.
- 16 of 17 end market improved sequentially in February driven by the strong order activity. Heavy truck, forestry, and process improved the month sequentially while food \& beverage was the only end market not to improve in the month.


## Summary Thoughts

Strength in orders and backlogs, the broad-based improvement in end markets, and a more optimistic full year outlook all support our notion that underlying activity is improving despite the soft / weather impacted growth in January and February. Feedback on March suggests distributors are seeing demand accelerate as some of the weather delayed business appears to be recaptured.

## February FPDA Index

- The February FPDA Index produced a reading of 55.8 down from January's reading of 63.5. Momentum moderated the most, albeit still remained positive, in the new orders, sales, and pricing indexes in the month. The broader ISM strengthened from January lows to 53.2 in February.
- The FPDA Index is similar in construction to the widely followed ISM Purchasing Manager's Index. These are both seasonally adjusted diffusion indexes which measure the month-to-month change in each of the categories listed below. A reading of 50 indicates no change and the further above or below 50 indicates a faster or slower rate of change.

| Fluid Power Index |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Direction | Rate of Change | $\begin{gathered} \text { Trend } \\ \text { (months) } \end{gathered}$ |
| Sales | 83.2 | 38.9 | 68.1 | 66.6 | 43.1 | 35.5 | 55.0 | 60.9 | 38.2 | 77.3 | 33.0 | 59.6 | 70.8 | 56.4 | Growing | Slower | 3 |
| Prices | 66.5 | 58.6 | 52.6 | 54.9 | 52.4 | 54.6 | 66.1 | 57.2 | 58.2 | 61.6 | 65.9 | 63.9 | 79.8 | 60.4 | Growing | Slower | 45 |
| Orders | 74.8 | 32.0 | 47.9 | 71.4 | 37.9 | 34.2 | 57.9 | 56.1 | 44.1 | 71.3 | 37.0 | 55.0 | 77.7 | 50.6 | Growing | Slower | 3 |
| Backlog | 66.7 | 61.3 | 37.9 | 48.4 | 47.1 | 38.5 | 44.9 | 41.1 | 41.3 | 52.2 | 47.2 | 53.0 | 67.6 | 65.7 | Growing | Slower | 3 |
| Outlook | 52.9 | 51.6 | 43.3 | 46.7 | 62.1 | 38.5 | 43.8 | 47.7 | 42.7 | 52.2 | 50.0 | 62.9 | 63.5 | 56.6 | Growing | Slower | 5 |
| Inventory | 54.4 | 50.0 | 53.1 | 45.0 | 40.9 | 46.2 | 45.1 | 47.7 | 51.2 | 55.3 | 39.2 | 48.6 | 55.1 | 55.4 | Growing | Faster | 2 |
| Supplier Deliveries | 54.0 | 58.3 | 47.5 | 51.7 | 46.8 | 54.0 | 53.5 | 55.5 | 57.7 | 58.7 | 58.7 | 62.2 | 51.9 | 55.9 | Slowing | Faster | 9 |
| Employment | 53.0 | 55.3 | 53.3 | 49.2 | 51.1 | 42.5 | 49.9 | 53.2 | 53.5 | 55.1 | 54.8 | 55.3 | 61.7 | 60.5 | Growing | Slower | 7 |
| Accounts Receivable | 45.6 | 40.3 | 46.7 | 46.6 | 50.0 | 41.0 | 45.0 | 43.0 | 46.5 | 45.5 | 47.2 | 45.6 | 39.7 | 46.1 | Slowing | Slower | 9 |
| Overall FPDA Index | 63.9 | 46.9 | 54.0 | 56.8 | 44.0 | 42.5 | 52.3 | 54.7 | 49.0 | 63.6 | 44.5 | 56.1 | 63.5 | 55.8 | Growing | Slower | 3 |
| Memo: ISM PMI Index | 53.1 | 54.2 | 54.2 | 50.7 | 49.0 | 50.9 | 55.4 | 55.7 | 56.2 | 56.4 | 57.3 | 57.0 | 51.3 | 53.2 | Growing | Faster | 9 |

## February Sales Trends

## Weather Continues to Pressure Demand, Sales up 1\% vs 3\% Growth in January

Sales continued to fall below plan in February with a net $36 \%$ of sources reporting sales came in below expectations compared to a net $11 \%$ last month due to bad weather. Sales grew $1 \%$ in February, slowing from $3 \%$ growth in January; sources indicate supplier deliveries and business closures negatively impacted sales growth in the month.


Source: Cleveland Research


## Monthly Sales Growth - February 2014

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total |  |  |  |  |  |  | Distributors |  |  |  |  |  |  | Manufacturers |  |  |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| January | -19\% | 1\% | 32\% | 21\% | 4\% | 3\% | January | -16\% | -6\% | 28\% | 26\% | 1\% | 3\% | January | -21\% | 9\% | 35\% | 17\% | 7\% | 3\% |
| February | -18\% | 5\% | 29\% | 22\% | -5\% | 1\% | February | -17\% | -2\% | 28\% | 24\% | -6\% | 3\% | February | -18\% | 11\% | 31\% | 19\% | -5\% | -1\% |
| March | -24\% | 18\% | 31\% | 13\% | -6\% |  | March | -22\% | 12\% | 33\% | 16\% | -5\% |  | March | -26\% | 24\% | 30\% | 10\% | -7\% |  |
| April | -24\% | 25\% | 28\% | 12\% | 6\% |  | April | -22\% | 17\% | 27\% | 10\% | 6\% |  | April | -27\% | $32 \%$ | 29\% | 13\% | 5\% |  |
| May | -28\% | 23\% | 25\% | 20\% | -2\% |  | May | -27\% | 18\% | 31\% | 21\% | -3\% |  | May | -28\% | 28\% | 18\% | 19\% | -1\% |  |
| June | -30\% | 32\% | 28\% | 9\% | -1\% |  | June | -29\% | 25\% | 27\% | 10\% | -1\% |  | June | -32\% | 39\% | 28\% | 8\% | 0\% |  |
| July | -29\% | 28\% | 20\% | 9\% | -3\% |  | July | -29\% | 23\% | 23\% | 13\% | -2\% |  | July | -29\% | 33\% | 17\% | 5\% | -4\% |  |
| August | -29\% | 42\% | 20\% | 6\% | -3\% |  | August | -28\% | 38\% | 25\% | 6\% | -5\% |  | August | -29\% | 46\% | 14\% | 6\% | -2\% |  |
| September | -24\% | 28\% | 22\% | 1\% | 1\% |  | September | -24\% | 22\% | 29\% | 5\% | 1\% |  | September | -24\% | $34 \%$ | 14\% | -3\% | 1\% |  |
| October | -24\% | 32\% | 17\% | 8\% | 2\% |  | October | -25\% | 22\% | 20\% | 13\% | 1\% |  | October | -22\% | 42\% | 14\% | 3\% | 2\% |  |
| November | -13\% | 38\% | 21\% | -4\% | 1\% |  | November | -14\% | $31 \%$ | 28\% | 2\% | 2\% |  | November | -12\% | 44\% | 15\% | -10\% | -1\% |  |
| December | -9\% | 28\% | 17\% | -5\% | 5\% |  | December | -14\% | 21\% | 24\% | 4\% | 4\% |  | December | -4\% | 28\% | 5\% | -8\% | 5\% |  |


| Percent Positive / Negative Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 |
| Positive Sales Growth | 53\% | 26\% | 36\% | 71\% | 35\% | 42\% | 42\% | 43\% | 34\% | 47\% | 47\% | 54\% | 69\% | 59\% |
| Flat Sales | 18\% | 18\% | 18\% | 11\% | 15\% | 11\% | 12\% | 11\% | 10\% | 19\% | 12\% | 16\% | 11\% | 14\% |
| Negative Sales Growth | 29\% | 56\% | 45\% | 18\% | 50\% | 47\% | 46\% | 46\% | 56\% | 34\% | 41\% | 30\% | 20\% | 27\% |
| Net \% (Positive - Negative) | 24\% | -29\% | -9\% | 52\% | -15\% | -5\% | -4\% | -2\% | -22\% | 13\% | 6\% | 24\% | 49\% | 32\% |
| Results vs. Expectations |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 |
| Better than expected | 32\% | 11\% | 15\% | 16\% | 11\% | 13\% | 12\% | 9\% | 12\% | 28\% | 11\% | 25\% | 18\% | 11\% |
| In line with expectations | 35\% | $31 \%$ | 29\% | 57\% | 45\% | 36\% | 39\% | 46\% | 21\% | 38\% | 54\% | 43\% | 53\% | 42\% |
| Worse than expected | 32\% | 57\% | 56\% | 27\% | 45\% | 51\% | 49\% | 46\% | 67\% | 34\% | 35\% | 33\% | 29\% | 47\% |
| Net \% (Better - Worse) | 0\% | -46\% | -41\% | -13\% | -34\% | -38\% | -37\% | -37\% | -56\% | -6\% | -24\% | -8\% | -11\% | -36\% |

## Orders and Backlog Continue to Grow, Supporting 2014 Outlook

## Incoming Orders Running 300-400bp Ahead of Out the Door Sales Growth

Orders were up 5\% in February following 6\% growth in January, and incoming orders have been running 300-400bp ahead of sales growth in the first two months of the year. The better order trends support growing backlogs, with meaningful improvement in February, growing 3\% vs $1 \%$ last month, the highest reported growth rate since September-12. More than half ( $51 \%$ ) of sources reported a sequential increase in backlogs in the month of February following 49\% in January.


Source: Cleveland Research


## Order and Backlog Growth Trends

| Fluid Power Industry - Monthly Order Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total |  |  |  |  |  |  | Distributors |  |  |  |  |  |  | Manufacturers |  |  |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| January |  | 9\% | 25\% | 14\% | 1\% | 6\% | January |  | 1\% | 25\% | 13\% | 3\% | 6\% | January |  | 18\% | 25\% | 15\% | -1\% | 5\% |
| February |  | 16\% | 31\% | 18\% | -5\% | 5\% | February |  | 12\% | 31\% | 19\% | -7\% | 4\% | February |  | 21\% | 31\% | 17\% | -3\% | 6\% |
| March |  | 30\% | 29\% | 6\% | -11\% |  | March |  | 29\% | 30\% | 10\% | -6\% |  | March |  | 31\% | 29\% | 3\% | -15\% |  |
| April | -25\% | 31\% | 23\% | 10\% | 3\% |  | April | -25\% | 30\% | 29\% | 8\% | 5\% |  | April | -25\% | 32\% | 18\% | 12\% | 2\% |  |
| May | -29\% | 29\% | 19\% | 10\% | -1\% |  | May | -27\% | 28\% | 27\% | 5\% | -2\% |  | May | -31\% | 30\% | 12\% | 15\% | 0\% |  |
| June | -33\% | 34\% | 28\% | 5\% | 0\% |  | June | -30\% | 28\% | 33\% | 1\% | -2\% |  | June | -37\% | 41\% | 24\% | 10\% | 2\% |  |
| July | -26\% | 27\% | 23\% | 5\% | -1\% |  | July | -28\% | 20\% | 25\% | 8\% | 1\% |  | July | -24\% | 34\% | 20\% | 2\% | -2\% |  |
| August | -26\% | 40\% | 18\% | 5\% | -1\% |  | August | -26\% | 34\% | 29\% | 6\% | -1\% |  | August | -26\% | 46\% | 7\% | 5\% | -1\% |  |
| September | -17\% | 29\% | 24\% | -2\% | 1\% |  | September | -20\% | 29\% | 30\% | 1\% | 3\% |  | September | -14\% | 29\% | 19\% | -5\% | 0\% |  |
| October | -21\% | 26\% | 25\% | 3\% | 4\% |  | October | -21\% | 25\% | 25\% | -4\% | 4\% |  | October | -20\% | 26\% | 23\% | 10\% | 4\% |  |
| November | -3\% | 23\% | 20\% | -2\% | 1\% |  | November | -2\% | 28\% | $21 \%$ | -1\% | -1\% |  | November | -4\% | 17\% | 19\% | -3\% | 4\% |  |
| December | -4\% | 18\% | 18\% | -6\% | 3\% |  | December | -10\% | 27\% | 21\% | 5\% | 5\% |  | December | 3\% | 17\% | 1\% | -11\% | 1\% |  |


| Fluid Power Industry - Monthly Backlog Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total |  |  |  |  |  | Distributors |  |  |  |  |  |  | Manufacturers |  |  |  |  |  |  |
|  | 20092010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| January |  | 25\% | 22\% | 1\% | 1\% | January |  |  | 22\% | 30\% | 0\% | 1\% | January |  |  | 28\% | 13\% | 1\% | 1\% |
| February |  | 32\% | 18\% | -2\% | 3\% | February |  |  | 35\% | 22\% | -2\% | 2\% | February |  |  | 30\% | 13\% | -1\% | 3\% |
| March |  | 40\% | 15\% | -5\% |  | March |  |  | 39\% | 24\% | -2\% |  | March |  |  | 41\% | 7\% | -8\% |  |
| April |  | 31\% | 16\% | -6\% |  | April |  |  | 36\% | 25\% | -6\% |  | April |  |  | 27\% | 7\% | -6\% |  |
| May |  | 25\% | 10\% | -2\% |  | May |  |  | 37\% | 11\% | -3\% |  | May |  |  | 14\% | 10\% | 0\% |  |
| June | 24\% | 29\% | 8\% | -7\% |  | June |  | 29\% | $32 \%$ | 11\% | -6\% |  | June |  | 20\% | 25\% | 6\% | -7\% |  |
| July | 29\% | 25\% | 7\% | -4\% |  | July |  | 24\% | 29\% | 12\% | -5\% |  | July |  | 34\% | 22\% | 3\% | -3\% |  |
| August | 37\% | 17\% | 6\% | -3\% |  | August |  | 29\% | 36\% | 7\% | -5\% |  | August |  | 45\% | -1\% | 6\% | -1\% |  |
| September | 37\% | 24\% | 4\% | -3\% |  | September |  | 37\% | 33\% | 9\% | -6\% |  | September |  | 37\% | 16\% | -1\% | 1\% |  |
| October | 34\% | 22\% | -1\% | 1\% |  | October |  | 24\% | 26\% | -4\% | 1\% |  | October |  | 45\% | 19\% | 3\% | 0\% |  |
| November | 32\% | 26\% | -3\% | 0\% |  | November |  | 23\% | 29\% | -3\% | -2\% |  | November |  | 41\% | 23\% | -4\% | 1\% |  |
| December | 25\% | 19\% | -3\% | 2\% |  | December |  | 20\% | 27\% | 2\% | 2\% |  | December |  | 30\% | 1\% | -6\% | 1\% |  |

## End Markets Accelerate in February

## Broad End Market Improvement in February

From an end market perspective, all but one end market gained momentum in February from January levels due to strong order trends, and growing backlogs despite weaker than expected sales growth due to poor weather conditions. The most notable progress was seen in heavy duty truck end markets, followed by forestry and process markets. Aerospace remained the strongest reported market in February followed by MRO and process while mining and government continued to be the reported weakest. Food \& beverage was the only end market that did not improve sequentially. Interestingly, we are hearing of some improvement in land based O\&G markets which had previously been softening in 2 H 13 .


## End Market Trends



## End Market Trends







## Product Category Ranking

For the first time this month, we asked about relative strength of nine product categories. All nine product categories were reported as relatively strong in the month of February. Power units, hose products \& assemblies, and connectors were the strongest product categories while pumps, valves, sealing devices and cylinders were reported as the relative weakest product categories.


## 2014 Outlook

## 2014 Outlook Now Looking Up 6\%, Slightly Higher than the 5-6\% Prior Forecast

Sources in our fluid power survey appear slightly more optimistic about 2014 vs 30 days ago and are now expecting $6 \%$ growth, up from the previous expectations of $5-6 \%$ growth and up from flat trends in 2013. Despite challenging weather conditions, our sources are increasingly optimistic driven by the continued strong order activity and growing backlogs. Sources report seeing better activity across a wide range of markets and we are hearing that land based O\&G markets are beginning to improve with both MRO and OE activity picking up over the past two months.

| Fluid Power Outlook |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 |  |  | 2014 | tlook |  |  |
| Sales Growth (y/y) | Actual Results | Actual Results | Sept-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 |
| Overall | 8\% | 0\% | 3\% | 4-5\% | 4-5\% | 5-6\% | 5-6\% | 6\% |
| Distributors | 8\% | 0\% | 4\% | 5\% | 4-5\% | 6\% | 7\% | 6\% |
| Manufacturers | 8\% | 0\% | 3\% | 4\% | 3\% | 5\% | 4\% | 6\% |

Source: Cleveland Research

## Price Contribution Trends

- Average product prices increased to $2.4 \%$ in February, inline with results in January and up slightly from the $2.3 \%$ December. Price realization stayed roughly the same at $\sim 1.5 \%$ compared to $1.6 \%$ in January.




## Inventory Trends

## Inventories Remain Inline with January Trends

February inventory levels remained relatively unchanged with a net $11 \%$ of sources reporting higher inventories vs a net $10 \%$ in January. Distributors appear comfortable with current levels with a net $26 \%$ of sources indicating that inventories were "too high" down marginally from the net $28 \%$ last month. Sources indicate inventories are right sized at this time but anticipate bringing levels up slowly as sales volumes improve.



## Inventory Levels



Supplier Deliveries - Versus Prior Month


## Macroeconomic Indicators

ISM, Industrial Production, Capacity Utilization, Non-Res Construction Forecasts, Resi Construction Indicators, Commodity Prices, Heavy Truck \&<br>Automotive Data

## Feb ISM Ticks Up from <br> January Lows

## ISM Manufacturing Index



## Manufacturing End Market Momentum

| Major End Market | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Apparel, leather and allied products | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\leftrightarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ |
| Chemical products | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ |
| Computer and electronic products | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\leftrightarrow$ |
| Electrical equipment, appliances, components | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ |
| Fabricated metal products | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Food, beverage and tobacco products | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Furniture and related products | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Machinery | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ |
| Miscellaneous manufacturing | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\downarrow$ | $\leftrightarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ |
| Nonmetallic mineral products | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ |
| Paper products | $\uparrow$ | $\leftrightarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ |
| Petroleum and coal products | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\leftrightarrow$ | $\leftrightarrow$ | $\uparrow$ | $\leftrightarrow$ | $\leftrightarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\downarrow$ | $\downarrow$ |
| Plastics and rubber products | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\downarrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Primary metals | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Printing, related support activities | $\leftrightarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Textile mills | $\leftrightarrow$ | $\uparrow$ | $\downarrow$ | $\leftrightarrow$ | $\leftrightarrow$ | $\leftrightarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Transportation equipment | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Wood product | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ | $\leftrightarrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ | $\uparrow$ | $\uparrow$ |
| Statistics | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 |
| \% Better | 39\% | 72\% | 83\% | 78\% | 56\% | 56\% | 67\% | 72\% | 83\% | 61\% | 78\% | 83\% | 72\% | 61\% | 78\% |
| Unchanged | 11\% | 6\% | 0\% | 6\% | 28\% | 11\% | 11\% | 6\% | 11\% | 6\% | 0\% | 0\% | 6\% | 0\% | 6\% |
| \% Worse | 50\% | 22\% | 17\% | 17\% | 17\% | 33\% | 22\% | 22\% | 6\% | 33\% | 22\% | 17\% | 22\% | 39\% | 17\% |
| Net \% of Industries Improving | -11\% | 50\% | $67 \%$ | 61\% | 39\% | 22\% | 44\% | 50\% | 78\% | 28\% | 56\% | $67 \%$ | 50\% | 22\% | $61 \%$ |
| PMI | 50.7 | 53.1 | 54.2 | 51.3 | 50.7 | 49.0 | 50.9 | 55.4 | 55.7 | 56.2 | 56.4 | 57.3 | 57.0 | 51.3 | 53.2 |

Source: Institute for Supply Management

## Manufacturing IP: <br> Up 1.2\% in February



## Capacity Utilization: <br> Up to $\mathbf{7 6 . 8 \%}$ in February



## Non-Farm Employment: <br> Up 1.6\% y/y in February



## Manufacturing Employment: <br> Up 0.5\% in February



## AIA Billings Index - <br> New Inquiries Tick up in Jan



## McGraw Hill Updates Forecast

- McGraw Hill recently increased its 2014 non-residential building starts forecast (in dollars) to up $9 \%$ y/y from $8 \%$ growth 90 -days ago, and the up $12 \% \mathrm{y} / \mathrm{y}$ forecast for non-residential building starts in square footage is unchanged. The most positive revisions are in the religious buildings, office/bank buildings, warehouses, dorms, government buildings, and hospitals categories, while the forecast for hotels/motels and parking garages declined the most from the prior forecast. The current forecast anticipates growth in non-residential building starts will accelerate in 2015 and 2016, to $14 \%$ and $16 \%$ growth, respectively. The chart on the next page details the current forecast from McGraw Hill.


## Non-Res Starts: Forecast

| U.S. Starts Forecast (Value \$mm) | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014E | 2015E | 2016E | 2017E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amusement, Social and Recreational Bldgs | 0\% | -14\% | -4\% | -12\% | -17\% | 28\% | 6\% | 18\% | 24\% | 1\% |
| Dormitories | 16\% | -5\% | 1\% | -15\% | 5\% | -7\% | 3\% | 8\% | 8\% | 9\% |
| Government Service Buildings | 7\% | 15\% | -32\% | -14\% | -9\% | -24\% | -6\% | 13\% | 11\% | 14\% |
| Hospitals and Other Health Treatment | 23\% | -33\% | 16\% | -7\% | -3\% | -4\% | 4\% | 14\% | 17\% | 10\% |
| Hotels and Motels | -9\% | -64\% | -28\% | 58\% | 25\% | 31\% | 11\% | 21\% | 12\% | -7\% |
| Manufacturing Plants, Warehouses, Labs | 44\% | 10\% | -5\% | 74\% | -25\% | 42\% | 7\% | 8\% | 14\% | 3\% |
| Miscellaneous Nonresidential Buildings | 19\% | 16\% | 29\% | -29\% | -10\% | 1\% | 7\% | 15\% | 14\% | 5\% |
| Office and Bank Buildings | -15\% | -28\% | -18\% | -3\% | 0\% | 21\% | 18\% | 19\% | 16\% | 11\% |
| Parking Garages and Automotive Services | -21\% | -47\% | 9\% | 26\% | 22\% | 25\% | 12\% | 12\% | 8\% | 1\% |
| Religious Buildings | -5\% | -7\% | -29\% | -10\% | -10\% | -5\% | 1\% | 10\% | 12\% | 17\% |
| Schools, Libraries, and Labs (nonmfg) | 9\% | -17\% | -3\% | -11\% | -12\% | 1\% | 4\% | 11\% | 23\% | 17\% |
| Stores and Restaurants | -27\% | -40\% | -5\% | 3\% | 15\% | 6\% | 15\% | 21\% | 17\% | 4\% |
| Warehouses (excl. manufacturer owned) | -22\% | -58\% | -16\% | 23\% | 27\% | 33\% | 27\% | 12\% | 8\% | -3\% |
| Nonresidential Building Starts (\$mm) \% change $y / y$ | $\begin{gathered} 242,186 \\ 1 \% \end{gathered}$ | $\begin{gathered} \hline 168,877 \\ -30 \% \end{gathered}$ | $\begin{gathered} \hline 162,640 \\ -4 \% \end{gathered}$ | $\begin{gathered} \hline 165,654 \\ 2 \% \end{gathered}$ | $\begin{gathered} \hline 158,222 \\ -4 \% \end{gathered}$ | $\begin{gathered} \hline 174,082 \\ 10 \% \end{gathered}$ | $\begin{gathered} 189,473 \\ \mathbf{9 \%} \end{gathered}$ | $\begin{gathered} \hline 216,522 \\ \mathbf{1 4 \%} \end{gathered}$ | $\begin{gathered} \hline 251,990 \\ 16 \% \end{gathered}$ | $\begin{gathered} \hline 271,614 \\ 8 \% \end{gathered}$ |
| Nonresidential Building Starts (sqr ft) | 1,377 | 773 | 678 | 703 | 774 | 845 | 943 | 1,076 | 1,220 | 1,269 |
| \% change $y / y$ | -18\% | -44\% | -12\% | 4\% | 10\% | 9\% | 12\% | 14\% | 13\% | 4\% |
| Single Family Housing Starts | 1,203 | 951 | 978 | 905 | 1,146 | 1,424 | 1,762 | 2,248 | 2,687 | 2,614 |
| \% change y / y | -42\% | -21\% | 3\% | -7\% | 27\% | 24\% | 24\% | 28\% | 20\% | -3\% |
| Nonbuilding Starts (bridges, highways, etc, \$mm) | 152,486 | 144,769 | 148,329 | 150,515 | 162,823 | 144,800 | 129,300 | 135,100 | 146,900 | 162,700 |
| \% change $y / y$ | 9\% | -5\% | 2\% | 1\% | 8\% | -11\% | -11\% | 4\% | 9\% | 11\% |

Source: $M H C$ (1Q14 fcst)

## Heavy Truck Orders <br> ~29k Units in February



## Light Vehicle Production up $13 \%$ y/y in Feb



## Light Vehicle Retail Sales ~ $\mathbf{1 5 . 3} \mathbf{~ m m}$ SAAR in February



## Disclosures

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## Disclosures

Buy: The stock's return is expected to exceed the market due to superior fundamentals and positive catalysts.
Underperform: The stock's total return is expected to underperform the market due to weak fundamentals and a lack of catalysts.
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