The Durable Goods Report

February 2014

Executive Summary of US Economic Activity

Manufacturing Data Release 2/4/2014 (December Preliminary)

Employment Data Release 2/7/2014 (January Preliminary)

Retail Data Release 2/13/2013 (January Advanced)

Industrial Production Data Release 2/14/2013 (January Advanced)

Housing Data Release of 1/17 & 27/2013 (December Advanced)

Source Data: US Census Bureau, US Bureau of Labor Statistics, US Department of Commerce, Energy Information Administration, Federal Reserve Board, Baker Hughes

John E. Layden

By the Numbers

Durable Goods Key Measures			
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	229,987	239,981	229,101
12 month moving average	229,225		218,478
% Change from Prior Year	4.9%		
Growth Index - Durable New Orders	1.023	1.031	1.016
Unshipped Orders - Durable	1,061,701	1,057,827	992,007
% Change from Prior Year	7.0%		
Value of Shipments - Durable	233,518	237,475	226,396
Book to Bill Ratio	0.98	1.01	1.01
Inventory - Durables	387,904	384,656	374,147
% Change from Prior Year	3.7%		
Inv to shipments ratio - Durable	1.66	1.62	1.65

US Economy Key Measures			
	This period	Last period	Change
GDP 2012 Q4 (current $)	17,102.5	16,912.9	1.1%
Industrial Production	2,770.0	2,791.1	-0.8%
Capacity Utilization %	78.5	78.9	-0.4
Manufacturing %	76.7	77.4	-0.7
Durable Goods %	76.0	76.8	-0.8
Primary Metals %	76.2	76.4	-0.2
Autos and Parts %	74.3	78.4	-4.1
Machinery %	80.2	80.5	-0.3
Durable Goods ($Mil SA)			
New orders	229,987	239,981	-4.2%
Shipments	233,518	237,475	-1.7%
Inventory	387,904	384,656	0.8%
Unshipped Orders	1,061,701	1,057,827	0.4%
Retail ex Food Service ($Mil SA)	381,142	382,807	-0.4%
Autos and Parts	72,940	74,667	-2.3%
Gasoline	45,777	45,258	1.1%
Core retail (ex auto, gas)	254,953	255,242	-0.1%
Employment (000's SA)			
Civilian employed (Household Survey)	145,224	144,586	638
% of potential workforce (HS)	58.8%	58.6%	0.2%
Civilian not employed (HS)	101,691	102,159	(468)
Non-Farm (Establishment Survey)	137,499	137,386	113
Private (ES)	115,686	115,544	142
Government (fed, state, local) (ES)	21,813	21,842	(29)
Goods Producing (ES)	18,887	18,811	76
Manufacturing (ES)	12,075	12,054	21
Construction (ES)	5,922	5,874	48
Durable Goods Mfg (ES)	7,598	7,583	15
Housing (000s of Units SA)			
Total housing starts	999	1107	-9.8%
Single family starts	667	717	-7.0%
Single family sales (new)	414	445	-7.0%
Single family for sale (new)	171	167	2.4%

US Economy – Quick Look:

US GDP

Full year 2013 GDP growth was reported at an anemic 1.9% CAGR. The inventory build that boosted some quarterly results ultimately washed out. Other key measures of GDP: 1.1% Q/Q; 4.2% Y/Y.

Industrial Production

Industrial production excluding industrial supplies decreased 0.8% to $2.77 trillion. Now stands 2.8% above prior year. Capacity utilization decreased 0.4 points to 78.5%.

Durable Goods

New orders for durable goods decreased 4.2% to $230 billion. The 12 month moving average improved to 4.9% above last year.

Retail:

Retail sales (ex food service) decreased 0.4% to $381.1 billion. Core retail (ex food service, autos, gasoline) decreased 0.1% to $255.3 billion. Gasoline sales increased 1.1% to 45.8 billion. Auto sales decreased 2.3% to 72.9 billion (down from $75B 4 months ago).

Employment:

Working-age population increased 170,000.

Household survey shows: Employed: up 638,000. Not employed: down 468,000. Employed: 58.8% of working age population (up 0.2). The average value of this measure has been 58.5% +/- 0.2 for the past 50 months.

Establishment survey shows: 113,000 jobs added. Durable goods employment increased 15,000.

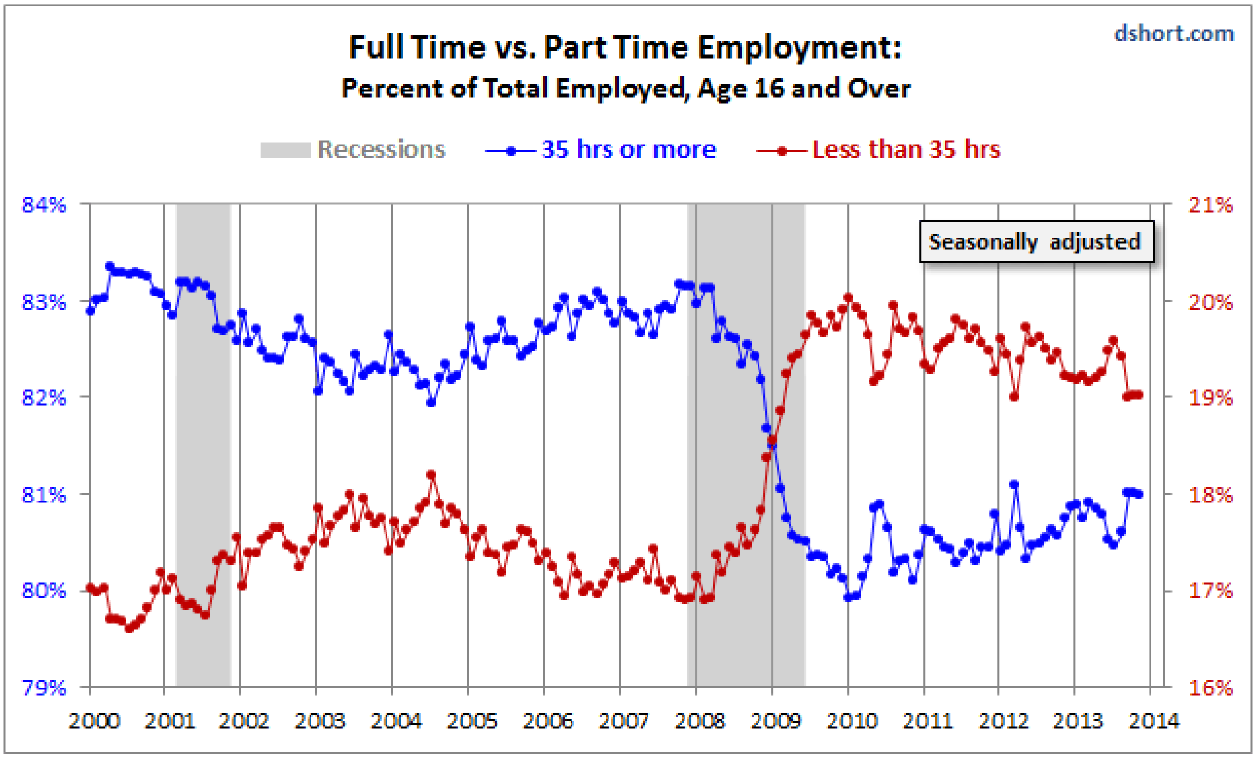
Housing:

Total starts: down 9.8% to 999,000. Single family starts: down 7% to 667,000. Single family sales: down 7% to 414,000. Median value: increased to $262,300 (3mma).

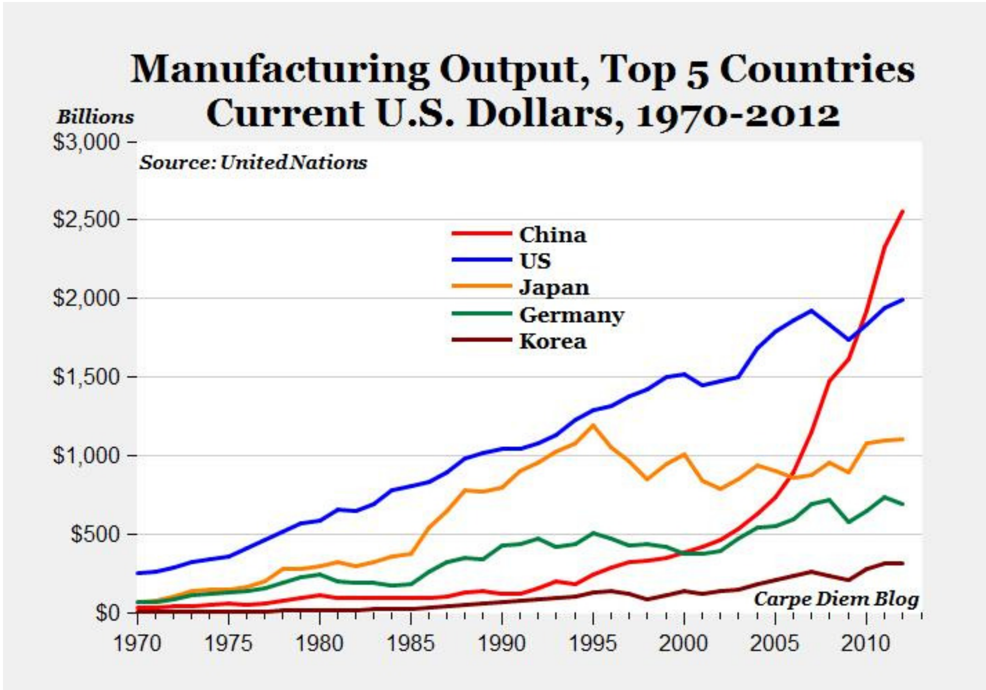
Random Thoughts, Stray Data and Rants:

Economy

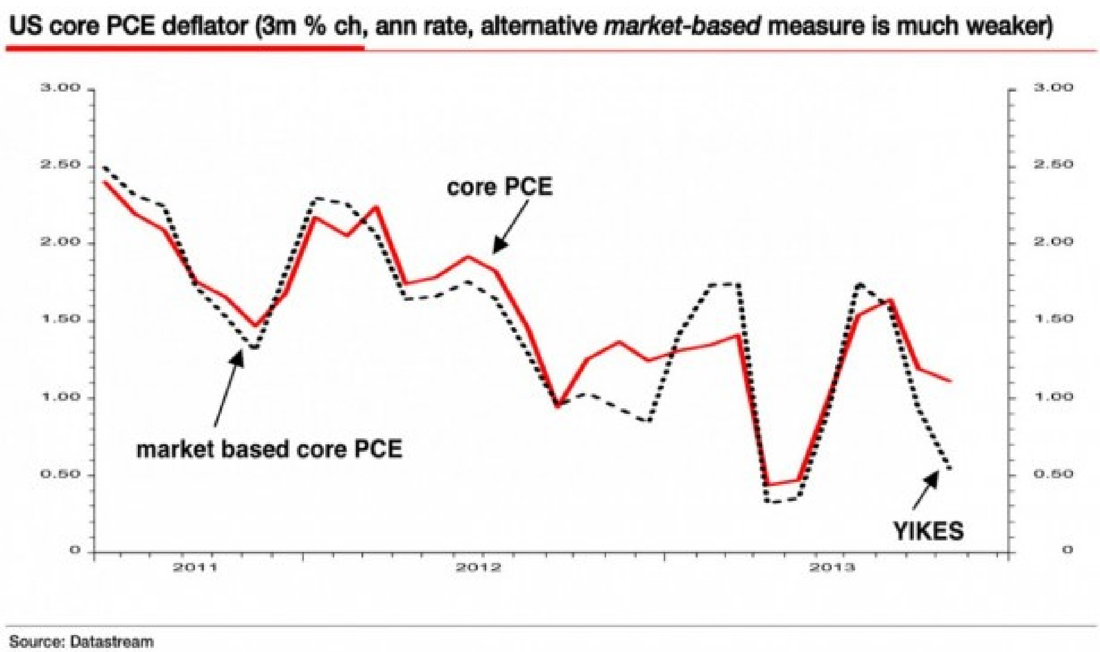
- In addition to the poor US employment numbers, the concentration of part time jobs is taking a toll on the US economy.



- The following chart purports to show that China is roaring ahead of the US and other nations in manufacturing. The chart is an elaborate fiction. Without getting too technical, they make adjustments to compensate for life style differences so that a bowl of rice is equated to a sirloin. Pure trash. But what do you expect from the UN?

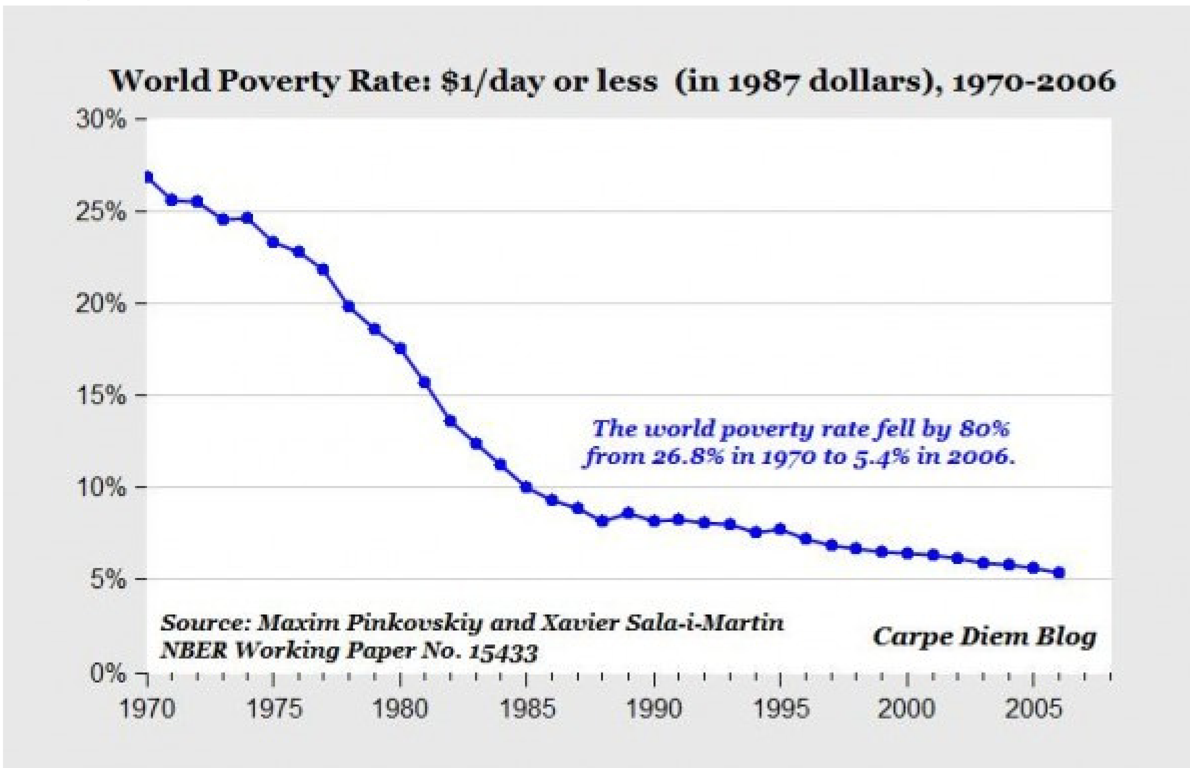


Deflation Coming?



- The chart above and the linked article that explains it suggest that the lack of measured inflation is more than an aberration. Might be the beginning of a deflationary spiral.
- http://www.businessinsider.com/albert-edwards-market-based-pce-deflationary-2013-12#ixzz2nBo5WR00

- Inflation has been defined as too many dollars chasing too few goods. Since the fed has been running the printing presses at a record pace we should be seeing inflation, so why not? One reason is that the fed has not been successful in generating true (consumer) demand. The money on the fed balance sheet is mirrored on the balance sheet of banks and on the cash line of businesses. The banks have money to lend, but fewer businesses qualify under Dodd-Frank banking regulations. So businesses hoard cash to buffer the normal swings that was once the sole province of the banks.
- The chart below shows the effect of most of the world converting to capitalism. What's not to like?



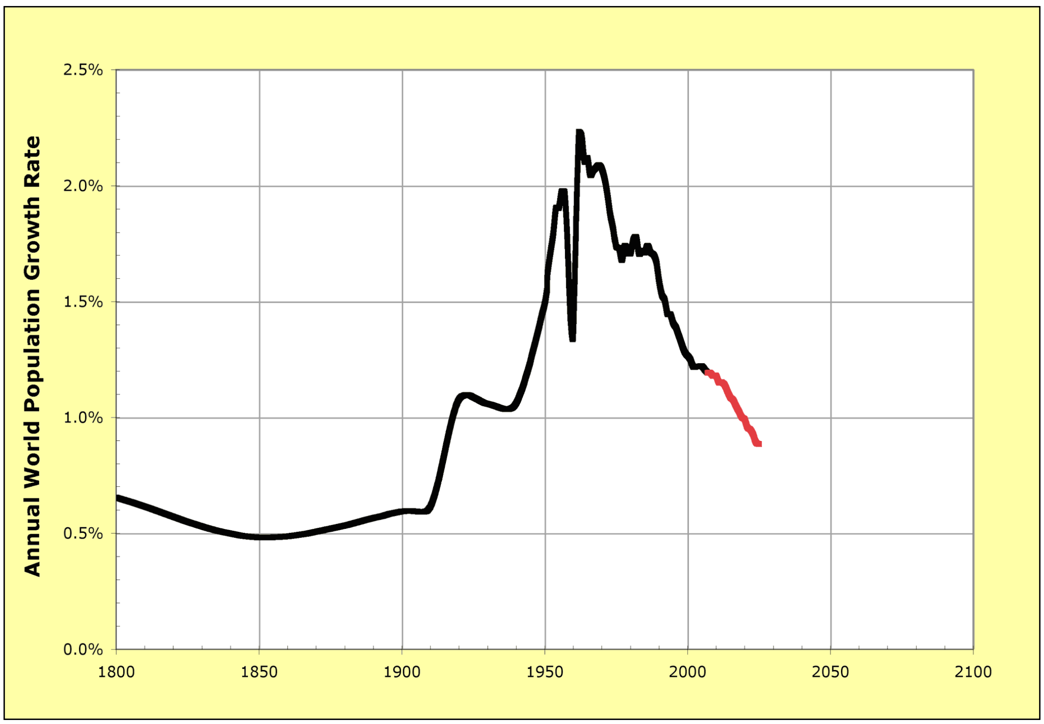
- Pope Francis has commented on the "problem" of "unrestrained capitalism." He is poorly informed on this subject, probably because he has never seen it. There are very few examples since WWII. The measured facts clearly show that as the world has begun to adopt free markets, poverty has plummeted. But as free markets produced massive benefits, the chaotic way it behaves became less tolerable to the ruling elites around the world. They were expected to "do something."
- He is probably referring to the crony capitalism that dominates most of the free world today. This is what produces monopolies, not capitalism. There is no example of a monopoly that occurred without the active collusion of government.

- It is a great irony that the US attempts to fix "the poverty problem" with government programs. This resulted in the end of our impressive progress concurrent with the passage of the anti-poverty program. We now have a poverty industry that continually redefines poverty to assure an ongoing market for their services.
- The good news is that the "greed" of inventors is resulting in unparalleled progress. We've commented on this book before. "Abundance: The Future is Better Than You Think" by Dr. Peter Diamandis. His thesis is that real progress (not the centrally-planned world of the Progressives) is unstoppable and accelerating. Wealth will increase dramatically. But the change it brings will cause temporary disruptions for many. He points out that 50% of service jobs will be gone in 10 years, replaced by something else. It's a great read.
- http://gulfnews.com/news/gulf/uae/general/what-the-future-holds-us-futurist-peter-diamandis-on-the-shape-of-things-to-come-1.1290116
- Business planning in such a world is a near useless skill. Centralized anything is a Chimera from a different age. Rapid reaction will be the valued skill, because the world is becoming increasingly chaotic and unpredictable. That's a good thing.
- The great irony is that the political class (both D and R) who maneuver to gain control of the levers of power are about to learn that central power has been outflanked by universally accessible technology.

- The arguments of Rev. Thomas Malthus on demographics were published in 1798. A concise summary:
  - "The power of population is so superior to the power of the earth to produce subsistence for man, that premature death must in some shape or other visit the human race."
- Many otherwise intelligent people continue to believe this completely disproven hypothesis. It's a classic example of one dimensional thinking. In their world, population growth is an abject disaster. But history has proven the reverse to be true. During the period of explosive population growth, poverty has rapidly declined. Why? The answer is complex, but here's an oversimplified version.
- Malthus assumed finite resources. In his view the critical resource was food. More people + fixed food supply = starvation. But food supply has exploded faster than population. Food is now so cheap that obesity is the dominant problem.
- Food production is proportional to the number of producers and their productivity. More people, more food. Better technology, more food. And all food producers strive to produce an excess. We are now so productive in the

US that instead of 85% of the population working to produce food (1815), it is now 1.6%. And instead of feeding fewer than 20 million (with a 30% excess), farmers now feed 315 million (with 30% excess).

- In short, population is not the problem. Modern supporters of this theory (Paul Ehrlich, "The Population Bomb"; Rachel Carson, "Silent Spring") share an ethical burden for the ill effects of their arguments.
- The nations where population control measures were applied universally failed. Banning DDT caused 50 million deaths from malaria.
- Growing wealth causes an automatic response to reduce population growth naturally.
- The population explosion was caused by reductions in death rates (longer life span and reduced infant mortality). As this increased population, wealth grew and birth rates declined.



- 3-D printing is all the rage these days. Calm down. It's been around since the 80's, it's not new, and it's not very efficient. Great for complex one-offs. Not good for volume production of anything. This article makes claims about automation for building construction that are far-fetched (though not impossible).

http://innovation.uk.msn.com/design/the-3d-printer-that-can-build-a-house-in-24-hours

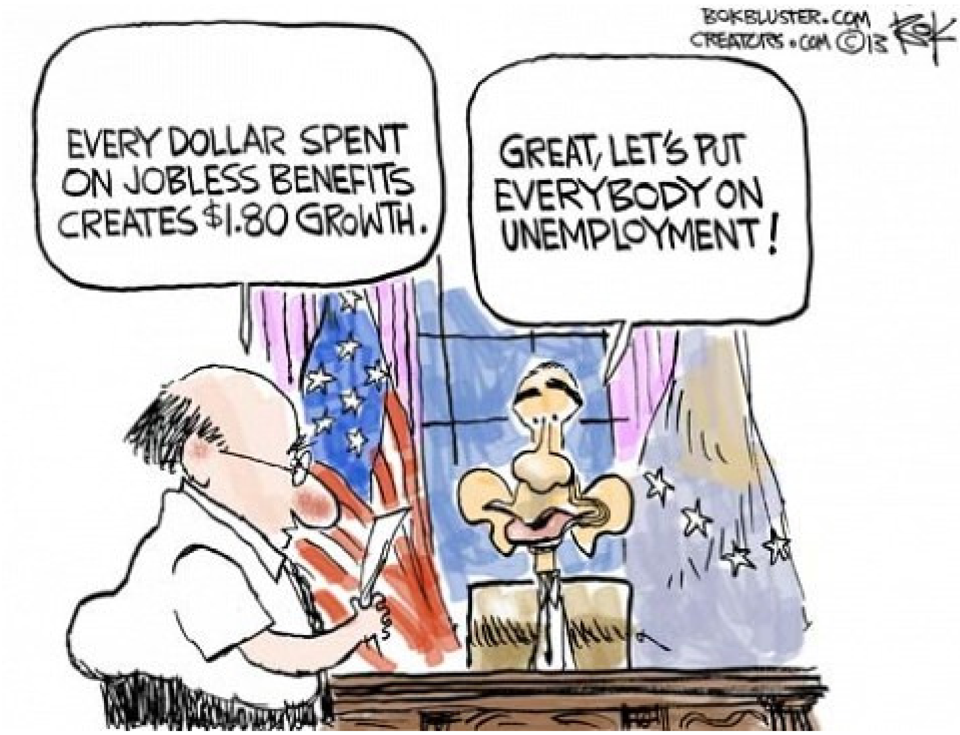
- In 1977 we built a 3600 SF house that was panel-manufactured on an assembly line in 16 hours, erected on-site in 10 hours with a crew of four.
- The 3-D cement printing gantry for that house would need to span 44 ft. And that assumes you would want to live in a concrete house in Wisconsin.
- This method of home construction didn't dominate because on-site, stick-built processes are fast, flexible and cost effective. Some panelized construction is used today (all trusses are factory assembled), but the remaining cost reduction opportunity is small. Speed and adaptability strongly favor current methods.

Government: *"Government is the great fiction through which everybody endeavors to live at the expense of everybody else." F. Bastiat.*

- New evidence shows that market driven health care is the way to fix the system (surprised?). The argument that the private system was tried and failed is a blatantly false straw man. No person born after WWII has ever seen such a system. For 50 years the federal government has distorted the system through regulation, Medicare and Medicaid. Costs have soared and more recently doctors are driven out of the process. Doctors are giving up on a system that forces them to spend more time on system infrastructure than patient care. Private practice is headed for extinction. Everything is headed toward a hospital-centric system, the least efficient method of delivery. *http://www.heritage.org/research/reports/2013/12/compelling-evidence-makes-the-case-for-a-market-driven-health-care-system*
- The Minute Clinic explosion alternative may soon correct the problem. But driving doctors out of the last vestige of free market health care is not a positive factor.

- Now they tell us! The cause of the obesity "epidemic" was the government push for the low fat diet. The food pyramid had several origins, but the grain-centric version originated in the USDA in the 30s as a marketing program to help farmers during the dust bowl era. In the 70s a Senate panel on the obesity epidemic started with the assumption that fat in the diet caused body fat. There was never any evidence. "It just made sense."
- "Recent randomized controlled trials document that low-carbohydrate diets not only decrease body weight but also improve cardiovascular risk factors. In light of this evidence from randomized controlled trials, dietary guidelines should be re-visited advocating a healthy low carbohydrate dietary pattern as an alternative dietary strategy for the prevention of obesity and cardiovascular disease risk factors."
- http://www.sciencedirect.com/science/article/pii/S0939475313003153?np=y

- It's interesting that the Spartans knew that 2500 years ago. Their warrior class was fed a high-fat diet of mostly meat. Bread and pasta was the food for the masses and the slaves. Cheap calories.



- The accurate interpretation is the reverse. Every government job or government-funded job drives *at least* two jobs out of the private sector.
- Milton Friedman on the Minimum Wage: "The effects are wholly negative. The better label for the law is the 'Required Discrimination Against Low-Skilled Workers Act."
  http://www.youtube.com/watch?v=ca8Z__o52sk
- Friedman notes that these laws are supported by lobbyists with an economic agenda who manipulate the do-gooders who wrongly believe it can help the poor.
- Several studies on minimum wage show the same results. For every $1 increase in minimum wage between 300,000 and 400,000 people lose their jobs. They are either replaced by automation or their functions are dropped because of a lack of positive return.
- We've known all this for 50 years. So why do politicians keep pushing it? Because a poorly educated populace falls for the "we care" meme. It doesn't matter what you "feel." How the world works is what matters.

- The fast food workers who demand $15.00 per hour as a "living wage" are now hearing about the automated hamburger production machine. At least they won't suffer the embarrassment of a low wage job.

Energy: *There are only two decisions at the heart of energy policy. The first is simple. Live by manual labor and trade with those within walking distance, or use energy as a labor multiplier. The second decision is equally simple. Use energy sources that deliver more energy than it takes to get the energy. The second decision eliminates all forms of green energy.*

- The US has set another record for oil production.
  - 2011: 5.7 million barrels per day
  - 2012: 6.5 million barrels per day
  - 2013: 7.5 million barrels per day
- Bakken field alone is approaching 1 million BPD.
- We repeat: We are awash in fossil fuel energy. It will soon be too cheap to warrant billing separately. The only barrier is the government class who believe that we are going to run out, and that we need to be forced to find an alternate.
- There will eventually be a replacement for coal, oil and gas. But to quote on Saudi minister, "the stone age didn't end due to a lack of stones." We will replace hydrocarbon energy when a real alternative is needed and available. None of the "green" favorites will be that solution since they all consume more energy than they produce.

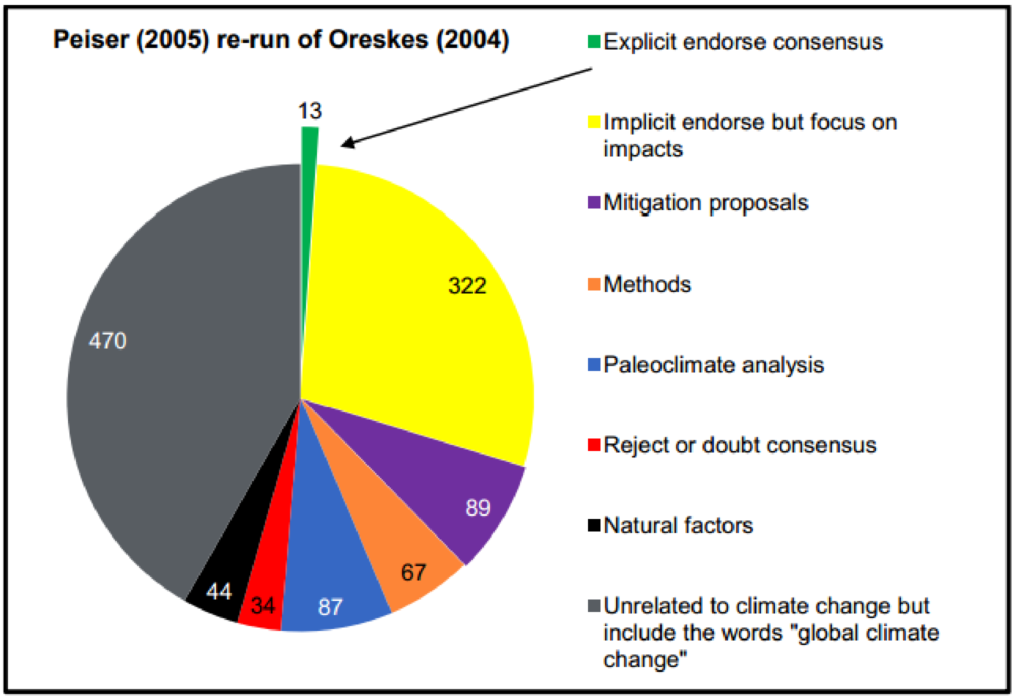
Climate & Environment: *"The whole aim of practical politics is to keep the populace alarmed and hence clamorous to be led to safety by menacing it with an endless series of hobgoblins, all of them imaginary."* - H.L.Mencken

- To repeat again, CO_2 is the stuff of life. Without it the entire planet would be devoid of all life. Plant life (which we ultimately depend on) shuts down at levels below 150 parts per million of CO_2 concentration. In the 1700s we came perilously close to that limit before CO_2 began to climb again in response to the warming of the planet. Fortunately we have recovered. But the EPA (at the behest of the environmental lobbyists) considers it a pollutant and is trying to ban human emission. It is the ultimate folly.
- Before the most recent ice ages, CO_2 levels were as high as 8,000 ppm. There was no runaway greenhouse effect and we ultimately plunged into multiple ice ages.
- Plant life is optimized for between 2,000 and 2,500 ppm CO_2 concentration. That would be ideal. If we could produce more CO_2, we should. But human output is so small that we have no ability to influence it any serious way.
- Oh, the irony! Environmentalists on a voyage to Antarctica to bring attention to the devastation of global warming become stuck in the record summertime sea ice.

Chinese icebreaker racing to their rescue becomes stuck as well. Rescue by helicopter. USCG icebreaker now trying to get the stuck ships free. They don't have much time.

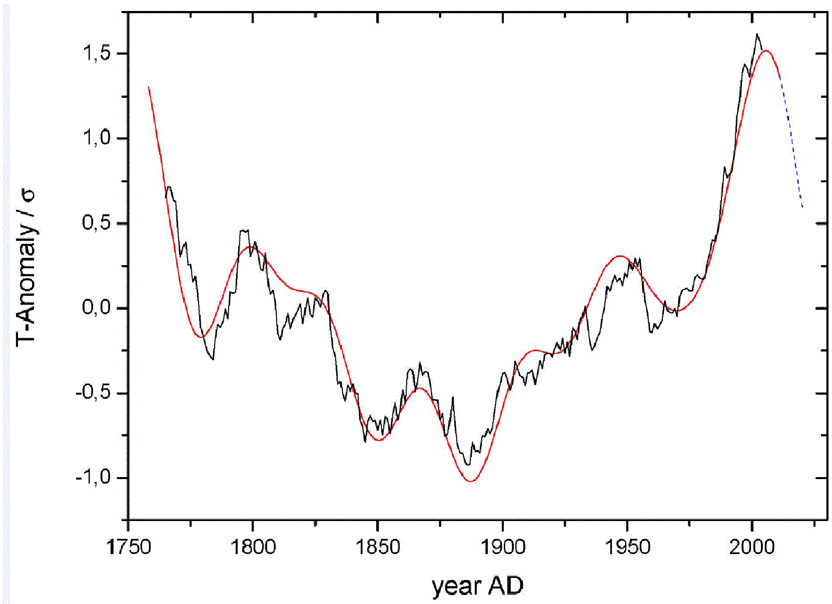
- Global warming actually is man-made. The data are man-made; the computer models are man-made; the consensus is manufactured; the analysis is man-made; and the hoax is man-made.

Figure 4: Peiser (2005) re-run of Oreskes (2004)



- The 97% consensus lie is repeated ad-nauseum. The survey hand-picked which respondents to count. Of the 1117 respondents only 13 agreed with the UN IPCC conclusions on human activity and climate. That's 1.2%
- Despite publication of the real facts, the myth prevails and is regularly quoted. Read the facts here:
- http://www.americanthinker.com/blog/2014/02/debunking_the_97_consensus_on_global_warming.html
- There is still no science of any kind the supports human impact on global climate.
- There is a large and growing body of evidence that the combination of solar output, orbital dynamics and cosmic ray intensity are the sole drivers.
- The current cold weather in North America is not proof for or against global warming. The Earth's cold Arctic air pool has slipped. Normally centered over the North Pole, it now seems to be centered at about Minneapolis.
- Temps at the North Pole are a bit warmer than usual, after spending a log period below normal.

- How much of this year's weather is caused by "climate change"? According to Dr. Roy Spencer, maybe 1 part in 1000. How much climate change is caused by human activity? Miniscule. So small it can't be reliably measured.
- http://www.drroyspencer.com/2014/02/how-much-weather-is-being-caused-by-climate-change-maybe-1-part-in-1000/
- The chart below shows a Fourier analysis of the primary climate cycles by two German scientists. The 6 primary natural cycles completely explain the behavior with no impact from CO2 or any other human activity.



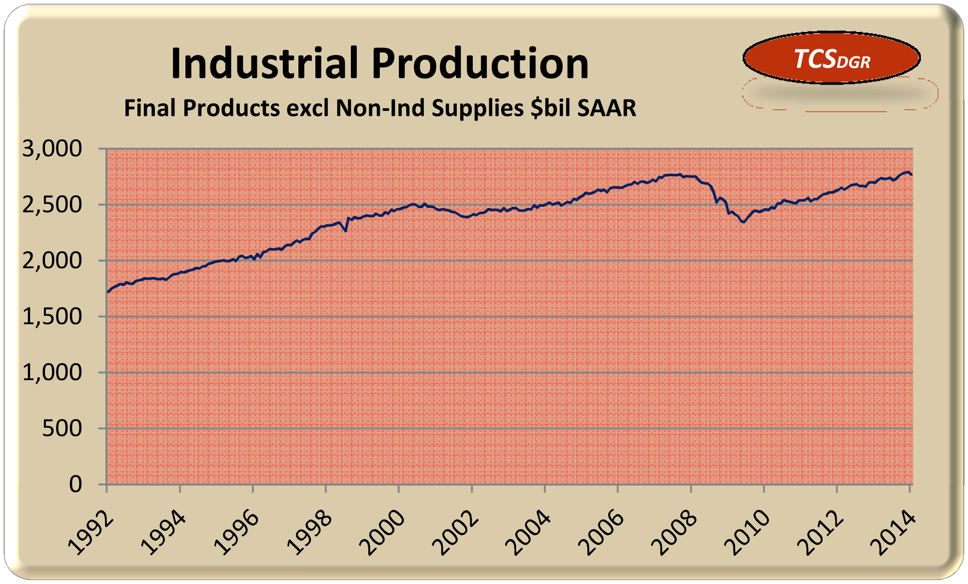
US GDP

Gross Domestic Product				
Year	Qtr	GDP $b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2008	1	14,672.9	-0.1%	3.1%
2008	2	14,817.1	1.0%	2.7%
2008	3	14,844.3	0.2%	1.9%
2008	4	14,546.7	-2.0%	-1.0%
2009	1	14,381.2	-1.1%	-2.0%
2009	2	14,342.1	-0.3%	-3.2%
2009	3	14,384.4	0.3%	-3.1%
2009	4	14,564.1	1.2%	0.1%
2010	1	14,672.5	0.7%	2.0%
2010	2	14,879.2	1.4%	3.7%
2010	3	15,049.8	1.1%	4.6%
2010	4	15,231.7	1.2%	4.6%
2011	1	15,242.9	0.1%	3.9%
2011	2	15,461.9	1.4%	3.9%
2011	3	15,611.8	1.0%	3.7%
2011	4	15,818.7	1.3%	3.9%
2012	1	16,041.6	1.4%	5.2%
2012	2	16,160.4	0.7%	4.5%
2012	3	16,356.0	1.2%	4.8%
2012	4	16,420.3	0.4%	3.8%
2013	1	16,535.3	0.7%	3.1%
2013	2	16,661.0	0.8%	3.1%
2013	3	16,912.9	1.5%	3.4%
2013	4	17,102.5	1.1%	4.2%

Industrial Production (excluding industrial supplies)

Industrial production dropped 0.8% in January. The year to year comparison stands at 2.8% above the same month prior year.

Industrial Production - Final products $bil SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2012	1	2,631.2	0.4%	3.6%
2012	2	2,651.0	0.8%	4.3%
2012	3	2,636.0	-0.6%	3.0%
2012	4	2,651.7	0.6%	4.8%
2012	5	2,671.4	0.7%	4.8%
2012	6	2,677.8	0.2%	5.1%
2012	7	2,684.5	0.2%	4.4%
2012	8	2,665.7	-0.7%	2.8%
2012	9	2,668.5	0.1%	2.7%
2012	10	2,660.8	-0.3%	2.0%
2012	11	2,697.8	1.4%	3.4%
2012	12	2,702.1	0.2%	3.1%
2013	1	2,694.9	-0.3%	2.4%
2013	2	2,720.7	1.0%	2.6%
2013	3	2,738.4	0.6%	3.9%
2013	4	2,729.2	-0.3%	2.9%
2013	5	2,732.4	0.1%	2.3%
2013	6	2,741.2	0.3%	2.4%
2013	7	2,716.6	-0.9%	1.2%
2013	8	2,732.9	0.6%	2.5%
2013	9	2,761.8	1.1%	3.5%
2013	10	2,777.9	0.6%	4.4%
2013	11	2,786.2	0.3%	3.3%
2013	12	2,791.1	0.2%	3.3%
2014	1	2,770.0	-0.8%	2.8%



Capacity Utilization:

Industrial capacity utilization decreased 0.4 points to 78.5% in January. Manufacturing was down 0.7 to 76.7; Durable goods manufacturing decreased 0.8% to 76.0%; Primary metals decreased 0.2 to 76.2%; Autos decreased 4.1 to 74.3%; Machinery decreased 0.3 to 80.2%.

Across the board declines were partly weather related.

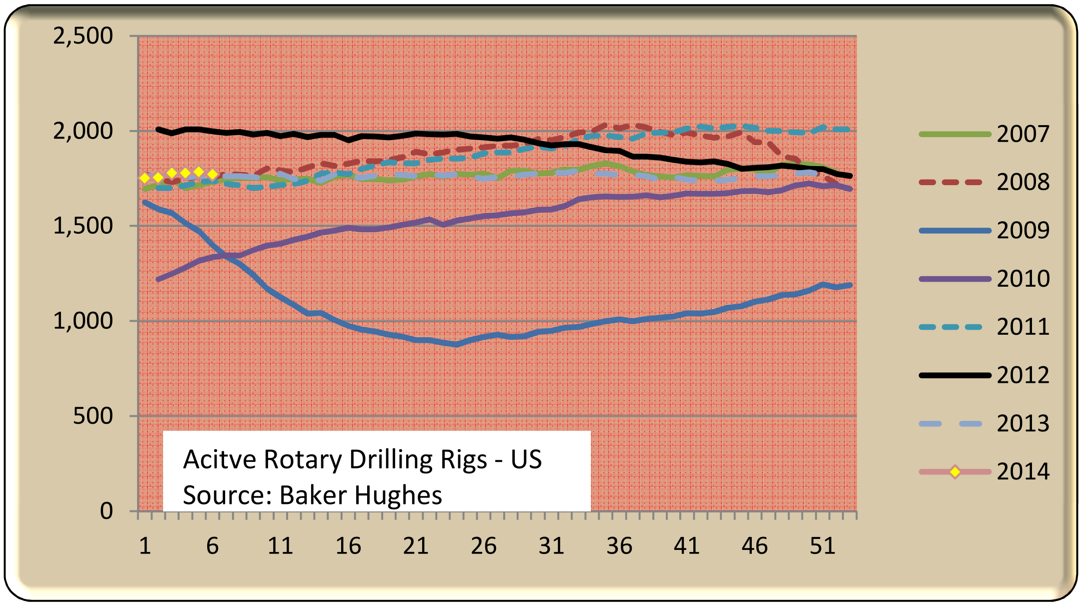
Capacity Utilization %							
Year	Month	Ind Prod	Mfg	Durable	Primary Metals	Auto	Mach-inery
2011	1	76.1	73.8	71.6	72.8	61.0	78.8
2011	2	75.7	73.8	71.9	72.3	63.3	79.0
2011	3	76.5	74.3	72.2	73.7	65.7	78.5
2011	4	76.0	73.7	71.2	73.0	60.9	77.4
2011	5	76.1	73.9	71.7	72.7	61.9	78.2
2011	6	76.2	73.9	71.6	72.7	61.7	78.8
2011	7	76.5	74.4	72.0	73.0	63.5	79.3
2011	8	76.8	74.5	72.4	73.2	65.2	79.1
2011	9	76.7	74.7	72.6	74.1	65.5	79.4
2011	10	77.0	75.1	73.1	75.1	67.7	79.7
2011	11	77.0	74.9	73.2	75.9	66.6	80.1
2011	12	77.3	75.6	74.0	76.6	69.4	81.7
2012	1	77.7	76.3	74.9	76.8	72.2	83.0
2012	2	77.9	76.7	75.4	77.4	71.9	83.6
2012	3	77.3	76.2	75.2	74.8	72.4	84.0
2012	4	77.7	76.6	75.7	76.3	74.0	83.9
2012	5	77.8	76.3	75.4	74.9	73.4	83.3
2012	6	77.7	76.5	75.8	73.5	74.4	85.0
2012	7	77.9	76.6	75.9	75.4	75.3	82.3
2012	8	77.2	76.0	75.0	75.1	72.5	81.4
2012	9	77.2	75.9	74.7	71.7	71.2	81.6
2012	10	77.0	75.5	74.5	72.6	71.1	79.6
2012	11	77.9	76.4	75.8	74.6	74.6	80.2
2012	12	77.8	77.0	76.4	77.4	76.3	80.4
2013	1	77.7	76.9	75.8	75.7	73.7	83.0
2013	2	78.1	77.3	76.6	75.2	74.5	83.6
2013	3	78.2	77.0	76.3	73.7	75.3	84.0
2013	4	77.9	76.6	76.0	74.0	74.9	83.9
2013	5	77.9	76.7	76.0	74.4	75.3	83.3
2013	6	77.9	76.9	76.2	72.6	76.1	85.0
2013	7	77.7	76.4	75.5	75.3	72.0	82.3
2013	8	78.0	76.8	76.4	75.0	75.7	81.4
2013	9	78.4	76.9	76.6	74.9	77.0	81.6
2013	10	78.4	77.2	77.0	78.1	75.9	79.6
2013	11	78.8	77.3	77.4	77.0	78.4	80.2
2013	12	78.9	77.4	76.8	76.4	78.4	80.5
2014	1	78.5	76.7	76.0	76.2	74.3	80.2
Change		(0.4)	(0.7)	(0.8)	(0.2)	(4.1)	(0.3)
Year	Month	Ind Prod	Mfg	Durable	Primary Metals	Auto	Mach-inery

Energy:

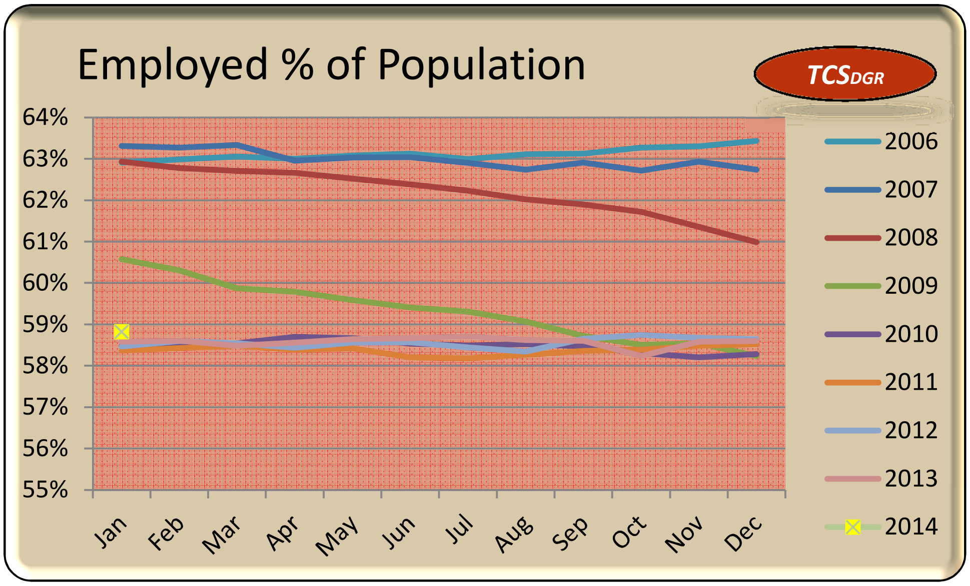
Active rotary rig count (US) remained steady at 1754 rigs.

Last month we speculated that horizontal drilling had increased the productivity of drilling, delivering more productive wells per rig. We decided to see if we could find any support for the speculation. It turns out that the EIA completed a study on the subject showing a more dramatic change than we expected. Productivity doubled between 2012 and 2013.

http://www.eia.gov/discussionpapers/drilling_efficiency.pdf


Acitve Rotary Drilling Rigs - US
Source: Baker Hughes
2,500
2,000
1,500
1,000
500
0
1
6
11
16
21
26
31
36
41
46
51
2007
2008
2009
2010
2011
2012
2013
2014

Employment:



The official unemployment rate dropped to 0.1 to 6.6% in January. But the unemployment rate has become an irrelevant measure. Even the U6 measure is unreliable. The current economy is changing all the rules.

These measures are unreliable because they attempt to determine a person's intentions about finding work. A near impossibility in any useful sense.

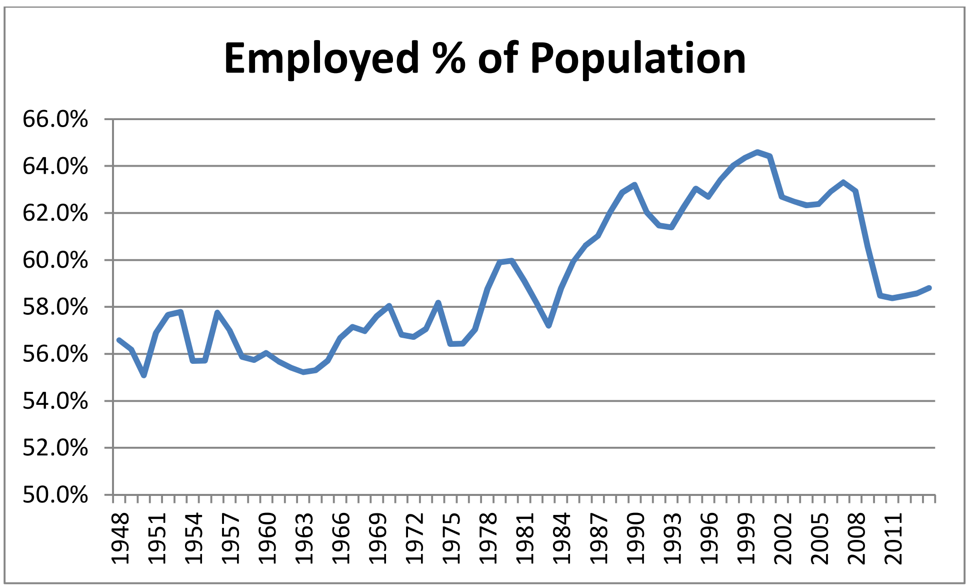
The unemployment rate is declining because people are giving up looking for work, which takes them out of the "unemployed" category.

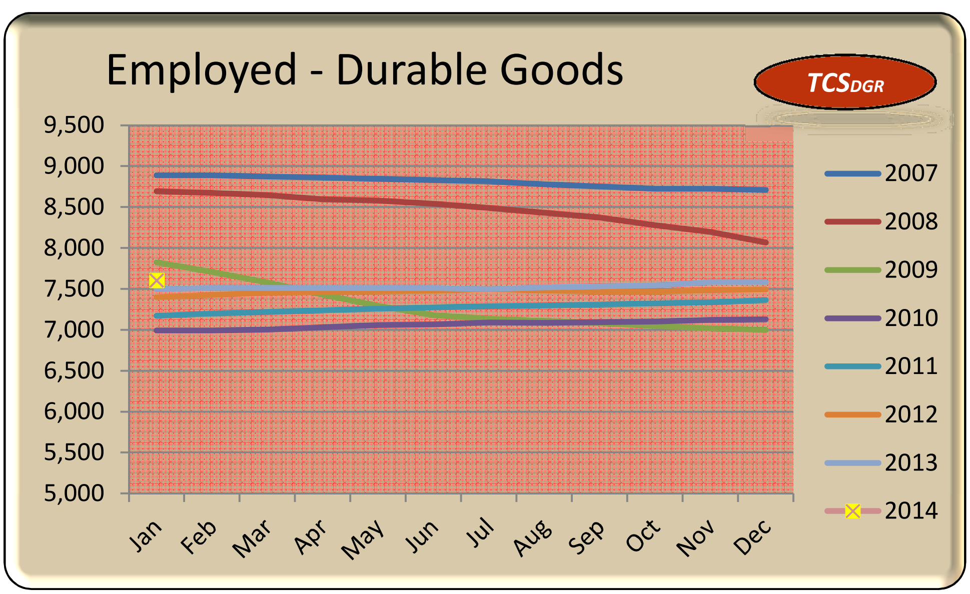
We have chosen to focus on a more basic number, and one that is measureable with a simple question. Did you work last week? We break down the total workforce population into "employed" and "not employed." Your intentions about work are not relevant. Either you contribute to the economy or you are supported by someone else who does contribute to the economy.

This measure shows that there has been no improvement in the employment picture in more than 50 months.

		Jan-14		MTM chg	chg-07			Dec-13				Jan-07	
Employed		145,224	58.8%	638	(804)			144,586	58.6%			146,028	63.3%
Unemployed	10,236		6.6%	(115)	3,120		10,351		6.7%		7,116		4.6%
Not in the Labor Force	91,455		37.0%	(353)	13,949		91,808		37.2%		77,506		33.6%
Total Not Employed		101,691	41.2%	(468)	17,069			102,159	41.4%			84,622	36.7%
Working age population		246,915	100%	170	16,265			246,745	100%			230,650	100%
Employed per Not Working		1.43						1.42				1.73	
Source: Bureau of Labor Statistics													

January Employed % since 1948





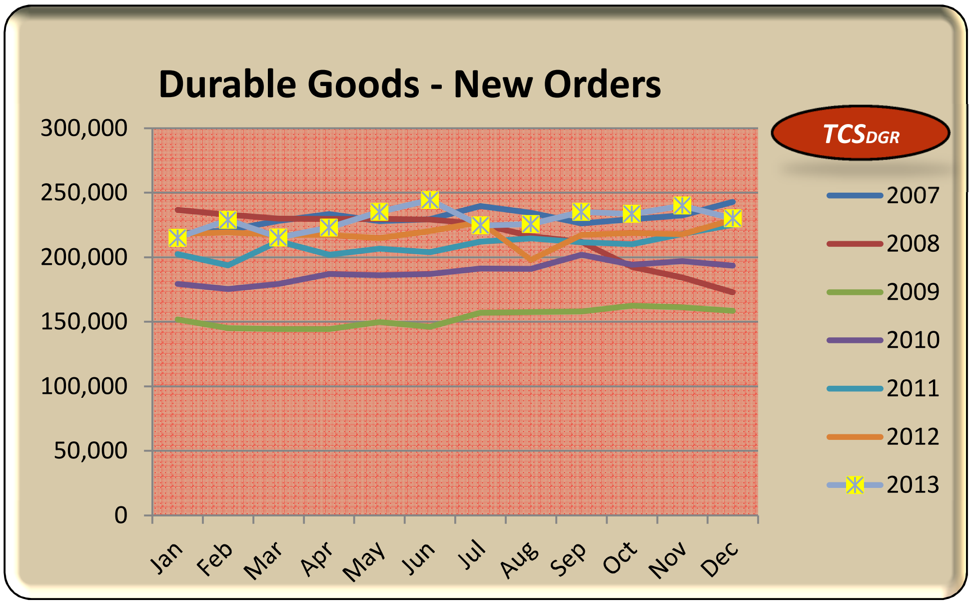
Durable goods employment increased 15,000 in January. Total employment of 7.6 million stands 99,000 above January 2013. Durable employment dropped by 1.9 million in the slide into recession, and has recovered less than 1/3 of that employment. Given the continued high investment level in machinery and equipment it is unlikely that these jobs will ever return. They haven't gone offshore. They've gone away.

The January growth in durable employment is inconsistent with other measures of durable performance (see capacity utilization). Possible reversal coming.

Sector Detail

The Durable Goods Sector:

New Orders: Durable new orders decreased 4.2% to $230 billion in December. Despite the major setback the 12 month moving average remains 4.9% above last year.

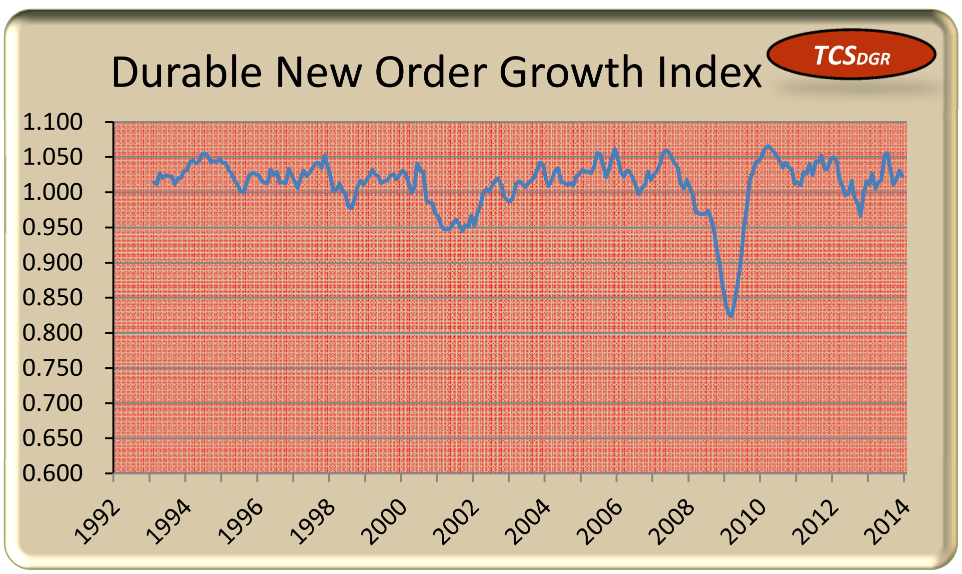


Inventory to shipments ratio surged to 1.66. The Book to Bill ratio dropped to .98. Long-term average is 1.00.

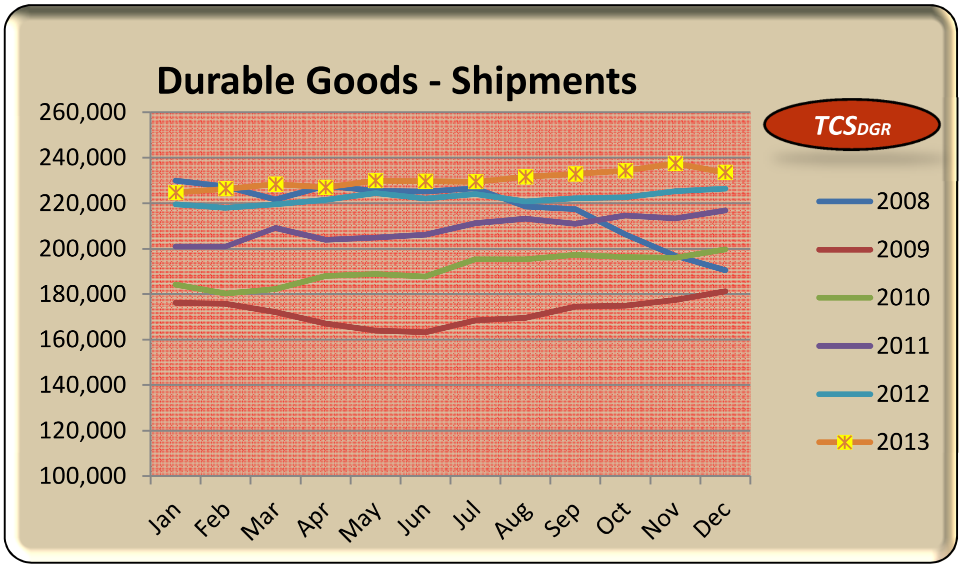
The long term chart for new orders (below) provides added perspective. Based on eyeball analysis it looks like the drop in December is consistent with the noise levels of the recent trends. The one sigma standard deviation is about +/- 3.8%, so this number isn't too far out of the range.

But it's worth keeping an eye on inventories and production rates. Bad weather in January will depress the shipment numbers. But what happens to orders will be more important.

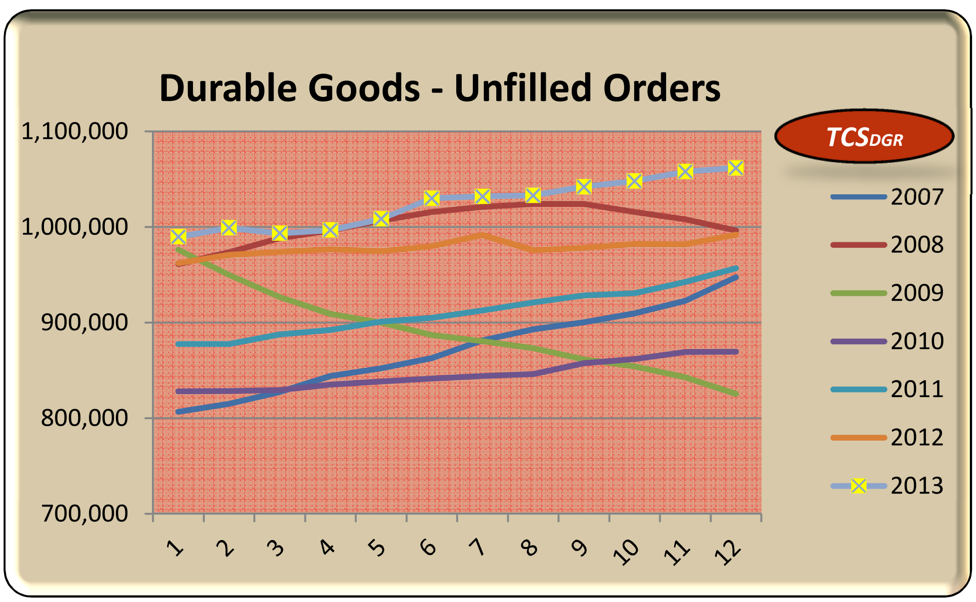
Growth Index for new orders (3mma/12mma = slope of the smoothed order curve) dropped to 1.023 from 1.031. Sill consistent with modest growth.



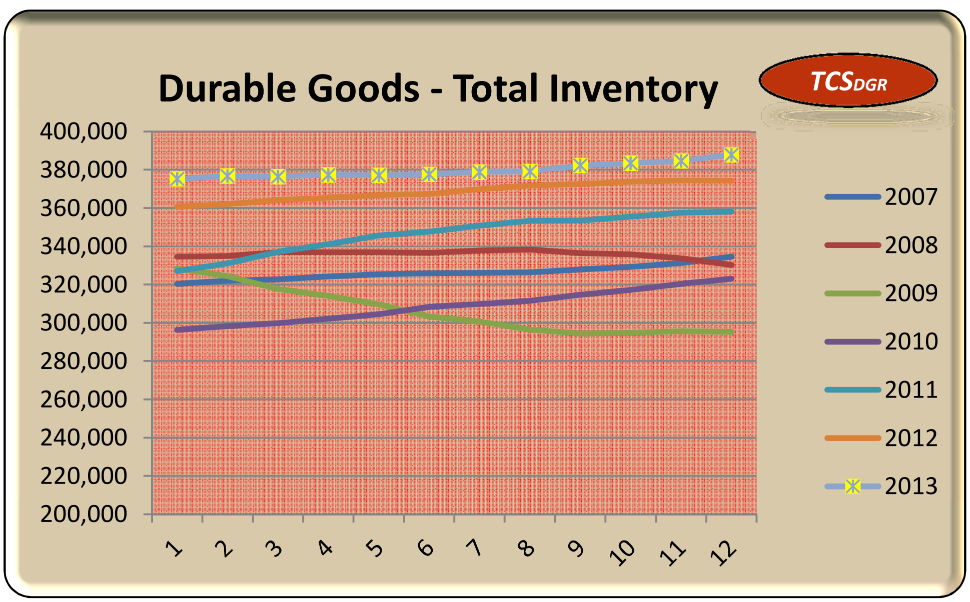
Shipments decreased 1.7% to $233.5 billion. Probably another weather hit coming in January.

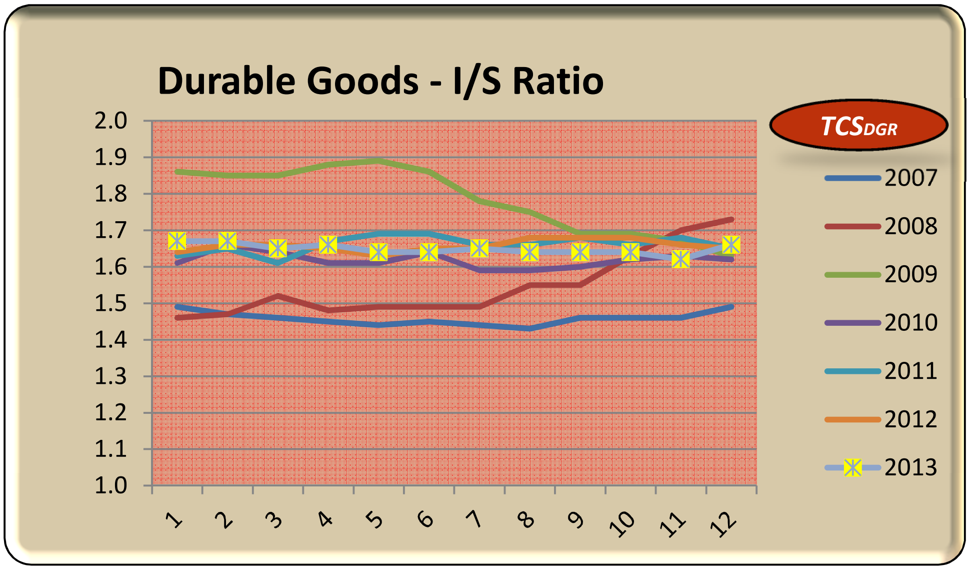


Unfilled Orders increased 0.4% to $1.06 trillion.

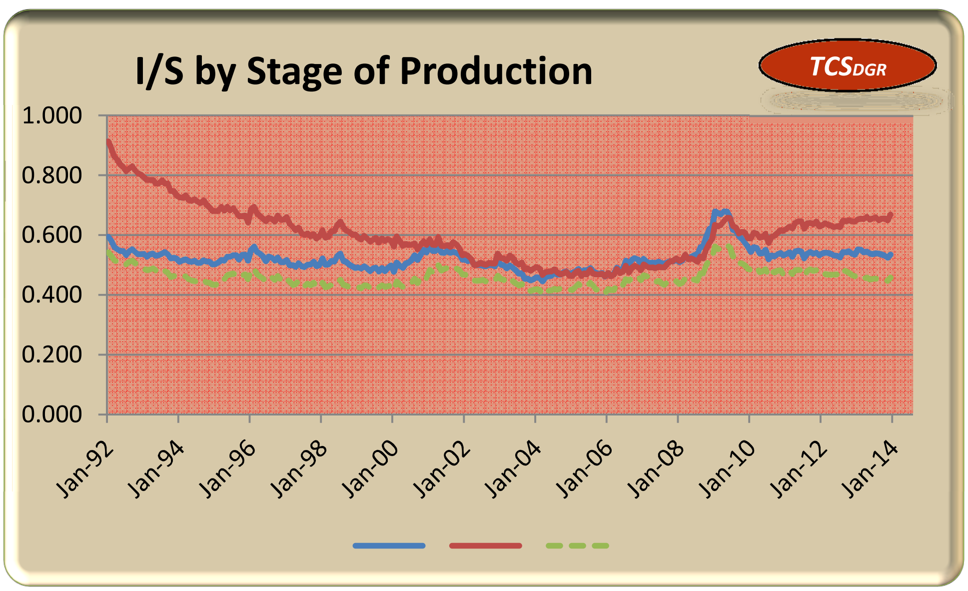


Inventory: Total inventory increased 0.8% to $387.9 billion. Inventory to shipment ratio eroded to 1.66. Inventory is starting to look like a problem. Manufacturing executives should keep a close eye on this issue until spring weather brings some clarity.

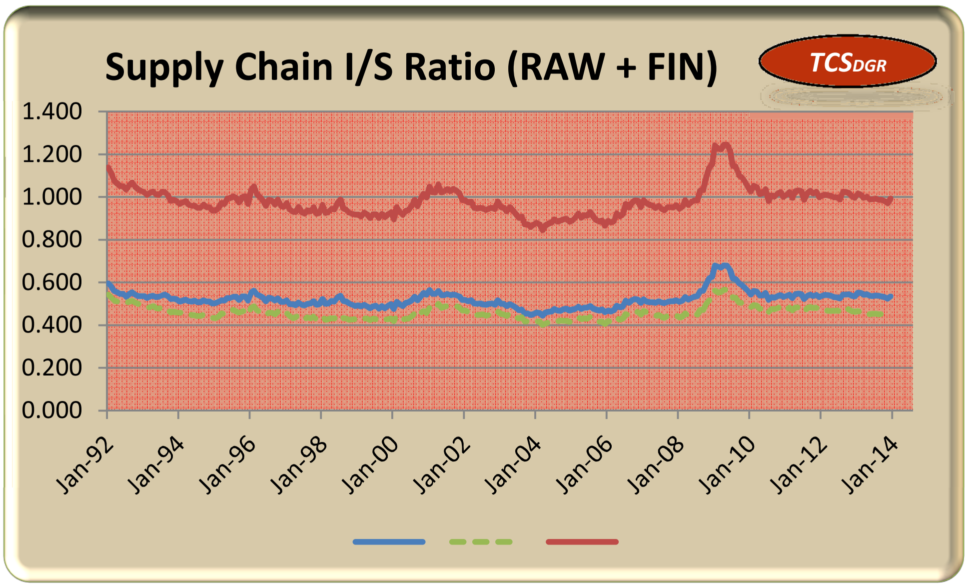




The top line (in red below) shows WIP inventory performance. This is the best indicator of factory velocity. This measure continues to lose ground, and that saps operational efficiency. One seemingly justified reason for erosion of velocity is outsourcing for lower cost. It's often a bad way to cut cost. The goal of manufacturing is not to improve margin, but to increase return on investment. There will soon be more on this at www.tcsdb.com. Watch the manufacturing blog for what the measurements need to be.

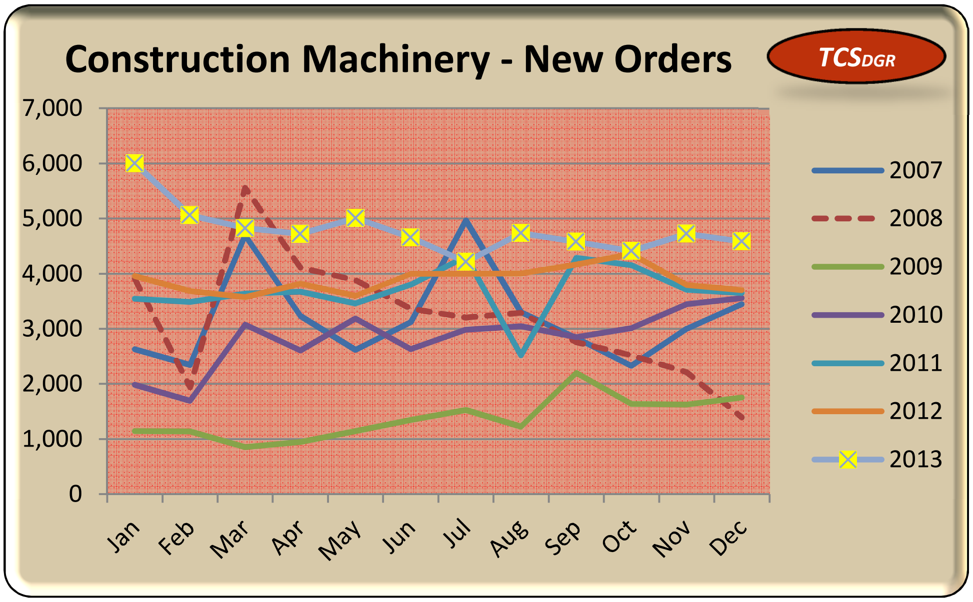


Supply chain velocity: The following chart exposes a different view of the inventory to shipment ratio. Raw material (RAW) and finished goods (FIN) inventory values are indicators of the flow of goods through the upstream and downstream supply chain, independent of the performance inside the factory. In this case we add them together to eliminate cases where a factory gets their vendor to carry the inventory (neat trick if your bonus is based on ROA, but it hurts the company). This chart shows that despite 20 years of talk, we've made no progress in managing supply chains. It took about $1 of RAW+FIN to ship $1 of goods 20 years ago. It still does.

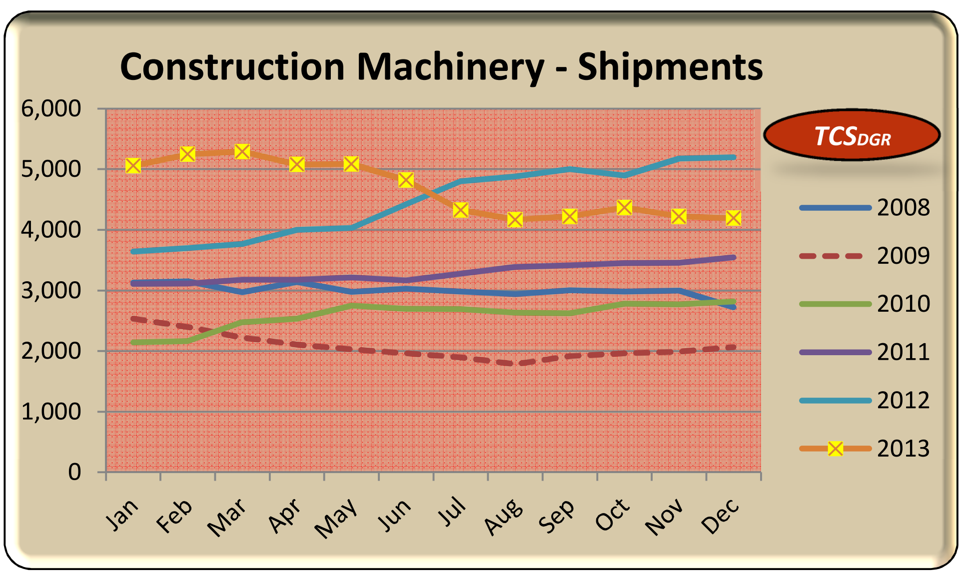


Durable goods sub sectors:

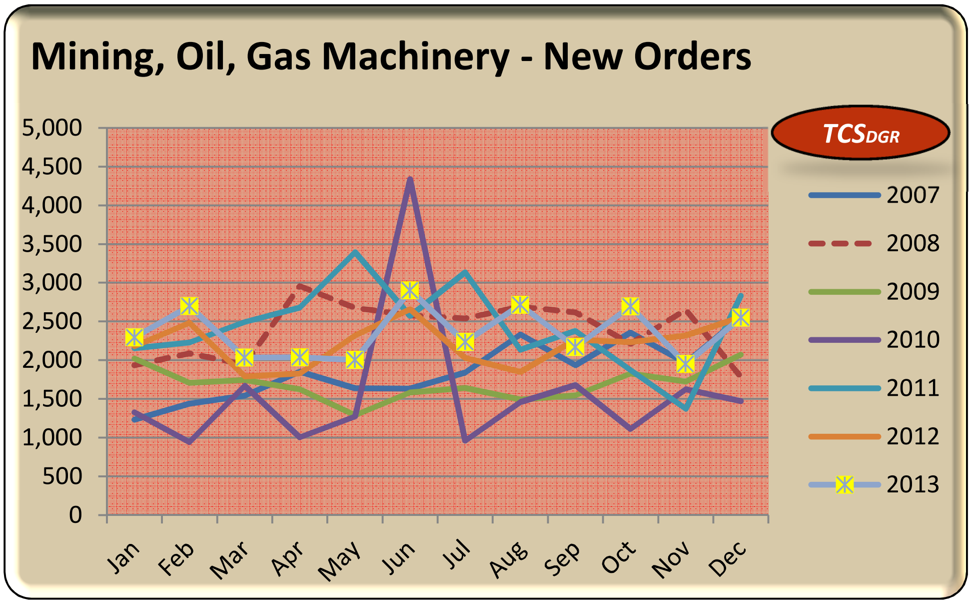
Construction machinery (NAICS 33C) new orders dropped 2.9% to $4.6 billion, about 24% above last year. Book to Bill ratio remained at 1.09 (long term average 1.01). Unfilled orders increased to $11.7 billion, up from 10.2 billion last year and down from $17.1 billion 2 years ago.



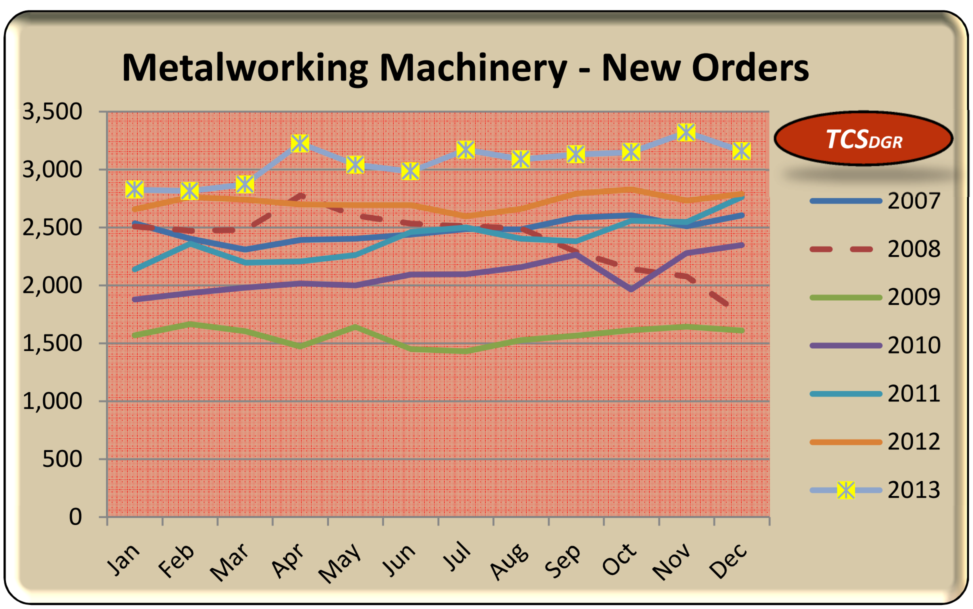
Shipments declined 0.7% to $4.2 billion, well below last year's $5.2 billion, but more in line with order rates. The current book to bill ratio would suggest an increase in production rates soon.



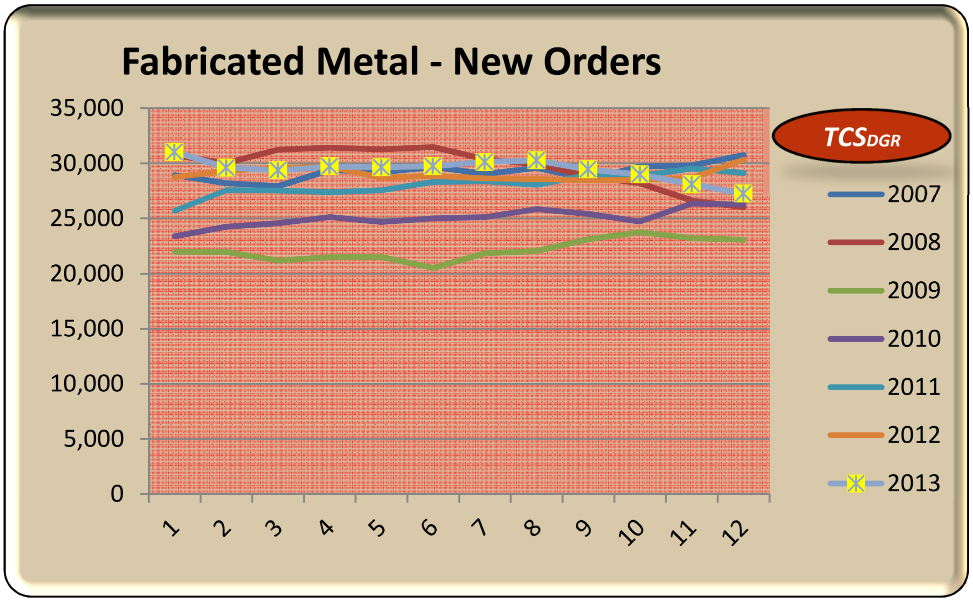
Mining, oil and gas machinery (NAICS 33D) new orders continued the oscillating pattern, increasing 30% to \$2.5 billion, about even with last year. Book to bill ratio is solid at 1.16. (long term average = 1.03).



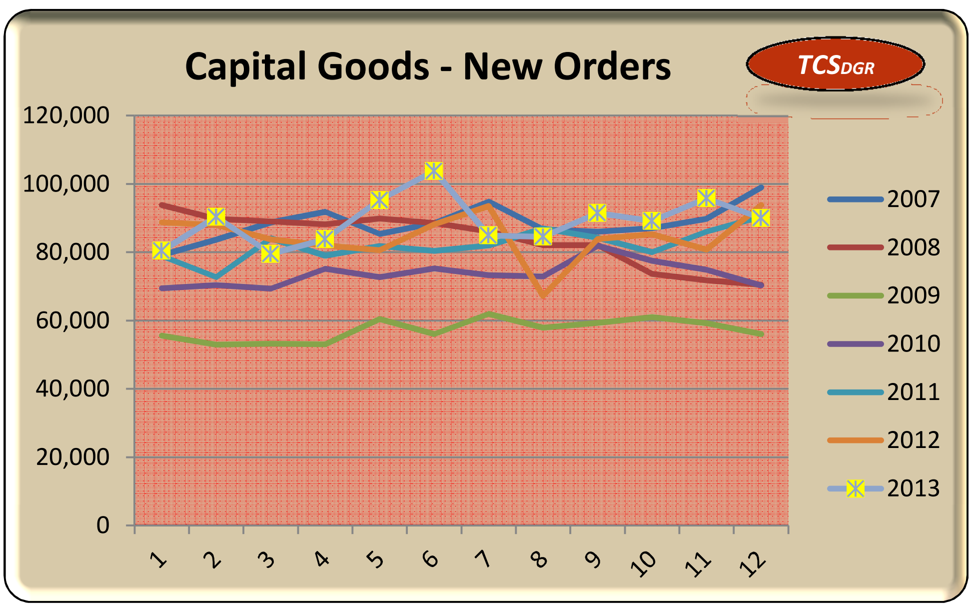
Metalworking machinery (NAICS 33I) new orders decreased 5% to \$3.2 billion, still a solid 13% above last year. Book to bill ratio remained strong at 1.06 (long term average = 1.00). A record year for machine builders in 2013.



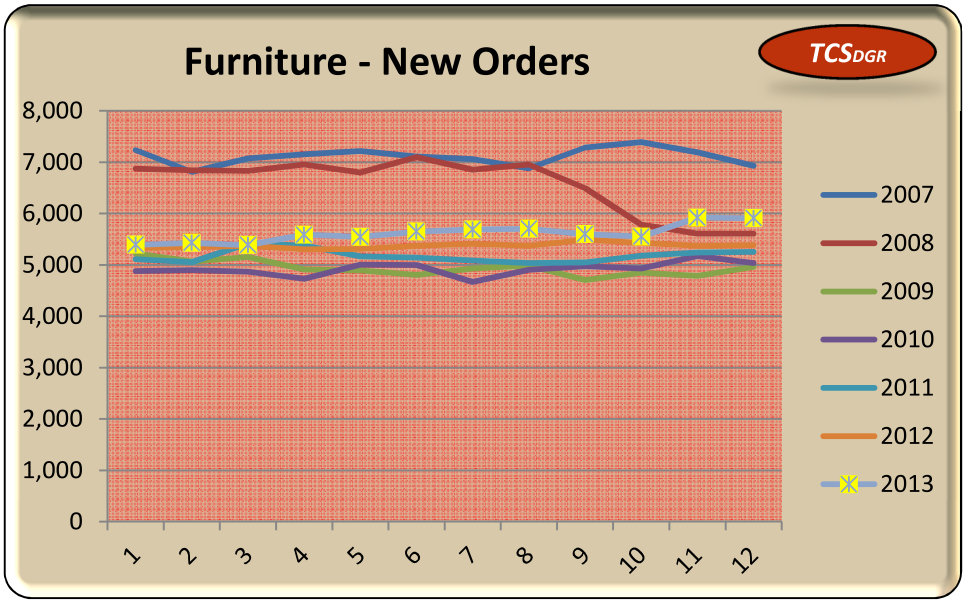
Fabricated metal (NAICS 32S) new orders decreased 3% to \$27.2 billion, falling 10% behind last December. Book to bill ratio dropped to 0.94 (long term average = 1.00).



Capital goods (NAICS TCG) decreased 6% to $90 billion. This is 4% below last year and the lowest December in three years. Book to bill ratio remained solid at 1.10 (long term average = 1.01).

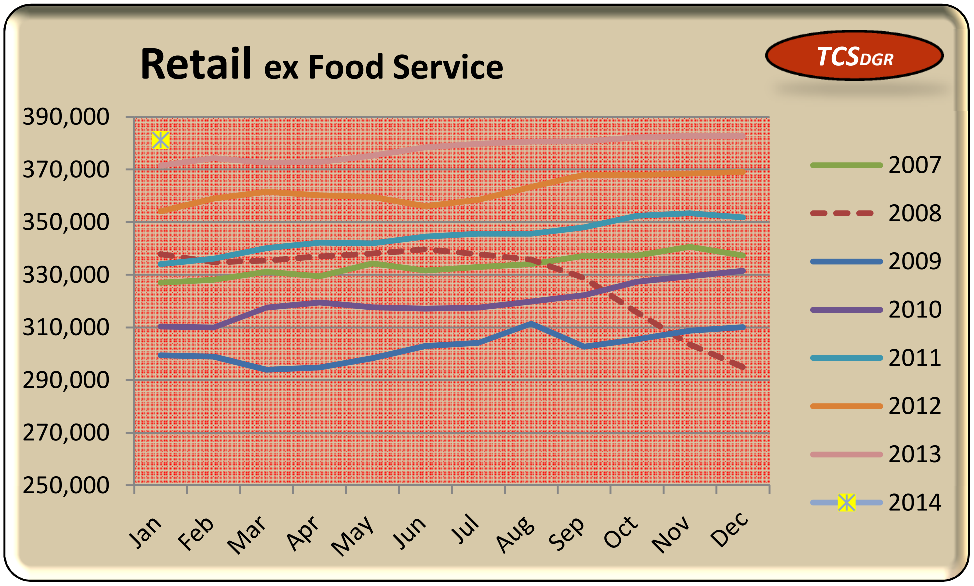


Furniture: (NAICS 37S) New orders remained flat at $5.9 billion, 9.7% above last year. The book to bill ratio is strong at 1.08.

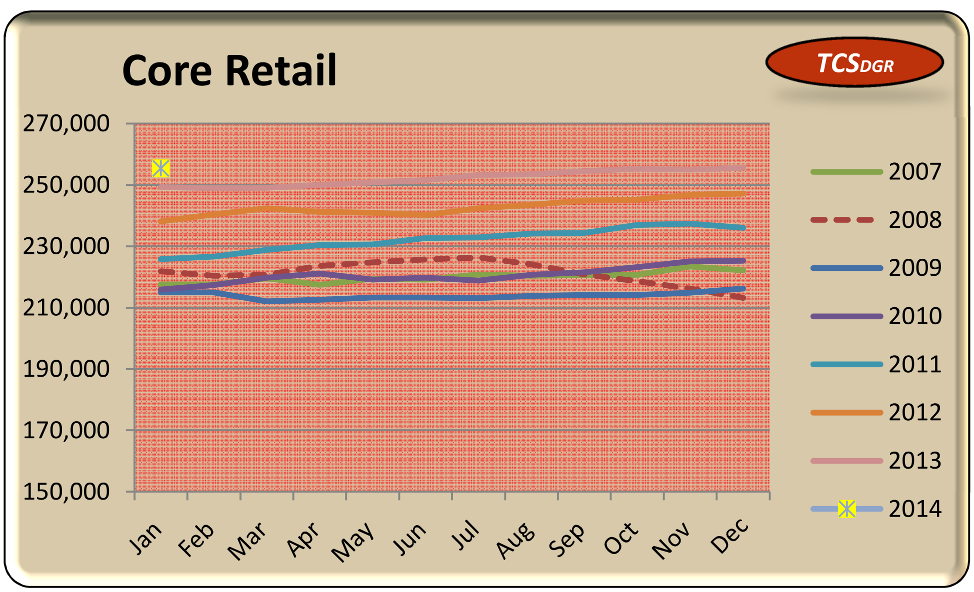

Furniture - New Orders
TCSDGR
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
1
2
3
4
5
6
7
8
9
10
11
12
2007
2008
2009
2010
2011
2012
2013

Retail Data (Advanced Release)

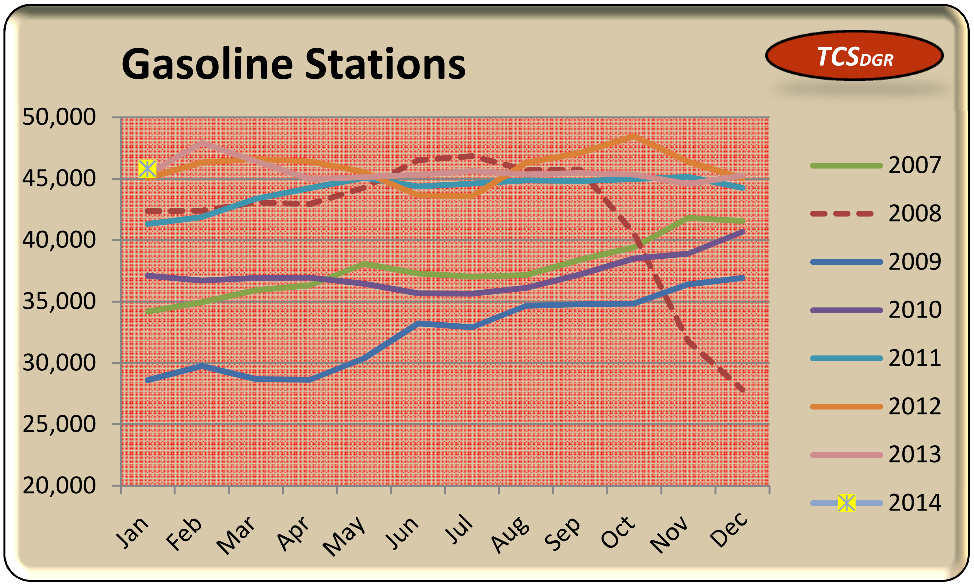
Retail Sales (excluding food service) decreased 0.4% to $381 billion. Current sales are 2.6% above prior year.



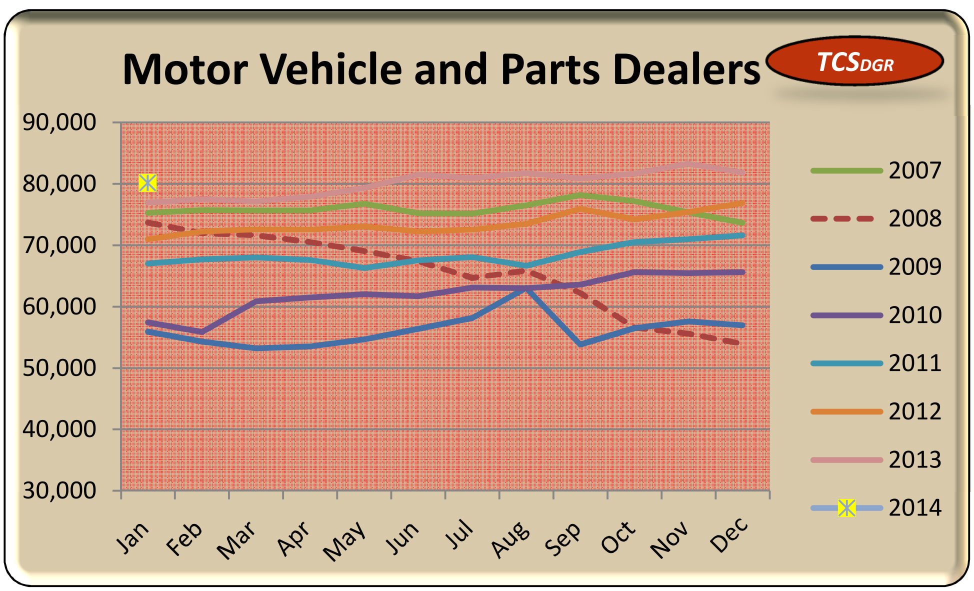
Core retail (excludes food service, gasoline, autos and parts) decreased 0.1% to $255 billion. Current sales are 2.4% above prior year.



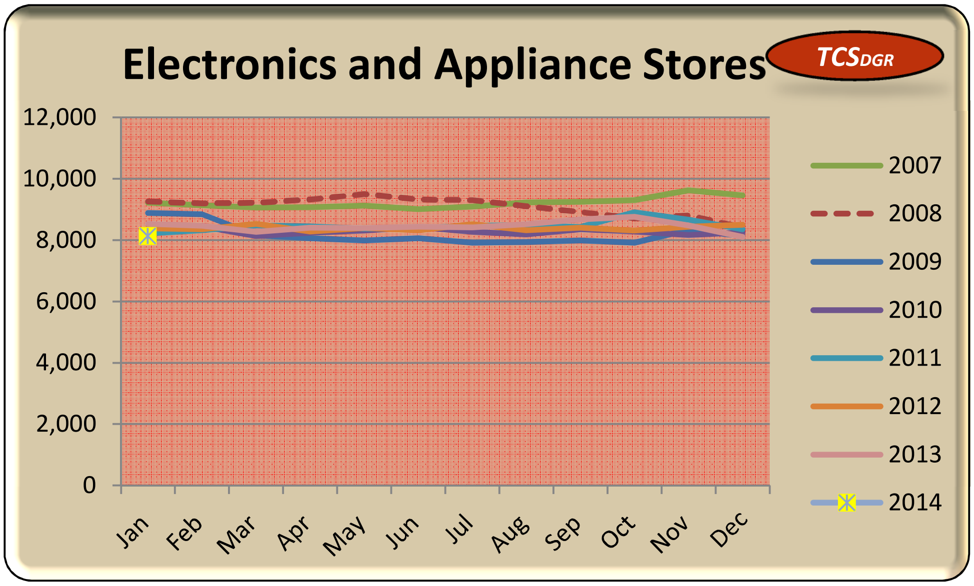
Gasoline sales increased 1.1% to $45.8 billion. Current sales are 1% above prior year.



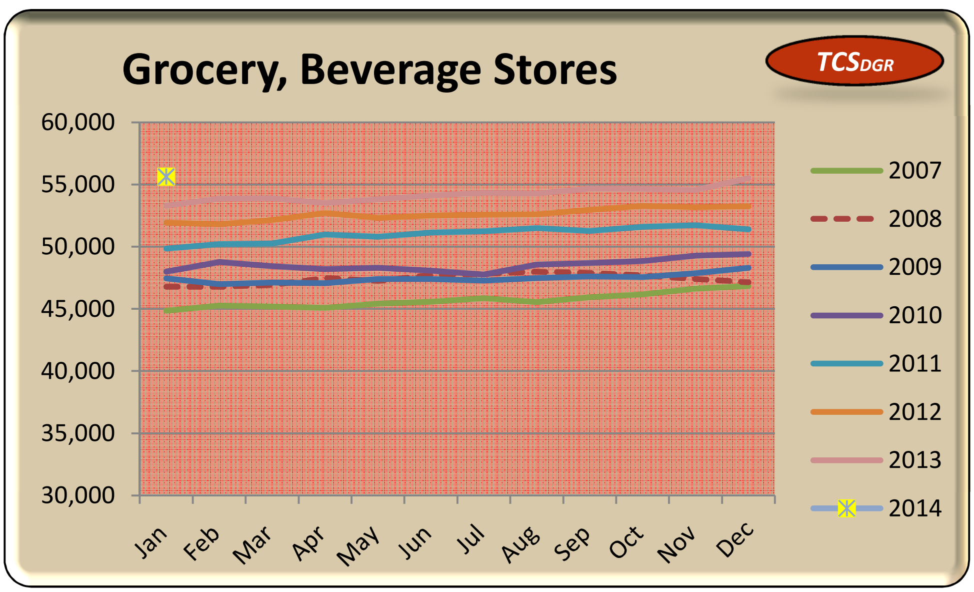
Auto and Parts sales dropped 2.1% to $80.1 billion. Current sales are 4.1% above prior year.



Electronics and Appliance Stores sales decreased 0.4% to $8.1 billion. Current sales are 4.7% below prior year.



Grocery and Beverage stores sales increased 0.2% to $55.6 billion. Grocery sales are 4.3% above prior year.



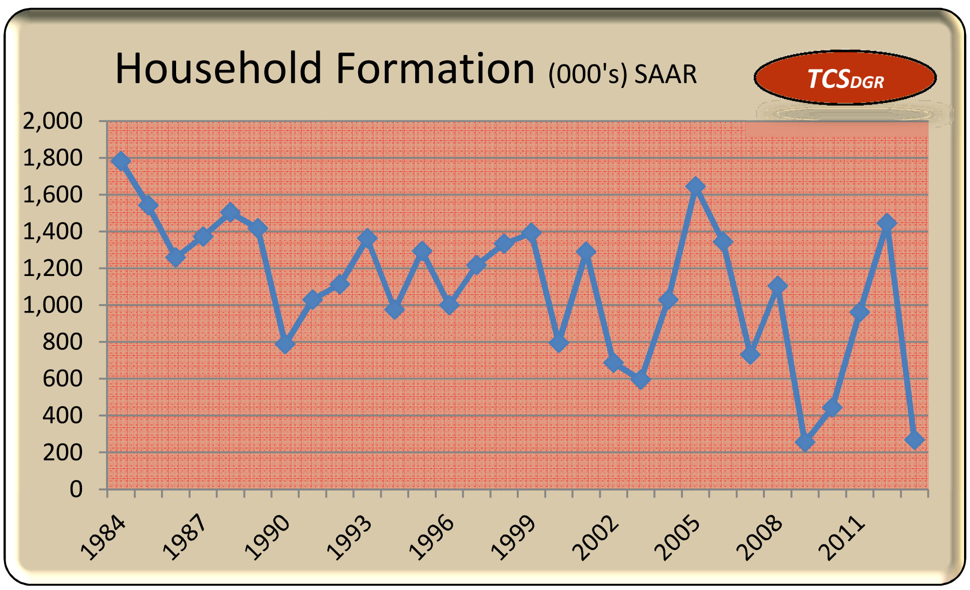
Housing:

Total starts dropped 9.8% to 999,000, 1.6% above prior year. Single family starts dropped 7% to 667,000, 8% above last year.

Single family sales dropped 7% to 414,000. Inventory of unsold single family homes dropped 2.4% to 171,000.

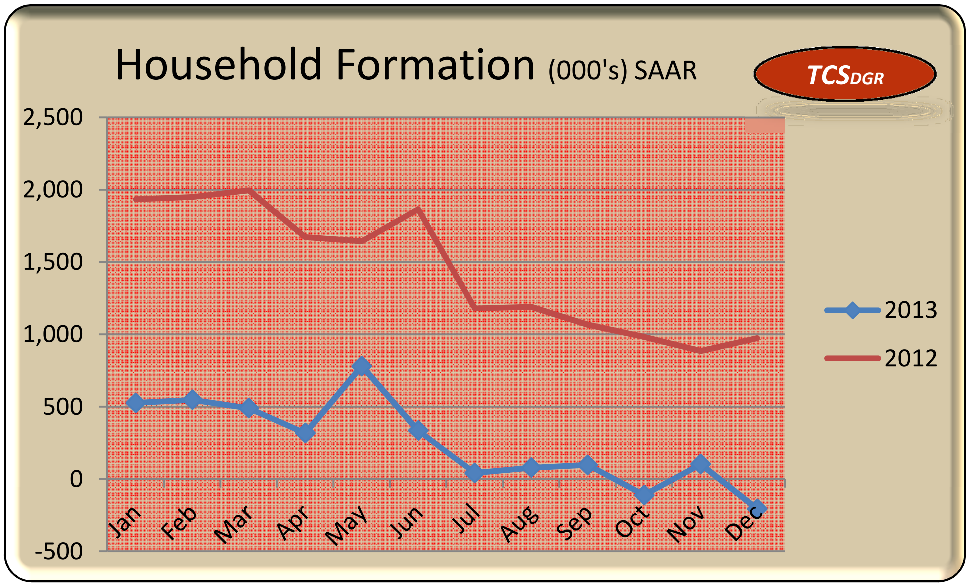
Median sales price (3MMA) increased 2.4% to $262,300, and 7% above last year.

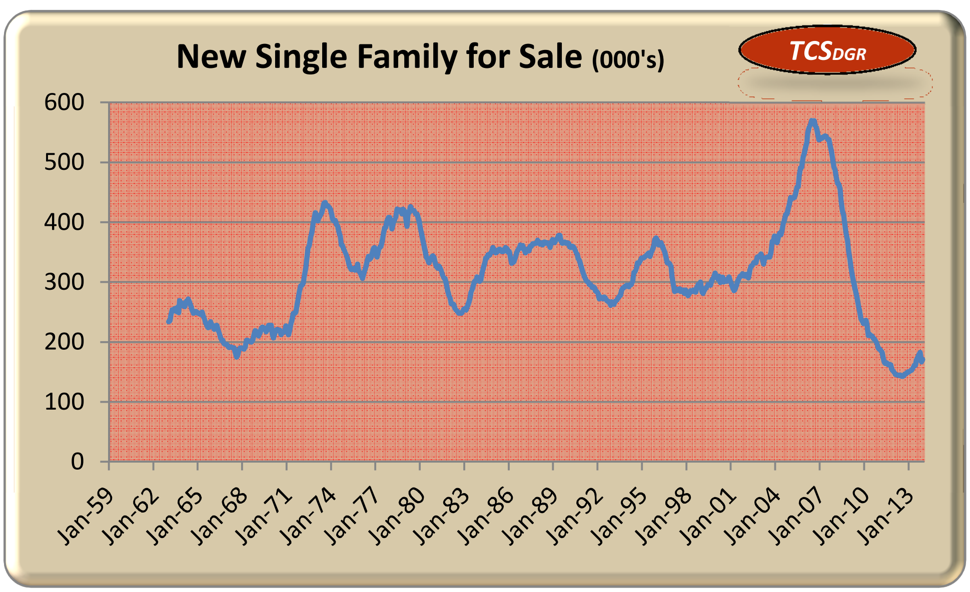
The most troublesome measure of the housing industry is the rate of household formation (below). Household formation is the driving engine of the industry. Until someone creates a new household by moving out of the "home place" or moving into the country, there is no reason to build a new housing unit. The annual number has been in a slow decline for 30 years. That general trend has been interpreted as a demographic signal for some time now. But that misses a more important point.

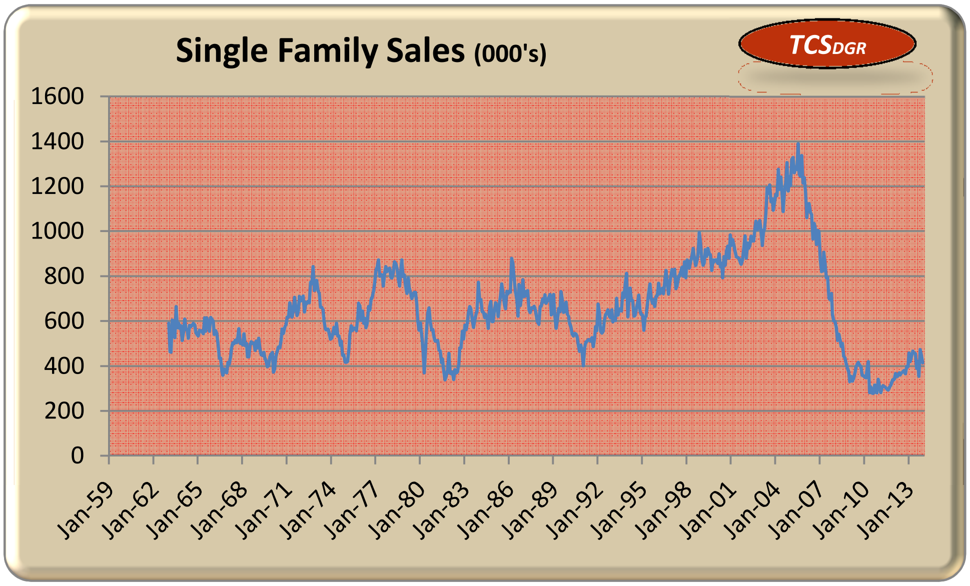


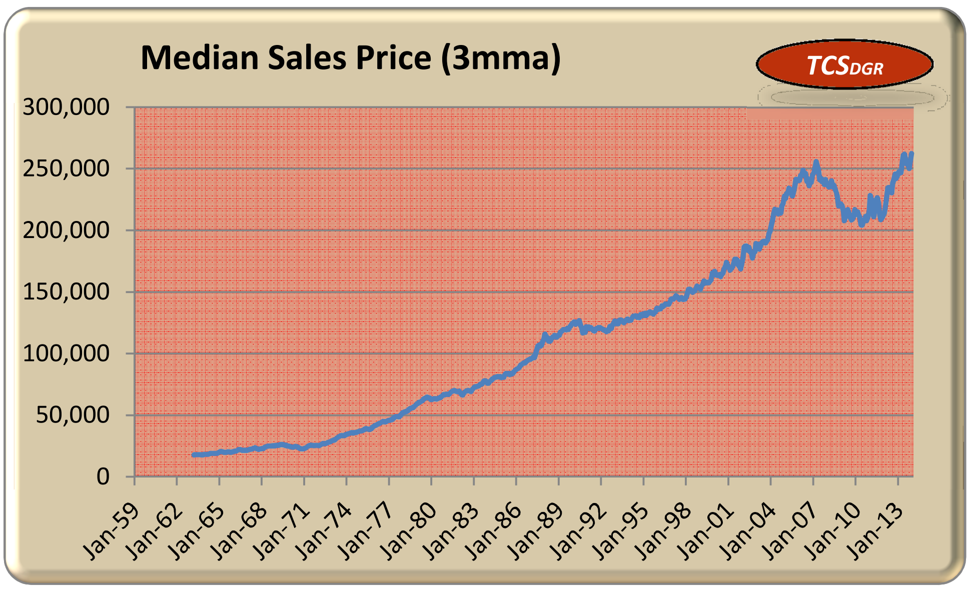
The next chart is the most troubling. The current downward trend started in 2012 and continued until the Q3 values show fewer than 100,000 (annual rate). We flagged this 3 months ago when it first appeared. We've been waiting for the new publication, and it now shows that Q4 was even worse. Net formations have gone negative in two of the three months. Unlike the claims of Harry Dent who believes that demographic patterns explain everything, this effect is being caused by the current economy. Kinds are staying at home with the folks.

http://collegeinsurrection.com/2014/02/a-record-number-of-college-grads-are-living-in-their-parents-basements/






Single Family Sales (000's)
TCSDGR
1600
1400
1200
1000
800
600
400
200
0
Jan-59
Jan-62
Jan-65
Jan-68
Jan-71
Jan-74
Jan-77
Jan-80
Jan-83
Jan-86
Jan-89
Jan-92
Jan-95
Jan-98
Jan-01
Jan-04
Jan-07
Jan-10
Jan-13


Median Sales Price (3mma)
TCSDGR
300,000
250,000
200,000
150,000
100,000
50,000
0
Jan-59
Jan-62
Jan-65
Jan-68
Jan-71
Jan-74
Jan-77
Jan-80
Jan-83
Jan-86
Jan-89
Jan-92
Jan-95
Jan-98
Jan-01
Jan-04
Jan-07
Jan-10
Jan-13

About Time Compression Strategies and the Durable Goods Report

TCS provides information technology and business process support to high performance organizations. Our focus is on manufacturing and telecom. Through our business partners we support health care, energy, retail and other rapid-response business sectors.

The goal of the Durable Goods Report is to offer context for the published monthly statistics on durable goods manufacturing in the US. The analysis is historical in nature, and includes no forecasts beyond what may be obvious from current conditions. The analysis of historic patterns provides a necessary framework for understanding plausible scenarios. Since a high percentage of durable goods go through retail, this sector serves as a leading indicator of future durable goods activity.

The Durable Goods Report uses source data from the US Census Bureau, Bureau of Labor Statistics, Energy Information Administration, and the Federal Reserve. Rig count data source is the Baker Hughes Corp. For data sourced from the US government, the "preliminary" publication is used wherever possible. The preliminary release occurs about 5 weeks after the end of the period. An earlier publication (advanced release) is available about 3 weeks after the end of the period, but is often subject to substantial revisions, and is not considered adequately detailed or reliable for growth trend analysis (except for retail). Wherever the advanced release is used it is noted. Tracking reports are available for several durable goods sub sub-sectors. Contact TCS for details about this subscription based service.

Technical Note: The "TCS Growth Index" is measured as the ratio of the 3 month moving average divided by the 12 month moving average. This removes some of the natural noise in the industry data, but also results in a slight response lag. An index value greater than 1.000 is a sign of recent growth.

About the Author:

John Layden serves as CEO of Time Compression Strategies Corp (TCS), an information technology and process improvement company serving manufacturing, distribution, and related infrastructure companies.

Prior to launching TCS, Layden's career included 22 years' in manufacturing and another 20 years in enterprise software. Most recently he has served as VP of Supply Chain Management for SAP and VP of Supply Chain Market Development for Frontstep, Inc. He served as President of Pritsker Corporation, an early innovator in discrete event simulation and advanced planning and scheduling fields. He negotiated the Pritsker acquisition by Frontstep. He was a founder and CEO of Automated

Technology Associates, Inc., a leader in the development of real-time quality control systems and factory management applications.

Layden has authored over 40 articles and papers on both the theory and practice of manufacturing and supply chain operations. He was described by one editor as a "founding father" of the advanced planning and scheduling (APS) industry. He also authored the supply chain chapter in Maynard's Industrial Engineers Handbook. He speaks worldwide on the subject of world class operating strategies. He has been the keynote speaker at numerous conferences including the Automation Hall of Fame Awards.

As a software company CEO, Layden delivered to market the first real-time advanced planning and scheduling system; the first real-time SPC system; and the first real-time, fourth-normal-form database system. He is the originator of the Return on Capacity analysis method for supply chain pricing, profitability and delivery performance.

As a key partner to Motorola, Layden developed the quality control concepts that became the Six Sigma Initiative. He introduced the same concepts to GE and the Cadillac Division of General Motors. These initiatives contributed to the Malcom Baldrige awards won by Motorola and Cadillac, and to the highly publicized Six Sigma program at GE. He introduced the Six Sigma concepts to software development and delivered the only application software release to meet these exacting quality standards. Layden holds three patents and is the only American to hold a Japanese patent in quality control.

Prior to his tenure in manufacturing software, Layden spent 20 years as an engineer, operating executive and board member with three Fortune 200 manufacturing companies. The TCS advisory services retain the practical, no-nonsense approach familiar to world class operating executives. His operating roles in manufacturing included plant manager, director of business planning, and VP of Supply Chain Management.

Layden currently serves on 3 boards, and advises several high-tech startup companies.

Mr. Layden holds a BS degree from Purdue University in Electrical Engineering and an MBA from the University of Wisconsin-Milwaukee (Executive Program). He is active with the Purdue University President's Council, and has served as a guest lecturer in the MBA programs of Villanova University, Columbia University, New York University, Indiana University, Ball State University, and others.

Time Compression Strategies Corp

www.tcsdb.com

jlayden@tcsdb.com