The Durable Goods Report

August 2012

Executive Summary of US Economic Activity

Manufacturing Data Release of 8/3/2012 (June Preliminary)

Employment Data Release of 8/3/2012 (July Preliminary)

Retail Data Release of 8/14/2012 (July Advanced)

Industrial Production Data Release of 7/16/2012 (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

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By the Numbers

Durable Goods Key Measures			
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	220,747	217,864	205,297
12 month moving average	218,221		200,012
% Change from Prior Year	9.1%		
Growth Index - Durable New Orders	0.998	0.995	1.024
Unshipped Orders - Durable	988,072	984,643	913,890
% Change from Prior Year	8.1%		
Value of Shipments - Durable	224,807	225,096	197,263
Inventory - Durables	367,190	365,566	347,267
% Change from Prior Year	5.7%		
Inv to shipments ratio - Durable	1.63	1.62	1.64

US Economy Key Measures			
	This period	Last period	Change
GDP 2012 Q2	15,467.8	15,319.4	1.0%
Industrial Production	2,573.7	2,560.4	0.5%
Capacity Utilization %	78.9	78.7	0.2
Manufacturing %	78.2	77.8	0.4
Durable Goods %	78.2	77.8	0.4
Primary Metals %	74.9	75.7	(0.9)
Autos and Parts %	77.7	76.5	1.2
Machinery %	87.0	85.2	1.7
Durable Goods ($Mil SA)			
New orders	220,747	217,864	1.3%
Shipments	224,807	225,096	-0.1%
Inventory	367,190	365,566	0.4%
Unshipped Orders	988,072	984,643	0.3%
Retail ex Food Service ($Mil SA)	359,857	356,946	0.8%
Autos and Parts	73,727	73,158	0.8%
Gasoline	43,414	43,200	0.5%
Core retail (ex auto, gas)	242,716	240,588	0.9%
Employment (000's SA)			
Civilian employed (Household Survey)	142,220	142,415	(195)
% of potential workforce	58.4%	58.6%	-0.1%
Civilian not employed (HS)	101,134	100,740	394
Non-Farm (Establishment Survey)	133,245	133,082	163
Private (ES)	111,317	111,145	172
Government (fed, state, local) (ES)	21,928	21,937	-9
Goods Producing (ES)	18,344	18,320	24
Manufacturing (ES)	11,990	11,965	25
Construction (ES)	5,513	5,514	-1
Durable Goods Mfg (ES)	7,512	7,488	24
Housing (000s of Units SA)			
Total housing starts	760	711	6.9%
Single family starts	539	515	4.7%
Single family sales (new)	350	382	-8.4%
Single family for sale (new)	144	145	-0.7%

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US Economy – Quick Look:

US GDP

Q2 GDP initial estimate was reported at 1.5% SAAR (0.5% QtQ, 5.0% YtY)

Durable Goods

New orders for durable goods increased 1.3% in June to $221 billion.

Retail:

Retail sales (ex food service) increased 0.8% in July after two months of decline.

Employment:

July employment showed a loss of 195,000 jobs in the household survey. The smaller employer survey showed a gain of 163,000 jobs, but doesn't pick up the activity of small employers.

Housing:

Single family housing starts increased 4.7% to a 559,000 annual rate. Single family sales decreased 8.4% to a 350,000 annual rate. Total starts increased 6.9% to 760,000 annual rate.

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Random Thoughts, Stray Data and Rants:

- First Lady Michelle Obama has chided Olympic champion Gabby Douglas for eating an Egg McMuffin. For those familiar with the ground breaking work of Dr. John Sears ("The Zone") on diet and nutrition, the Egg McMuffin is the near-perfect commercially available restaurant food. The balance of protein, carbohydrate and fat match his perfect profile. Total calories match the recommendation for the breakfast meal.
- Another way to get the perfect balance is to order the double quarter pound cheeseburger (increase the ratio of protein and fat relative to carbs) , then cut it in half (to get the calories in line). I've successfully adopted the first half of the process. Some difficulty with the second.
- Gary Taube ("Good Calories, Bad Calories") has also done a great job of tracking the history of low carb diet insights back to 1869. Check it out.
- When you look at the progression of the obesity problem it parallels the history of bad recommendations from the US government. The low fat diet was the worst advice ever promulgated. It ran counter to all the science and to thousands of years of maternal wisdom.

Energy

- New pipeline is opened by Saudi Arabia and UAE. Increases capacity to bypass the Straits of Hormuz to 6.5 million barrels per day, about 40% of current sea transport.
- Canada is in negotiations with China to accept investment in their oil fields. The US administration rejected access to these energy resources with its rejection of the Keystone Pipeline. Another unforced error? Or willful damage? Why does it matter? The outcome is still the same. The US is made weaker by these decisions which have no positive benefit.
- The debate rages on about "peak oil." The collapse of civilization didn't happen in the 80s as predicted, but the proponents continue to predict it will. As with all false prophets they just got the date wrong.
- In March the US electric utilities generated only 34% of their output with coal. Lowest number in the 40 years of recordkeeping. Plummeting prices of natural gas get the credit. EPA regulations get no credit. Not in effect yet.

Economy

- Global economies continue to slide toward recession. Attempts to find a solution to the debt crisis in the EU have so far been unsuccessful. If you could get paid for "diplospeak" their economies would be thriving.
- The Euro breakup is viewed as a major threat in financial circles. Is it any worse than waiting for a magical solution to appear? There is too much sovereign debt in Europe. By the way, there's too much sovereign debt in the US.
- The percent of households receiving government assistance at the end of each administration:
  - Reagan19%
  - Clinton 25%
  - G. W. Bush 30%

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  - Obama (as of 2011) 47%
- China is headed for a hard landing (as we predicted in a local speech 5 years ago). The wealthy are moving assets out of the country. Real-estate is badly overheated. Debt has been "outsourced" to the provincial governments where it is unsupportable but invisible. Independent estimates of GDP suggest it may have turned negative. Infrastructure investment that has no immediate purpose is roughly the same as burning large piles of currency. Kinda fun for a while.
- Business Week reported on 1) the global shortage of food and 2) the global obesity epidemic. Do their editors have no sense of irony?
- Ocean shippers have watched bookings plunge for 18 months. The world's oldest shipping company, Stephenson Clarke Shipping Ltd (founded 1730) has gone into liquidation. DGR first reported cuts in dry bulk shipments a year ago and reported retrenchment in commodity orders from China last fall.
- Mississippi river levels have dropped to almost 1988 levels, reducing barge capacity by 25%. Also forcing one way traffic in some areas.
- Here's why this is important: ton miles per gallon: Barge 600; Rail 400; Truck 100; Car 40. More important, we don't have enough truck and rail stock to pick up the slack and cover for the barges.
- News of immediate import to your business: The US uses 46% of hardwood production to manufacture pallets. An estimated 80% of US GDP is moved on pallets at some point. About 2 billion pallets are in use in the US. Maybe 4-6 billion worldwide. Part of the invisible infrastructure that makes the world work.
- Some make fun of "trickle-down" economics. But as opposed to what? Trickle up economics? Maybe that's what the president means by bottom up economics. But what is that? Has anyone ever seen it? Were you ever hired by a poor person? Has a business ever been built (successfully) by the infusion of nothing more than the labor of the hourly employees? I don't know of an example.
- The same can be said of "Supply Side Economics." At least in this case there is an alternative theory. Demand side economics was tried in the 1930s and again in the past three years. Didn't work either time. In fact it has never worked at any time in history where we have reasonable records (since about the 13th century).

Government

- Once again we get a lesson in why current ethanol policy is economically and ecologically misguided. With 40% of corn production going to ethanol, and a further 13% lost to the drought, food prices are soaring. Ethanol is so inefficient as a fuel that a 30 mpg car gets 21 mpg on ethanol. Ethanol takes 1.2 to 1.6 units of energy input to produce one unit of energy output – it's not a source of energy. Ethanol production increases total emissions compared to gasoline production.
- By any modern ethical standard ethanol is unethical and immoral. The soaring cost of food caused by ethanol production increases the rate of starvation in third world countries, increases the rate of poverty in marginal economies, and reduces the total wealth in the world.

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- It is often quoted that a net 25 million jobs were created during the Clinton administration. This understates dramatic facts. There were 345 million jobs created during the Clinton administration and 320 million jobs destroyed. The net was 25 million. The raw numbers emphasize the amazing dynamism of the US economy. Trying to reduce job loss artificially is misguided, since it reduces this dynamism.
- Any chance there's a connection? California is proposing to raise taxes on the rich to close its $16 billion deficit. Estimated 2000 upper income Californians leave the state each week to escape high taxes.
- Say what?!! 2362 millionaires received unemployment. A total of $20 million in unemployment benefits went to people who reported over 1 million taxable income in 2011.
- With the selection of Rep. Paul Ryan to run for VP on the republican ticket, there is now at least one of the four executive candidates who really understands the sorry state of climate and energy policy.
- Apple opts out of green certification. Follows Wal-Mart lead from last year.
- In 2009 the top 20% of earners paid 68% of the tax burden. The middle quintile paid 9.4%. The bottom quintile paid .03%. Those top quintile folks need to need to pay their fair share.
- The top 1% saw a 36% drop in pre-tax income between 2007 and 2009. The bottom 80% saw a 5% drop. Since tax revenue depends almost heavily on the top earners, it causes government revenue to drop more than the drop in the economy. This is the perverse math of a progressive tax system.
- Progressive taxation results in regressive deduction impact.
- Progressive taxation results in capital flight. Many jobs in a modern economy depend on capital. These jobs go where the capital is willing to invest. Capital invests for greatest return.
- The only way to repair tax revenue is to get the income of the top earners back up, or to implement a flat tax so everyone pays their fair share. Increasing taxes on the "rich" (making the tax system more progressive) will have the effect of reducing total economic activity (and tax revenue) and increasing tax revenue volatility. It's the worst economic idea ever concocted. The rich are already moving assets to Singapore and other places where success is appreciated.
- The greatest threat to Medicare as we know it is Medicare as we know it.

<u>Climate</u>

- Offshore drilling has been effectively shut down by the Energy Department. Environmental impact studies are blamed. New permitting process just announced means no permits for at least 5 years.
- Not everyone believes the narrative on CO2. Some are actually familiar with the real science. Greenpeace co-founder Dr. Patrick Moore: 'Thank goodness we came along & reversed 150 million-year trend of reduced CO2 levels in global atmosphere. Long live the humans'
- The July temperatures were touted as the hottest in a century. In fact it didn't even make the top fifteen.

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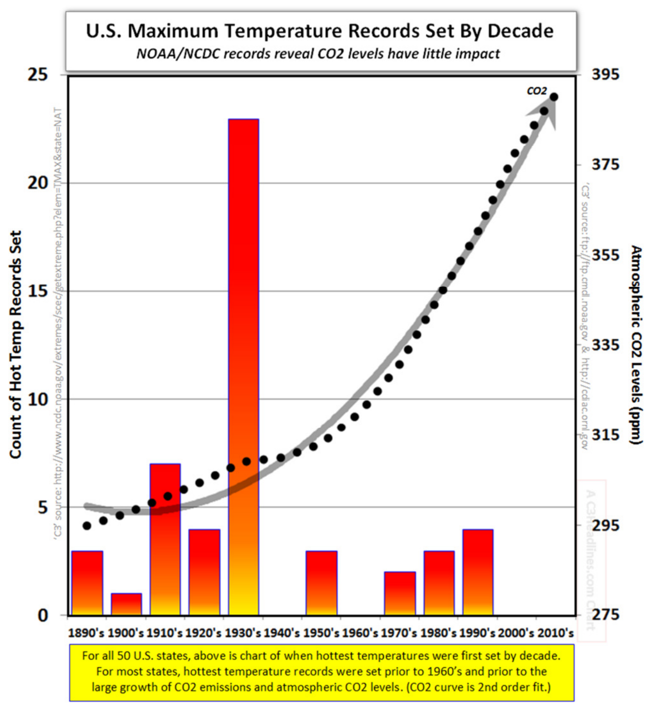
- In the mid-18th century the CO_2 levels dropped to 280 ppm, perilously close to the level that would extinguish all life on Earth. At 150 ppm all plant life ceases. That means all life.
- The “record heat wave” covers about 1% of the planet. Anchorage is having record cold. Ships are trapped in northern Canadian ports due to late pack ice breakup.
- Good news:
  - Paul Ehrlich (author of “The Population Bomb”) says we won’t starve until the 1980s.
  - Jimmy Carter says (1977) we have at most one to two decades of proven reserves of oil available.
- In terms of temperature CO_2 is irrelevant. In terms of plant productivity it’s really important. The chart below shows that temperature records are unrelated to CO_2. But since 1950 global food production has increased three fold, in substantial part due to CO_2 increases. If we could push it to 2,000 ppm it would be a great boon to all life, since plants seem to be optimized for that level of CO_2.



- A group of prominent climate scientists (including Richard Lindzen of MIT) have published a paper concluding that a doubling of CO_2 would mean a very slight increase in temperature and a very large increase in plant productivity. In short it would be a boon for all life on Earth.
- We’ve published this chart before. It’s a compilation of the best science on the history of temperature and CO_2 concentrations over the past 600 million years.

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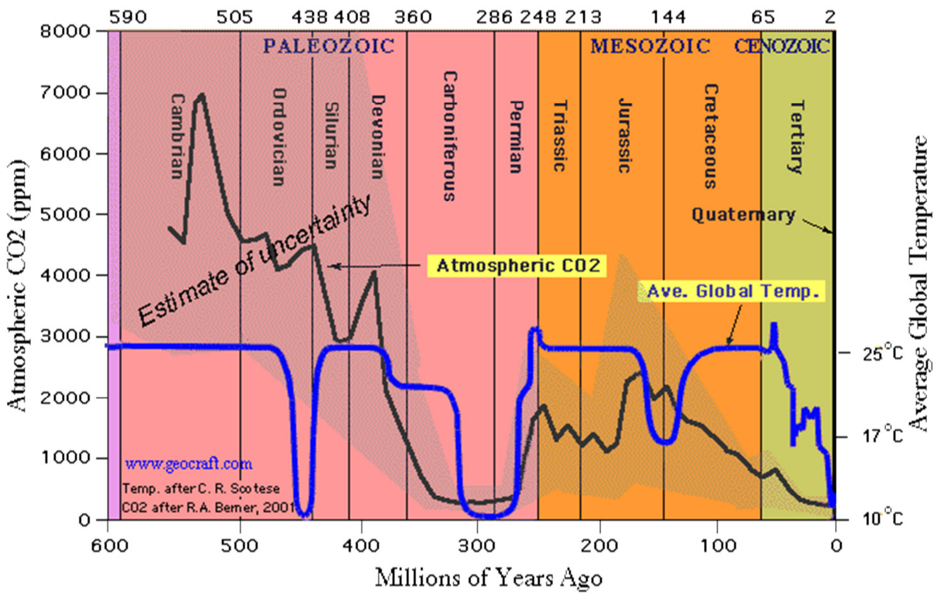

- Most recently picked it up from Stephen Goddard. He pointed out that the claimed CO2 threat to coral reefs got it backwards. Coral first formed when CO2 was 3000 ppm. Like all plant forms, they depend on CO2 for their role in the carbon cycle. Coral reefs have been starving for CO2 in recent centuries.
- Best piece on the green movement: Matt Ridley's "Apocalypse Not" is a compilation of all of the past claims of disaster unless immediate action is taken.
- Where did the Midwest get its dark, carbon-rich topsoil? For several millennia prior to European explorers got to North America the native populations burned off the vegetation every fall. Spanish explorers reported massive clouds of smoke in the fall. See "1491: New Revelations of the Americas Before Columbus" by Charles Mann.

<u>New Department: The Corruption of the Language</u>

- 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 make this list the phrase only needs to be intentionally misleading, mathematically impossible, or oxymoronic.
    - Fair share: would that mean everyone paying the same %? Guess not.
    - Social Justice: I though justice was a matter of law. Silly me.
    - Targeted tax cuts: The real issue is that someone besides the market gets to pick winners.
    - 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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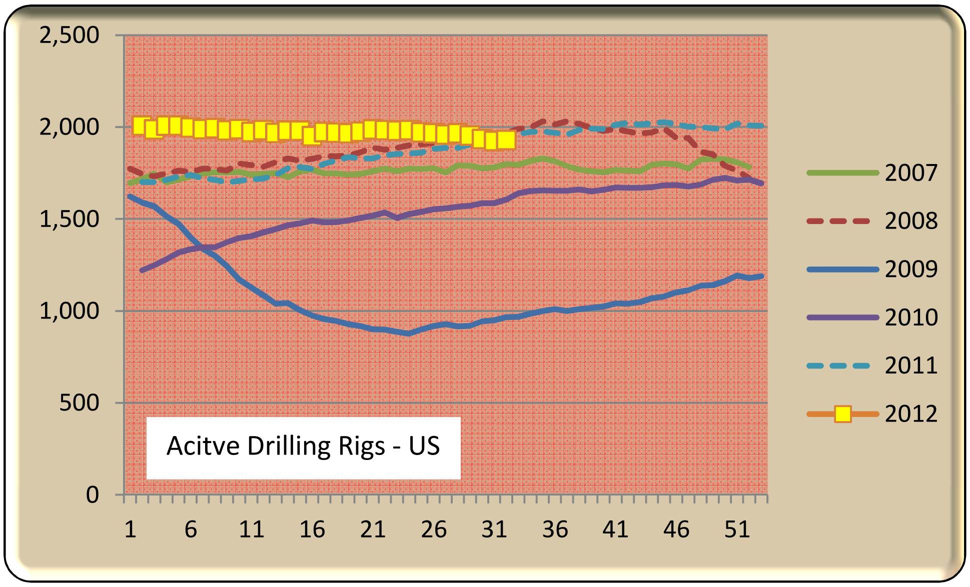
Energy:

US drilling activity remains strong, although it shows some slight signs of fading. Output has hit a plateau. Increased production from private land is offset by the 35% reduction in production from government controlled land.

Purchase of new equipment for energy production shows some recovery from several months of weak performance (see details in Durable Goods Sectors).



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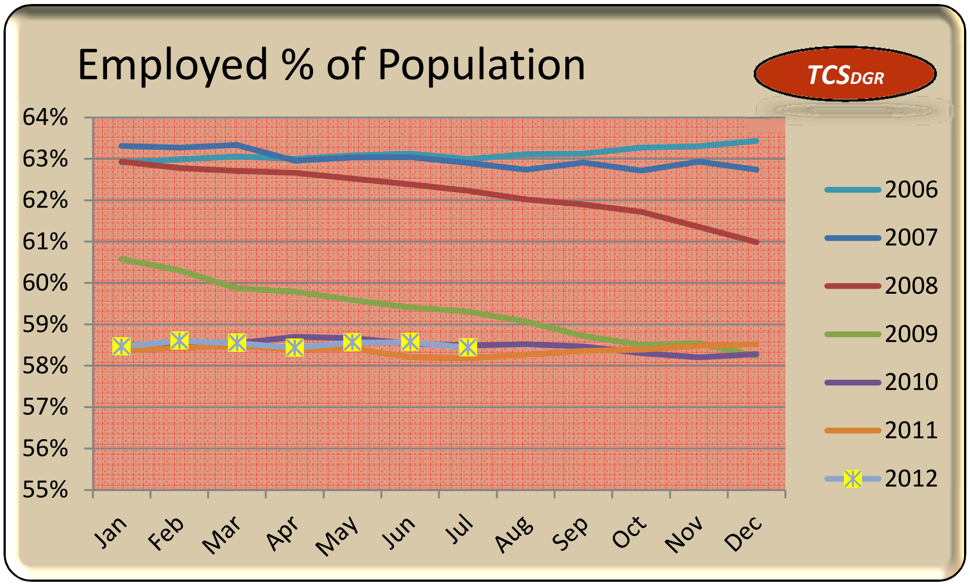
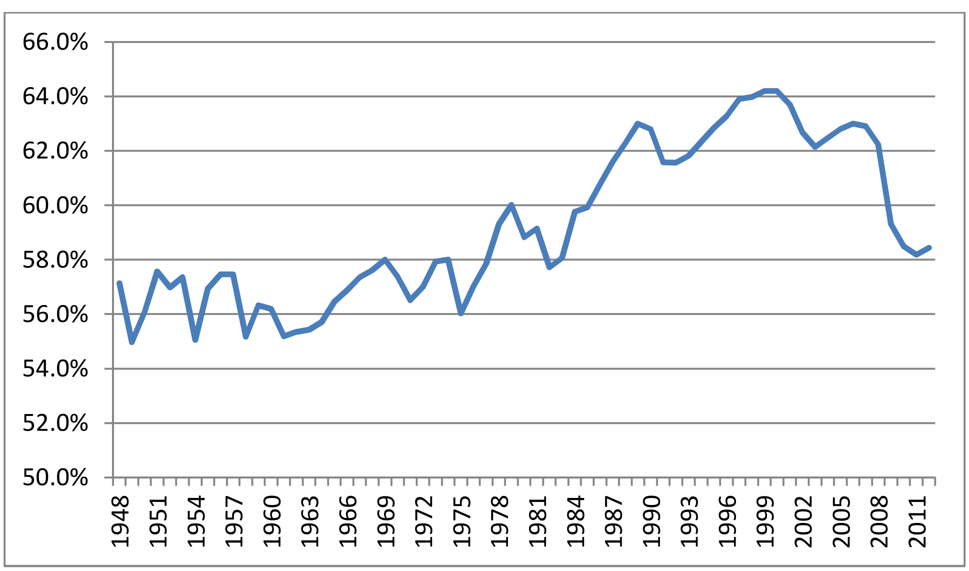
Employment:



The employed % of the non-institutional population dropped to 58.4% in June. The total number employed declined by 195,000 in July. Published reports of a weak increase came from the less accurate establishment survey. Since February the economy has created a net of 155,000 jobs. The working age population has increased by about 1 million in the same period. We're losing ground at a rapid pace.

The long view is equally bleak. The recovery that started with the tax cuts of May 1993 stalled in January of 2007 and collapsed in the financial meltdown of early 2009.



July Employed % since 1948

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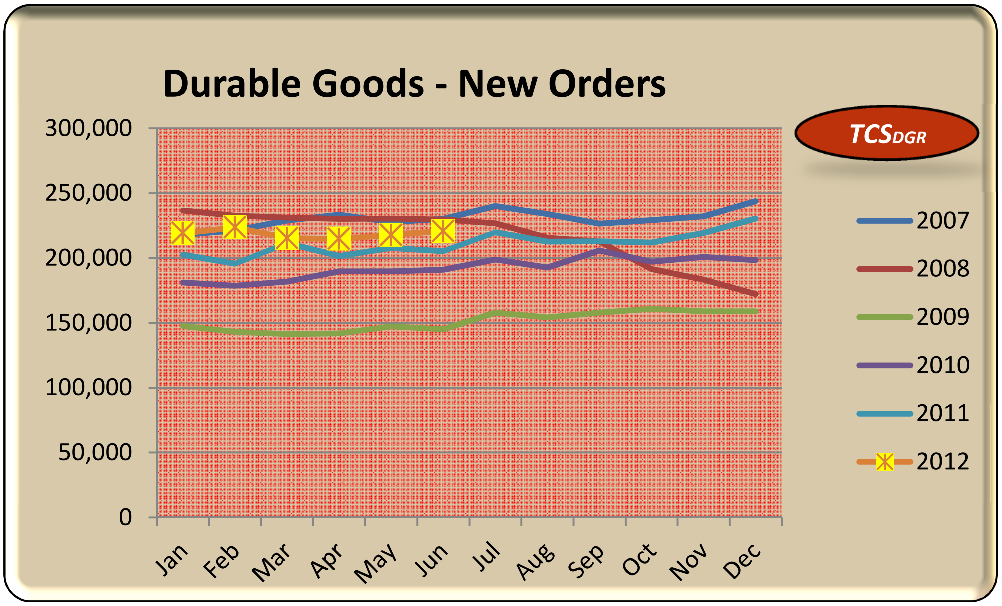
Sector Detail

The Durable Goods Sector:

New Orders: Durable new orders increased 1.3% to $221 billion. The new order growth index remained in contraction territory at 0.998. Last year's comparable number was 1.024. Inventory to shipments ratio remains high at 1.6. Generally stable, but with caution flags.



Shipments decreased 0.1% to $225 billion. Book to bill ratio remained flat at 0.98 (long term average is 0.98).

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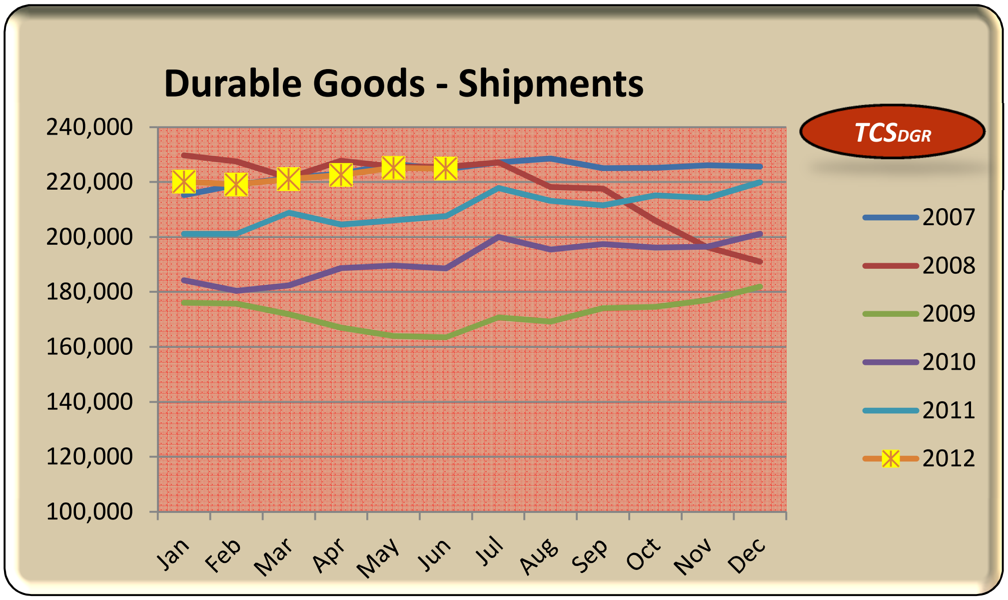
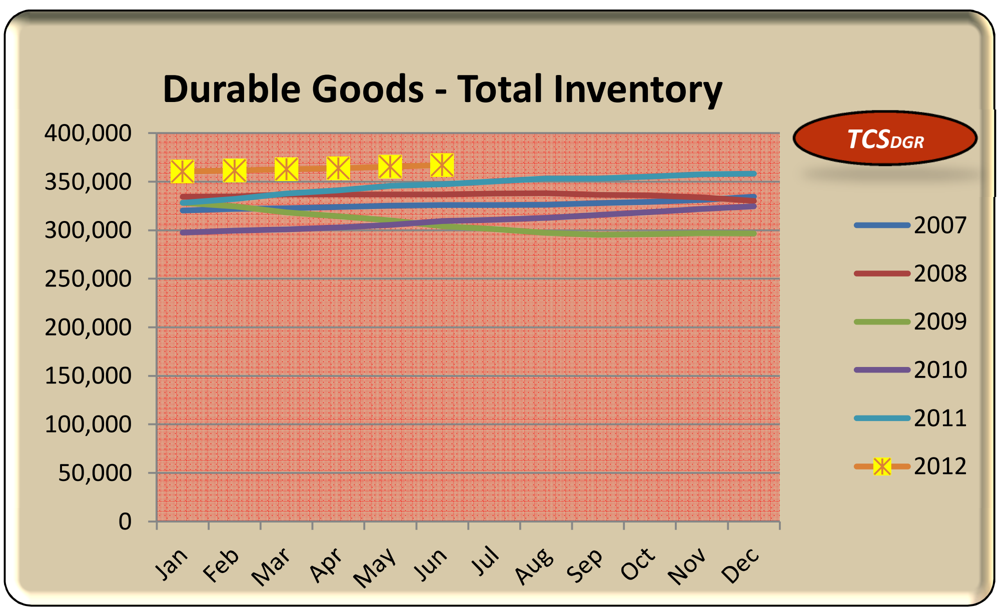


Unfilled Orders increased fractionally to $988 billion.

Inventory Total inventory increased by 0.4% to $367 billion, another record high. Inventory to shipments ratio remained steady at 1.6, the worst performance since January 2009 at the beginning of the manufacturing retrenchment into recession.



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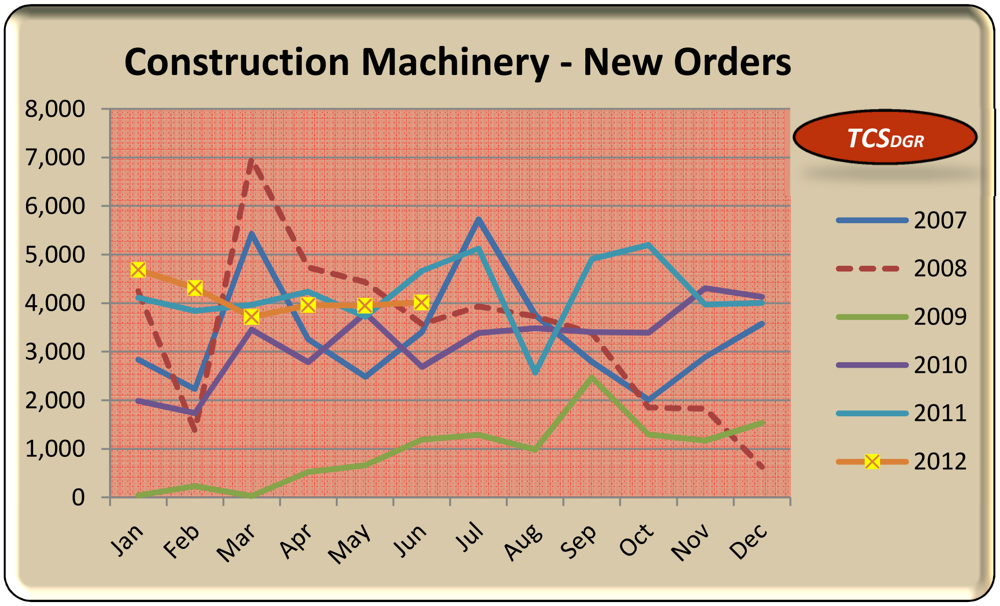
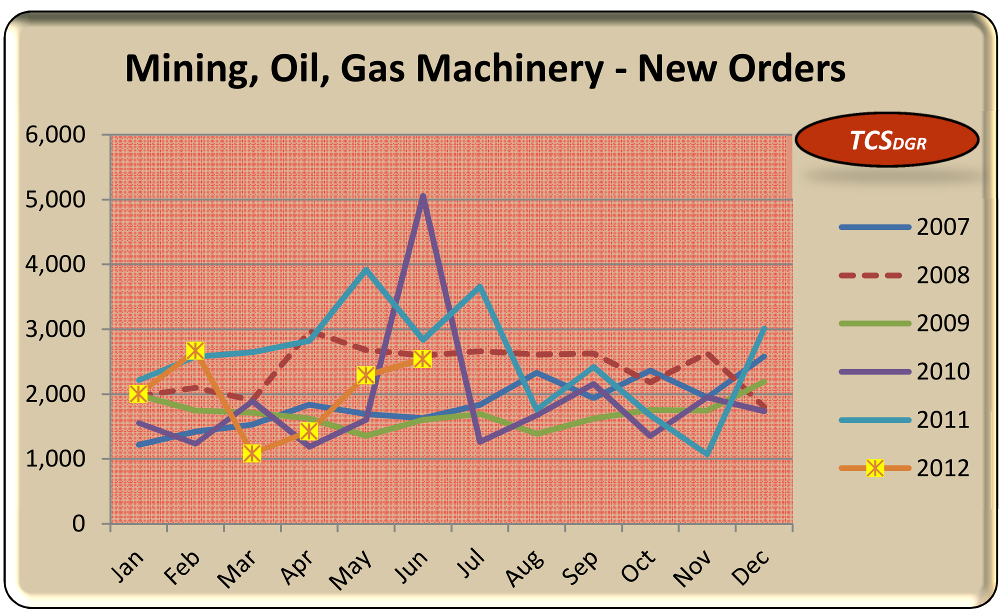
Durable goods sub sectors:

Construction machinery new orders increased by 1.7% to $4 billion. Book to Bill ratio dropped significantly to 0.85 (long term average 1.01). The order pattern continues to track with 2011, which wasn't all that bad a year. But production rates are currently higher than can be supported by orders.



Mining, oil and gas machinery new orders increased by 11% to $2.5 billion. Current activity is still below February and below 2011, but relatively healthy. Book to bill ratio improved to 1.21 (long term average = 1.03).



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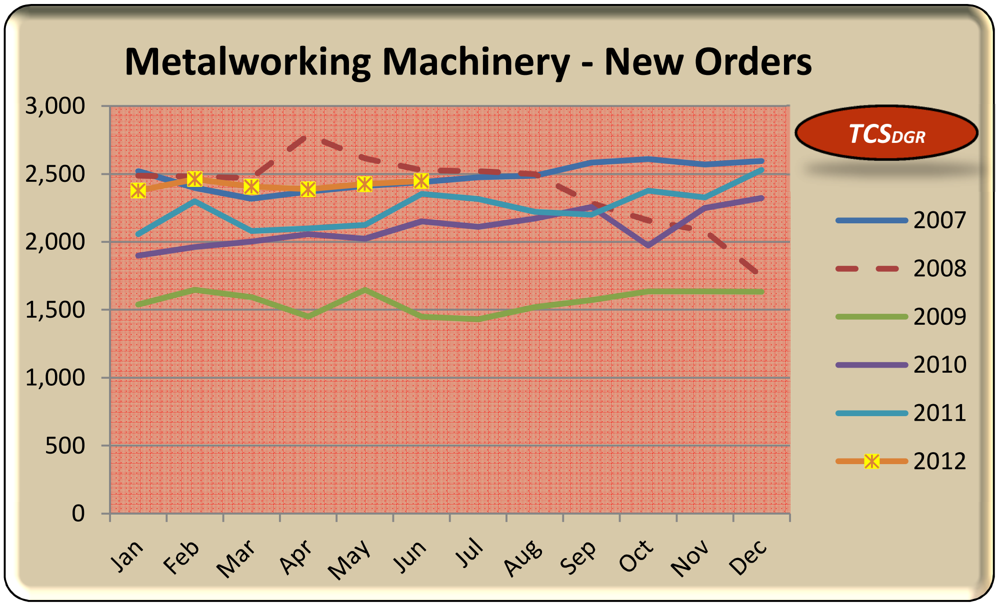
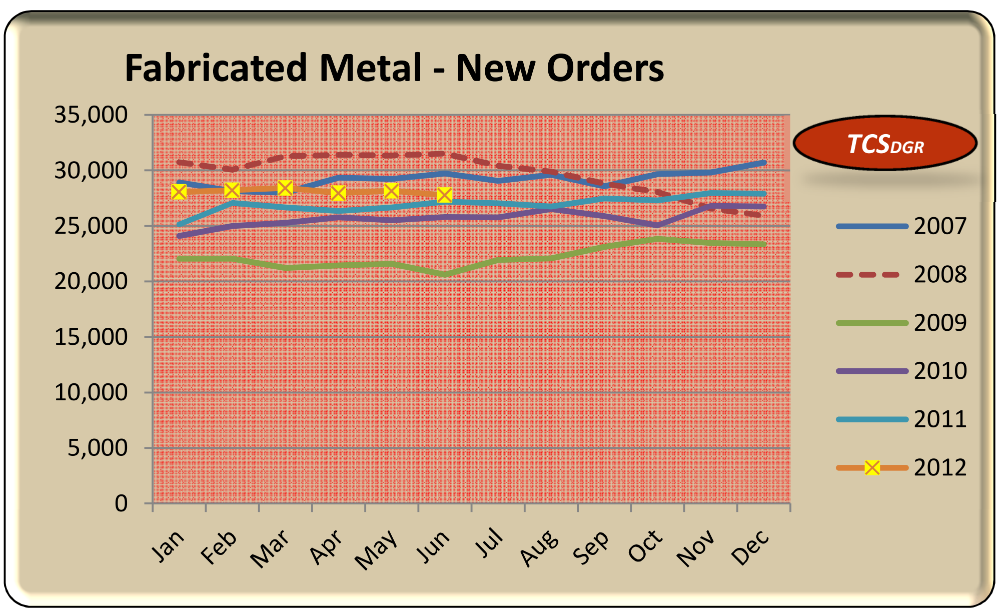
Metalworking machinery new orders increased by another 3.6% to $2.5 billion. Book to bill ratio increased to 1.05 (long term average = 1.00). Overall a solid performance and ahead of last year. Much of the current order performance is explained by the relatively low inventory of good quality used equipment in the secondary market.



Fabricated metal new orders increased 0.7% to $28.4 billion. Book to bill ratio is reported at 1.03 (long term average = 1.00). Solid demand pattern with some caution required on inventory. Inventory to shipment ratio has increased from 1.5 to 1.7 in the past 12 months.



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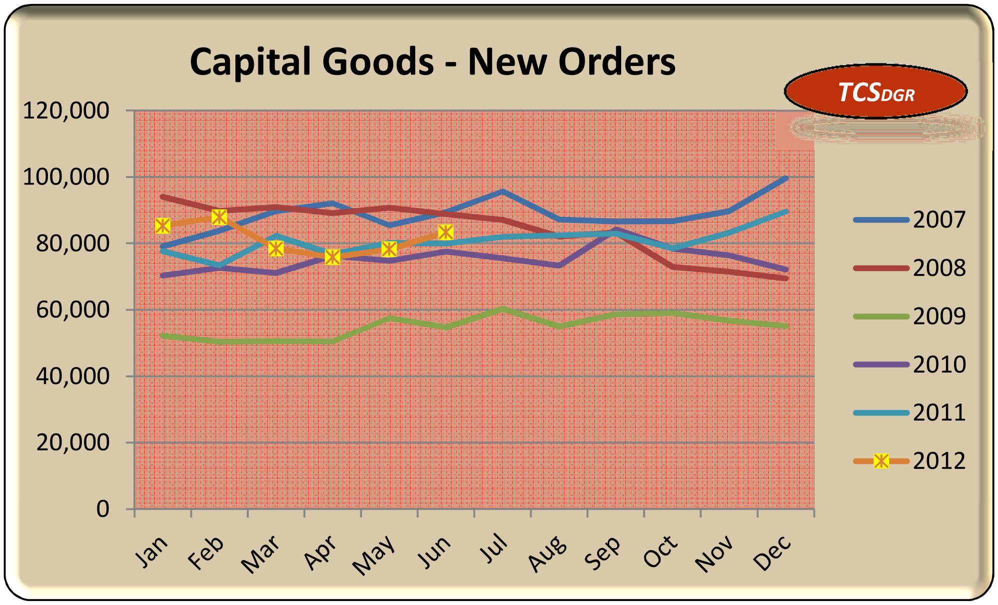
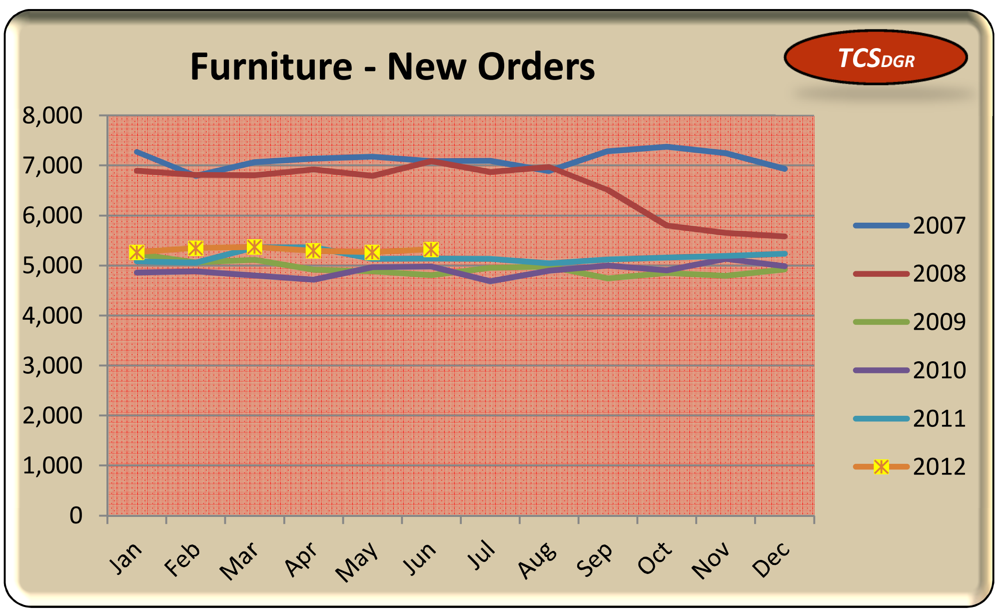
Capital goods increased by 6.6% to $83.4 billion. Book to bill ratio moved to 1.05 from last month's 0.99 (long term average = 1.01).



Furniture: New orders increased 1.1% to $5.3 billion. The book to bill ratio increased to 1.01 (stable). Growth index decreased to 1.012 (slowing growth).



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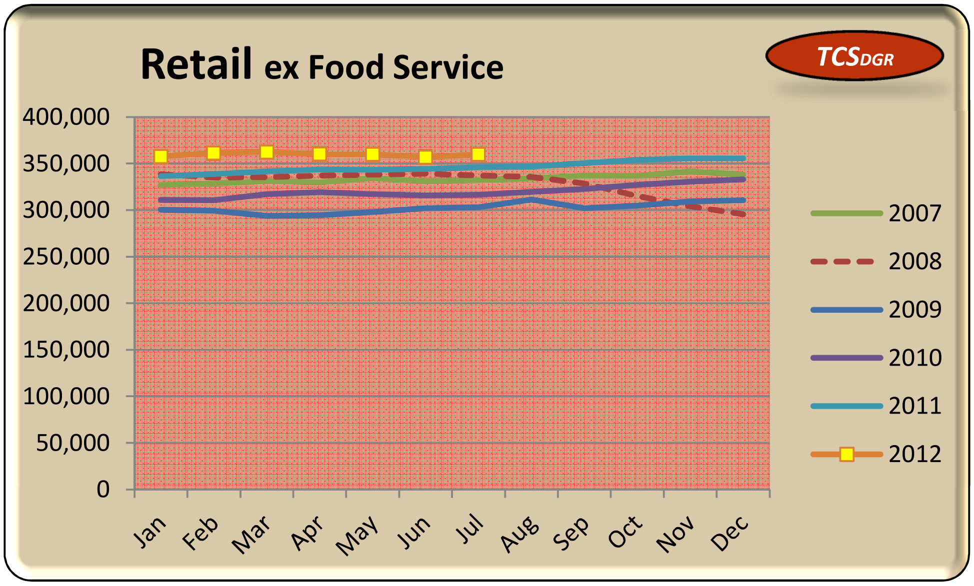
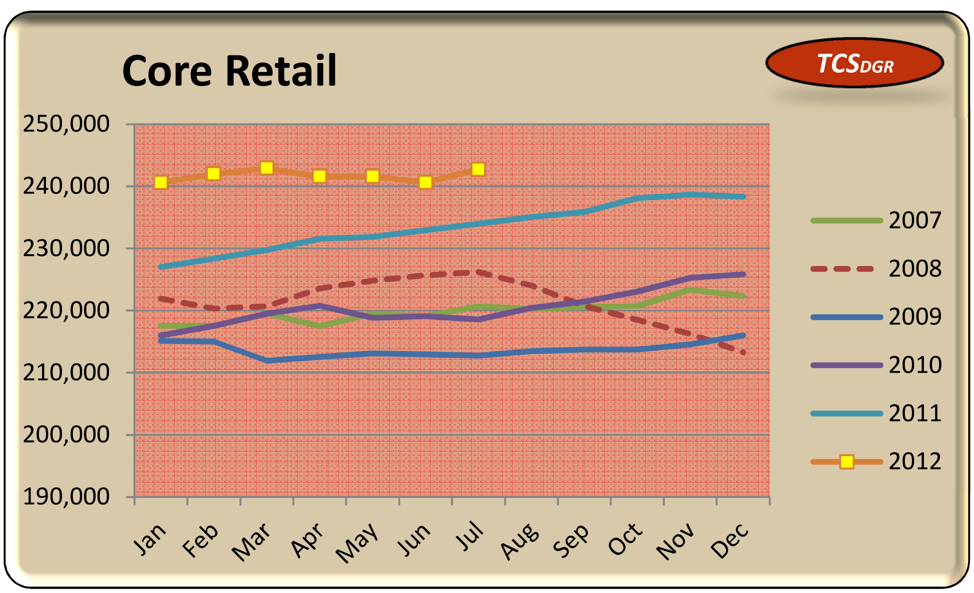
Retail Data (Advanced Release)

Retail Sales (excluding food service) increased 0.8% to $359.9 billion in July, after three months of declines.



Core retail (excludes food service, gasoline, autos and parts) increased 0.9% to $242.7 billion, after three months of declines. Inflation has begun to effect food prices (see Groceries).



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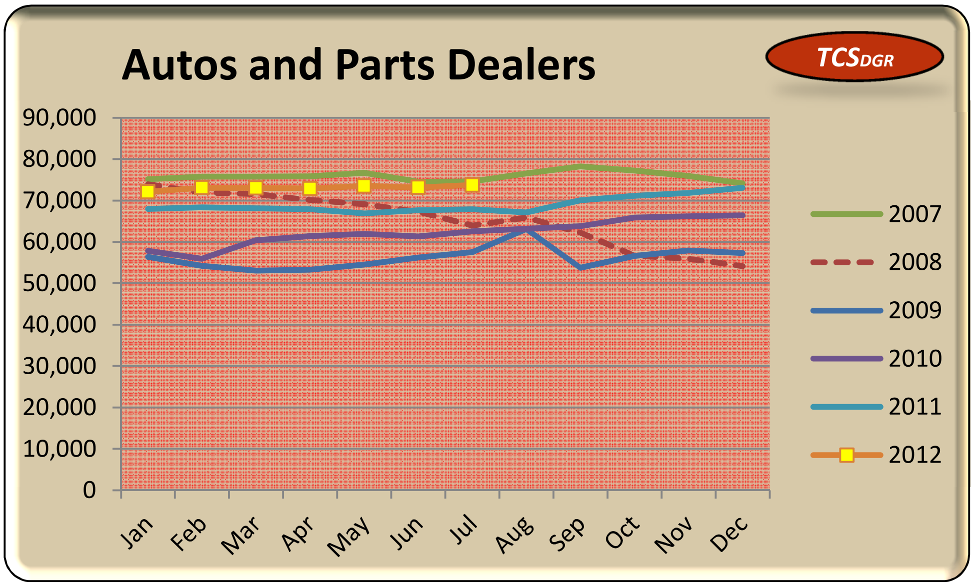
Gasoline sales increased 0.5% in March to $43.4 billion. The brief relief in gas prices is over. Artificially constrained oil supplies are the clear driver in higher prices at the pump.

Auto sales increased 0.8% to $73.7 billion in July, getting back to May levels of sales. Sales are approaching the levels of 2007, although the values are measured in inflated dollars. Serious growth in the North American auto industry will depend on improvements in employment.



Food and Beverage stores sales increased 0.3% to $52.8 in July. Inflation in food seems to be running at more than a 4% rate.

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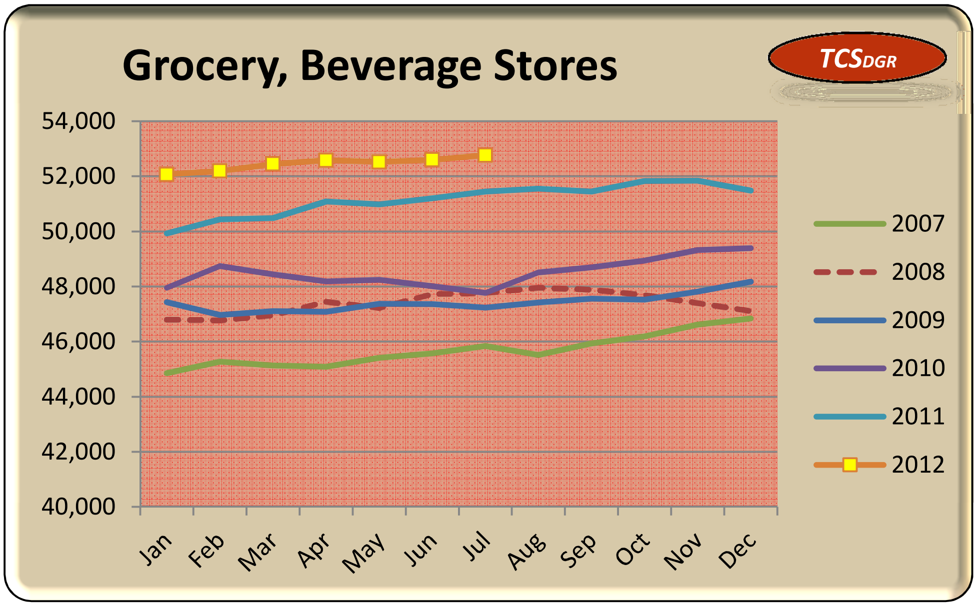

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Housing:

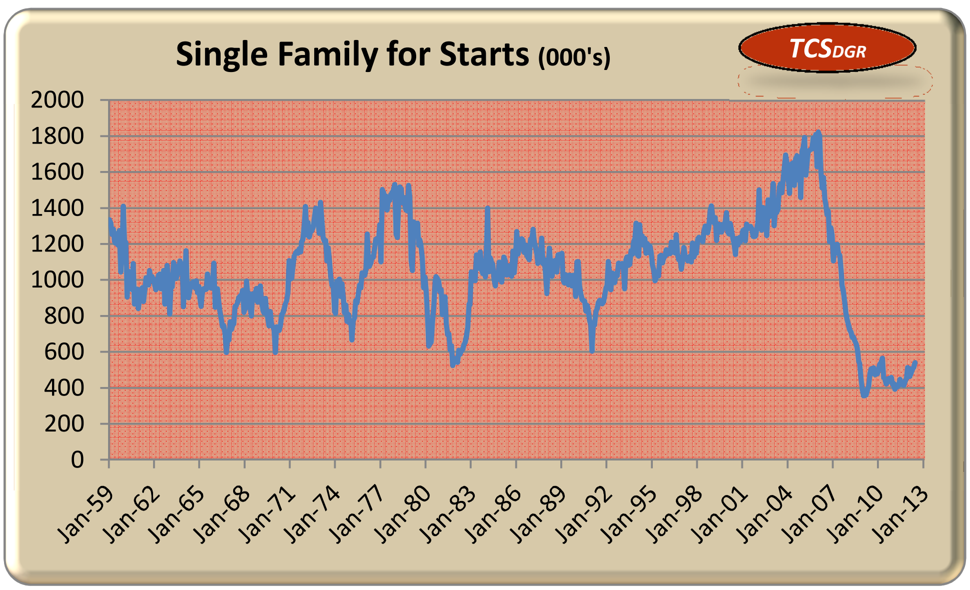
Housing sector remains weak. The modest recovery in home prices reflects the hard reality of depleted inventory of new single family units. There are even a few stories of bidding for homes. But the overall level of activity is low.

Single family starts increased 4.7% to 539,000. New single family sales decreased by 8.4% to 350,000 units. Inventory of unsold new single family homes decreased slightly to 144,000.

The good old days of 1 million sold seem like a distant memory.

Median sales price decreased fractionally to 234,250. Median prices are generally stable.

There is increased speculation that the 1 trillion college debt and weak employment prospects have combined to depress household formations. Apartments are taking a larger share of the construction market.



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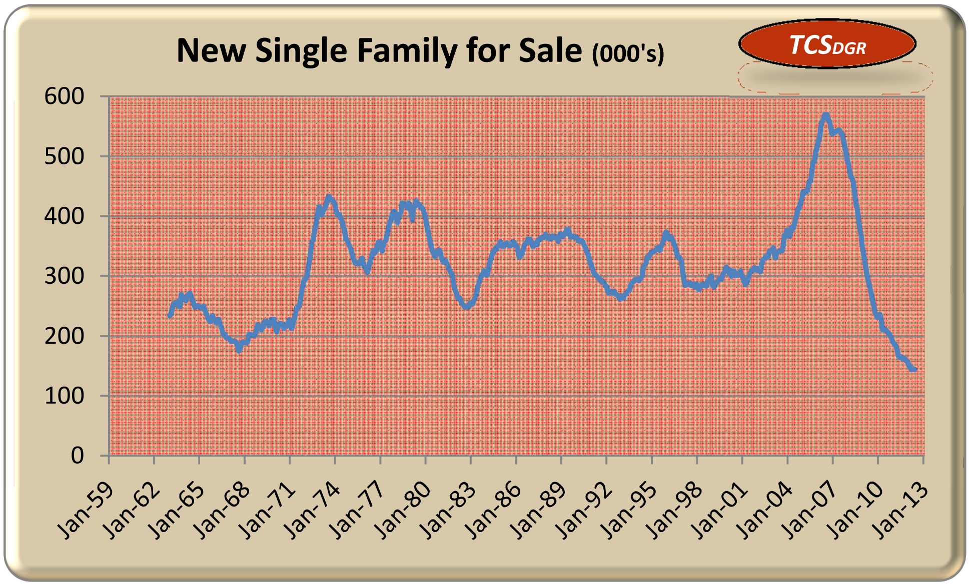

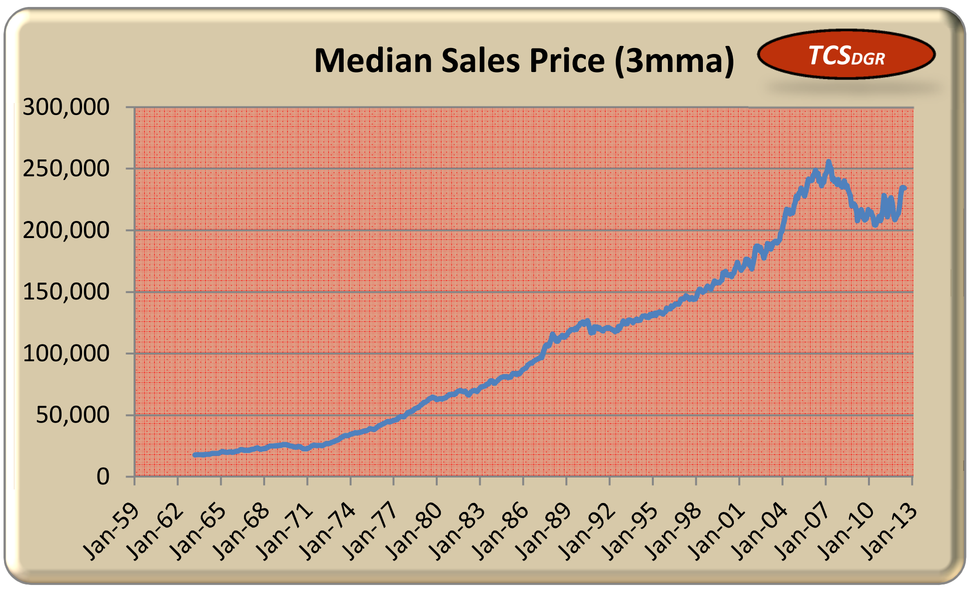

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About Time Compression Strategies and the Durable Goods Report

TCS provides business consulting and information technology support to high performance organizations. Our focus is on manufacturing and telecom. Through our business partners we support health care, energy 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 historical 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, 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 reliable for growth trend analysis. 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), a management consulting and information technology company serving manufacturing, distribution, and their supporting technologies. 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 Frontstep, Inc. He served as President of Pritsker Corporation, an early innovator in

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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 one of the "founding fathers" 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 modeling process for analysis and improvement of supply chain 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, Ball State University, and others. He can be reached at 317-842-6417 jlayden@tcsdb.com

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