

Fluid Power Survey Results February 2014



Highlights

Background:

• The January survey had 43 respondents comprised of 34 distributors and 9 manufacturing firms.

Highlights:

- **FPDA Index** The January FPDA Index grew with a solid reading of 63.5, up nicely from December's reading of 56.1. The broader ISM index declined to 51.3 in January, falling below December's reading of 57.0.
- January sales were up 3% y/y vs 5% in December and two-thirds of sources reported weather negatively impacted demand.
- The 2014 outlook remains unchanged at 5-6% growth following flat sales in 2013 and is supported by better order activity in January and growing backlogs.
- Inventories grew sequentially and y/y in January as sources appear more willing to build inventories to support the current demand environment.

Summary Thoughts

Sales growth moderated in January to up 3% y/y from up 5% in December with moderation reported in 13 of 17 end markets in the month. We believe the sequential moderation is likely a one month anomaly as two-thirds of our sources indicated demand was negatively impacted by bad weather, and the 2014 outlook remained unchanged at 5-6% growth.

January FPDA Index

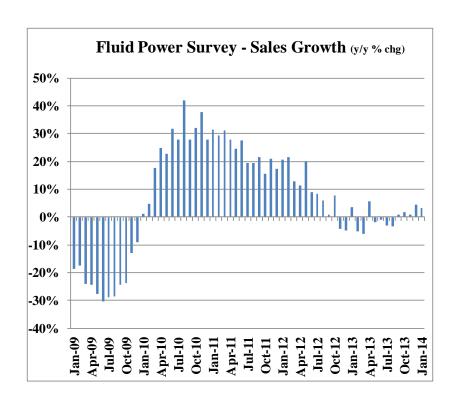
- The January FPDA Index produced a reading of 63.5 up meaningfully from December's reading of 56.1. The broader ISM index weakened with a reading of 51.3 in January, below December's reading of 57.0.
- The FPDA Index is similar in construction to the widely followed ISM Purchasing Manager's Index. These 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.

										FI	uid Power	Index										
<u>Index</u>	Jul-12	Aug-12	Sep-12	Oct-12	<u>Nov-12</u>	Dec-12	Jan-13	Feb-13	<u>Mar-13</u>	<u>Apr-13</u>	May-13	Jun-13	<u>Jul-13</u>	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	<u>Jan-14</u>	Direction	Rate of Change Ti	rend (months)
Sales	50.9	69.0	39.2	61.7	33.4	35.2	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	Growing	Faster	2
Prices	61.7	65.5	63.5	69.9	59.7	57.7	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	Growing	Faster	44
Orders	40.7	56.0	24.2	68.0	41.5	45.1	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	Growing	Faster	2
Backlog	41.8	43.0	33.3	34.4	37.8	35.1	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	Growing	Faster	2
Outlook	48.0	43.9	43.1	42.2	47.4	51.4	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	Growing	Faster	4
Inventory	57.0	62.8	60.5	51.6	52.6	36.1	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	Growing	From Slowing	1
Supplier Deliveries	50.6	53.4	48.0	54.9	54.3	61.7	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	Growing	Slower	8
Employment	61.4	58.3	56.2	60.0	56.1	52.7	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	Growing	Faster	6
Accounts Receivable	42.9	47.7	43.4	43.8	42.1	45.8	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	Slowing	Faster	8
Overall FPDA Index	52.1	59.9	45.6	59.3	47.6	46.2	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	Growing	Faster	2
Memo: ISM PMI Index	52.6	49.6	51.5	51.7	49.5	50.2	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	Growing	Slower	8

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January Sales Up 3% Following 5% Growth in December, Below Expectations Due to Weather

Our monthly survey of fluid power industry sources indicates demand continued to trend below expectations in January with a net 11% of sources missing expectations in the month similar to the net 8% who missed last month. Weather appears to be the key headwind in the month, with more than two thirds of participants reporting weather had some impact on their business. We are hearing weather delayed shipments in addition to fewer contractors working during the month. Sales were up 3% y/y in January vs the 5% y/y growth reported in December.



Monthly Sales Growth – January 2014

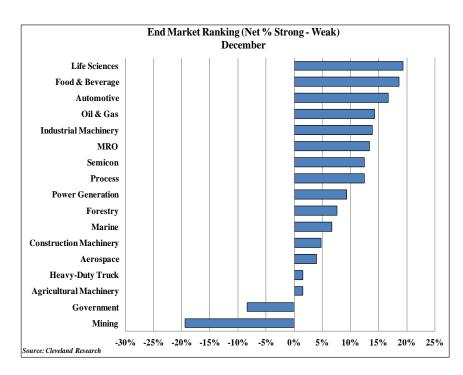
							Fluid Po	wer Ind	lustry	- Mont	hly Sal	es Gro	wth							
		To	tal						Distri	butors					N	Manufa	cturer	S		
	2009	2010	2011	2012	2013	2014		2009	2010	2011	2012	2013	2014		2009	2010	2011	2012	2013	2014
January	-19%	1%	32%	21%	4%	3%	January	-16%	-6%	28%	26%	1%	3%	January	-21%	9%	35%	17%	7%	3%
February	-18%	5%	29%	22%	-5%		February	-17%	-2%	28%	24%	-6%		February	-18%	11%	31%	19%	-5%	
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%	

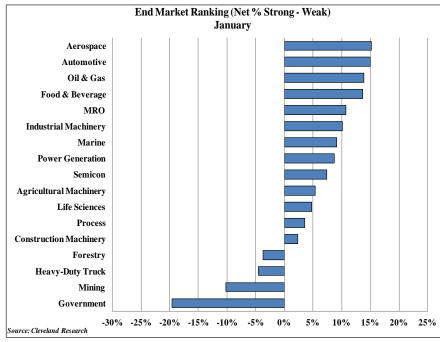
	Percent Positive / Negative Growth															
	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14
Positive Sales Growth	59%	43%	41%	53%	26%	36%	71%	35%	42%	42%	43%	34%	47%	47%	54%	Jan-14 69% 11% 20% 49%
Flat Sales	9%	8%	16%	18%	18%	18%	11%	15%	11%	12%	11%	10%	19%	12%	16%	11%
Negative Sales Growth	31%	49%	43%	29%	56%	45%	18%	50%	47%	46%	46%	56%	34%	41%	30%	20%
Net % (Positive - Negative)	28%	-5%	-3%	24%	-29%	-9%	52%	-15%	-5%	-4%	-2%	-22%	13%	6%	24%	49%

	Results vs. Expectations															
	Oct-12	Nov-12	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	<u>Jan-14</u>
Better than expected	28%	8%	16%	32%	11%	15%	16%	11%	13%	12%	9%	12%	28%	11%	25%	18%
In line with expectations	31%	41%	38%	35%	31%	29%	57%	45%	36%	39%	46%	21%	38%	54%	43%	53%
Worse than expected	41%	51%	46%	32%	57%	56%	27%	45%	51%	49%	46%	67%	34%	35%	33%	29%
Net % (Better - Worse)	-13%	-43%	-30%	0%	-46%	-41%	-13%	-34%	-38%	-37%	-37%	-56%	-6%	-24%	-8%	-11%

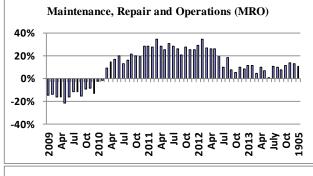
End Markets Moderate in January

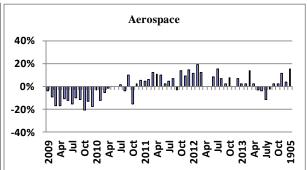
13 out of 17 markets ranked in positive territory in the month of January, down from 15 in December. Aerospace and automotive took the top spots in January as mining and government remained the weakest markets but swapped places. On a sequential basis, thirteen end markets weakened with life sciences, forestry and government posting the steepest declines. Aerospace, mining, and ag machinery end markets were the only end markets to improve sequentially.

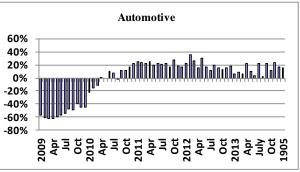


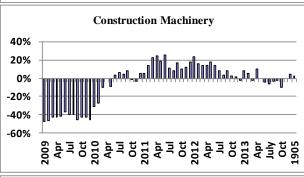


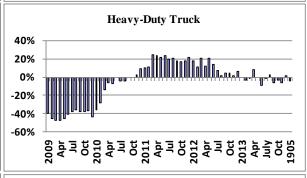
End Market Trends

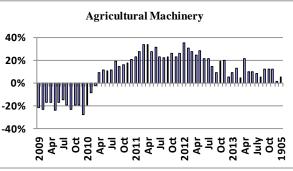




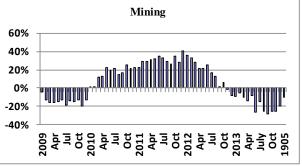


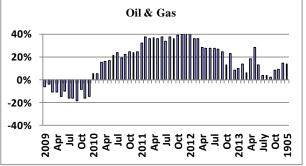




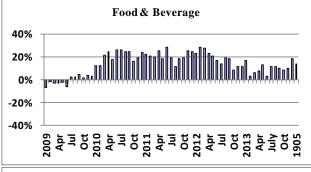


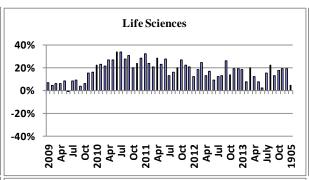


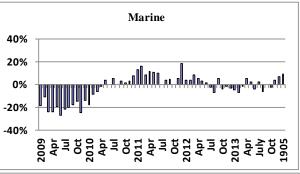


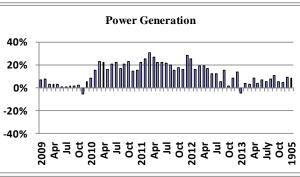


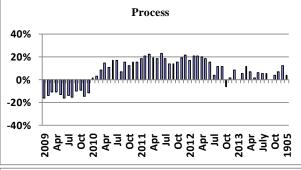
End Market Trends

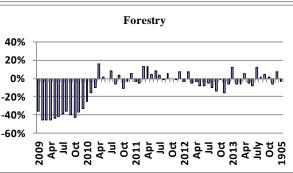


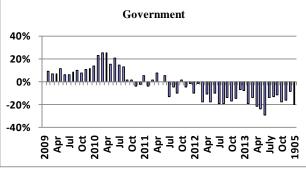


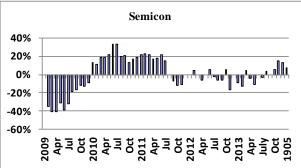






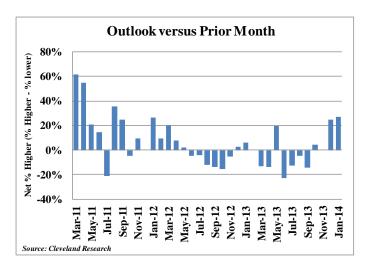






2014 Outlook Unchanged, Expecting 5-6% Growth

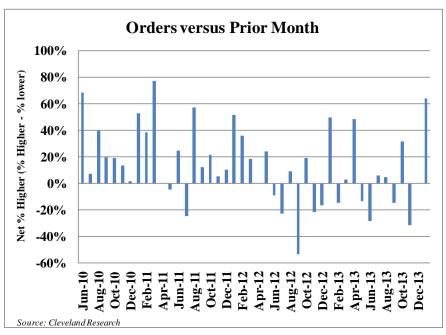
The 2014 outlook remained unchanged this month as sources continue to expect 5-6% growth following the 100-200bp improvement in the outlook in our prior survey. While the outlook remained stable in the month, underlying sentiment is more positive today than 30 days ago with more than 25% of sources noting some positive bias to their current outlook. From an end market perspective, auto markets are forecast to remain strong, aerospace is improving, and sources see some improvement with industrial machinery, mining and power gen end markets off very low levels.

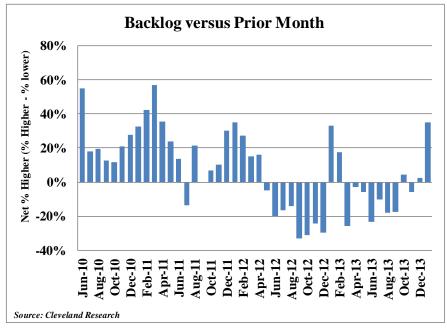


	Fluid Power Outlook										
	2012	2013		2014 Outlook							
Sales Growth (y/y)	Actual Results	Actual Results	<u>Sept-13</u>	Oct-13	<u>Nov-13</u>	<u>Dec-13</u>	<u>Jan-14</u>				
Overall	8%	0%	3%	<i>4-5%</i>	<i>4-5%</i>	5-6%	5-6%				
Distributors	8%	0%	4%	5%	4-5%	6%	7%				
Manufacturers	8%	0%	3%	4%	3%	5%	4%				

Orders and Backlog Continue to Grow, Supporting 2014 Outlook

January orders were up 6% y/y vs 3% last month and sources report increased quoting activity and strong order entry in the month while backlogs increased 1% y/y, slightly below the 2% growth in December. Backlogs have grown for 2 consecutive months for the first time since September 2012 and net 35% of participants reported higher backlogs in the month, the best reading since January 2012.





Order and Backlog Growth Trends

		To	tal			
	2009	2010	2011	2012	2013	2014
January		9%	25%	14%	1%	6%
February		16%	31%	18%	-5%	
March		30%	29%	6%	-11%	
April	-25%	31%	23%	10%	3%	
May	-29%	29%	19%	10%	-1%	
June	-33%	34%	28%	5%	0%	
July	-26%	27%	23%	5%	-1%	
August	-26%	40%	18%	5%	-1%	
September	-17%	29%	24%	-2%	1%	
October	-21%	26%	25%	3%	4%	
November	-3%	23%	20%	-2%	1%	
December	-4%	18%	18%	-6%	3%	

		Distril	outors			
	2009	2010	2011	2012	2013	201
January		1%	25%	13%	3%	6%
February		12%	31%	19%	-7%	
March		29%	30%	10%	-6%	
April	-25%	30%	29%	8%	5%	
May	-27%	28%	27%	5%	-2%	
June	-30%	28%	33%	1%	-2%	
July	-28%	20%	25%	8%	1%	
August	-26%	34%	29%	6%	-1%	
September	-20%	29%	30%	1%	3%	
October	-21%	25%	25%	-4%	4%	
November	-2%	28%	21%	-1%	-1%	
December	-10%	27%	21%	5%	5%	

	N	/Ianufa	acturer	·s		
	2009	2010	2011	2012	2013	2014
January		18%	25%	15%	-1%	5%
February		21%	31%	17%	-3%	
March		31%	29%	3%	-15%	
April	-25%	32%	18%	12%	2%	
May	-31%	30%	12%	15%	0%	
June	-37%	41%	24%	10%	2%	
July	-24%	34%	20%	2%	-2%	
August	-26%	46%	7%	5%	-1%	
September	-14%	29%	19%	-5%	0%	
October	-20%	26%	23%	10%	4%	
November	-4%	17%	19%	-3%	4%	
December	3%	17%	1%	-11%	1%	

Fluid Power Industry - Monthly Backlog Growth

		To	tal				
	2009	2010	2011	2012	2013	2014	
January			25%	22%	1%	1%	
February			32%	18%	-2%		
March			40%	15%	-5%		
April			31%	16%	-6%		
May			25%	10%	-2%		
June		24%	29%	8%	-7%		
July		29%	25%	7%	-4%		
August		37%	17%	6%	-3%		
September		37%	24%	4%	-3%		
October		34%	22%	-1%	1%		
November		32%	26%	-3%	0%		
December		25%	19%	-3%	2%		

		Distril	outors			
	2009	2010	2011	2012	2013	2014
January			22%	30%	0%	1%
February			35%	22%	-2%	
March			39%	24%	-2%	
April			36%	25%	-6%	
May			37%	11%	-3%	
June		29%	32%	11%	-6%	
July		24%	29%	12%	-5%	
August		29%	36%	7%	-5%	
September		37%	33%	9%	-6%	
October		24%	26%	-4%	1%	
November		23%	29%	-3%	-2%	
December		20%	27%	2%	2%	

	I	Manufa	cturer	rs		
	2009	2010	2011	2012	2013	2014
January			28%	13%	1%	1%
February			30%	13%	-1%	
March			41%	7%	-8%	
April			27%	7%	-6%	
May			14%	10%	0%	
June		20%	25%	6%	-7%	
July		34%	22%	3%	-3%	
August		45%	-1%	6%	-1%	
September		37%	16%	-1%	1%	
October		45%	19%	3%	0%	
November		41%	23%	-4%	1%	
December		30%	1%	-6%	1%	

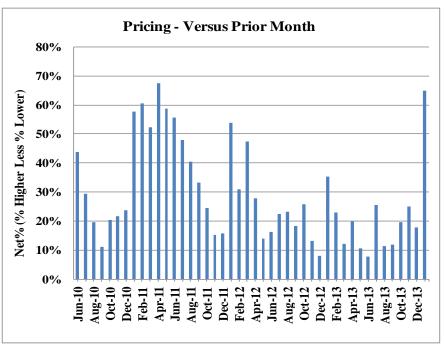
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Source: FPDA Survey

Price Contribution Improves Slightly in January

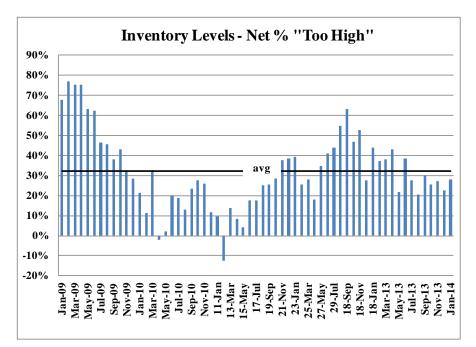
• Average product prices increased to 2.4% in January, up slightly from the 2.3% December. Price realization improved marginally as well and was ~1.6% compared to ~1.5% reported in December.

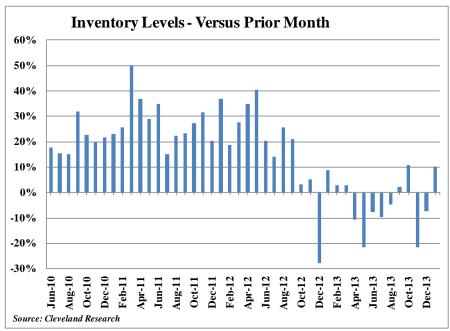




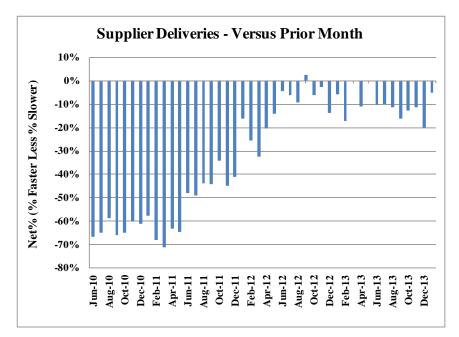
Inventories Increase in January

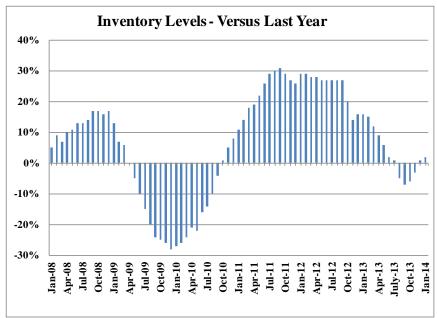
Inventories increased in January with a net 10% of participants reporting higher inventory levels sequentially compared to a net 8% who reported lower levels in December. Distributors appear more willing to add to inventory given the recent improvement in order trends and the higher 2014 outlook. The net number of sources categorizing inventories as "too high" increased to 28% in January compared to 22% in December but remained below the long run average of 32%.



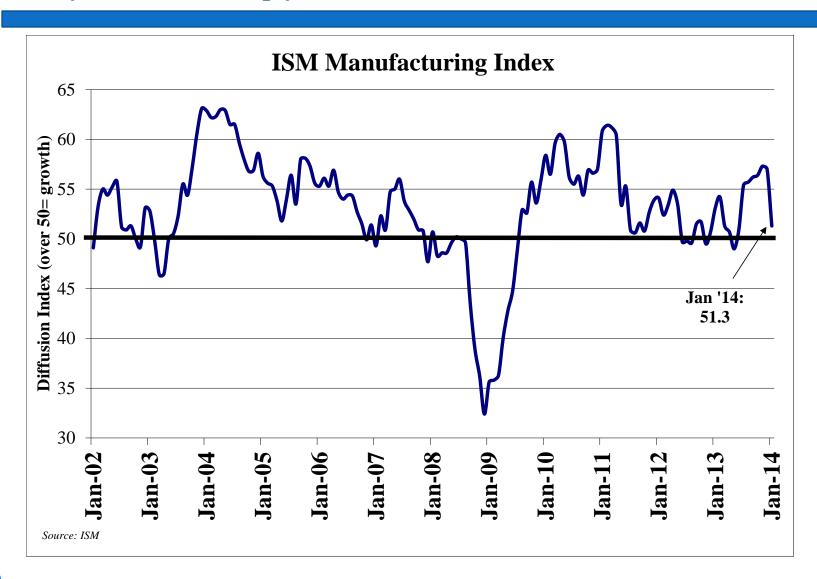


Inventory Levels





January ISM Falls Sharply Still Above 50

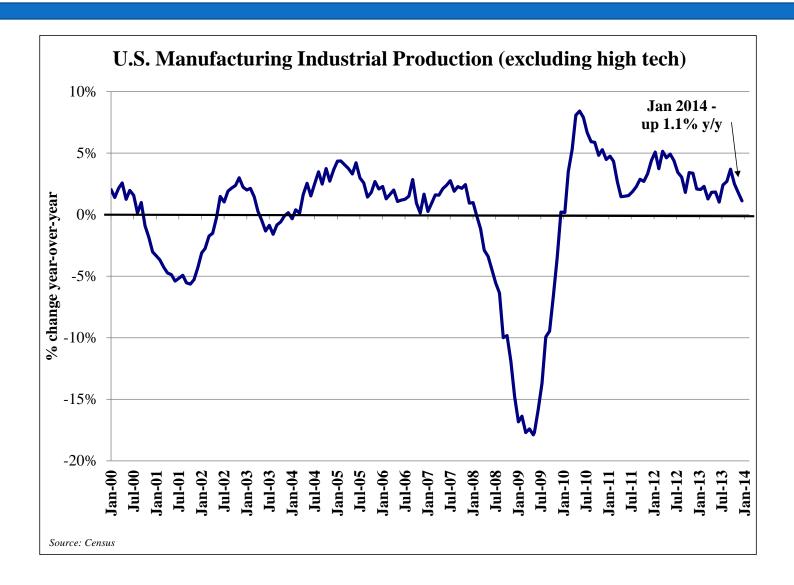


Manufacturing End Market Momentum

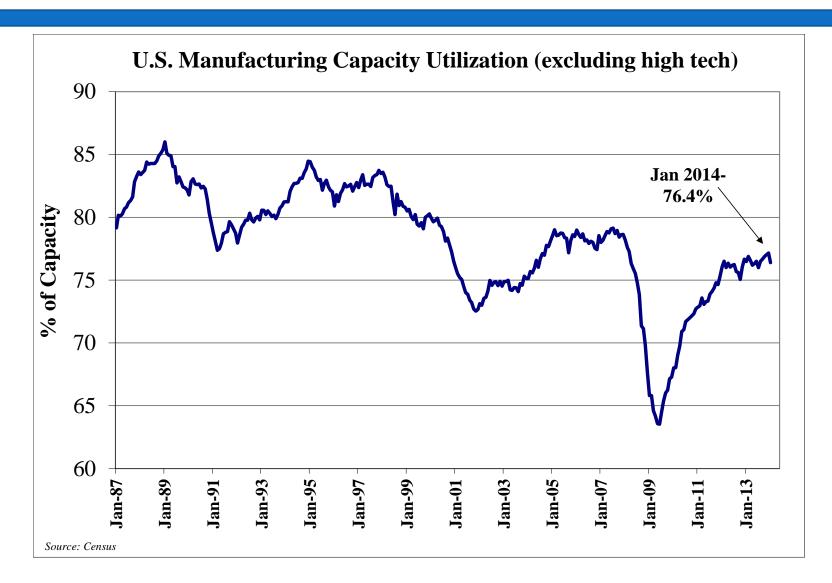
ISM Manufacturing End Market Momentum														
Major End Market	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14
Apparel, leather and allied products	\downarrow	1	1	1	↑	↑	↑	↓	\leftrightarrow	\downarrow	↓	↓	1	\downarrow
Chemical products	\downarrow	\downarrow	\downarrow	\downarrow	↑	\downarrow	\downarrow	↑	↑	\downarrow	\downarrow	↑	\downarrow	\downarrow
Computer and electronic products	↑	\downarrow	\downarrow	↑	↑	\downarrow	\downarrow	↑	↑	↑	↑	↑	↑	\downarrow
Electrical equipment, appliances, components	\downarrow	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	\downarrow	↑
Fabricated metal products	\downarrow	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Food, beverage and tobacco products	↑	↑	↑	↑	\downarrow	↑	↑	↑	↑	↑	↑	↑	↑	↑
Furniture and related products	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Machinery	\downarrow	↑	↑	\downarrow	↑	↑	↑	\downarrow	↑	↑	↑	\downarrow	\downarrow	↑
Miscellaneous manufacturing	\downarrow	↑	↑	↑	\leftrightarrow	\downarrow	\leftrightarrow	\downarrow	\downarrow	\downarrow	\downarrow	↑	↑	\downarrow
Nonmetallic mineral products	\downarrow	\downarrow	↑	↑	\leftrightarrow	↑	↑	↑	↑	\downarrow	↑	↑	\downarrow	\downarrow
Paper products	↑	\longleftrightarrow	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	\downarrow
Petroleum and coal products	↑	↑	↑	\downarrow	\longleftrightarrow	\leftrightarrow	↑	\leftrightarrow	\leftrightarrow	↑	↑	↑	\leftrightarrow	\downarrow
Plastics and rubber products	\downarrow	↑	↑	↑	\longleftrightarrow	\downarrow	↑	\downarrow	↑	↑	↑	↑	↑	↑
Primary metals	↑	↑	↑	↑	\downarrow	\downarrow	↑	↑	↑	\downarrow	\downarrow	↑	↑	↑
Printing, related support activities	\leftrightarrow	↑	↑	↑	↑	↑	\leftrightarrow	↑	↑	↑	↑	↑	↑	↑
Textile mills	\leftrightarrow	↑	\downarrow	\leftrightarrow	\leftrightarrow	\leftrightarrow	\downarrow	↑	↑	\downarrow	↑	↑	↑	↑
Transportation equipment	\downarrow	↑	↑	↑	1	\downarrow	\downarrow	↑	↑	↑	↑	↑	↑	↑
Wood product	↑	\downarrow	↑	↑	\downarrow	1	1	↑	↑	\leftrightarrow	↑	\downarrow	↑	1
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
% Better	39%	72%	83%	78%	56%	56%	67%	72%	83%	61%	78%	83%	72%	61%
Unchanged	11%	6%	0%	6%	28%	11%	11%	6%	11%	6%	0%	0%	6%	0%
% Worse	50%	22%	17%	17%	17%	33%	22%	22%	6%	33%	22%	17%	22%	39%
Net % of Industries Improving	-11%	50%	67%	61%	39%	22%	44%	50%	78%	28%	56%	67%	50%	22%
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

Source: Institute for Supply Management

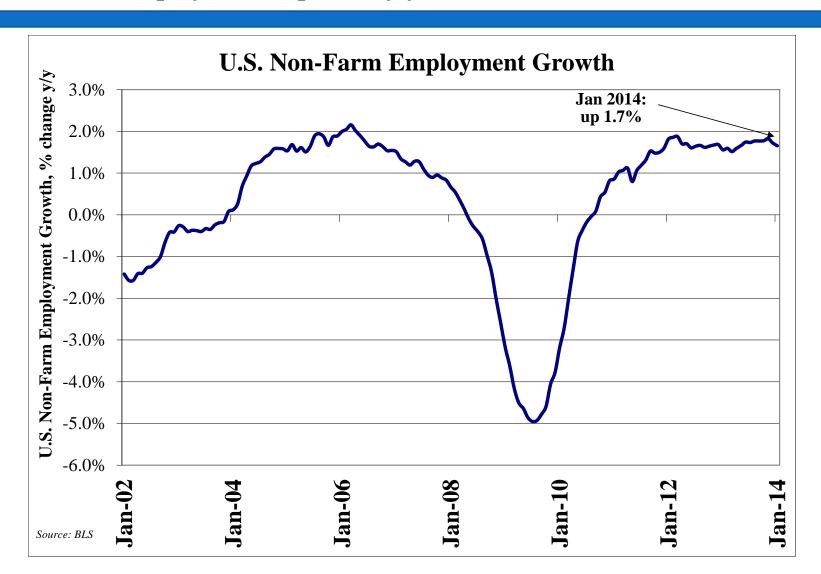
Manufacturing IP: Up 1.1% in January



Capacity Utilization: Up to 76.4% in January



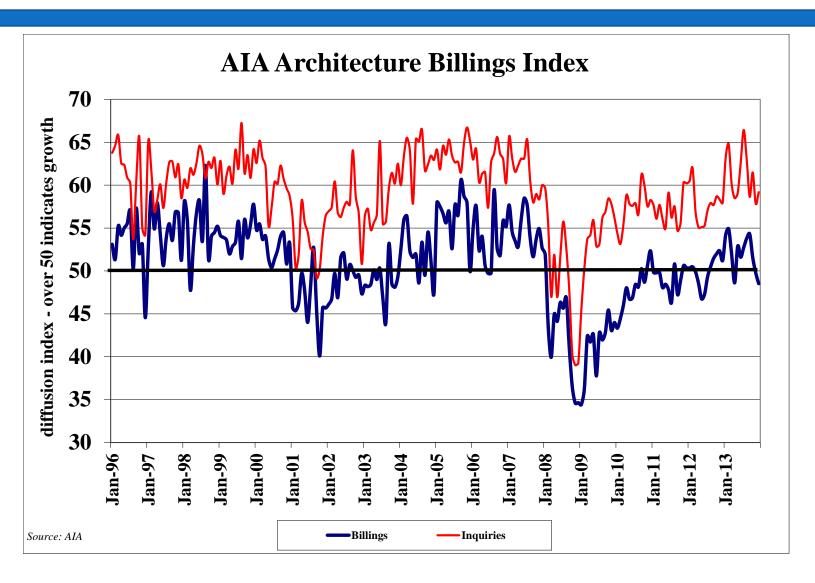
Non-Farm Employment: Up 1.7% y/y in December



Manufacturing Employment: Up 0.8% in January



AIA Billings Index – New Inquiries Down Seq in Dec

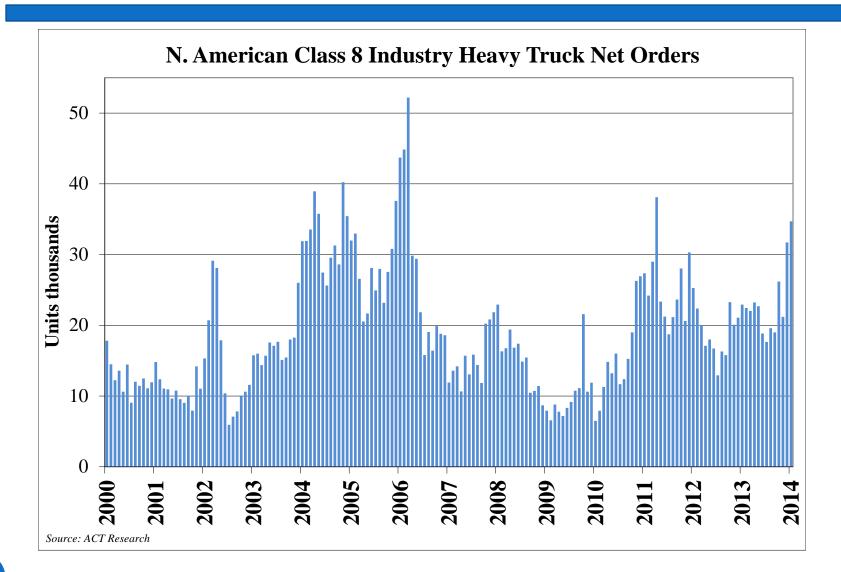


Non-Res Starts: Forecast

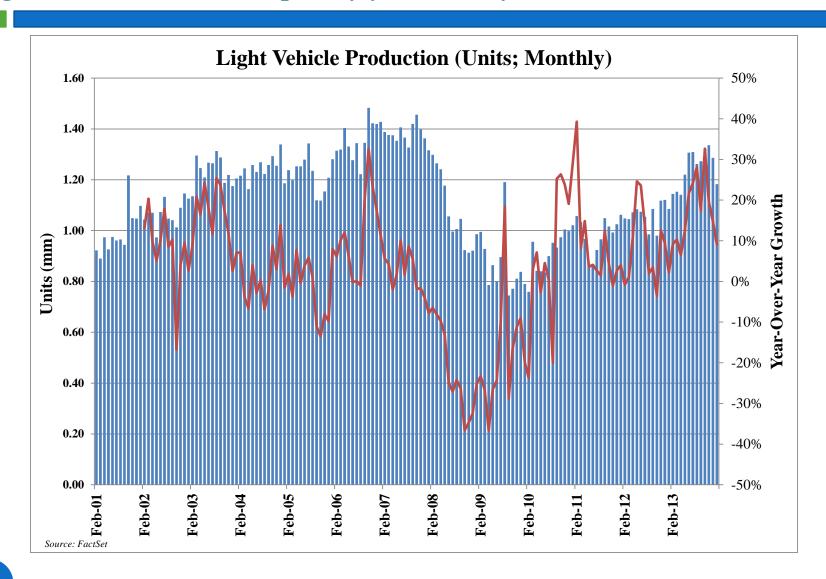
McGraw-Hill Construction Starts History and Forecast											
U.S. Starts Forecast (Value \$mm)	2008	2009	2010	2011	2012	2013E	2014E	2015E	2016E		
Amusement, Social and Recreational Bldgs	0%	-14%	-4%	-12%	-18%	17%	8%	19%	27%		
Dormitories	16%	-5%	1%	-15%	6%	-18%	1%	9%	7%		
Government Service Buildings	7%	15%	-32%	-14%	-10%	-19%	-8%	13%	12%		
Hospitals and Other Health Treatment	23%	-33%	16%	-7%	-4%	-4%	2%	14%	20%		
Hotels and Motels	-9%	-64%	-28%	58%	21%	19%	14%	23%	12%		
Manufacturing Plants, Warehouses, Labs	44%	10%	-5%	74%	-25%	6%	8%	19%	15%		
Miscellaneous Nonresidential Buildings	19%	16%	29%	-29%	-10%	-3%	6%	17%	13%		
Office and Bank Buildings	-15%	-28%	-18%	-3%	-1%	18%	16%	24%	22%		
Parking Garages and Automotive Services	-21%	-47%	9%	26%	22%	18%	16%	14%	9%		
Religious Buildings	-5%	-7%	-29%	-10%	-10%	2%	-3%	11%	12%		
Schools, Libraries, and Labs (nonmfg)	9%	-17%	-3%	-11%	-12%	-3%	3%	14%	25%		
Stores and Restaurants	-27%	-40%	-5%	3%	15%	6%	16%	23%	14%		
Warehouses (excl. manufacturer owned)	-22%	-58%	-16%	23%	26%	25%	24%	16%	11%		
Nonresidential Building Starts (\$mm) % change y/y Nonresidential Building Starts (sqr ft) % change y/y	242,186 1% 1,377 -18%	168,877 -30% 773 -44%	162,640 -4% 678 -12%	165,654 2% 703 4%	157,581 -5% 772 10%	163,255 4% 808 5%	176,690 8% 900 11%	207,401 17% 1,059 18%	245,213 18% 1,222 15%		
Single Family Housing Starts % change y/y	1,203 - 42 %	951 -21%	978 3 %	905 -7%	1,146 27 %	1,446 26 %	1,804 25%	2,307 28%	2,655 15 %		
Nonbuilding Starts (bridges, highways, etc, \$mm) % change y/y	152,486 9%	144,769 -5%	148,329 2%	150,515 1%	161,750 7%	137,300 -15%	124,350 -9%	130,900 5%	144,900 11%		

Source: MHC (4Q13 fcst)

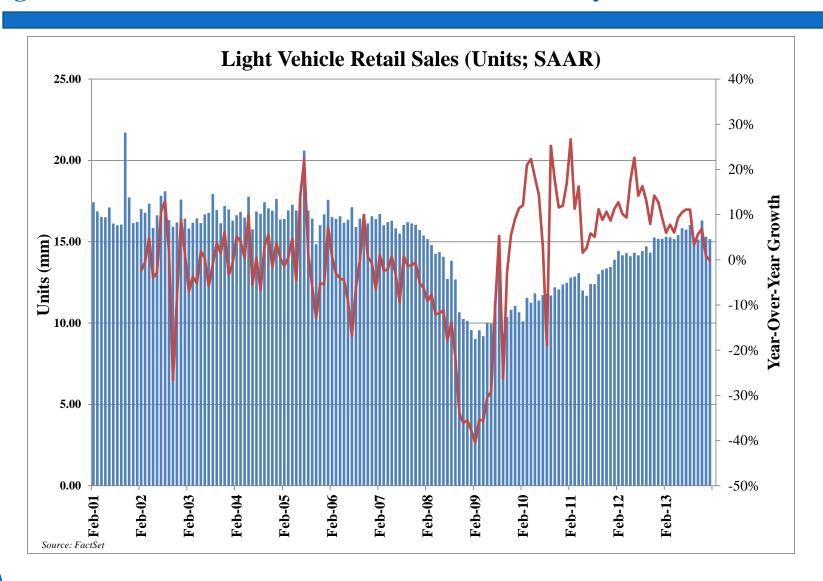
Heavy Truck Orders Jump to ~35k Units in January



Light Vehicle Production up 9% y/y in January

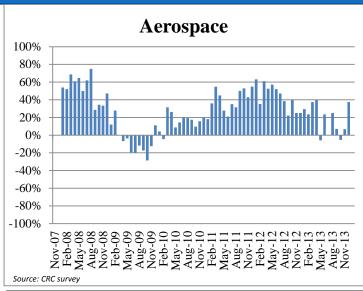


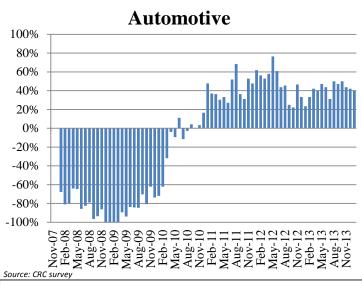
Light Vehicle Retail Sales ~15.1 mm SAAR in January

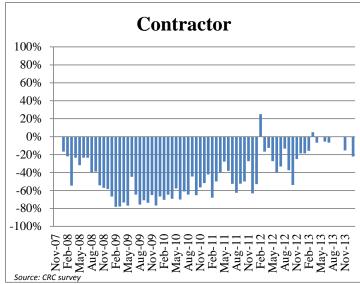


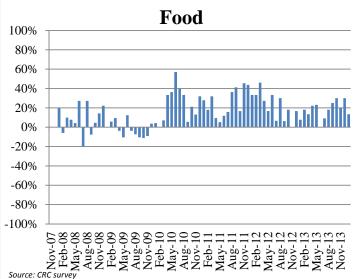
Appendix

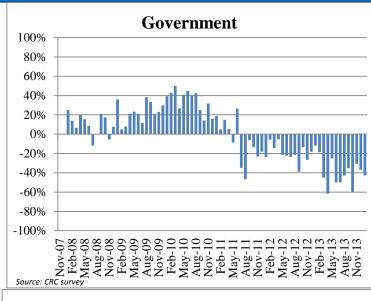
Long term end market trends

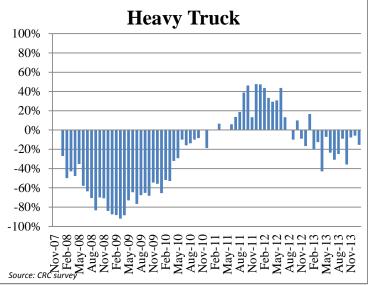


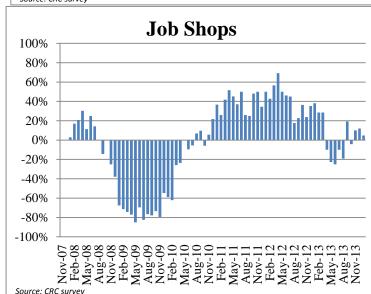


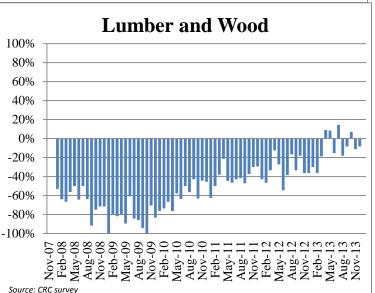


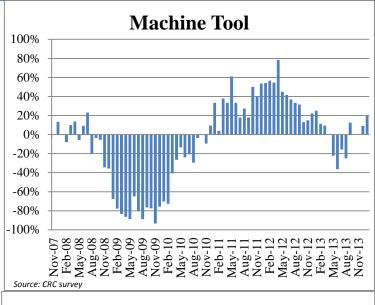


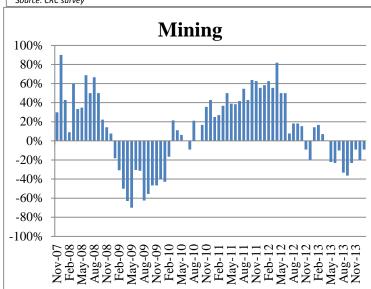


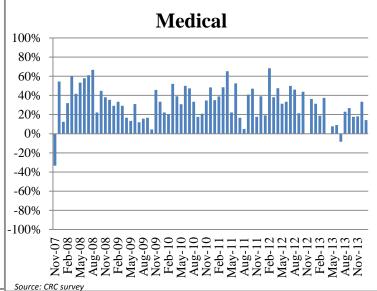


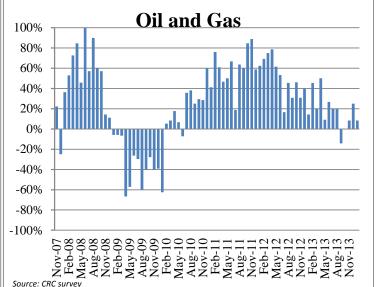


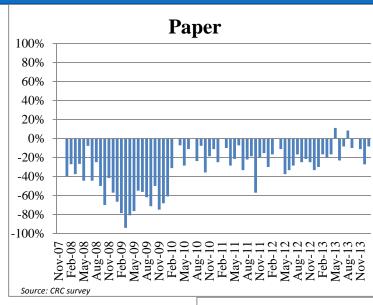


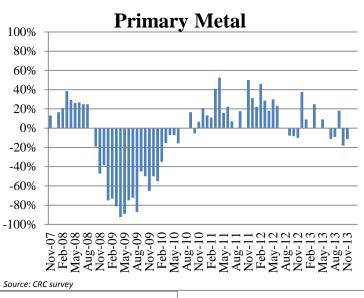


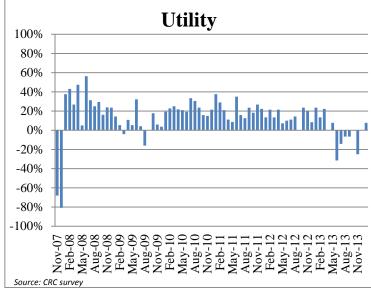




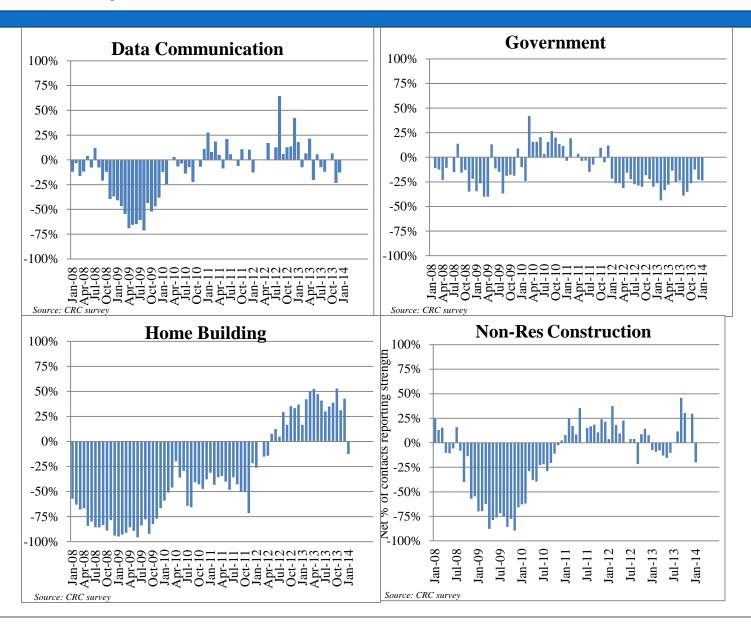








Electrical Survey End Market Trends



Electrical Survey End Market Trends

