

The Durable Goods Report

August 2013

Executive Summary of US Economic Activity



Manufacturing Data Release of 8/2/2013 (June Preliminary)

Employment Data Release of 8/2/2013 (July Preliminary)

Retail Data Release of 7/15/2013 (June Advanced)

Industrial Production Data Release of 7/16/2013 (June Advanced)

Housing Data Release of 7/17 & 24/ 2013 (June 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

The Durable Goods Report – A Service of Time Compression Strategies

By the Numbers

Durable Goods Key Measures			
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	244,231	235,162	221,368
12 month moving average	222,619		218,273
% Change from Prior Year	2.0%		
Growth Index - Durable New Orders	1.052	1.017	0.999
Unshipped Orders - Durable	1,029,916	1,008,418	988,660
% Change from Prior Year	4.2%		
Value of Shipments - Durable	229,373	229,878	225,011
Book to Bill Ratio	1.06	1.02	0.98
Inventory - Durables	377,424	377,093	366,503
% Change from Prior Year	3.0%		
Inv to shipments ratio - Durable	1.65	1.64	1.63
US Economy Key Measures			
	This period	Last period	Change
GDP 2012 Q4 (current \$)	15,984.1	15,864.1	0.8%
Industrial Production	2,586.8	2,574.9	0.5%
Capacity Utilization %	77.8	77.7	0.1
Manufacturing %	76.8	76.8	0.1
Durable Goods %	76.2	76.0	0.2
Primary Metals %	73.8	74.0	-0.2
Autos and Parts %	76.0	75.2	0.9
Machinery %	85.0	83.3	1.6
Durable Goods (\$Mil SA)			
New orders	244,231	235,162	3.9%
Shipments	229,373	229,878	-0.2%
Inventory	377,424	377,093	0.1%
Unshipped Orders	1,029,916	1,008,418	2.1%
Retail ex Food Service (\$Mil SA)	377,543	375,401	0.6%
Autos and Parts	73,682	72,157	2.1%
Gasoline	45,491	45,175	0.7%
Core retail (ex auto, gas)	251,591	251,198	0.2%
Employment (000's SA)			
Civilian employed (Household Survey)	144,285	144,058	227
% of potential workforce (HS)	58.7%	58.7%	0.0%
Civilian not employed (HS)	101,471	101,494	(23)
Non-Farm (Establishment Survey)	136,038	135,876	162
Private (ES)	114,186	114,025	161
Government (fed, state, local) (ES)	21,852	21,851	1
Goods Producing (ES)	18,643	18,639	4
Manufacturing (ES)	11,975	11,969	6
Construction (ES)	5,793	5,799	(6)
Durable Goods Mfg (ES)	7,520	7,512	8
Housing (000s of Units SA)			
Total housing starts	928	856	8.4%
Single family starts	596	610	-2.3%
Single family sales (new)	459	466	-1.5%
Single family for sale (new)	161	156	3.2%

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US Economy – Quick Look:

US GDP

Q2 2013 GDP growth estimate at 1.7% SAAR, 0.6% Q/Q, 2.9% Y/Y.

Industrial Production

Industrial production excluding industrial supplies increased 0.5%. Now stands 2.3% above prior year. Capacity utilization increased 0.1 points to 77.8%.

Durable Goods

New orders for durable goods increased 3.9% to \$244.2 billion. The 12 month moving average stands 2.0% above last year. Growth index is at 1.052 (strong growth). Primary driver was the volatile transportation equipment sector.

Retail:

Retail sales (ex food service) increased 0.6% to \$377.5 billion. Core retail (ex food service, autos, gasoline) increased 0.2% to \$251.6 billion. Gasoline sales increased 0.7% due to price increases.

Employment:

Working-age population increased by 204,000.

Household survey shows: Employed: up 227,000. Not employed: down 23,000. Employed: 58.7% of population (unchanged).

Establishment survey shows: 162,000 jobs added. Durable goods employment increased 8,000.

Housing:

Total starts: -9.9% to 836,000 SAAR. Single family starts: -0.8% to 591,000. Single family sales: 8.3% to 497,000. Median value: increases to \$261,700 (3mma) and 12% above prior year. Multi-family starts continue at a relatively high level.

Random Thoughts, Stray Data and Rants:

Economy

- We've noted for the past 5 years that household formations (mostly kids setting up shop in an apartment or house) is the fundamental driver of the housing economy. Since 2008 the number of formations has been at half or less the normal level. There will be no real recovery until this measure turns. Great analysis at Forbes.com.
http://www.forbes.com/sites/trulia/2013/07/23/kids-arent-moving-out-yet/?utm_campaign=forbestwittersf&utm_source=twitter&utm_medium=social
- McKinsey consulting has an interesting report on "disruptive" technology. This usually reliable report throws in a few clinkers this time. So instead of our normal passive recommendation, we're going to take them to task. Watch the website for a special report.
<http://www.realcleartechology.com/lists/technology-hype-mckinsey/>
- A quick hit on their claim that advanced robotics will be a major disrupting factor. Can't resist this one. It's really dumb. Below is a video from a 1936 auto assembly line. Note the use of fixed-function robots. Robotics is the defining element of the 300 year old industrial revolution. I heard the same claims in the 1970s about the "new" concept of robots. It was wrong then, wrong now. It's one continuous progression of creative ways to automate. Current robots are now programmable, but that's been true since the first punch card looms. I guess to some young consultant at McKinsey a flash drive is cool and new.

Check out the video. For an engineer it's a really beautiful ballet.

<http://www.dump.com/assemblyline/>

- China banking system continues to show signs of stress. Capital moving out of the country for the first time in a very long time.
- US GDP growth remains weak as the recovery comes to an end. Signs of slowing are now broader. So if 2009-2013 was a recovery, what does a real recession look like?
- We've proven again that government spending can't create prosperity. Money spent to create jobs came from the productive economy and destroyed jobs. Estimates of the net loss range from 1.5 to 3 jobs lost for every government job created or supported by government money.

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Energy: *this critical commodity drives much of the cost of durable goods. More importantly it is a key driver of wealth, surplus wealth and demand. Used as a labor multiplier it generates wealth and improves living standards.*

- Thorium may still have a chance. Bill Gates has taken up the cause. The DGR has covered LFTRs (liquid fluoride thorium reactors) for five years. It's a near miracle technology, but there is much resistance from the existing uranium industry.
<http://motherboard.vice.com/blog/bill-gates-is-beginning-to-dream-the-thorium-dream>
- A Saudi minister has raised a warning to the ruling family that US natural gas discoveries will soon become a threat to the kingdom. The warning has been downplayed or rejected within the kingdom. Denial is an amazing thing.
- Electric cars are run by batteries. Batteries are not a source of energy, they're a storage device. As such the real energy source is mostly coal. So the debate is whether we're going to have coal powered cars or gas powered cars.
- The \$10,000+ battery pack in an electric car replaces an injection molded plastic gas tank worth about \$200. A battery requires a lot of energy to manufacture. A plastic gas tank does not.
- The energy required to manufacture a battery pack will never be recovered in the life of the car.
- The "gas mileage" of an electric car is about 19 mpg equivalent for the Volt.
- Despite all this electric cars have a useful purpose. In areas where emissions are critical they can shift the emissions to the power plant where centralized controls are more effective. But they aren't useful as a general purpose automobile.

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

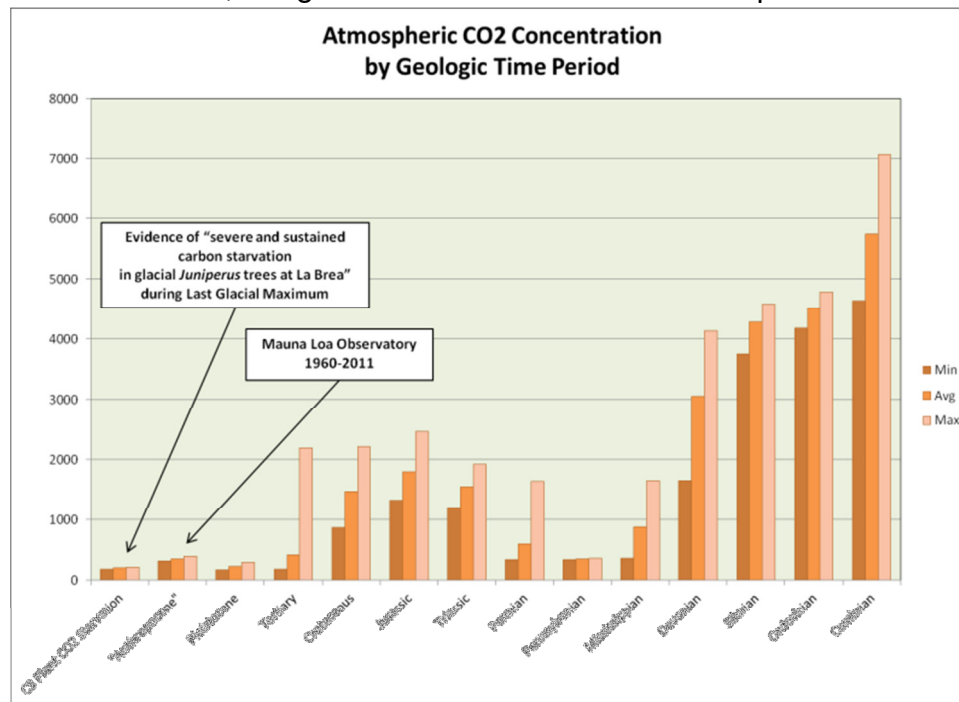
- Two new food stamp recipients for every new job during the Obama administration.
- What killed Detroit? The employment lottery.
http://www.americanthinker.com/2013/07/how_detroit_almost_killed_my_businesses.html
- Cost of health care is badly distorted in the US. A hip replacement costs \$100,000 in the US, \$14,000 in Belgium, and \$7,000 in India.
- The comparison is not completely accurate. Subsidies are different. But there are none in the Indian system. US government regulations on health, insurance and business practice cause massive market distortions and are unconscionable.

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- Adding new regulations to business and industry cannot solve the problems caused by too much regulation. But that's what the bureaucrats in Washington are intent on doing.

Climate & Environment: *The scare topic du jour (actually, of the last 24 years) is used to justify higher taxes and more regulation.*

- Getting lead out of gasoline reduces violent crime after a lag of about 20 years. Since countries introduced unleaded gas at different times, it helps researchers measure the specific impact and lag time.
<http://www.motherjones.com/kevin-drum/2013/07/murder-sao-paulo-lead-ethanol>
- More CO₂ is better. A lot more is a lot better. The relatively low level of CO₂ in the modern era leaves all life on Earth at risk. Plant life shuts down below about 150 ppm. We came dangerously close to that level in the Little Ice Age (1600 – 1850). The “Cambrian Explosion” that drove all the diversity of Earth’s life forms occurred when CO₂ levels were 6000 ppm. CO₂ is plant fertilizer. It’s time to stop the anti-scientific, dangerous nonsense about “carbon pollution.”

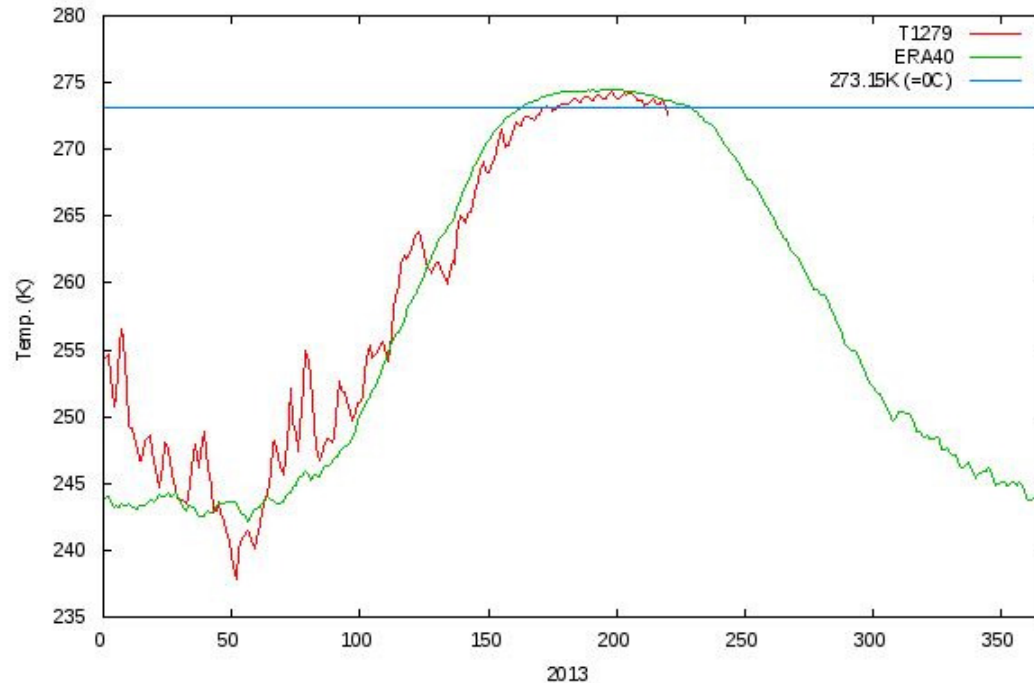


- BTW: the majority of the warming from CO₂ occurs below 20 ppm. Not much more happens after that.
- Major Danish newspaper publishes front page warning that the Earth is headed back to a Little Ice Age. First major media break with the consensus of the elites.
- Minnesota breaks 102 year old record for the coldest July
- Indianapolis July temperature average was more than 12 degrees below last year.

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- 2/3 of the lower 48 states are below average temperature for year to date.
- 100 days below normal Arctic temperatures.
- Increase in Arctic ice extent over last year is the second largest jump on record.
- Alaska land temperatures drop by a full degree in a decade.
- Summer at the North Pole is always short. Typically 90 days above freezing.

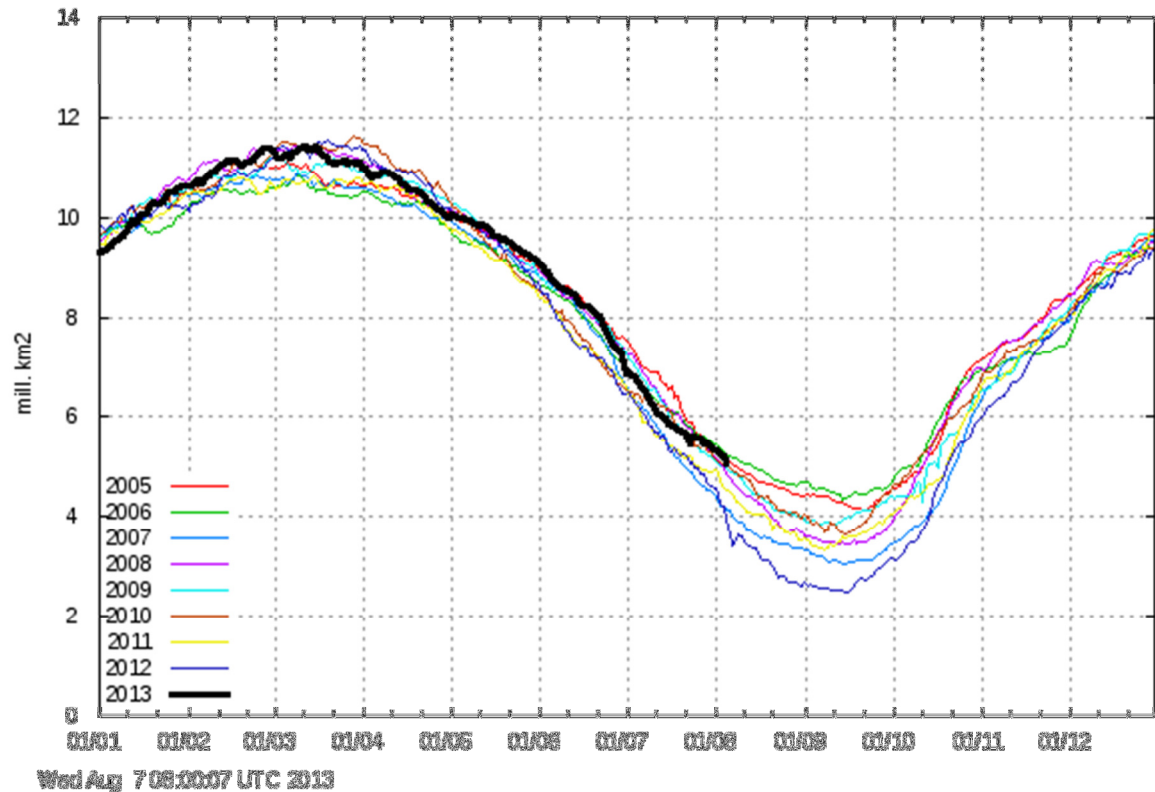
This year it was really short. About half of normal. See below.



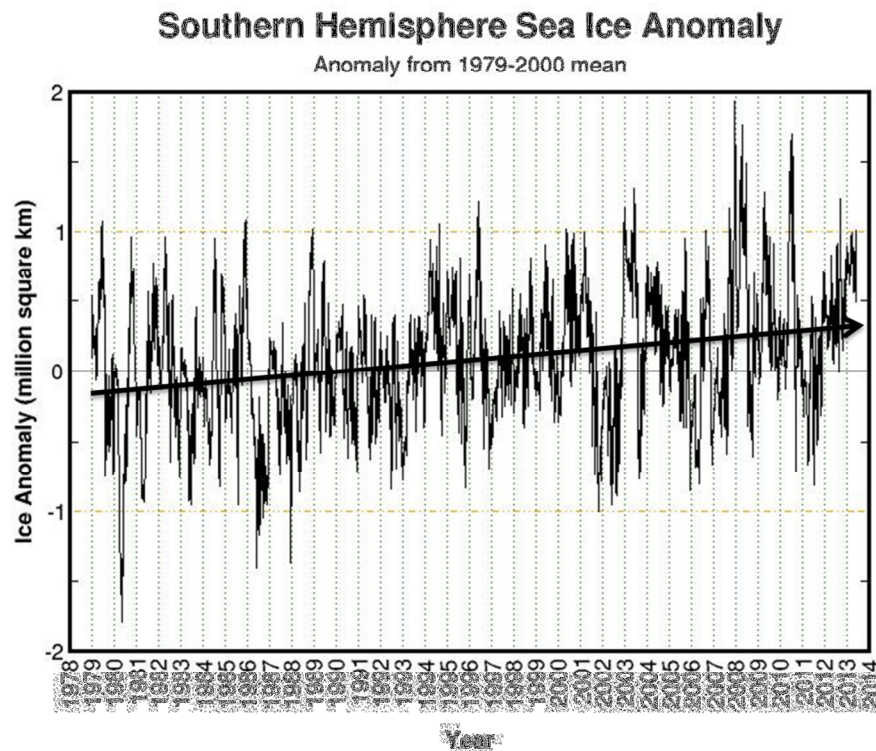
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- The sea ice area (>30% coverage) is running above the average for the past decade. See below.

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- Antarctic sea ice extent continues to set records.



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- Study shows Alaska land temperatures (20 station average) is rapidly returning to the cold cycle seen in 1949-1977 period.
<http://www.benthamscience.com/open/toascj/articles/V006/111TOASCJ.pdf>
- Since 1810 the average global land based temperature has risen by about 2.5 degrees C. That's as good as a lab experiment to test the predictions of the climate cult. It raises questions. If the next 2 degrees will cause disaster, what about the last 2 degrees? Where are the extinct species? Where are the flooded coastal towns? Where are the crop failures, more violent weather, run-away temperatures? Not a single forecast of disaster is visible.
- If you're forecasting models can't hind cast (predict the past), why should we believe their predictions for the future?
- Polar bear dies at age 16. Average lifespan is 15-18 years. Press claims it was due to global warming. I guess they believe he should have made it to the average age of 16.5 yrs.
- Polar bear population continues to grow rapidly. Up 4,000 in the past decade to more than 25,000.
- Arctic melt-water pool reported as proof of climate change. Picture was from 300 miles south of the pole. Melt pool at the North Pole was below normal for the time of year. (I guess everywhere would be south from the North Pole, right?)
- Of the climate studies we've reported here there are two that stand out:
 - o The German study using signal analysis tools that showed that temperature variations over several millennia were explained by a combination of natural oscillations, with no residual signal left to be explained by human activity.
 - o A study of the recent drop in human emissions of CO2 during the global recession. There was no corresponding drop in the rate of increase in atmospheric CO2. Strongly suggests the human contribution is too small to measure.

Corruption of the Language Department

- George Orwell is best known for his popular book "1984." But he was a prolific writer against tyranny and pointed out that it was always dependent on the ability of the elites to redefine and corrupt the meaning of the language. Hence this new department where we can collect modern examples. To get on this list the phrase only needs to be intentionally misleading, mathematically impossible, or oxymoronic.
 - o "The _____ system in the US is broken. It's time for action." Has anyone asked what's actually broken about health care or immigration? The old health care system was the most creative and pervasively available in the world. The only inefficiencies came from government regulations and inefficient cost allocation for treatment of several million

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who depended on emergency room services. So the solution is more government regulation?

The immigration system in the US seems to be in fine working order except that several decades of administrations have chosen not to enforce it. There is an existing “path to citizenship” and it’s been used effectively for almost a century in its current form.

- “Settled Science”: Used by someone who has no factual case to make. Science is never settled. Science is defined as continuous challenge.
 - “Water prevents de-hydration”: This phrase is banned on bottled water by the EU commission in charge of bottled water after a three year study because they could find no scientific evidence. Don’t look at me that way. I’m not creative enough to make up this kind of stuff.
 - “Let me be clear on this...”: When from a politician it means “I’m about to obfuscate.” First popularized by President Richard Nixon.
 - “We’re accumulating phone records, not collecting them”: NSA and other bureaucrats claim they compile the records but don’t look at them. Collection only occurs when they look. Really?
 - “Common sense gun-control”: Today it means “Disarm the victims.” If you need to point out that your proposal is “common sense” it probably isn’t.
 - “...post- industrial economy”: Means that math and science was too hard and my self-esteem coach told me that soon no one would need them. Sorry, your self-esteem coach was happy-talking you. There’s no such thing as the “Post-industrial economy.” Only failed economies.
 - “Obstructionist” is anyone who refuses to cave in and do it my way.
 - “Fair and Balanced”: means talking heads concurrently reciting opposing talking points no matter how unbalanced. (thanks to Rollie in Austin)
 - “Security”: now means the absence of civil rights (thanks to Rollie in Austin).
 - “It’s for the Children”: Nothing that involves government debt is a positive for the children. It’s a cover story for stealing their future before they can vote against the idea.
 - “Affordable housing”: I don’t know about you, but I’ve always lived in an affordable house. When this term is used by politicians it means government subsidized housing. That means you pay for someone else’s mortgage. Giving free stuff to voters.
 - “We’re all in this together” means “it’s not my fault.”
 - “Sharing” (when used by a politician) means they covet your money.
 - “Fair share”: would that mean everyone paying the same %? Guess not.
 - “Social Justice”: I thought justice was a matter of law. Silly me.
 - “Targeted tax cuts”: The real issue is that someone besides the market gets to pick winners. Taxpayers are always the losers.
 - “Living wage”: You deserve a good wage even if you don’t produce that much value. In that case your job goes away and you no longer receive the embarrassment of a low wage.
- We’ll keep the list growing as we get time.

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US GDP

GDP estimate for Q2 2013 1.7% SAAR. Based on current \$ it comes in at 0.6% QtoQ and 2.9% above prior year same period. All of these numbers are below the performance of Q1.

Note that the raw numbers have been adjusted across the board by the Census Bureau. Based on the adjustment the US GDP exceeded \$16 trillion in Q1 of 2012.

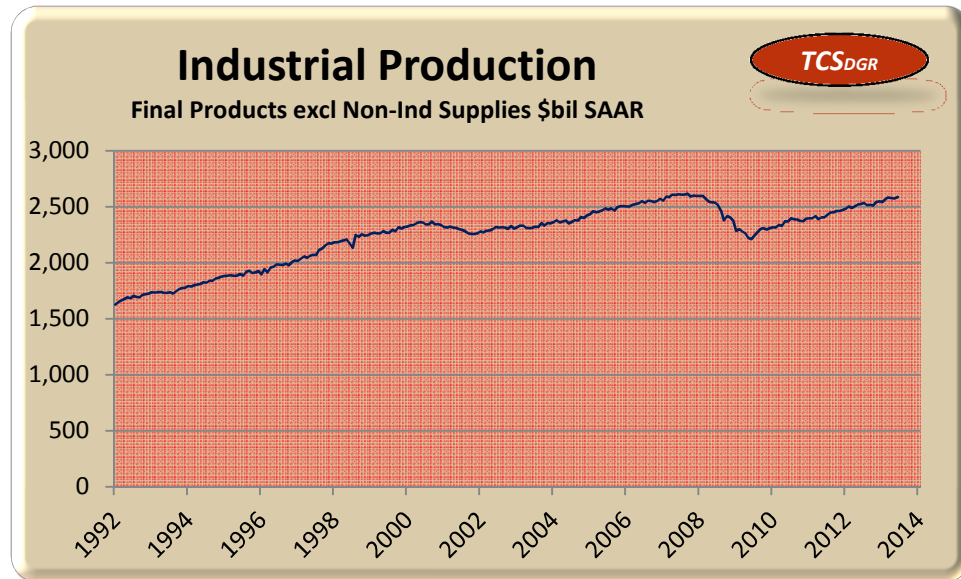
The adjustment is intended to better reflect the value of intellectual property generated by the US economy. It looks like the upward adjustment was about \$500 billion. We have yet to dig into the details, but in the case of software this would be a reasonable change. The value of the physical media shipped is trivial compared to the full value of the transaction.

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	16,633.4	0.6%	2.9%

Industrial Production (excluding industrial supplies)

Industrial production increased 0.5% in June from a negative revision for May (-0.1%). The year to year comparison stands at 2.3% above the same month prior year. This measure of industrial production excludes direct energy sales, but not the indirect effect as higher operating costs are passed through the supply chain. This suggests the physical performance is probably lower. Given the history of energy prices the real growth is likely near 0.

Industrial Production - Final products \$bil SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2011	1	2,396.6	0.1%	3.3%
2011	2	2,399.0	0.1%	3.7%
2011	3	2,416.4	0.7%	3.4%
2011	4	2,387.9	-1.2%	2.5%
2011	5	2,405.3	0.7%	1.4%
2011	6	2,405.2	0.0%	1.5%
2011	7	2,427.9	0.9%	1.2%
2011	8	2,447.9	0.8%	2.5%
2011	9	2,452.1	0.2%	2.8%
2011	10	2,463.1	0.4%	3.7%
2011	11	2,462.6	0.0%	3.9%
2011	12	2,473.3	0.4%	3.3%
2012	1	2,483.6	0.4%	3.6%
2012	2	2,502.3	0.8%	4.3%
2012	3	2,488.1	-0.6%	3.0%
2012	4	2,502.9	0.6%	4.8%
2012	5	2,521.5	0.7%	4.8%
2012	6	2,527.6	0.2%	5.1%
2012	7	2,533.8	0.2%	4.4%
2012	8	2,516.1	-0.7%	2.8%
2012	9	2,518.8	0.1%	2.7%
2012	10	2,510.8	-0.3%	1.9%
2012	11	2,544.4	1.3%	3.3%
2012	12	2,548.1	0.1%	3.0%
2013	1	2,543.7	-0.2%	2.4%
2013	2	2,568.0	1.0%	2.6%
2013	3	2,583.9	0.6%	3.9%
2013	4	2,576.5	-0.3%	2.9%
2013	5	2,574.9	-0.1%	2.1%
2013	6	2,586.8	0.5%	2.3%



Capacity Utilization:

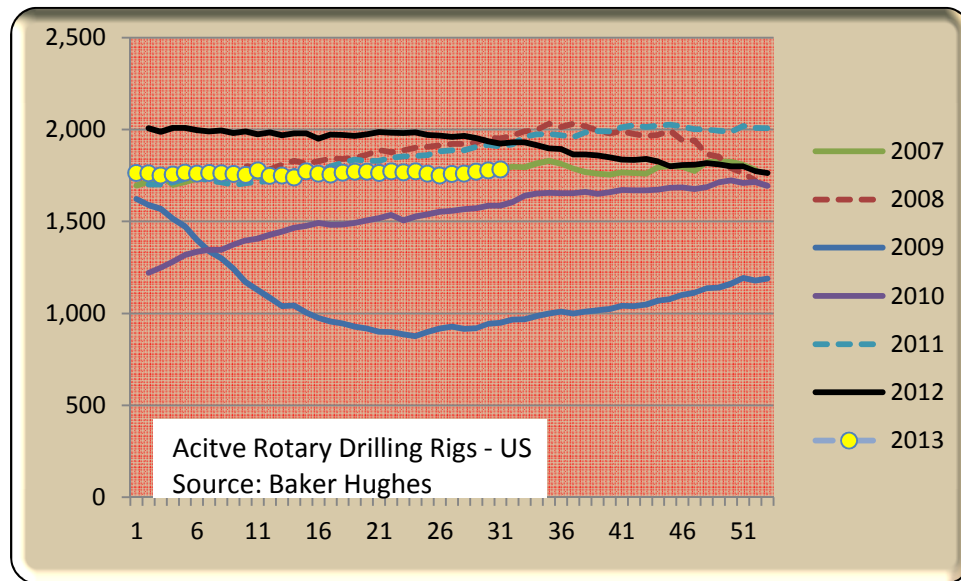
Industrial capacity utilization increased 0.1 points to 77.8%. Manufacturing was flat at 76.8; Durable goods manufacturing increased 0.2% to 76.2%; Primary metals continues its retreat, off 0.2 points 73.8%; Autos up 0.8 to 76.0%; Machinery up 1.7 to 85.0%.

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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	78.2	77.3	76.7	75.3	74.5	83.6
2013	3	78.2	77.0	76.3	73.7	75.4	84.0
2013	4	77.9	76.7	75.9	73.3	74.9	83.9
2013	5	77.7	76.8	76.0	74.0	75.2	83.3
2014	6	77.8	76.8	76.2	73.8	76.0	85.0
Year	Month	Ind Prod	Mfg	Durable	Primary Metals	Auto	Mach-inery

Energy:

Drilling activity has increased slightly in the past 6 weeks. It was about this time in 2012 (black line) that the record pace began to fade. Offshore activity shows an increase. The very high cost of offshore rigs drives much more revenue than land rigs.



Energy Density measured by Heat of Combustion

The following energy density analysis is repeated from prior reports to address the continued stream of questions on the viability of various liquid fuels. Before you write about your latest wonder-scheme, check out these numbers.

The table below tells the story of energy concentration of various fuel sources, measured in energy per unit weight (mega-joules per kilogram) and energy per unit volume (mega-joules per liter). In the process of searching for an alternate energy source it's important to understand the handling characteristics, and these two measures provide an easy way to rank the options.

For the space shuttle the most important consideration is weight. Putting anything into orbit means picking a fight with gravity. Hydrogen has the highest energy concentration per unit weight by far compared to any other fluid source. But its energy per unit volume (mega-joules per liter) is terrible. To take advantage of the low weight, engineers are willing to go to technical extremes (high pressure, refrigeration) to condense the hydrogen gas to a liquid.

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On the other hand, coal is the most concentrated per unit of volume, so it is efficient to transport by rail.

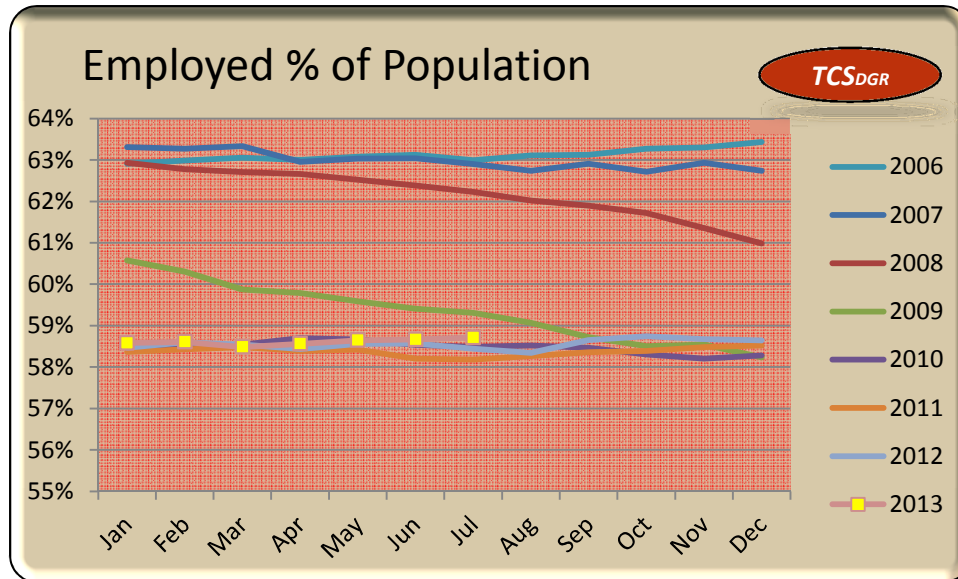
For autos and trucks the ideal is pretty much where we ended up a century ago (gasoline and diesel). If you were going to invent the perfect energy source for transportation it would look like gasoline. But propane isn't too bad. A modest amount of pressure will keep it liquid and it's been a big business for 50 years. Methane (LNG or CNG) is harder, but still viable.

Batteries are not a source of energy. They replace the fuel tank as a storage device. But we included them to give you an idea of how challenging an electric vehicle is. We gave up on electric vehicles a century ago because batteries were expensive, heavy and only had a 40 mile range. Today's modern batteries are expensive, heavy and only have a 40 mile range.

Measurements are in mega-Joules per kilogram (energy per unit weight) and mega-Joules per liter (energy per unit volume).

Heat of Combustion		
	MJ/KG	MJ/L
Hydrogen	143	0.01
Methane, CH ₄	56	0.04
Ethane, C ₂ H ₆	52	29.7
Propane C ₃ H ₈	50	29.2
Butane C ₄ H ₁₀	50	30.0
Gasoline	47	34.0
100LL AvGas	47	34.0
Jet fuel - Kerosene	47	38.0
Diesel	46	39.0
Paraffin Wax	46	
Kerosene	46	36.0
Pentane	45	28.2
Body fat metabolism	38	35.0
Gasahol e85	33	26.0
Coal, Anthracite	32	72.0
Ethanol	31	24.0
Wood	22	
Methanol	20	18.0
Carb metabolism	17	26.0
Coal, Lignite	15	
Peat - damp	6	
Battery Lithium Ion	0.72	2.20
Battery, NiMH	0.25	0.50
Battery, NiCd	0.14	1.08
Battery, Lead Acid	0.14	0.36

Employment:



July employment data continues the trend highlighted last month. The employed % of the non-institutional population was unchanged at 58.7%. This key measure has been stagnant since the beginning of the recession. But the most serious problem is that half the population is now employed part time. The number not employed decreased by 23,000 to 101.4 million, but remains 337,000 above last year.

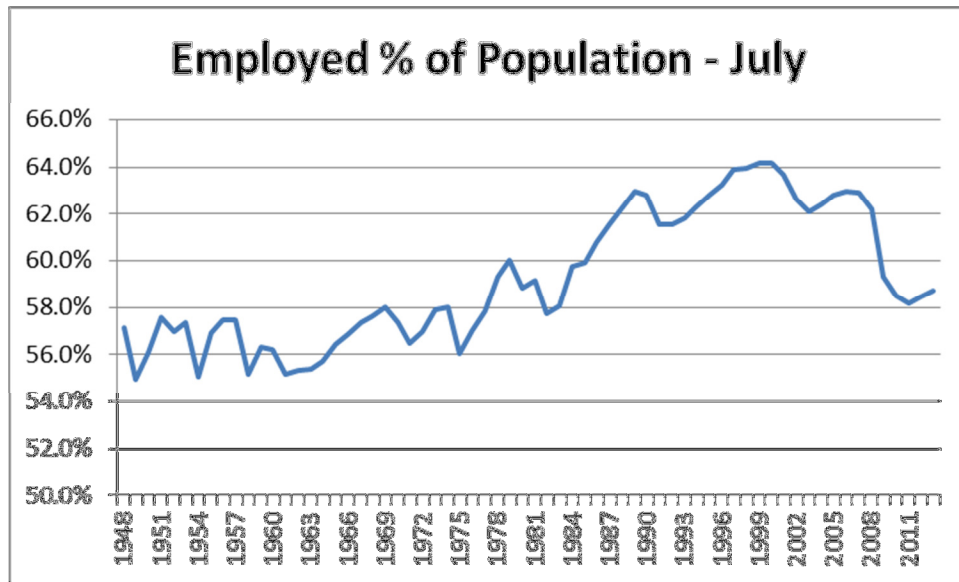
The establishment survey showed 162,000 new jobs. The household survey showed 165,000 more employed and 2.1 million more employed than one year ago. But the number not working also stood 337,000 higher than last year. We're not keeping up with population growth. The working age population grew by 2.4 million from the prior year.

All of these numbers hide a serious structural problem. Of the 963,000 increase in people reporting as employed since January, 936,000 reported part time employment. So 97.2% of the new jobs this year were part time jobs. This will have a devastating effect on economic growth and long term economic viability.

Since January 2007 the economy has shed 1.7 million jobs. In that same period the number not working has increased 16.9 million. A smaller working pool supports a much larger dependent pool. There is no taxation or debt policy that can change those numbers.

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		Current			Jan-07		Change
Employed		<u>144,285</u>	<u>58.7%</u>		<u>146,028</u>	<u>63.3%</u>	<u>(1,743)</u>
Unemployed	11,514			7,116			
Not looking	89,980			77,506			
Not Working		<u>101,494</u>	<u>41.3%</u>		<u>84,622</u>	<u>36.7%</u>	<u>16,872</u>
Working age pop		<u>245,779</u>			<u>230,650</u>		<u>15,129</u>



July Employed % since 1948



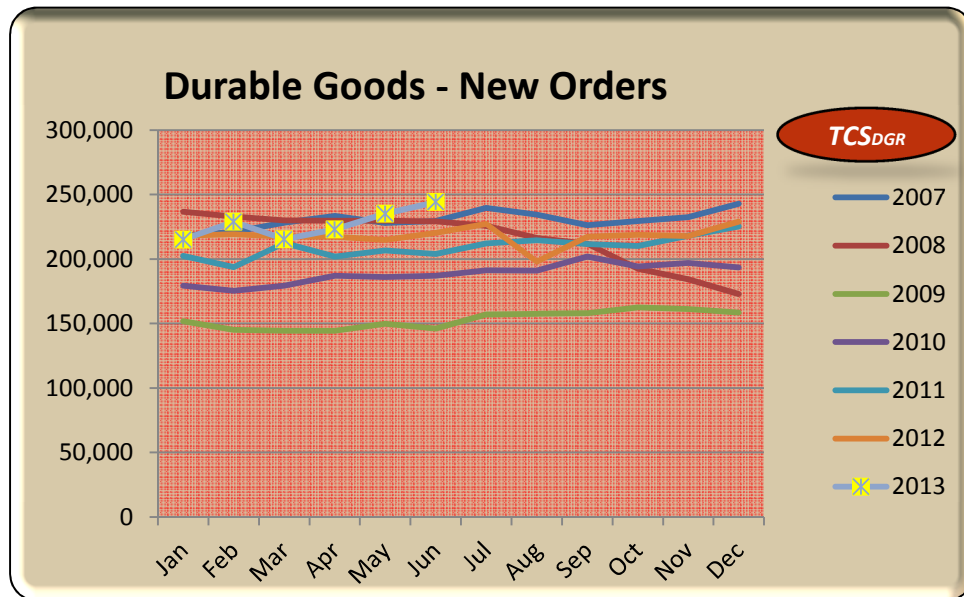
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Durable goods employment increased 8,000 in July. The June loss of 3,000 was revised to zero. All of these numbers are trivial compared to the 7.5 million employed or the 9 million employed in mid-2006.

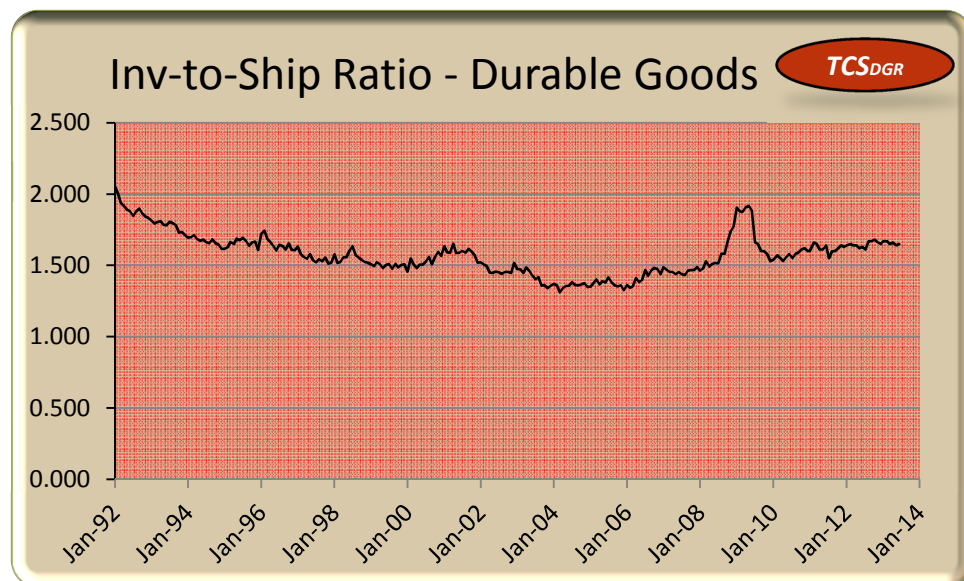
Sector Detail

The Durable Goods Sector:

New Orders: Durable new orders increased 3.9% to \$244.2 billion in June, a new record. Overall the durable goods sector looks stable with a growing order book.

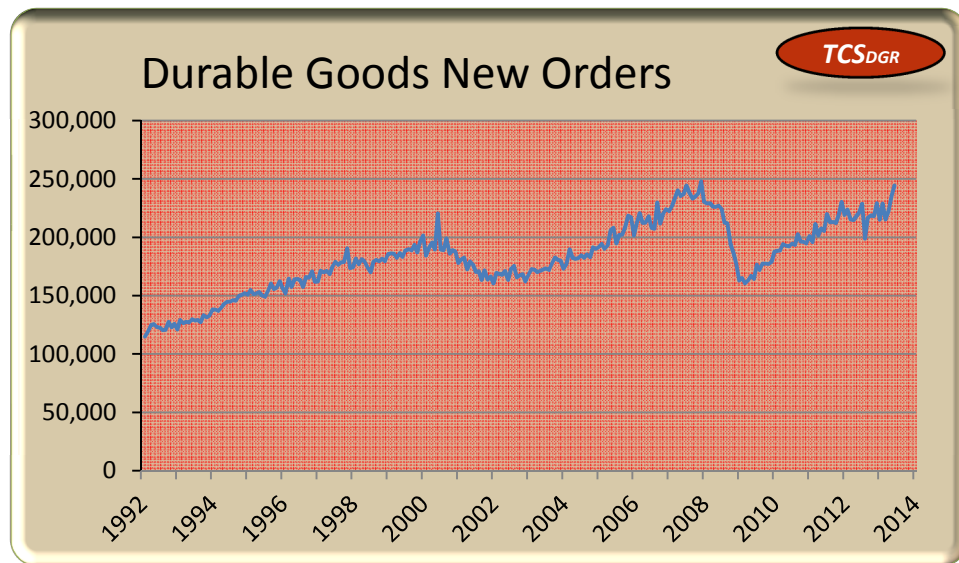


Inventory to shipments ratio increased slightly to 1.65. The Book to Bill ratio increased to 1.06. Long term average is 1.00. The book to bill increase is significant, but is due to the surge in orders for transportation equipment, which may be a one time blip.

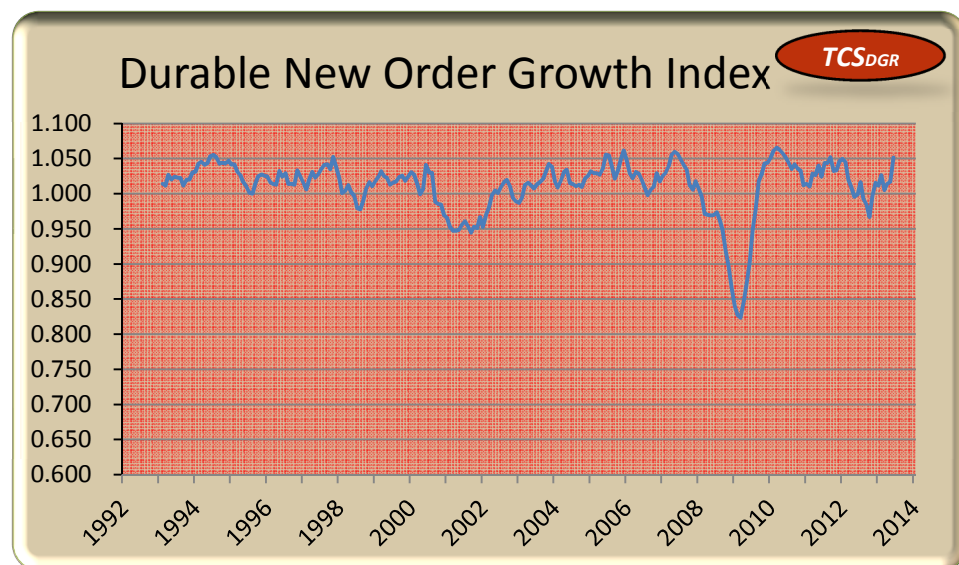


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The long term chart for new orders (below) provides added perspective.

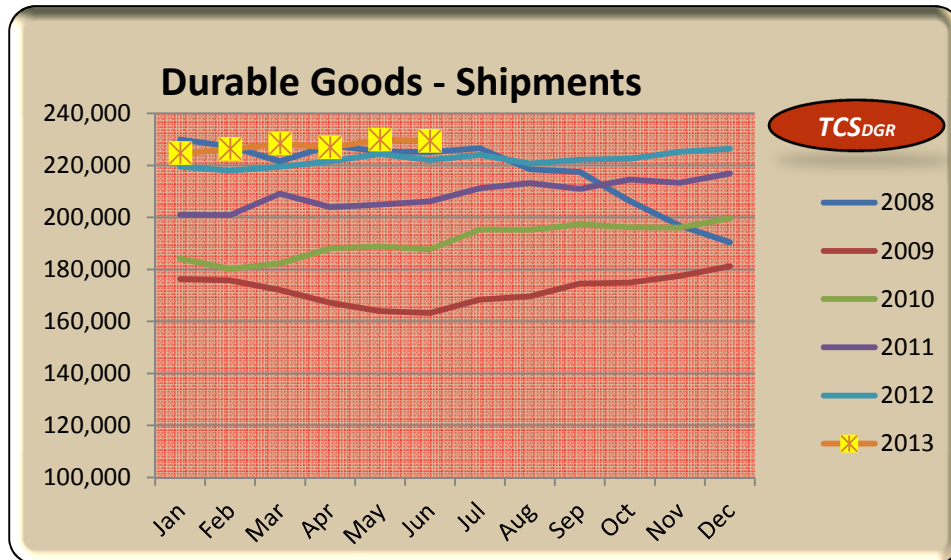


Growth Index for new orders ($3\text{mma}/12\text{mma}$ = slope of the order curve) improved to 1.052, well above the 0.999 last year. The growth index is less sensitive to a single month, but the recent trends are showing a rapid climb. The current month clearly shows that the aircraft industry is carrying a major part of the durable goods growth.

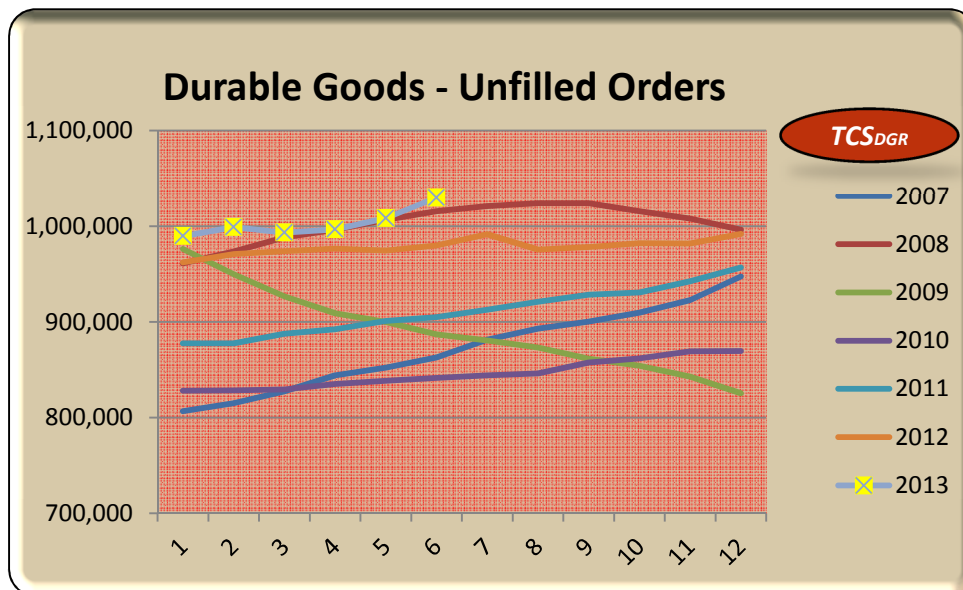


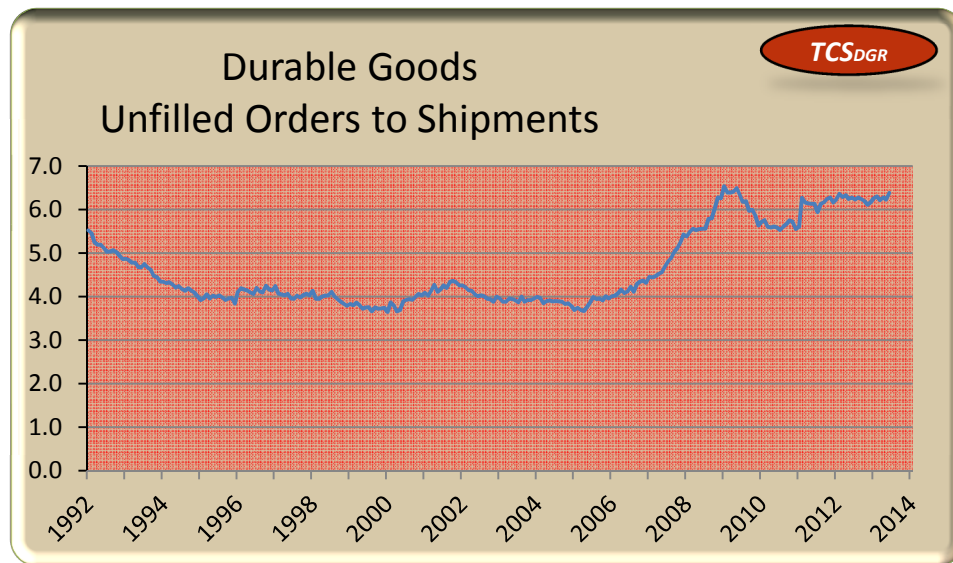
Shipments decreased 0.2% to \$229.4 billion. Book to bill ratio will put upward pressure on production rates and thus employment. This month's uptick in durable goods employment may be the first sign of that activity.

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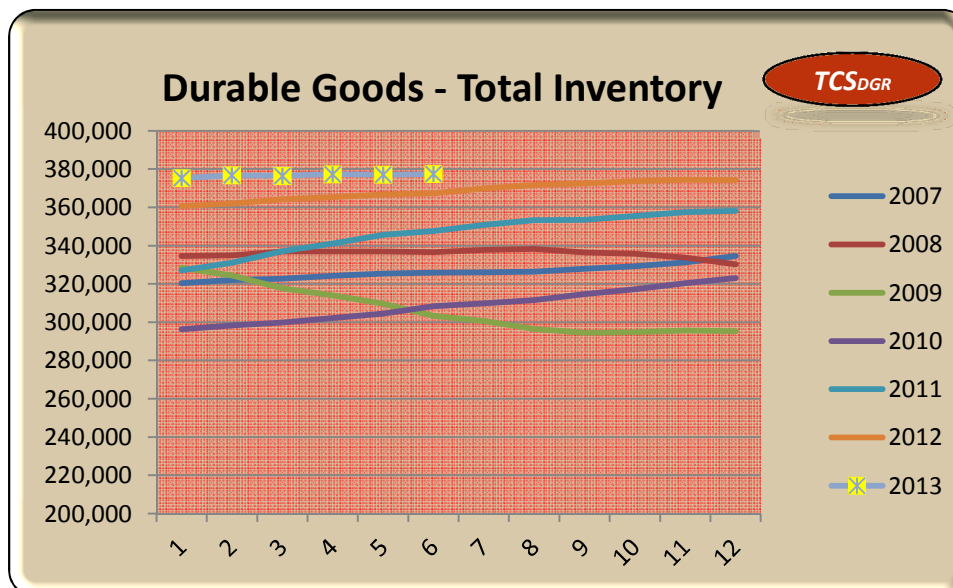


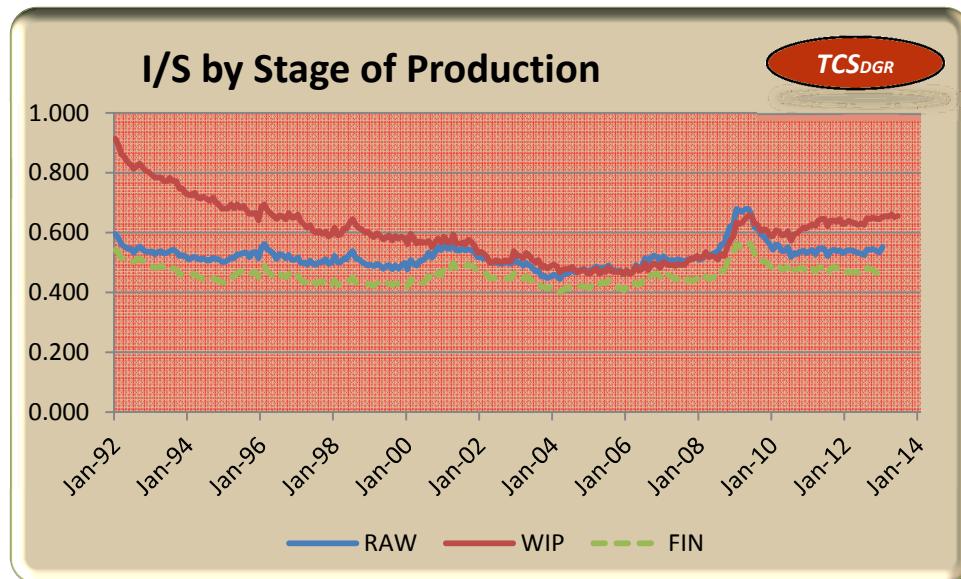
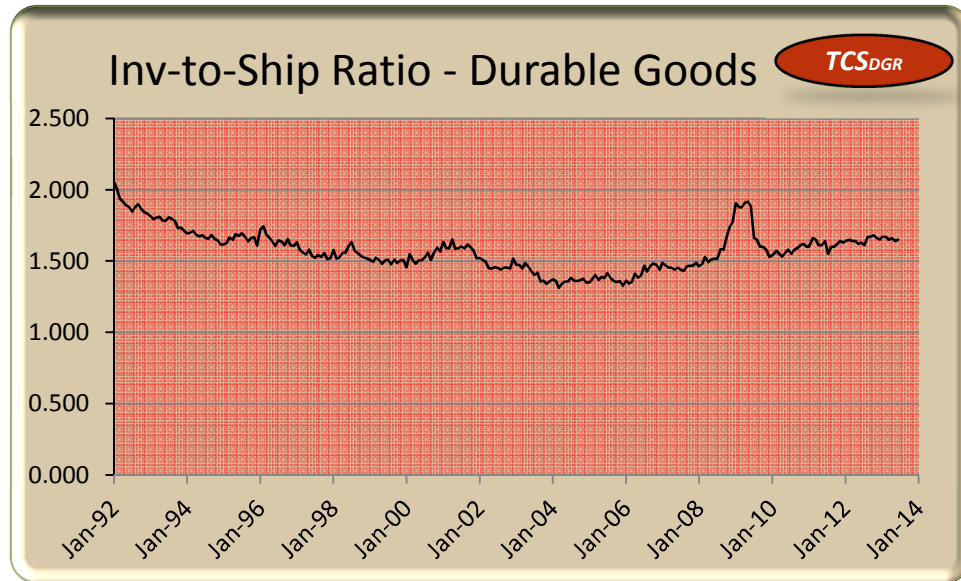
Unfilled Orders increased 2.1% to \$1.03 trillion, a new record. The current Book to Bill ratio always produces this result. Long term chart shows the unprecedented nature of current order backlogs. Last month's report walked through some of the scenarios to explain this condition.





Inventory: Total inventory increased 0.1% to \$377.4 billion. Inventories seem in reasonable control relative to shipments. But the more important issue is the slow drift away from manufacturing velocity signaled in these numbers. This will reduce the competitiveness of US manufacturers in the global marketplace and it is a direct result of the “current wisdom” on best practice. We’re losing the battle for velocity. See the extended discussion at www.tcsdb.com/lean-six-sigma



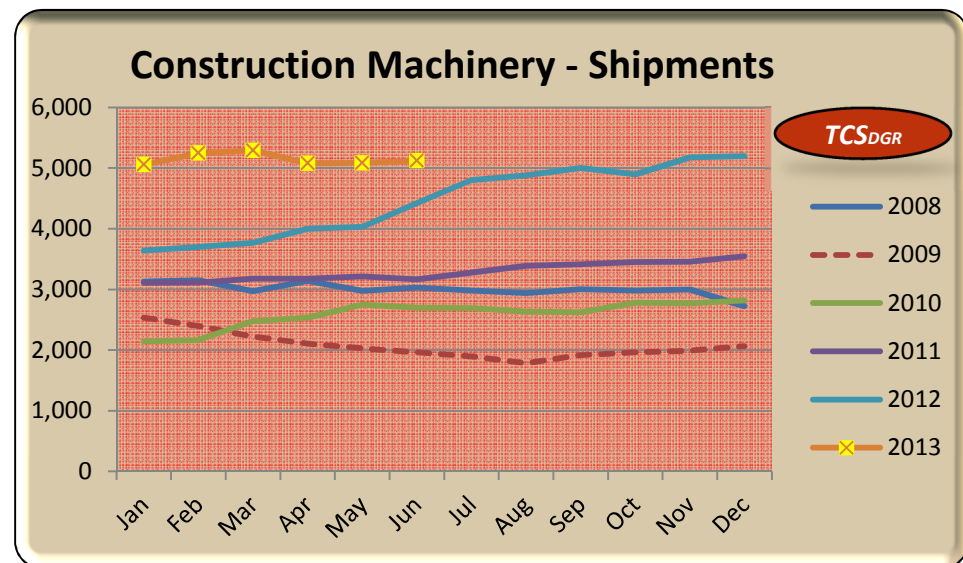
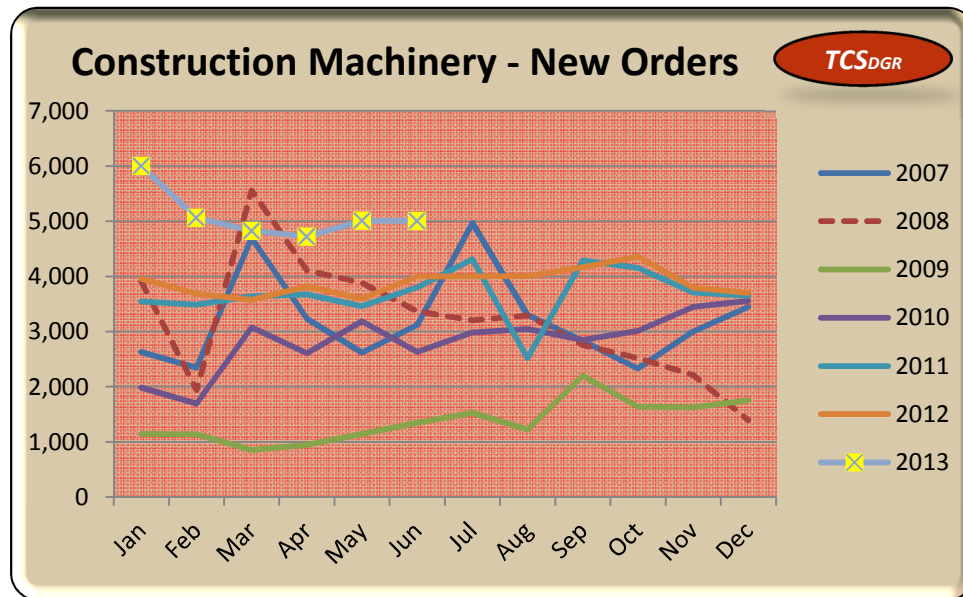


The I/S ratio by stage of production (a DGR exclusive) showed no dramatic signs of change. But note the long term trend. The breakdown of inventory components highlights two issues: First, WIP inventory (red line) is creeping higher which directly says factory velocity is degrading, and second there has been zero real progress in supply chain performance over the past 20 years (green and blue). Slipping factory velocity will make supply chains less stable and less responsive. Not an especially good mix.

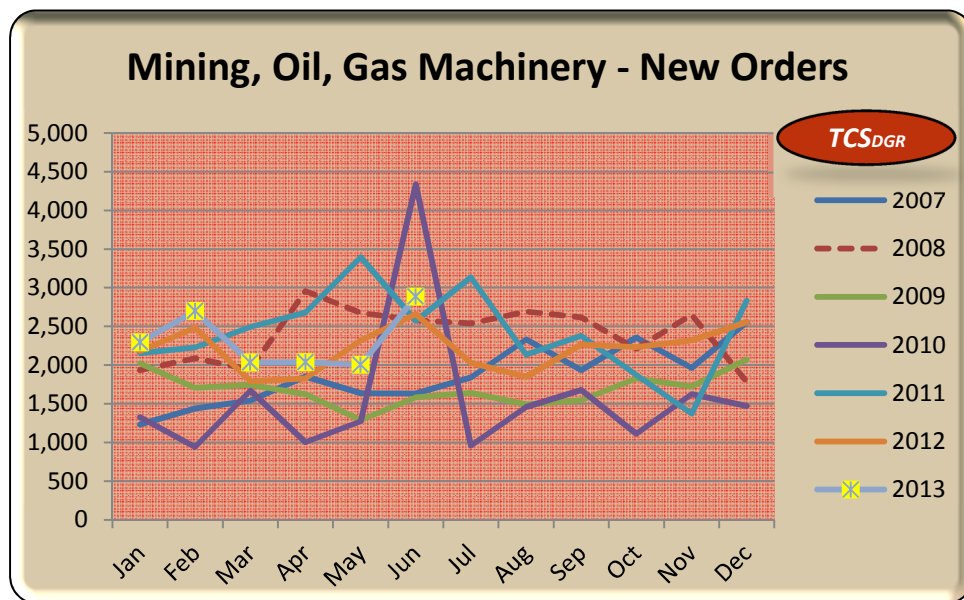
TCS is launching new initiatives to re-capture the momentum in these areas. It's crucial to the future success of US durable goods manufacturing.

Durable goods sub sectors:

Construction machinery (NAICS 33C) new orders were flat at \$5.0 billion, but remained 25% above last year. Shipments increased 0.7% to \$5.0 billion. Book to Bill ratio is neutral at 0.98. (long term average 1.01). Unfilled orders dropped to \$10.0 billion, down from \$17 billion a year ago. The current drop occurred despite higher orders suggesting order cancellations. A shaky reading, given the level of noise in the data, but worth watching as an early signal of retreat.

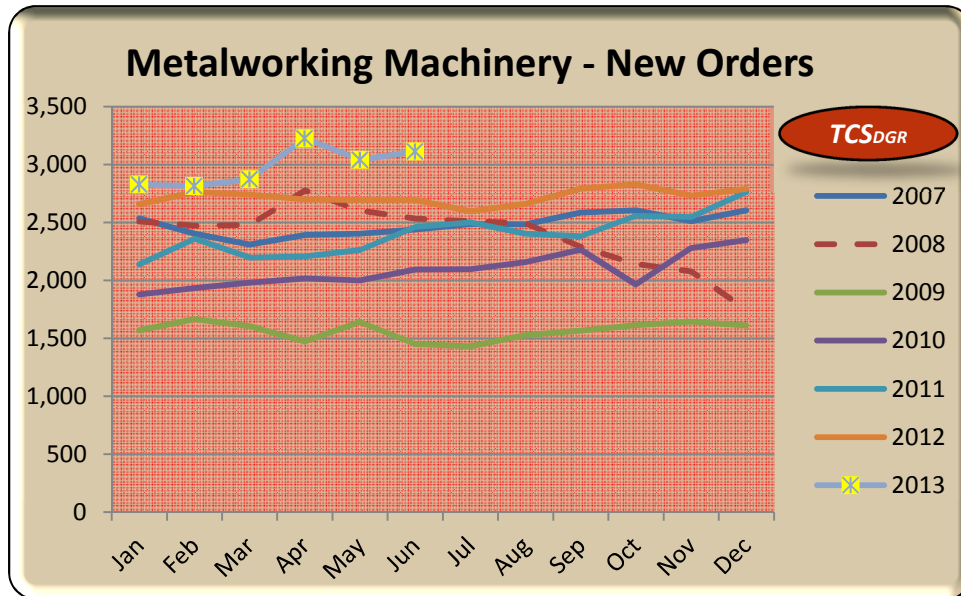


Mining, oil and gas machinery (NAICS 33D) new orders surged 44% to \$2.9 billion. Now 8.5% above last year. Book to bill ratio jumped to 1.32. (long term average = 1.03). Signs of growth in offshore drilling activity may be the cause. These rigs are really expensive. The 2010 spike occurred after the sinking of the deep water rig in the Gulf.

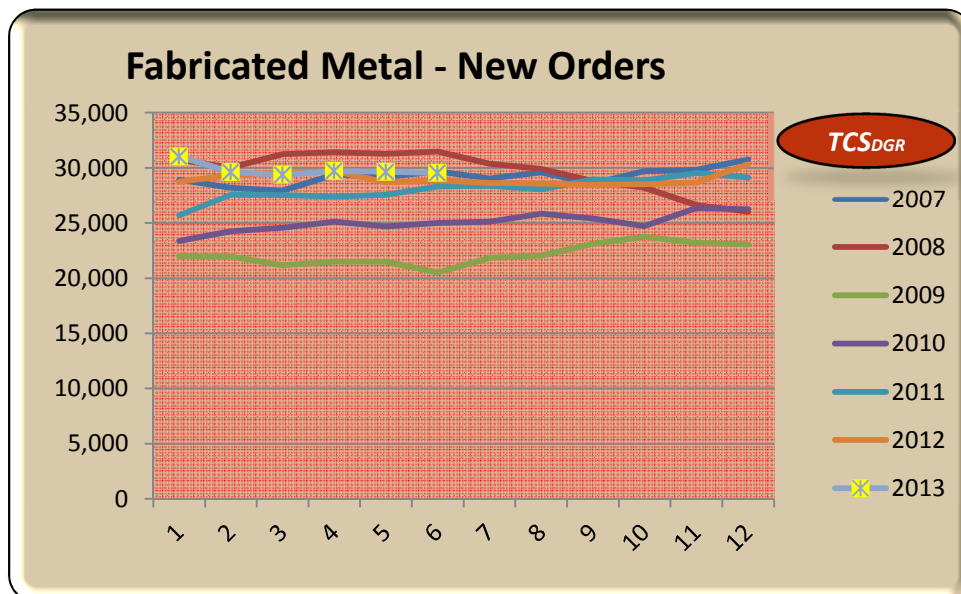


Metalworking machinery (NAICS 33I) new orders increased 2.4% to \$3.1 billion. Remains 15.6% above last year. Book to bill ratio increased to 1.05 (long term average = 1.00). This is very strong performance and suggests continued interest in automation and upgrade of current production assets.

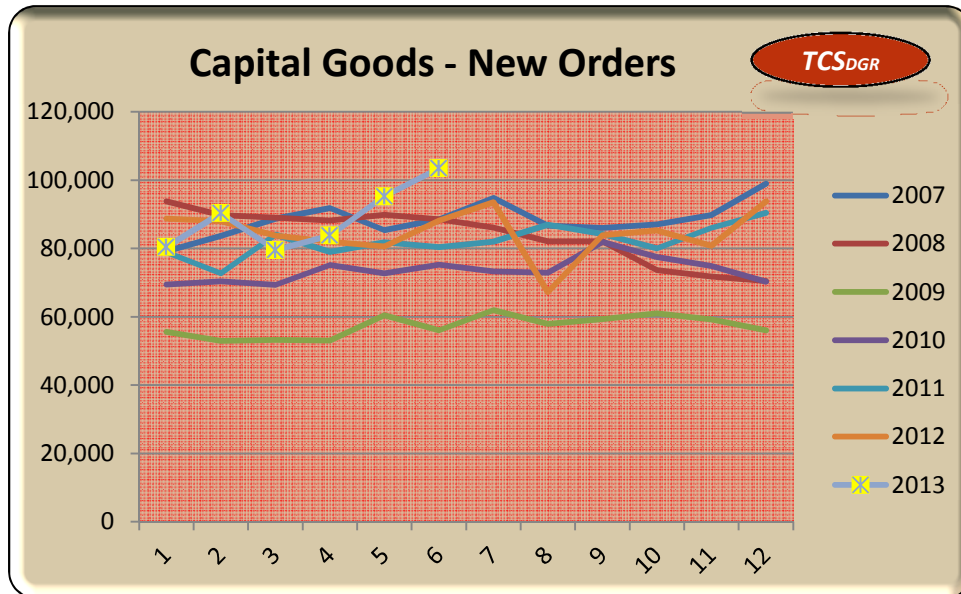
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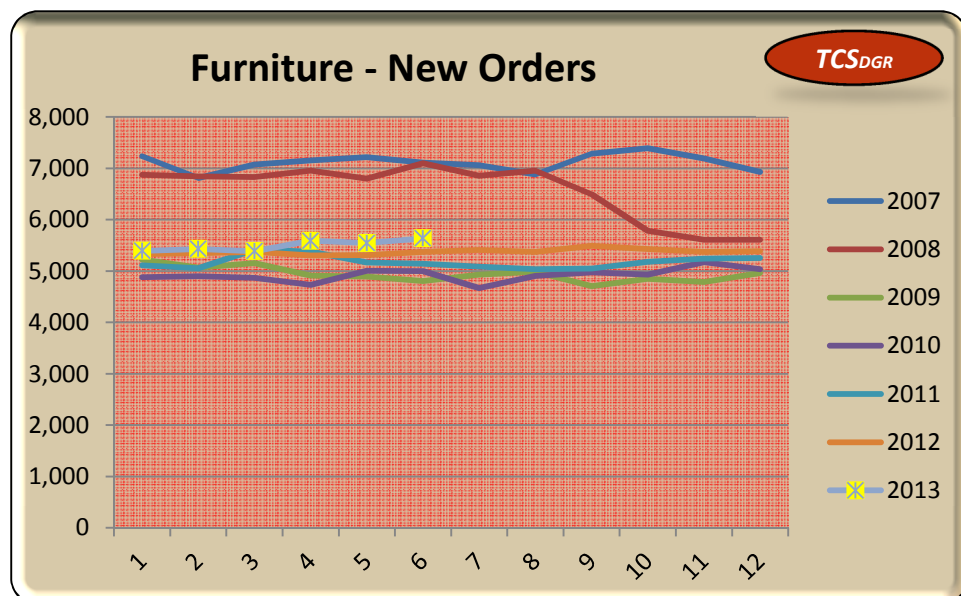
Fabricated metal (NAICS 32S) new orders decreased 0.3% to \$29.5 billion. Remains 2.4% above last year. Book to bill ratio declined to 1.02 (long term average = 1.00).



Capital goods (NAICS TCG) climbed by 8.6% to \$103.5 billion. Book to bill ratio surged to 1.26 (long term average = 1.01). Strong growth at 17.4% above last year. Manufacturers continue to upgrade and expand capital stock.



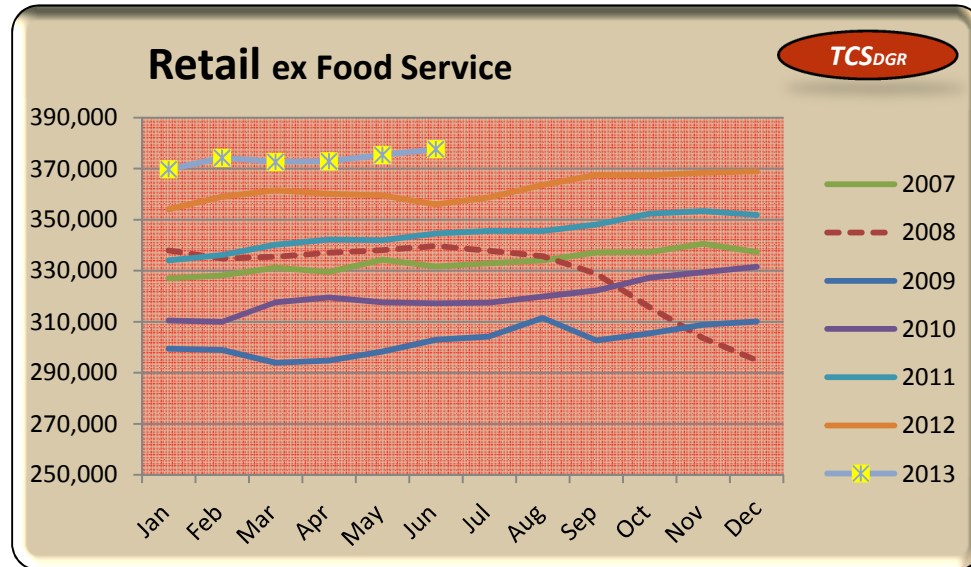
Furniture: (NAICS 37S) New orders decreased 1.6% to \$5.6 billion. The book to bill ratio is neutral at 1.03. Orders 4.9% above last year. The longer term issue for home furnishings is the slow rate of household formation. Office furniture is a little better due to a modest recovery in commercial construction.



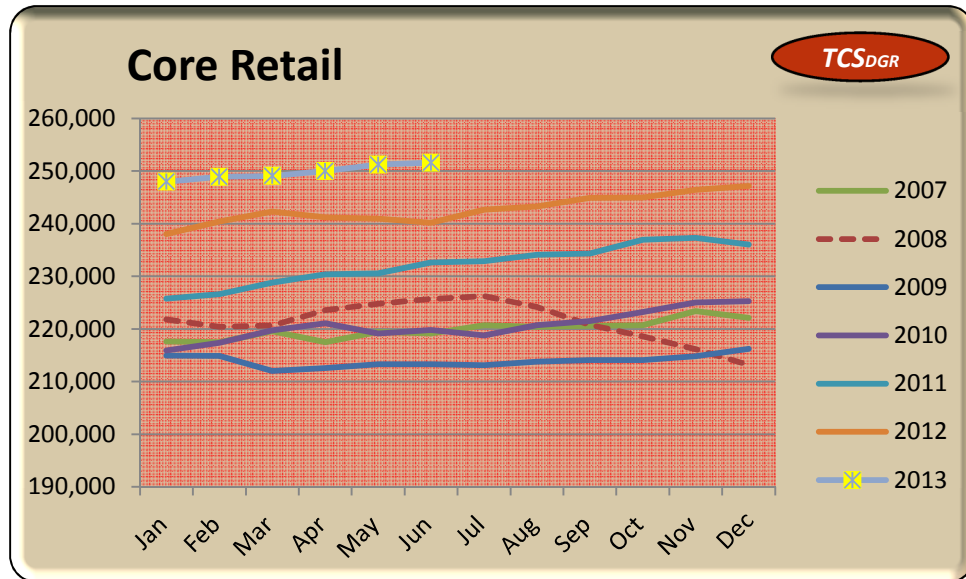
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Retail Data (Advanced Release for May)

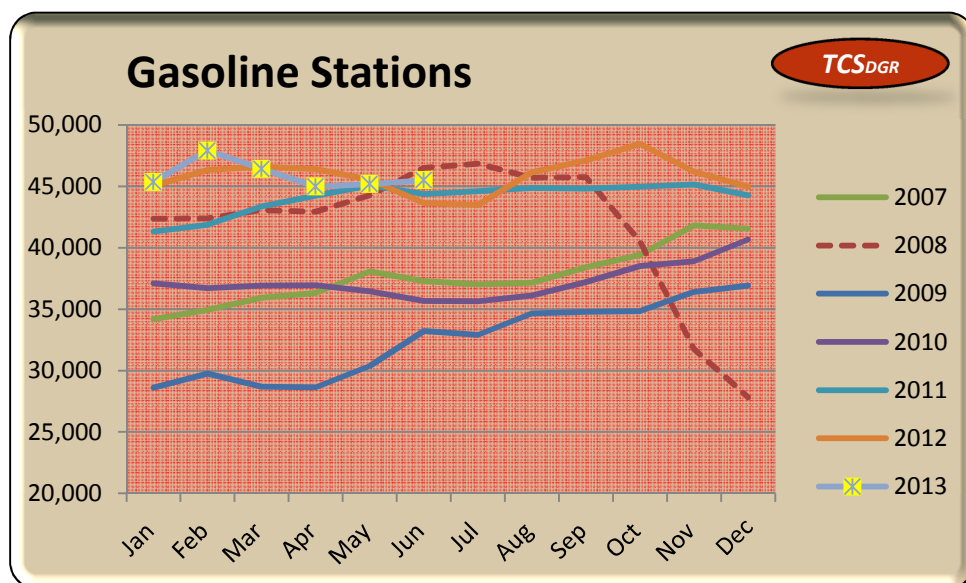
Retail Sales (excluding food service) increased 0.6% to \$377.5 billion. Current sales are 6% above prior year.



Core retail (excludes food service, gasoline, autos and parts) increased 0.2% to \$251.6 billion. Current sales are 4.8% above prior year. About 2.5% to 3% of this number can be attributed to inflation. The consumer is still strongly in the game, even after considering the effects of inflation. The question is whether the drop in disposable income reported last month will put a damper on this spending. For those focused on retail I'd want to know how consumer debt looks.

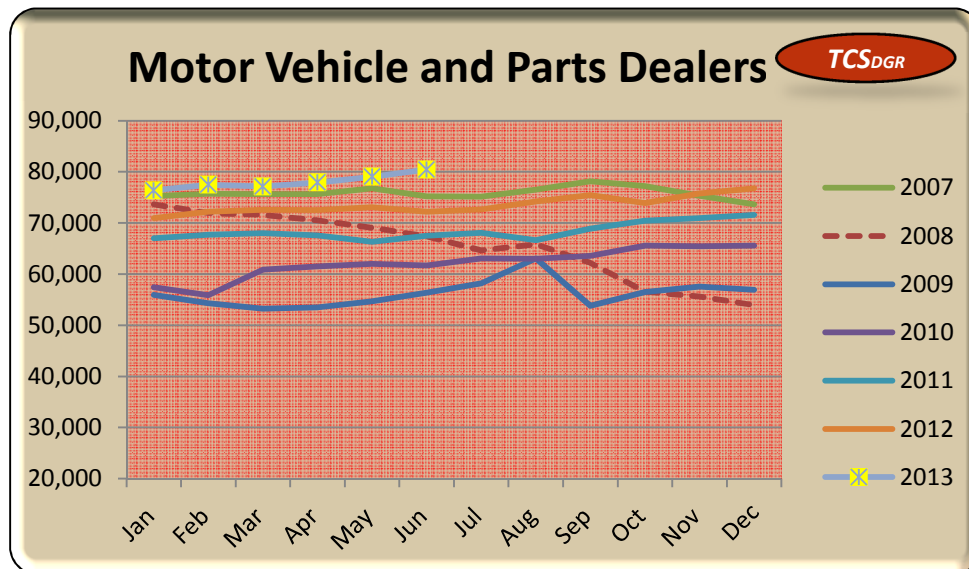


Gasoline sales decreased 0.7% to \$45.5 billion. Current sales are 4.3% above prior year. Gasoline sales revenue is approximately equal to the pre-recession highs. Since gas prices have doubled and MPG is about the same, miles driven must have dropped in half. This suggests that people tend toward a fixed budget for gas and adjust driving to stay in budget.

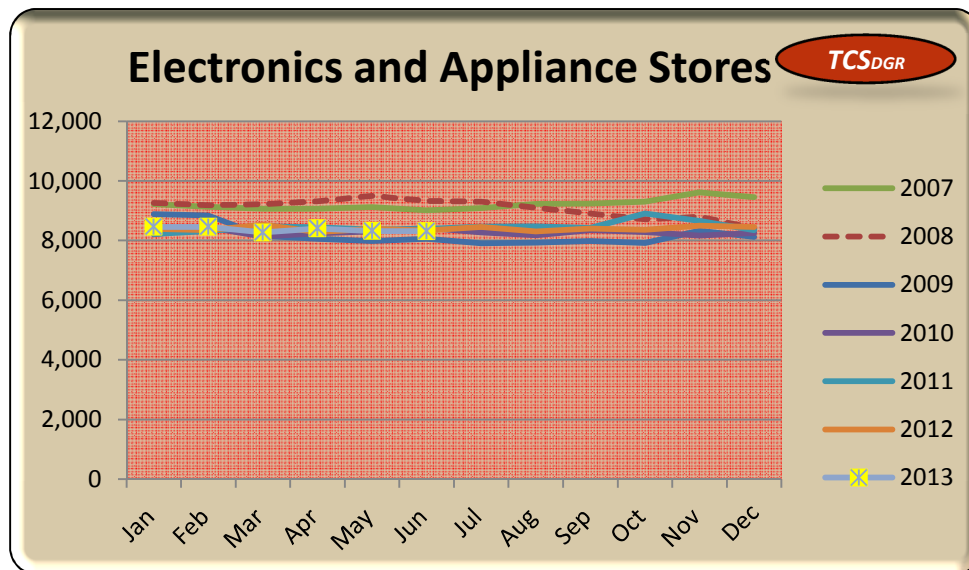


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Auto sales increased 1.8% to \$80.5 billion. Current sales are 11% above prior year. Current sales are running at a record pace.

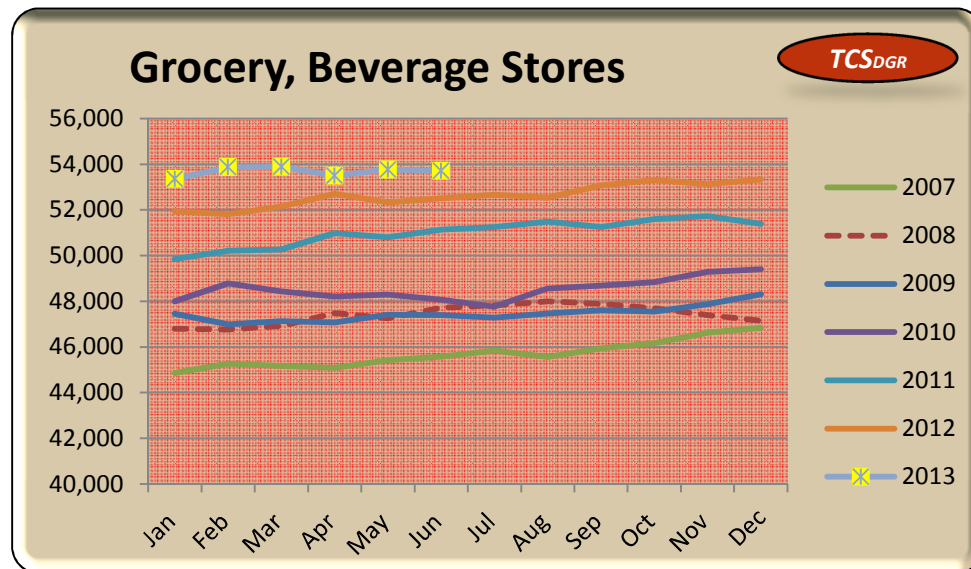


Electronics and Appliance Stores sales decreased 0.1% to \$8.3 billion. Current sales are 0.3% below prior year.



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Grocery and Beverage stores sales decreased 0.1% to \$53.7 billion. Grocery sales are 2.3% above prior year.



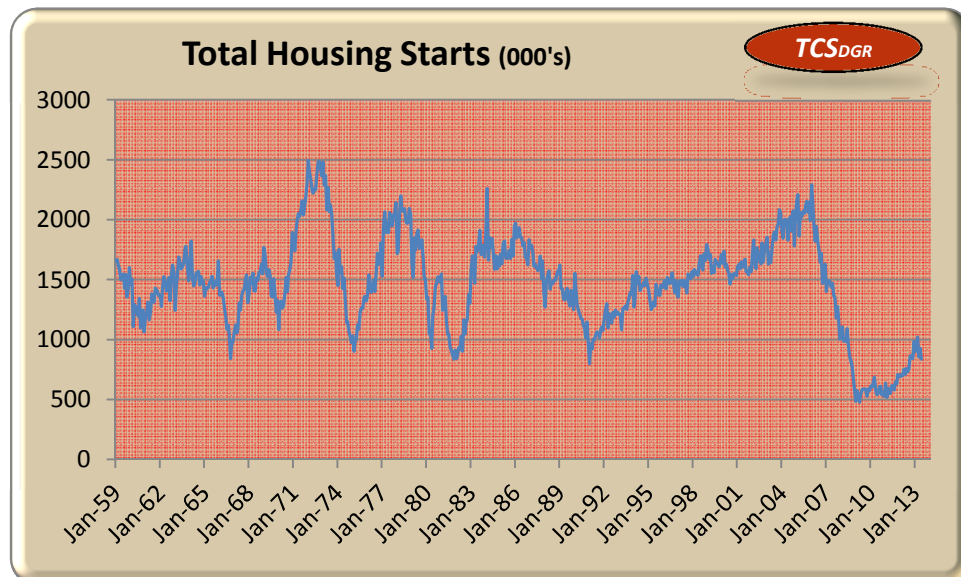
Housing:

Total housing starts dropped 10% to 836,000 in June. Single family starts decreased 0.8% to 591,000. For the first half, total starts are off 13% and single family starts are off 4%. New single family sales increased 8% to 497,000 units. Inventory of new single family homes increased slightly to 161,000, still well below “normal” levels. Earlier discussion on household formation is the complete explanation for this performance.

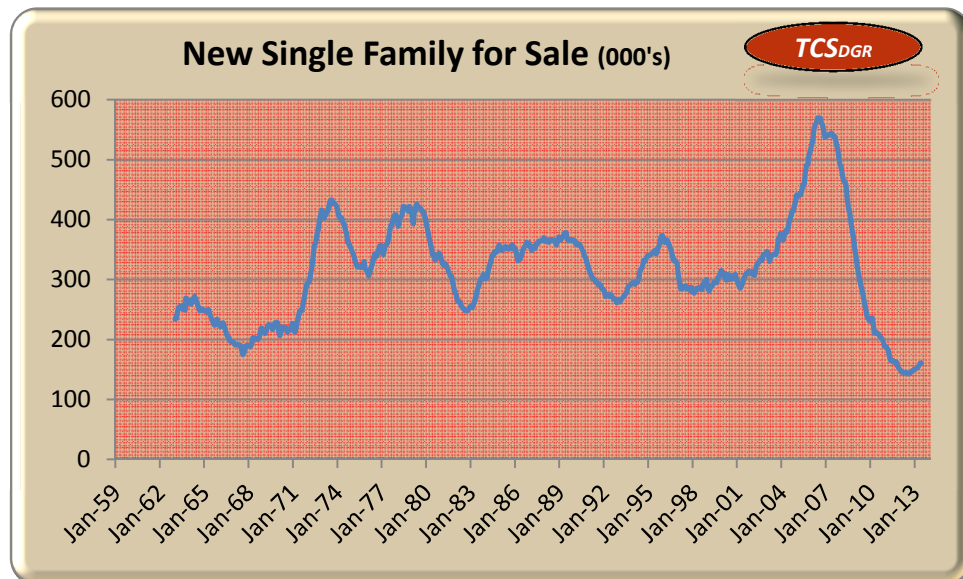
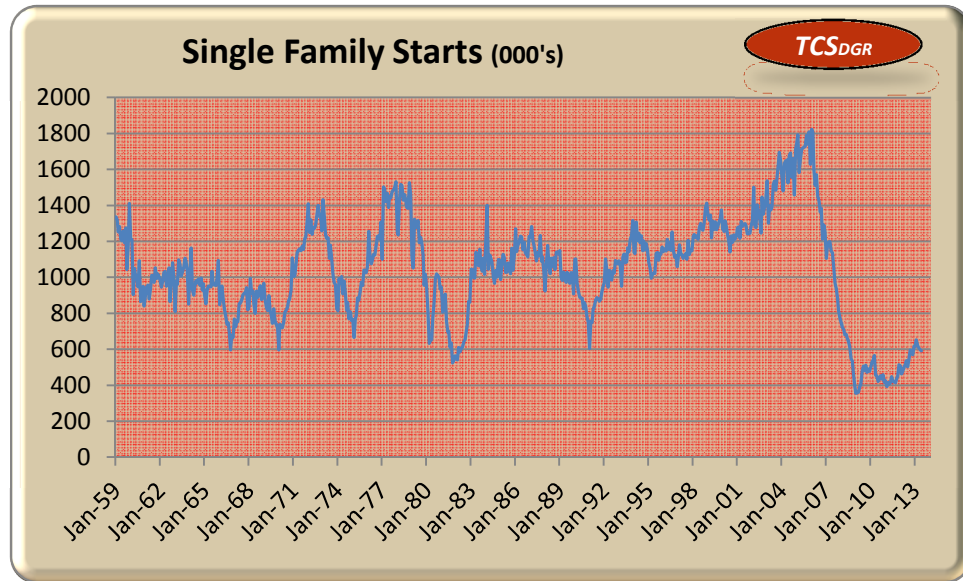
Median sales price (3MMA) jumped to \$261,700, 12% above last year and the highest in the last 20 years. The Case Schiller index suggests the run up in median prices is being driven in large cities, especially in the CA and NV markets. Shortage of new inventory is putting pressure on prices and increasing turn rates for existing homes. But the big jump is in homes selling for more than \$1 million. This distorts the averages, and if your home is middle class it won't be going up nearly as fast.

The problem with the housing market is the “thin” nature of the transactions compared prior decades. Those in the market are active, but with fewer total players. Household formation is depressed because of the weak job market. There are also troubling signs that the “flipper” market is coming back alive. They serve a purpose in keeping a market liquid. But so do turkey vultures.

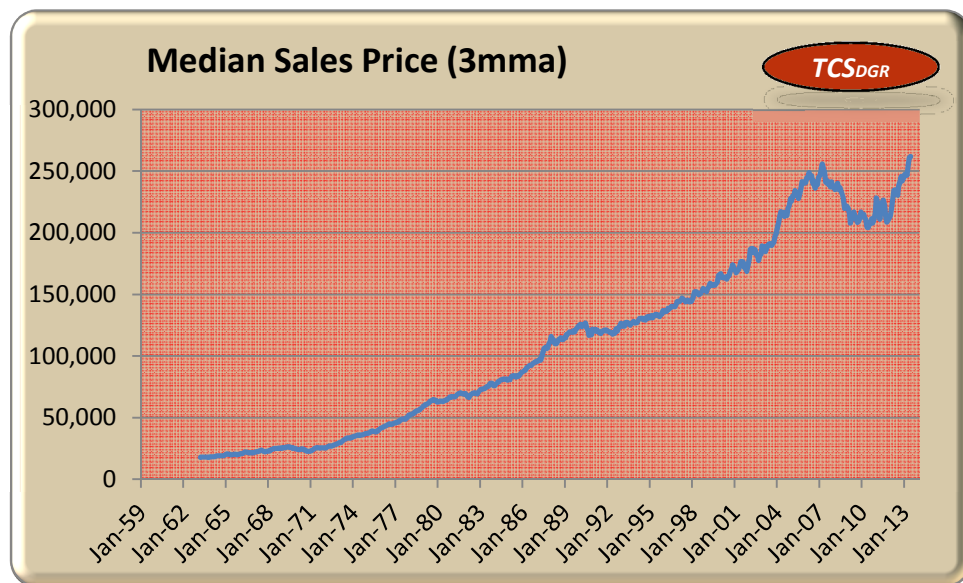
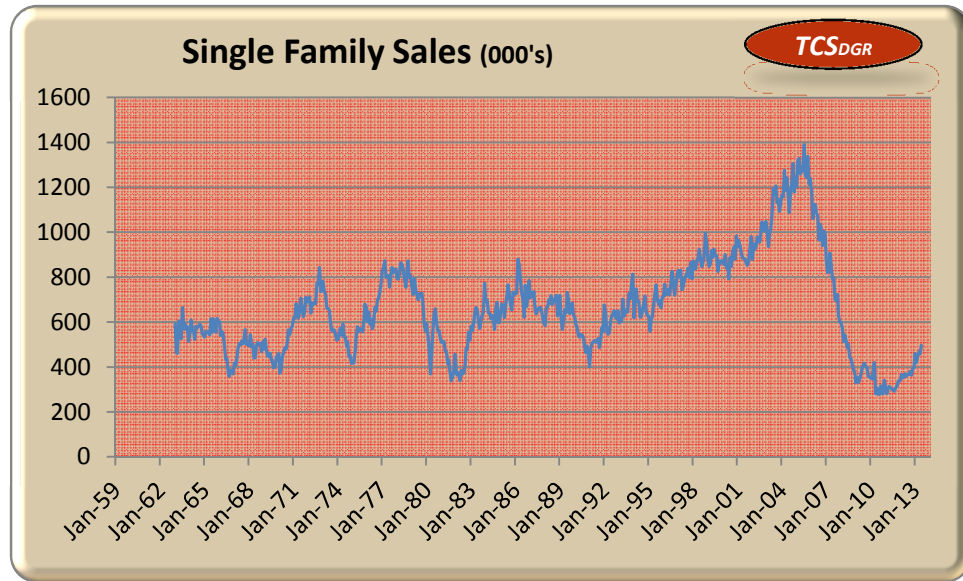
The surge in prices on the West Coast looks ominously like the bubble before the 2008-2009 collapse. The one difference is the more stable mortgage market.



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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. He also serves as Chairman of Temporal Dynamics, Inc. (TDI), the developer of the patented Ancelus high performance database. TCS has developed a suite of high-performance real-time applications systems in support of their client industries.

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

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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.

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