The Durable Goods Report

May 2012

Executive Summary of US Economic Activity

Manufacturing Data Release of 6/4/2012 (Apr Preliminary)

Employment Data Release of 6/1/2012 (Apr Preliminary)

Retail Data Release of 5/16/2012 (Apr Advanced)

Industrial Production Data Release of 5/16/2012 (Mar Advanced)

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

John E. Layden

By the Numbers

Durable Goods Key Measures			
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	215,218	215,281	201,627
12 month moving average	216,130		197,678
% Change from Prior Year	9.3%		
Growth Index - Durable New Orders	1.009	1.020	1.026
Unshipped Orders - Durable	985,393	986,186	901,244
% Change from Prior Year	9.3%		
Value of Shipments - Durable	222,464	221,050	194,103
Inventory - Durables	364,158	362,921	341,067
% Change from Prior Year	6.8%		
Inv to shipments ratio - Durable	1.64	1.64	1.61

US Economy Key Measures			
	This period	Last period	Change
GDP 2011 Q4	15,454.0	15,319.4	0.9%
Industrial Production	2,562.2	2,547.7	0.6%
Capacity Utilization %	79.2	78.4	0.8
Manufacturing %	78.4	78.0	0.4
Durable Goods %	78.3	77.4	0.9
Primary Metals %	76.6	76.4	0.1
Autos and Parts %	78.8	76.0	2.8
Machinery %	85.1	85.3	(0.1)
Durable Goods ($Mil SA)			
New orders	215,218	215,281	0.0%
Shipments	222,464	221,050	0.6%
Inventory	364,158	362,921	0.3%
Unshipped Orders	985,393	986,186	-0.1%
Retail ex Food Service ($Mil SA)	364,163	363,736	0.1%
Autos and Parts	73,564	73,226	0.5%
Gasoline	46,639	46,781	-0.3%
Core retail (ex auto, gas)	243,960	243,729	0.1%
Groceries, beverage	100,004	99,617	0.4%
Employment (000's SA)			
Civilian employed (Household Survey)	142,287	141,865	422
% of potential workforce	58.6%	58.4%	0.1%
Civilian not employed (HS)	100,679	100,919	(240)
Non-Farm (Establishment Survey)	133,009	132,940	69
Private (ES)	111,040	110,958	82
Government (fed, state, local) (ES)	21,969	21,982	-13
Goods Producing (ES)	18,307	18,322	-15
Manufacturing (ES)	11,953	11,941	12
Construction (ES)	5,516	5,544	-28
Durable Goods Mfg (ES)	7,479	7,466	13
Housing (000s of Units SA)			
Total housing starts	717	699	2.6%
Single family starts	492	481	2.3%
Single family sales (new)	343	332	3.3%
Single family for sale (new)	146	144	1.4%

US Economy:

Industrial Production

Industrial production was down 0.2% to $2.55 trillion (excluding industrial supplies like energy). March performance was 4.4% above the same period last year.

Durable Goods

New orders for durable goods new orders were flat at $215 billion in April. Inventory to shipments ratio remained high at 1.8.

Retail:

Retail sales increased 0.1% in April to $364.2 billion (includes inflation effects).

Employment:

The employment picture remains weak. The broad-based household survey showed that May employment expanded by 422,000 (in contrast to the widely-quoted payroll survey which showed growth of 69,000). The “employed” accounted for 58.6% of the working age population. The number of people not working was 100.7 million. This consists of the unemployed (12.6 million) and those not in the labor force (88.1 million).

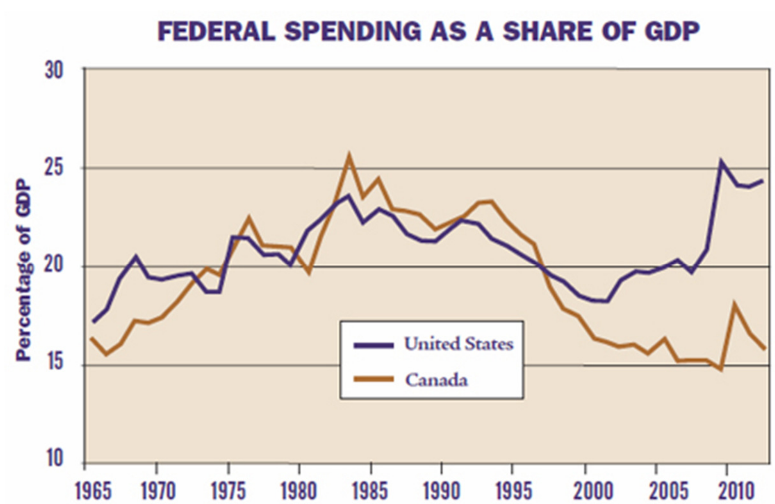
The job growth since the bottom of the recession totaled 4.3 million. The number not employed (unemployed or not looking) also grew by 1.7 million during the same period. Job growth has been insufficient to keep up with population growth.

Housing:

Single family housing starts increased 2.3% to 492,000. But the single family proportion of the market, traditionally near 80%, is now hovering at 68%. Single family construction is the most important contributor to the economy. Median sales price showed improvement in the face of the lowest inventory of unsold homes on record.

Random Thoughts:

- Every decent man is ashamed of the government he lives under.
  H. L. Mencken
- There must be a law of evolution to explain this condition:
  - The Democratic Party was formed to counter what was perceived as the excesses of the Federalist Party who favored a strong central government.
  - The Republican Party was formed when the Democrats lost their way in a similar manner.
  - The Republican Party is now viewed by many as “Socialist Light.” Support for farm subsidies (central redistribution), Law of the Sea Treaty (giving the UN taxing power), central control of education and national standards for content, central subsidies for ethanol production. The list goes on. It always fails.
  - What’s next? Can either party reform their model for getting votes? Or is a new party required?
- Federal Reserve Study: Household net worth fell 40% between 2007 and 2010. Income down almost 8%.
- China purchases of raw material plummeting.
  - Reuters: Some steel mills in China, the world's biggest buyers of iron ore, have delayed delivery of shipments from miners on thin demand and expectations on prices, already at five-month lows, could fall some more.
- China is now faced with a serious problem of 200 million migrants from the rural areas looking for work in the cities. But the attempt to put them to work building infrastructure that isn’t needed has finally run out of steam.
- US money velocity is in free fall. Consumers and businesses are de-leveraging. It’s good long term, but painful in the short term. The only short term benefit is that when the velocity goes down the increased money supply doesn’t cause inflation.
- When money velocity goes down the effect of stimulus attempts is muted.
- Canada reversed its spending trend two decades ago. Their economy is booming.



- The Cato Institute surveyed the relationship between government share of GDP and national growth rate. There was a close inverse correlation, meaning that lower taxes as % of GDP led directly to higher growth. But the study didn't look at the impact of debt which has the same effect as taxes.
- Even Paul Krugman (house economist at the New York Times) now claims the US economy is in a depression. He is usually a reliable reciter of the administration's talking points.
- Unfortunately Krugman believes that the problem with the economy is the "draconian cuts in government spending." Guess he hasn't seen the chart above.
- Spain ends subsidies to the green power industry. Green power companies abandon Spain. The study that showed that every green job destroyed 2.2 private sector jobs probably helped.
- The thermodynamics of solar concentrators has been an open question. It was the only form of green energy that looked like it might achieve break even ROEI (lifetime return on energy invested). Spain dashed these hopes. Solar photoelectric systems have about a 10% lifetime ROEI (return on energy invested). No matter what you do you can't produce enough energy to build another one. Solar concentrators seemed to have a chance by overcoming the diffuse nature of solar energy. Reflectors focus sunlight on a boiler to make steam, then electricity. Spain proves the negative. Even after the government paid the up-front capital cost, they can't operate at break even. They've been abandoned.
- There is still no green energy proposal that has a positive net ROEI over its lifetime. Government subsidies can distort the financial picture of a market, but not the thermodynamics. None of these proposals produces enough energy to build another one. Not ethanol, wind, solar-electric, solar-steam or unicorn poop produces any net energy.
- The global warming fiasco continues to collapse as more information becomes public. The crisis industry made it all up.
- Record ice in the Arctic, while Hillary Clinton visits the Arctic to view the effects of global warming.
- Not to be outdone by mere Democrats, Karl Rove believes that subsidies should continue for wind power projects.
- The president of the University of Virginia was fired on a Sunday afternoon, 15 months after she was declared to be the perfect candidate to lead the university. It was also a couple of weeks after UVa re-hired Michael Mann (of the fraudulent-hockey-stick-temperature-graph fame) The Mann rehire was an attempt to avoid a responsive reply to a court order to release his emails from his prior tenure.
- I must admit I didn't see that coming. I've predicted that some of the academics involved in the Anthropogenic Global Warming fraud would be indicted. I still believe that to be the case. But most will get off with a stern stare in the faculty meeting. It's what happens when malfeasance produces large grants to the university.

- The Green River basin (junction of Colorado, Utah, Wyoming) is now estimated to have more estimated oil and gas reserves than the top 5 global producers outside the US.
- New Russian oil field in northern Siberia is estimated to be many times larger than the Baaken Field in the US.
- A thorium reactor the size of a school bus would supply the needs of a 1000 home subdivision. Capital cost would be $250 per household. Operating cost would be $400 per year or $0.40 per household per year.
- Doubling down on my prediction: Energy is about to become so cheap that the cost of billing for it will be prohibitive. It will become a $2.65 ($1 for admin, $1.25 for capital cost, $0.40 for operating expense) add on to your monthly water bill. Can they really process 1000 bills per month for $1000?
- Boy, is that a relief. Neutrinos don't travel faster than light. I was worried for a minute: http://www.newscientist.com/article/dn21899-neutrinos-dont-outpace-light-but-they-do-shapeshift.html

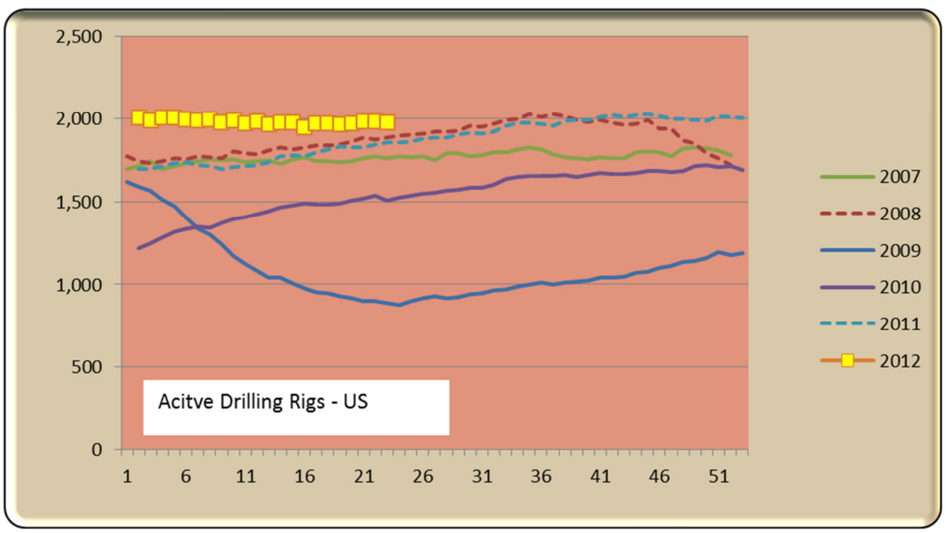
Energy:

US drilling activity remains strong. The lack of any positive policy from Washington continues to restrain faster expansion. It's an irony that Shell finally got permits to drill offshore in the Arctic, 7 years into a 10 year lease. They still haven't started due to record sea ice thickness and extent.

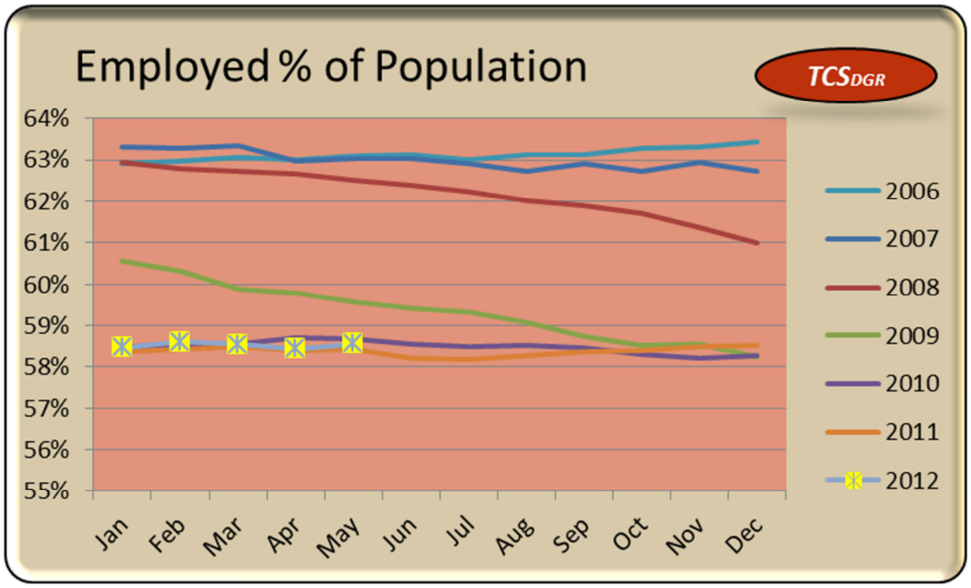
Energy consumption growth is slowing (electric) or dropping (oil and gas). Oil prices (Cushing, OK) are now at about $85 level, down about $20 from the recent peak.

Inventory growth is due to slowing global demand, which is due to slowing economies. We see the result in lower pump prices for gasoline. This is a really poor way to reduce gas prices.

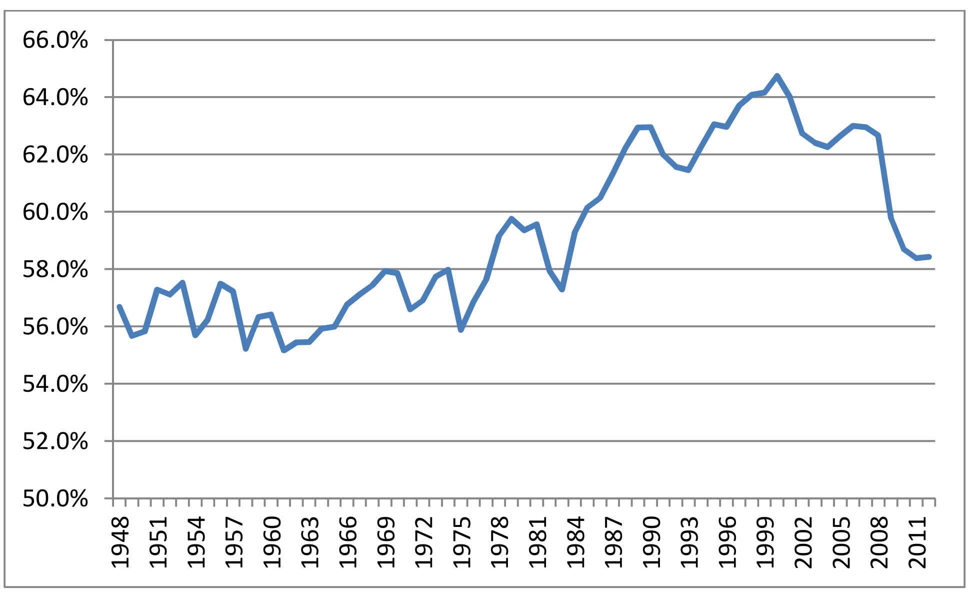
As in past oil price spikes, the speculative effect on prices is relatively small and disappears completely as soon as prices drop. When the market turns south the speculators have about 90 days to liquidate positions. By that time the oil is moving through a pipeline toward the Cushing, OK pipeline switching center, and someone from Cushing is on the phone asking where he should put "your" oil. Since speculators (by definition) never have plans to actually hold the oil, they need to sell it quickly.



Employment:



The employed % of the non-institutional population improved to 58.6% in May, from 58.4% the prior month. Not much change. But the important observation is three years of employment stagnation.



May Employed % since 1948

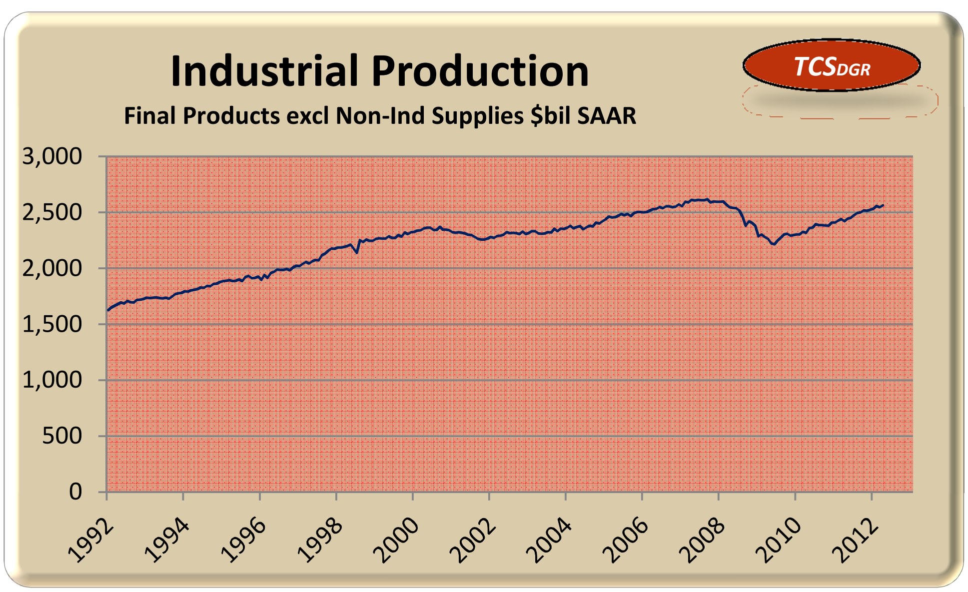
Employment has made no real progress since it collapsed in 2009. The collapse of the y2k bubble in 2000 created a large drop in the employment picture that was not reversed until the tax cuts of May 2003. The improvement moved strongly until

Congress changed hands in January 2007. A slow decline followed until the financial collapse. The collapse over the next 18 months was dramatic.

Sector Detail

Industrial Production (excluding industrial supplies like energy) increased by 0.6% in March to $2.56 trillion. We are now 5.8% above the same period last year. The industrial sector remains below the peak output noted in 2007.

Industrial Production - final products $b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2011	1	2,410.4	0.1%	4.6%
2011	2	2,425.1	0.6%	5.2%
2011	3	2,442.0	0.7%	5.0%
2011	4	2,420.8	-0.9%	4.4%
2011	5	2,444.1	1.0%	3.5%
2011	6	2,451.9	0.3%	3.8%
2011	7	2,474.8	0.9%	3.4%
2011	8	2,494.5	0.8%	4.6%
2011	9	2,500.4	0.2%	4.8%
2011	10	2,516.5	0.6%	5.6%
2011	11	2,516.2	0.0%	5.7%
2011	12	2,523.8	0.3%	4.8%
2012	1	2,531.2	0.3%	5.0%
2012	2	2,558.1	1.1%	5.5%
2012	3	2,547.7	-0.4%	4.3%
2012	4	2,562.2	0.6%	5.8%



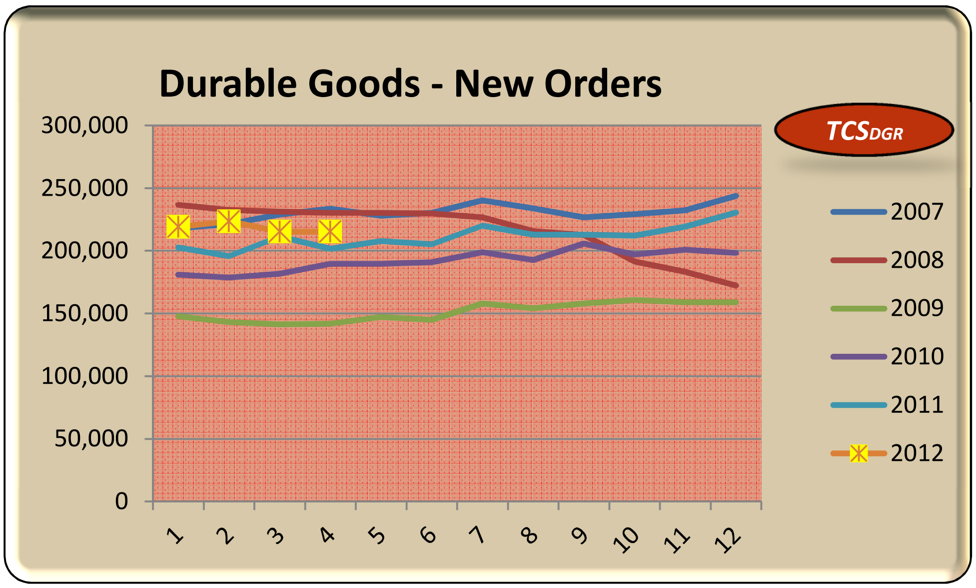
Capacity Utilization: Capacity utilization for industrial production increased 0.8 to 79.2%.The primary metals sector remained weak at 76.6%. Other sector performance: Manufacturing up 0.4% to 78.4%; durable goods up 0.9% to 78.3%; Autos up 1.2% to 76.6%; Machinery down 0.2% to 85.1%. The auto sector stands out as a positive signal with a 4% increase since January.

Capacity Utilization %							
Year	Month	Ind Prod	Mfg	Durable	Primary Metals	Auto	Mach- inery
2010	1	70.8	78.0	76.6	75.8	81.9	63.6
2010	2	71.3	77.6	77.1	78.1	82.3	63.4
2010	3	71.9	77.3	77.7	79.7	81.9	64.2
2010	4	72.4	76.5	78.4	79.5	82.3	65.5
2010	5	73.7	76.1	78.1	81.0	82.9	66.5
2010	6	73.9	75.7	78.2	81.3	82.5	67.7
2010	7	74.5	75.0	78.1	84.7	82.0	67.6
2010	8	74.8	74.0	77.8	82.9	84.7	69.1
2010	9	75.2	71.5	78.0	83.9	83.3	69.5
2010	10	74.9	71.1	77.9	84.6	85.6	69.7
2010	11	75.2	69.6	78.5	84.8	84.8	70.0
2010	12	76.0	67.4	78.6	83.6	84.2	68.6
2011	1	76.1	65.6	78.4	82.8	85.8	68.7
2011	2	75.9	65.7	78.3	82.3	84.8	69.9
2011	3	76.5	64.6	78.1	82.1	84.7	70.2
2011	4	76.1	64.3	77.1	79.9	85.5	68.5
2011	5	76.3	63.7	76.7	78.0	85.2	68.8
2011	6	76.3	63.6	76.6	75.9	83.9	68.5
2011	7	77.0	64.6	75.5	75.0	79.0	68.0
2011	8	77.1	65.4	74.3	77.6	80.6	68.4
2011	9	77.2	66.1	71.7	78.8	81.3	68.5
2011	10	77.6	66.2	69.8	78.7	79.0	67.6
2011	11	77.7	67.0	67.9	80.6	75.2	70.2
2011	12	78.2	67.3	65.8	80.6	72.5	69.8
2012	1	78.7	78.0	77.0	77.5	74.8	83.8
2012	2	78.9	78.5	77.8	78.4	75.2	84.8
2012	3	78.4	78.0	77.4	76.4	76.0	85.3
2012	4	79.2	78.4	78.3	76.6	78.8	85.1

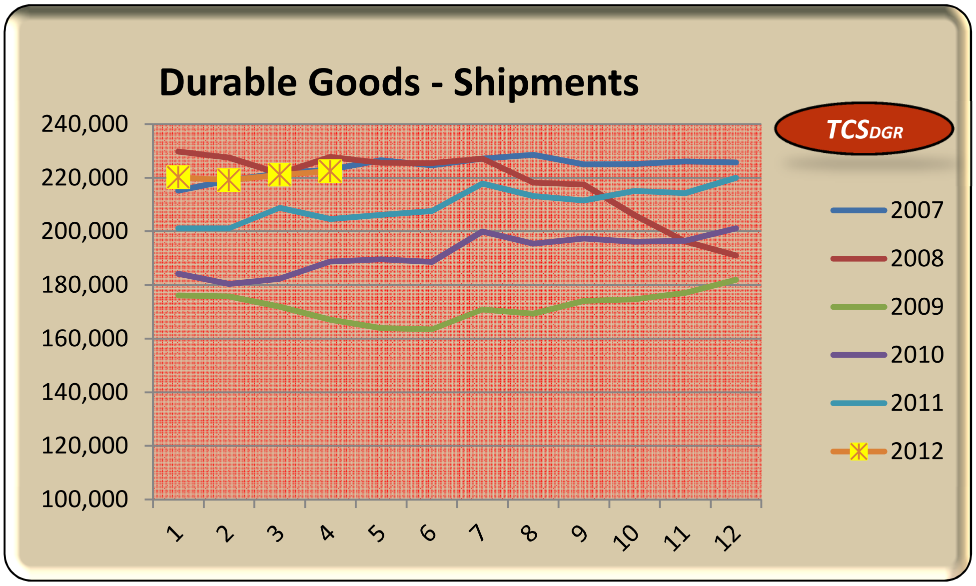
The Durable Goods Sector:

Note: The statisticians at the Census Bureau have restated all the data for the manufacturing sector based on a compilation of a 2010 field audit. This effort is necessary to reset the baseline from time to time. In all but a few cases the relative change is negligible, but the absolute values have been adjusted.

New Orders: Durable new orders decreased fractionally to $215.2 billion. The new order growth index declined to 1.009. Last month it was 1.020. A year ago it was 1.026. There are now strong signals that the growth rate is approaching.

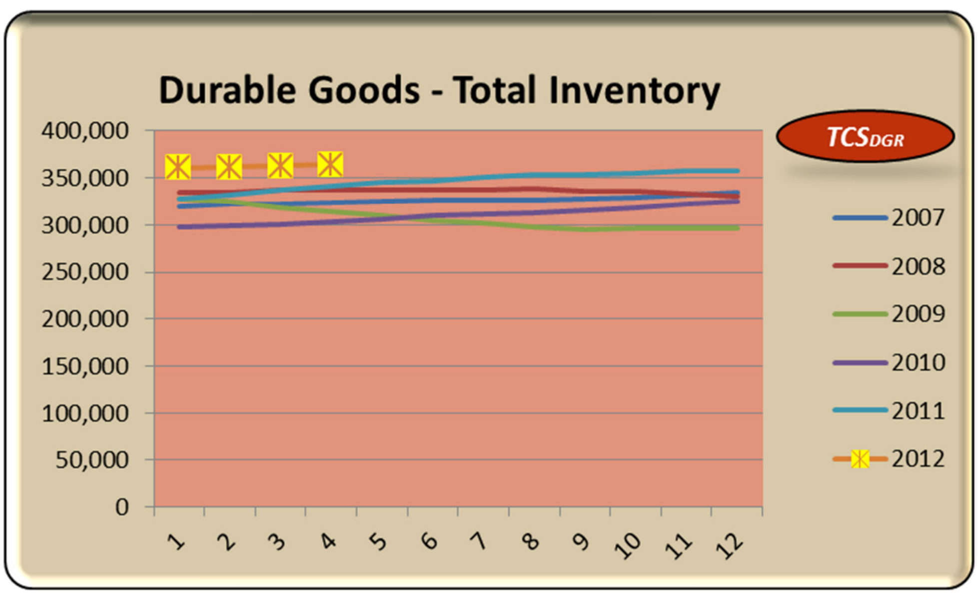


Shipments increased 0.6% to $222.5 billion. Book to bill ratio remained flat at 0.97 (long term average is 0.98).



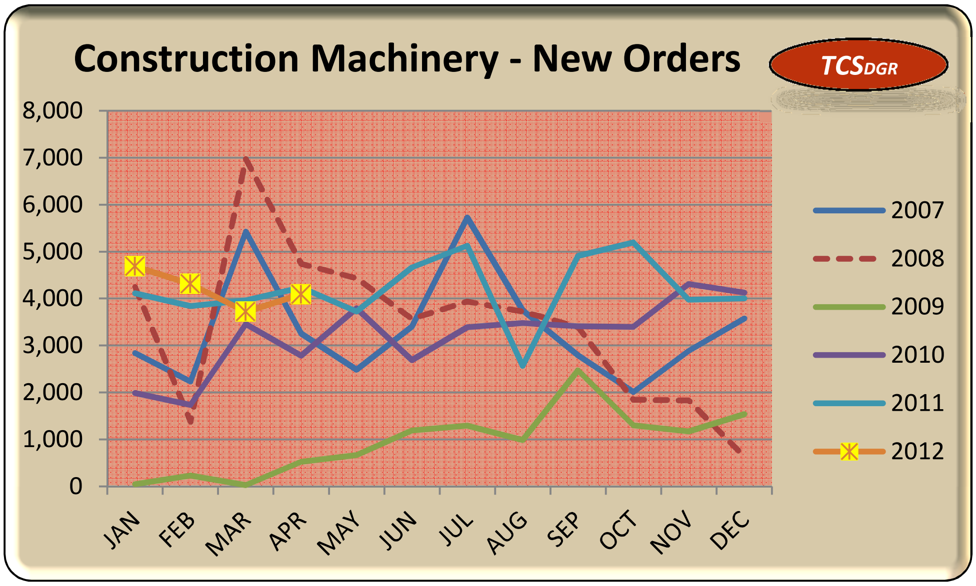
Unfilled Orders decreased by 0.1% to $985.4 billion.

Inventory Total inventory increased by 0.3% to $364.2 billion, another record high. Inventory to shipments ratio remained steady at 1.64, the worst performance since January 2009 at the beginning of the manufacturing retrenchment into recession.

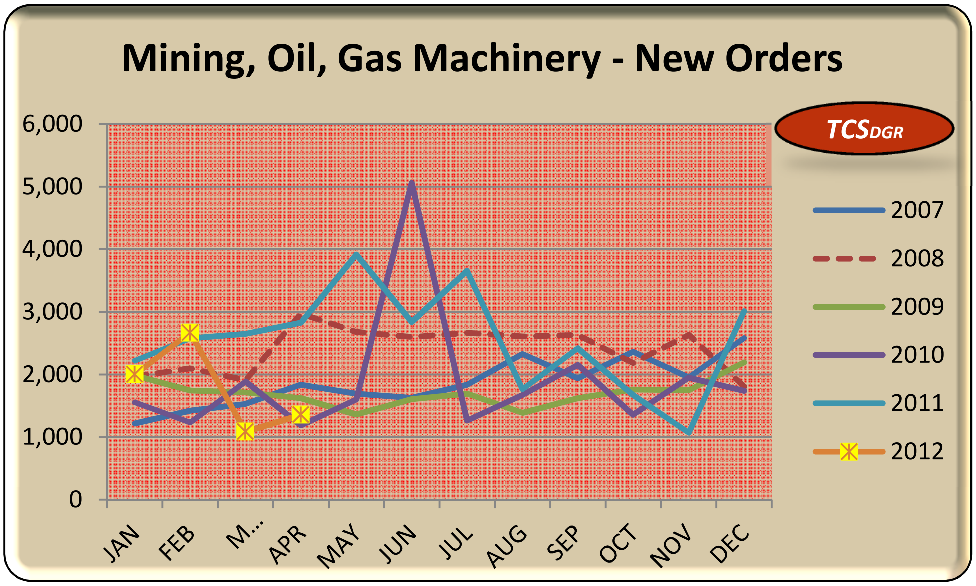


Durable goods sub sectors:

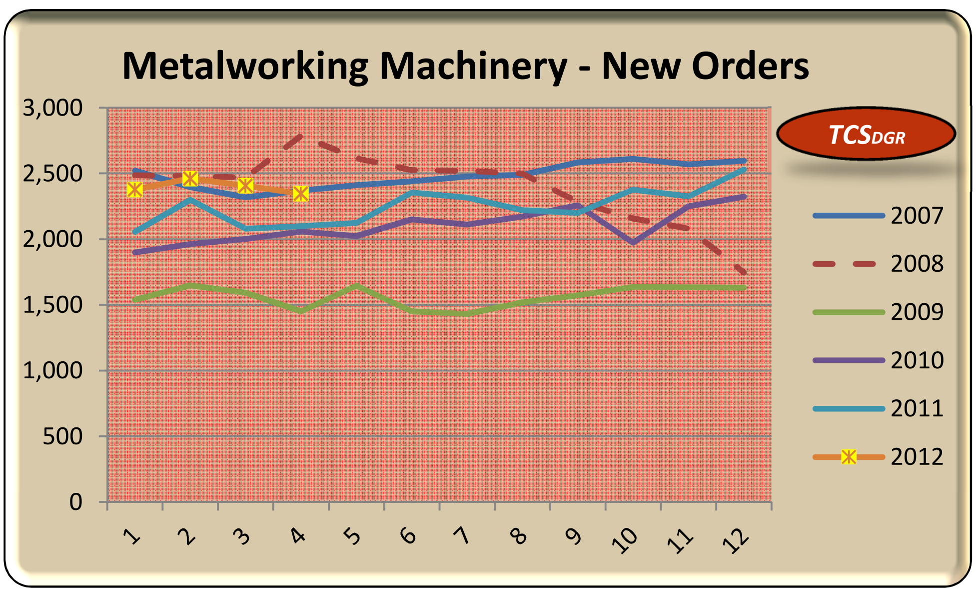
Construction machinery new orders increased by 10% to $4.1 billion, regaining a portion of the 21% lost in the prior two months. Book to Bill declined to 0.97 (long term average 1.02). The long term trend chart suggests that the three year recovery in construction machinery may be leveling out. Drop in orders from China contribute.



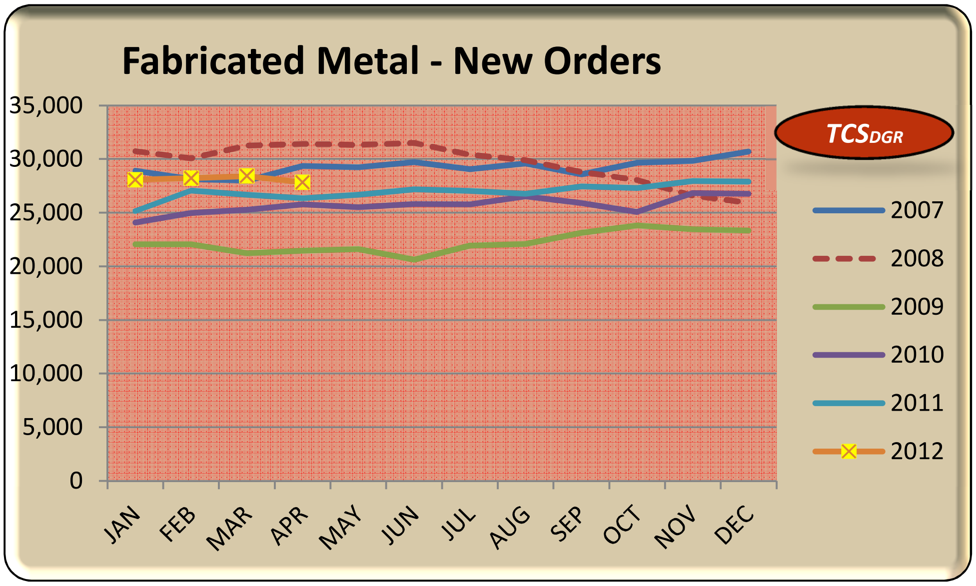
Mining, oil and gas machinery new orders increased by 25% to $1.4 billion. Current level is about half the February value. Book to bill ratio remained steady at a dismal 0.62 (long term average = 1.03). Except for last month, this is the lowest level of new orders since 2005.



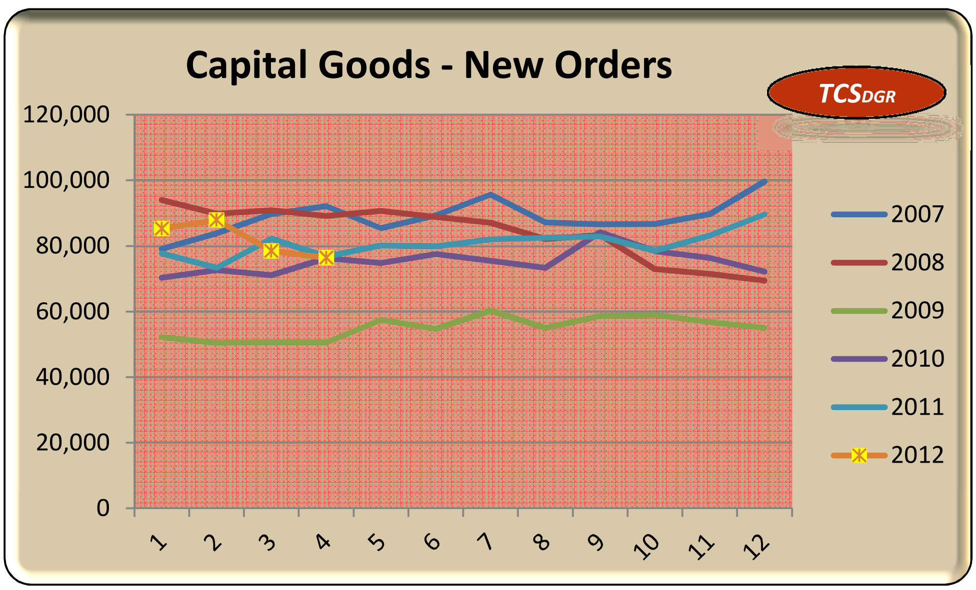
Metalworking machinery new orders decreased by another 2.5% to $2.3 billion. Book to bill ratio decreased to .98 (long term average = 1.00).



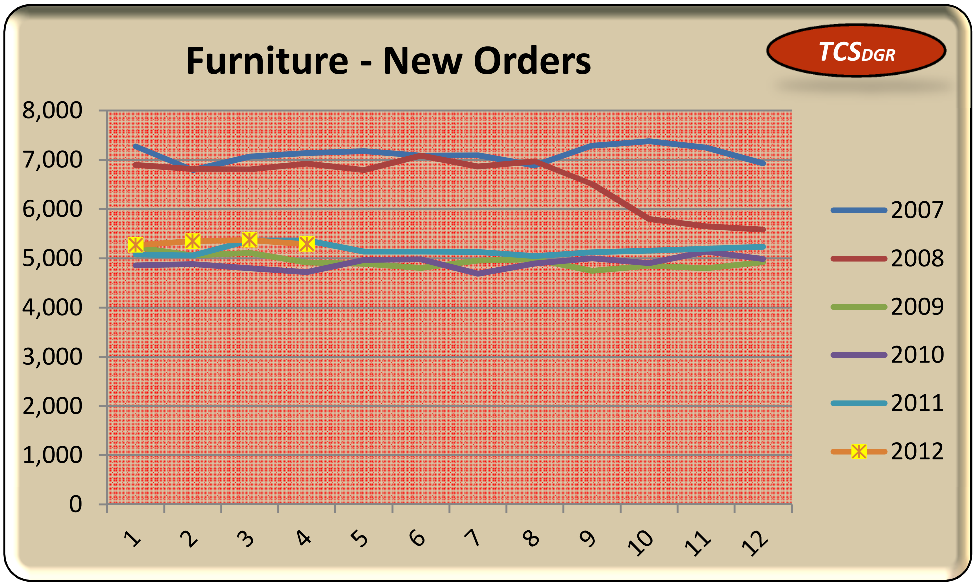
Fabricated metal new orders decreased 2.1% to $27.8 billion. Book to bill ratio is reported at 1.01 (long term average = 1.00).



Capital goods decreased by 2.7% to $76.4 billion. Book to bill ratio declined to 0.99 (long term average = 1.01).

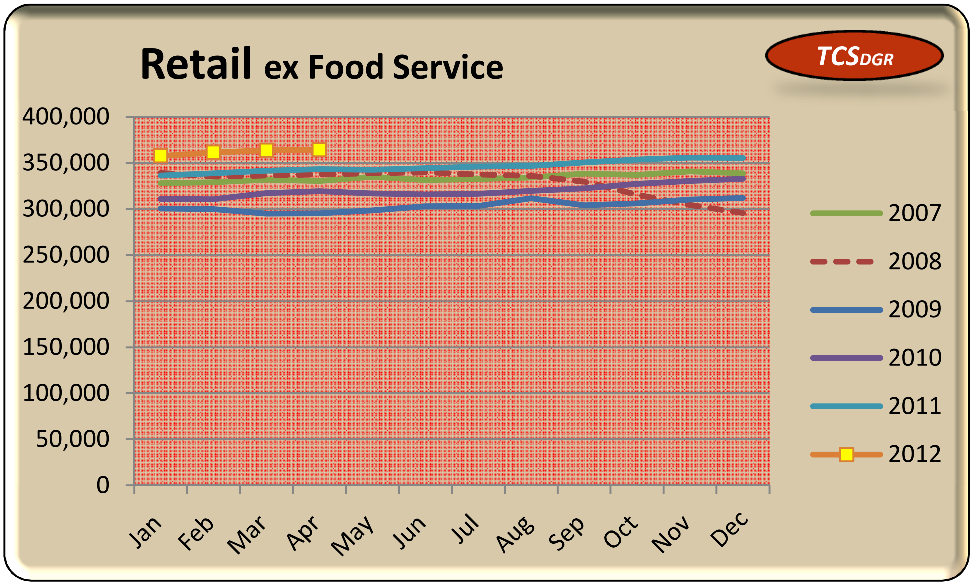


Furniture: New orders decreased 1.6% to $5.3 billion. The book to bill ratio decreased to 0.99. Growth index decreased to 1.026.

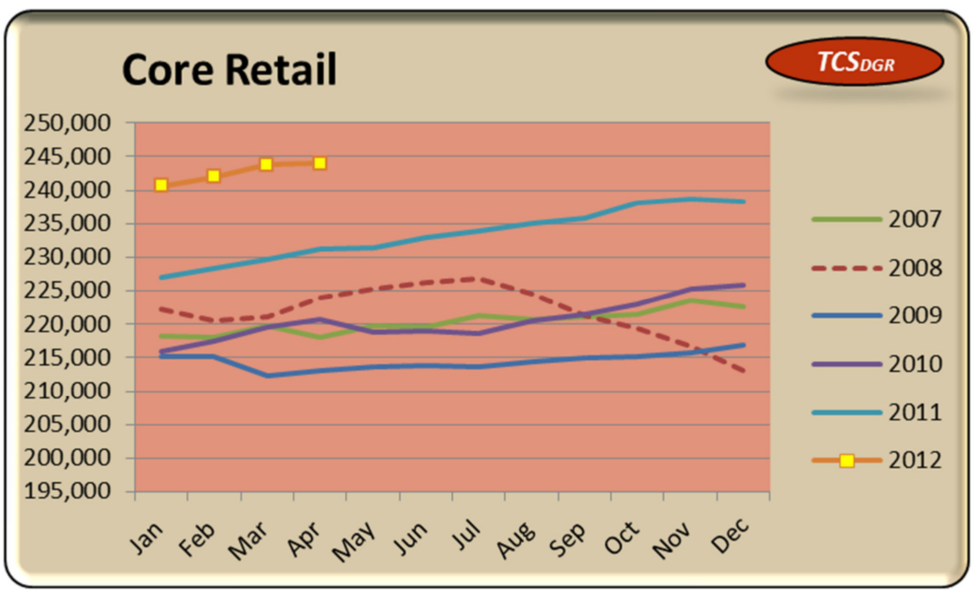

Furniture - New Orders
TCSDGR
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
1
2
3
4
5
6
7
8
9
10
11
12
2007
2008
2009
2010
2011
2012

Retail Data (Advanced Release)

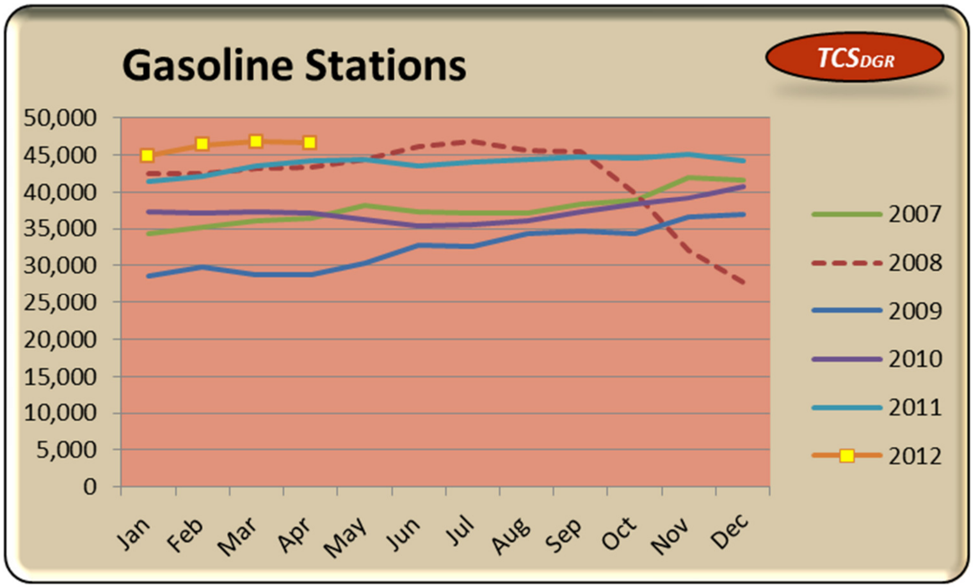
Retail Sales (excluding food service) increased 0.1% to a record $364.2 billion in April. The current recession is not the result of a lack of demand and thus will not respond to added stimulus in this sector.

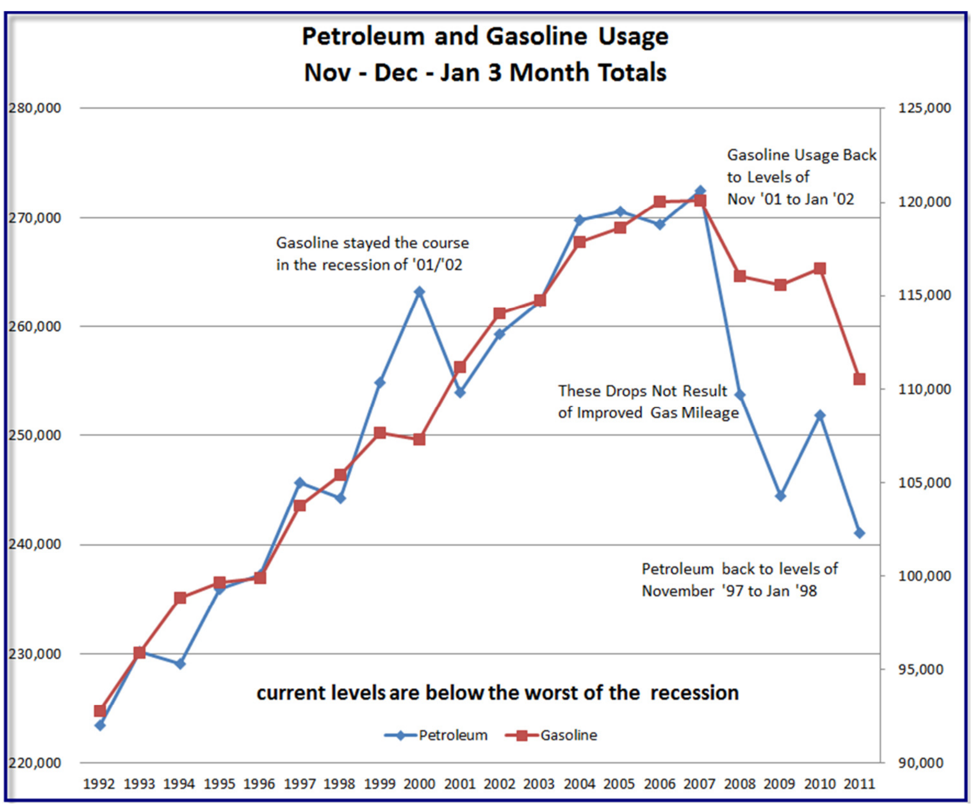


Core retail (excludes food service, gasoline, autos and parts) increased 0.1% to $244 billion, another all-time record, but showing signs of slowing. See the Groceries chart for a better reading on the inflation component.

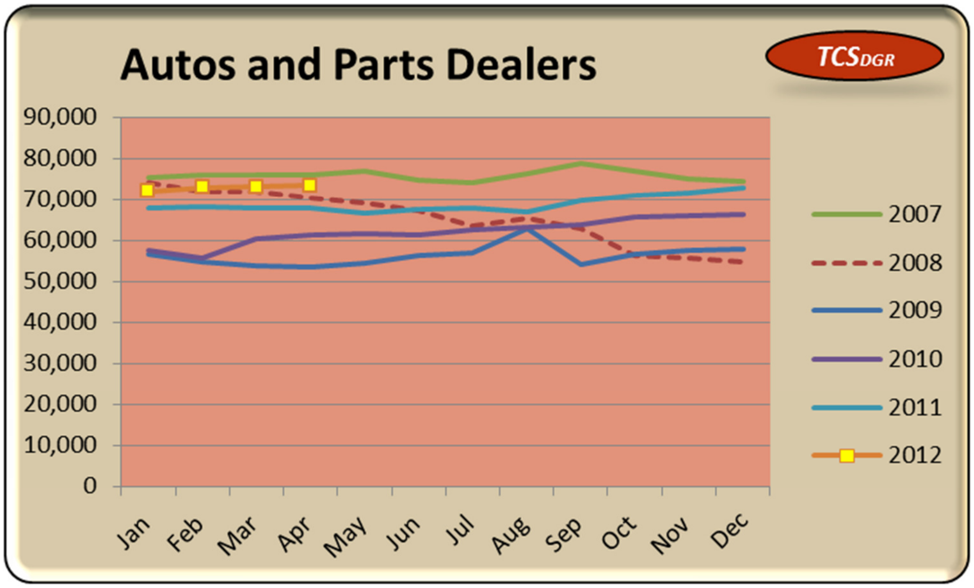


Gasoline sales decreased 0.3% in March to $46.6 billion. This is welcome relief to consumers, but that misses the point that gas prices are far above the level that would exist in a true free market. Gas sales now stand 5.5% above the same month in the prior year. Unit sales continue to decline. See the two charts below for the full picture.

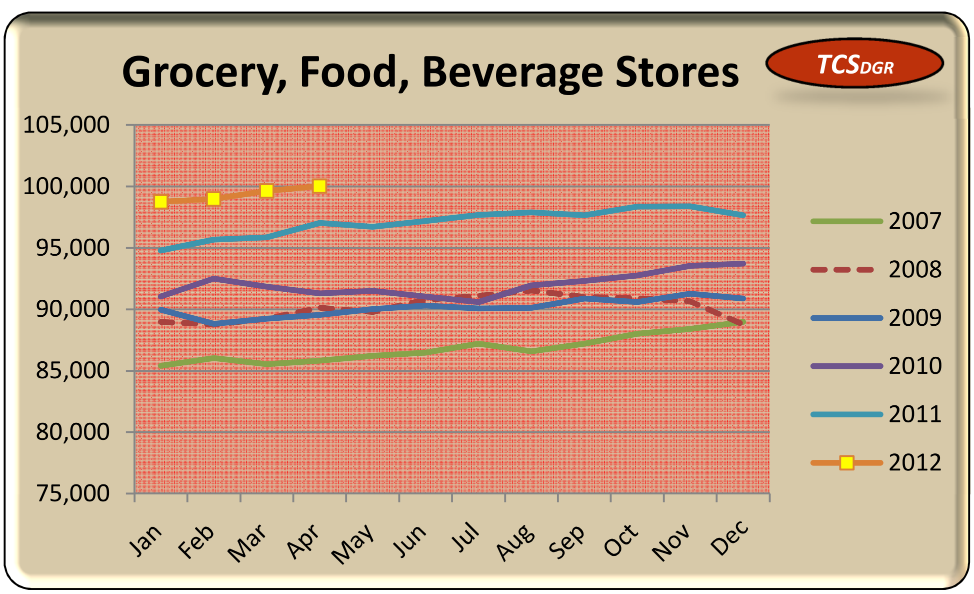




Auto sales increased of 0.8% to $73.6 billion in April and now stand 8.4% above last year. Sales are approaching the levels of 2007, although the values are measured in inflated dollars. This extended performance is sign of a return to something like normal demand patterns. The average age of the fleet remains high (over 11 years), and is unlikely to return to lower norms soon.



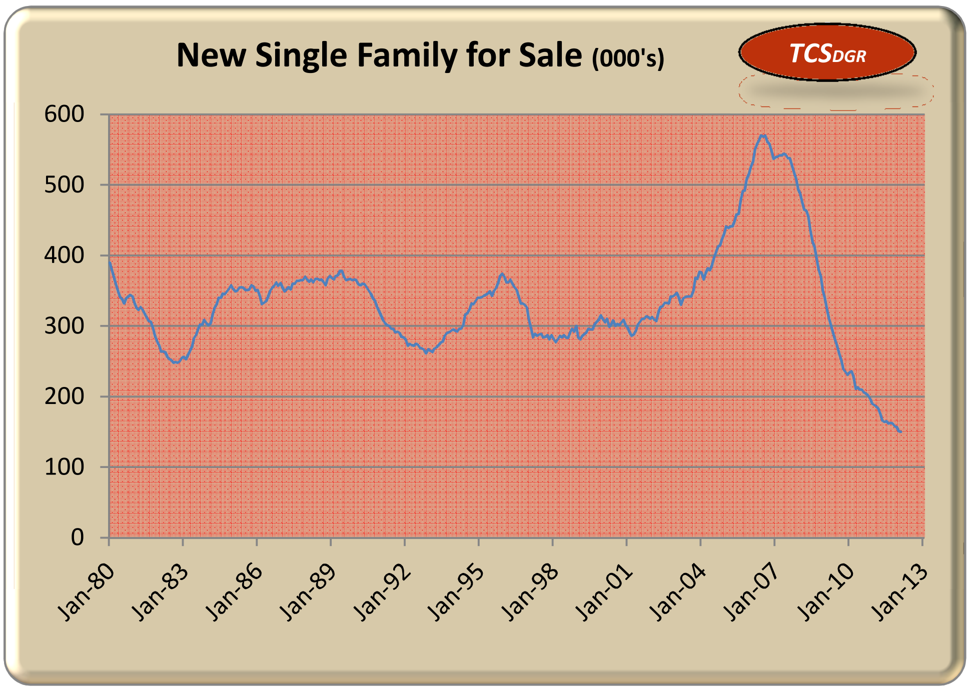
Grocery and Beverage stores sales increased 0.4% in April to $100 billion (3.0% above last year). This is the first time this measure has exceeded $100 billion. Inflation has shown a marked effect over the past two years, but does not seem to be getting worse.

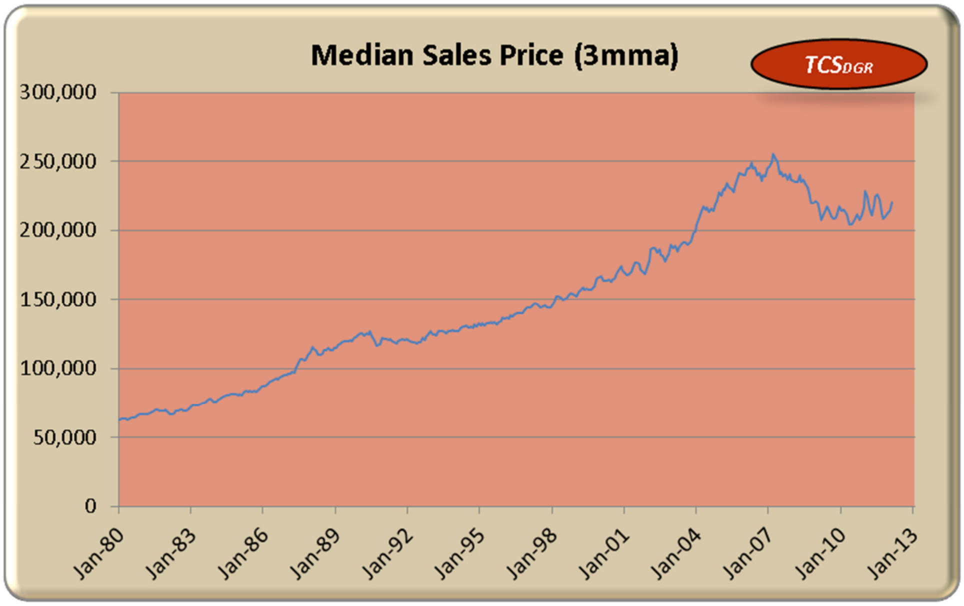


Housing:

Housing sector remained weak, but with a few small positive signals. Demand for new single family homes has finally hit the hard reality of depleted inventory. There are even a few stories of bidding for homes. Single family starts increased 2.3% to 492,000. New single family sales increased by 3.3% to 343,000 units. Inventory of unsold new single family homes increased 1.4% to 146,000, the highest in 5 years. Only 4 of the past 60 months have increased by 1%.

Median 234,633, up 11% above the same period last year.




Median Sales Price (3mma)
TCSDGR
300,000
250,000
200,000
150,000
100,000
50,000
0
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 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 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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