The Durable Goods Report

May 2012

Executive Summary of US Economic Activity

Manufacturing Data Release of 5/2/2012 (Mar Preliminary)

Employment Data Release of 5/4/2012 (Apr Preliminary)

Retail Data Release of 4/16/2012 (Apr Advanced)

Industrial Production Data Release of 4/16/2012 (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	203,042	211,474	197,329
12 month moving average	202,571		195,292
% Change from Prior Year	3.7%		
Growth Index - Durable New Orders	1.023	1.046	1.002
Unshipped Orders - Durable	930,640	930,167	848,202
% Change from Prior Year	9.7%		
Value of Shipments - Durable	208,780	206,821	196,879
Inventory - Durables	375,104	373,255	347,292
% Change from Prior Year	8.0%		
Inv to shipments ratio - Durable	1.80	1.80	1.73
US Economy Key Measures			
	This period	Last period	Change
GDP 2011 Q4	15,461.8	15,319.4	0.9%
Industrial Production	2,553.8	2,530.7	0.9%
Capacity Utilization %	78.6	78.7	(0.1)
Manufacturing %	78.3	78.6	(0.3)
Durable Goods %	77.5	77.8	(0.3)
Primary Metals %	77.5	78.8	(1.3)
Autos and Parts %	75.6	75.2	0.4
Machinery %	84.8	84.5	0.3
Durable Goods ($Mil SA)			
New orders	203,042	211,474	-4.0%
Shipments	208,780	206,821	0.9%
Inventory	375,104	373,255	0.5%
Unshipped Orders	930,640	930,167	0.1%
Retail ex Food Service ($Mil SA)	367,771	364,697	0.8%
Autos and Parts	72,965	72,336	0.9%
Gasoline	47,631	47,105	1.1%
Core retail (ex auto, gas)	247,175	245,256	0.8%
Groceries, beverage	99,146	98,756	0.4%
Employment (000's SA)			
Civilian employed (Household Survey)	141,865	142,034	-169
% of potential workforce	58.4%	58.5%	-0.1%
Civilian not employed (HS)	100,919	100,570	349
Non-Farm (Establishment Survey)	132,989	132,874	115
Private (ES)	111,020	110,890	130
Government (fed, state, local) (ES)	21,969	21,984	-15
Goods Producing (ES)	18,342	18,328	14
Manufacturing (ES)	11,947	11,931	16
Construction (ES)	5,558	5,560	-2
Durable Goods Mfg (ES)	7,471	7,456	15
Housing (000s of Units SA)			
Total housing starts	654	694	-5.8%
Single family starts	462	463	-0.2%
Single family sales (new)	328	353	-7.1%
Single family for sale (new)	144	150	-4.0%

US Economy:

GDP

US GDP for 2012Q1 showed a growth rate of 1.7% SAAR (0.9 QtQ, 4.0% YoY). Substantial decline from 3.0% SAAR in 2011Q4.

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:

Durable goods new orders decreased by 4.0% to $203 billion in March. Inventory to shipments ratio remained high at 1.8.

Retail:

Retail sales increased 0.8% in March to a record $367.8 billion (includes inflation effects).

Employment:

The employment picture is bleak. The broad-based household survey showed that March employment shrank by 169,000 (in contrast to the widely-quoted payroll survey which showed merely anemic growth of 115,000). The "employed" accounted for 58.4% of the working age population, down by 0.1% from the prior month. The number of people not working was 100.9 million, another new record.

The political spin reports that 3.9 million more people are employed since the bottom of the recession. A true statement. But that ignores the 7 million growth in working age population in the same period.

Housing:

Housing construction remains at about half of what would have been considered normal since the end of WWII. It's time to rethink this weak market. It's been down so long in a feeble economy that there may have been a permanent shift in housing aspirations on the part of young people. If true it would have a profound effect on the economy and the culture.

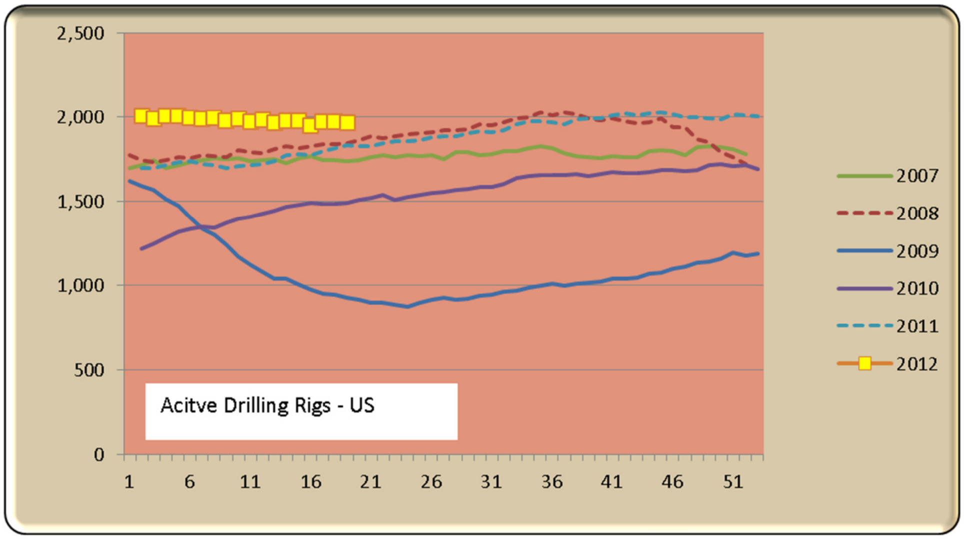
Random Thoughts:

- "The urge to save humanity is almost always a false-front for the urge to rule it."
  –H. L. Mencken
- "During times of universal deceit, telling the truth becomes a revolutionary act." -George Orwell
- Anything that can't go on forever won't. The higher education bubble is getting lots of attention lately with half of college grads unemployed in their chosen field after 24 months.
- China manufacturing continues to slow.
- EU manufacturing continues to slow.
- India shows slowing GDP growth rate.
- US GDP growth slows markedly.
- EU elections show a resistance to reducing the entitlement culture. Someone needs to break this chain before everyone goes broke. It's now clear it won't be France or Greece.
- Hollande, a Socialist, is now the president of France. He proposes raising the millionaire tax to 75%. The last three capitalists are now talking about moving to the UK. That would be an improvement exactly how?
- Despite all conflicting evidence, the EPA continues to protect us from CO2 emissions. This highly efficient process also protects us from jobs. I guess that's a twofer.
- Prof Henrik Svensmark explains that evidence continues to accumulate that the Sun controls climate on all time scales from hours to millions of years. CO2 effects are so small they can't be measured. http://hockeyschtick.blogspot.com.au/2012/04/svensmark-evidence-continues-to-build.html
- Svensmark hits the cosmic jackpot in a new paper just published. After several decades of cosmic ray research, he shows that nearby star events in the Milky Way are the only consistent correlation to paleo-climate. Likely caused the Permian-Triassic mass extinction 291 million years ago. Shows no correlation to CO2. The paper describes the causal link between cosmic ray intensity, cloud formation, and temperature on Earth. Cosmic rays are stronger (Earth is colder) when the Solar system moves through high-star-density arms of the galaxy. http://wattsupwiththat.com/2012/04/24/svensmarks-cosmic-jackpot-evidence-of-nearby-supernovae-affecting-life-on-earth/

- We are now witnessing the flipping of the solar magnetic poles. It happens every 11 years, but we now have more instrumentation than at any time in the past.
- Forecast for Solar cycle 24 peak in 2013 is the lowest since 1800.
- Bering Sea ice extent sets an all-time record.
- We've had lots of feedback on our prediction several months ago that we are awash in hydrocarbon energy, and that it would soon be too cheap to justify the cost of billing. I used the analog of long distance telephone where the price per minute dropped below the cost to bill a minute (about $.05). At that point the telephone providers switched to selling "bundles." I further predicted that when energy reached that point you would be billed as a % add-on to your water bill. I'm sticking with the forecast (but without an effective date).
- Natural gas has plummeted. At $2 per million British Thermal Units the producers are struggling to make a profit. That's $10 per barrel of oil equivalent.
- Approval granted for a major natural gas export terminal. This should allow some increase in prices, stabilized markets, and a break in the Russian stranglehold on EU energy supply. UPDATE: Sierra Club announces they will veto the move. They were given that power in the Carter administration.
- Germany is planning to build 17 new coal fired power plants and 29 new gas -fired plants in their push to speed replacement of their nukes. What ever happened to the Greens?
- Unless the nuke industry converts to Thorium they will become as obsolete as windmills. They won't be able to compete with gas-fired plants within a couple of decades. Uranium nukes are too expensive to build.
- Australian Prime Minister Jillian has repealed cap & trade legislation. Not sure how that's done in Australia but it came immediately after her party took an existential drubbing at the poles in the Queensland Parliament elections. Went from a majority of the 89 seats to 7 seats.

Energy:

US drilling activity is stable at near record levels. However new orders for mining-oil-gas equipment took a serious drop. The lack of any serious growth agenda in Washington may put a damper on this sector soon. Energy consumption is slowing (electric) or dropping (oil and gas). Inventories are building.



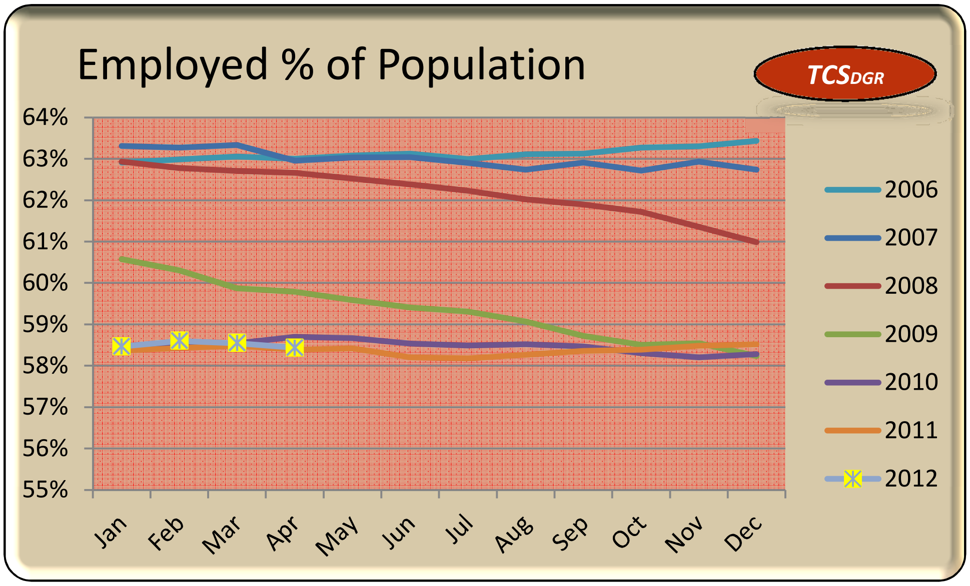
The biggest threat to energy independence is the attitude of the administration and regulators that there is something that needs fixing in the direction of energy markets. They believe that carbon energy is scarce and evil. Neither is true.

But it is increasingly obvious that the regulators are ignorant of, or uncurious about, the facts. They are acting in ways that suggest a focus on the immediate mission (transforming the energy economy) to the exclusion of objective reality.

CEOs with significant exposure to energy markets (airlines, durable manufacturers) should note that attempting to apply logical arguments in debates with regulators will have no positive outcome. The only remedy is in the political arena. This presents great risk for CEOs, since it may come in conflict with customers. The politics is probably best left to others outside the company. Association lobbying efforts can be helpful, but ultimately backfire. It entrenches the problem since it acknowledges the regulators authority.

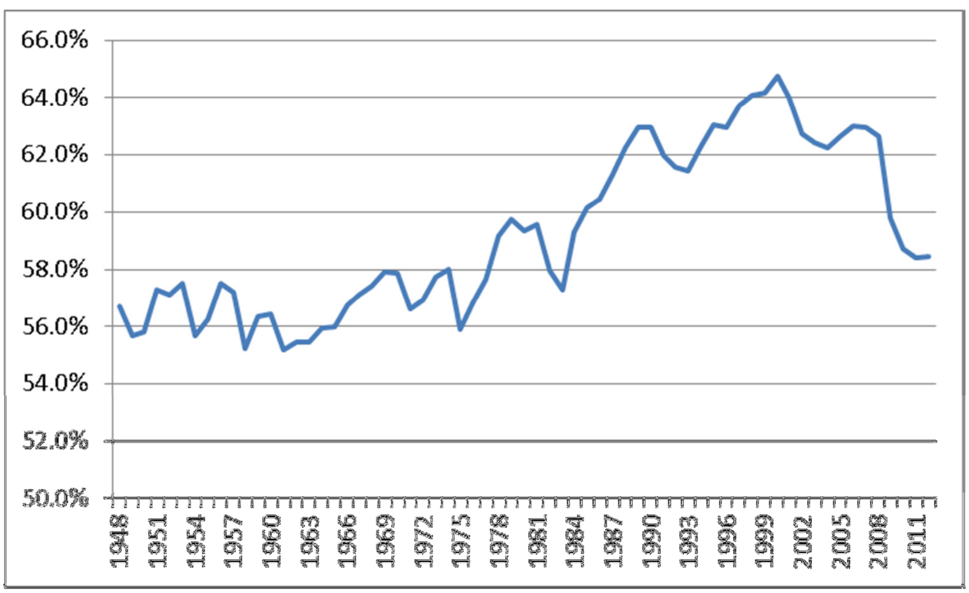
It's a hard problem, but never forget the prime directive is profitable investment.

Employment:



The employed % of the non-institutional population dropped to 58.4% in April, from 58.5% the prior month. Employment has made no progress since it collapsed in 2009.

The job creation number, quoted generally at +115,000 based on the payroll survey, was actually negative 169,000 based on the broad-based household survey.



April Employed % since 1948

The recent drop in employed % started in early 2007, coincident with the Democrats takeover of the House. The acceleration in the financial crisis of late 2008 lasted until mid-2009. There has been no recovery since that time. The number has been 58.5% +/- 0.2 for 31 months.

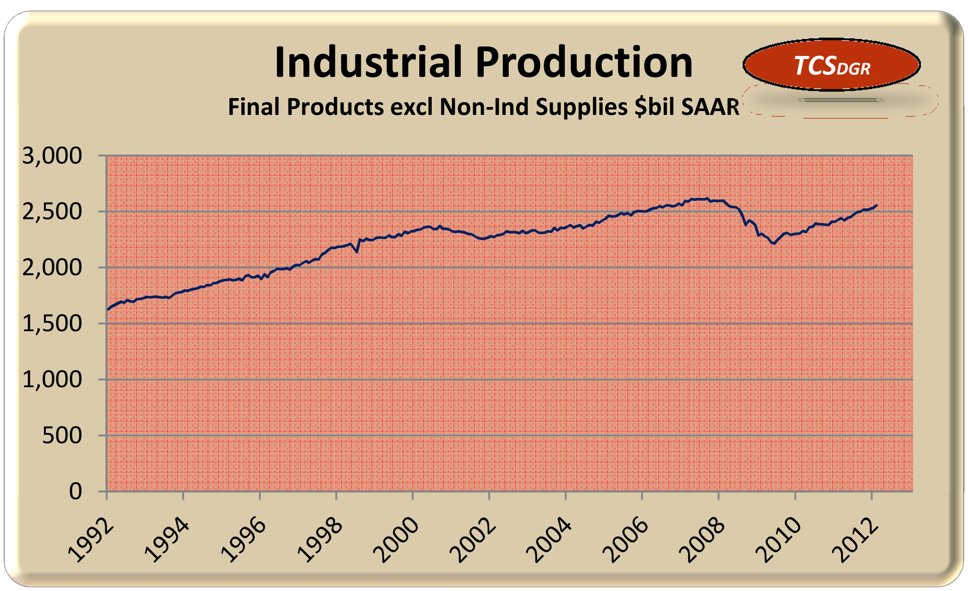
Over the past month we have attempted to gain further insight into this number by analysis of the number of hours worked. The anecdotal evidence suggests the current numbers overstate employment compared to the 50s when far more employment was full time. So far we've been foiled in the attempt due to the lack of detailed work-hours data before about 1992.

The number of people not working (unemployed but looking plus not-in-the-labor-force) totaled 100.9 million, up 359,000 since last month.

The employment picture is generally bleak.

Sector Detail

Industrial Production (excluding industrial supplies like energy) decreased by 0.2% in March to $2.55 trillion. We are now 4.4% above the same period last year. This recession has been the worst since WWII. A modest recovery has now been reversed by the first negative number in a year.



Industrial Production - final products $b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2011	1	2410.358	0.1%	4.6%
2011	2	2425.119	0.6%	5.2%
2011	3	2441.956	0.7%	5.0%
2011	4	2420.795	-0.9%	4.4%
2011	5	2444.131	1.0%	3.5%
2011	6	2451.938	0.3%	3.8%
2011	7	2474.757	0.9%	3.4%
2011	8	2494.55	0.8%	4.6%
2011	9	2500.433	0.2%	4.8%
2011	10	2516.514	0.6%	5.6%
2011	11	2515.982	0.0%	5.7%
2011	12	2524.121	0.3%	4.8%
2012	1	2530.663	0.3%	5.0%
2012	2	2553.838	0.9%	5.3%
2012	3	2549.566	-0.2%	4.4%

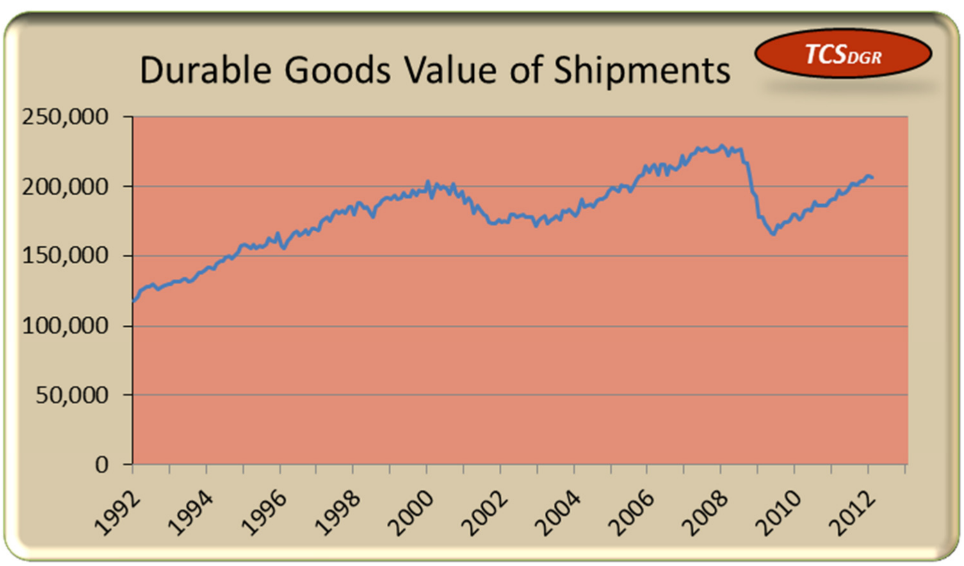
Capacity Utilization: Capacity utilization for industrial production declined 0.1 to 78.6%.The primary metals sector declined dramatically by 1.3% to 77.5%. Other sector performance: Manufacturing down 0.3% to 77.5%; Durable goods down 0.3% to 77.5%; Autos up 0.4% to 75.6%; Machinery up 0.3% to 84.8%.

The large drop in primary metals reflects a general slowing of the economy. This is consistent with the signals coming from employment and from Asia and the EU.

The Durable Goods Sector:

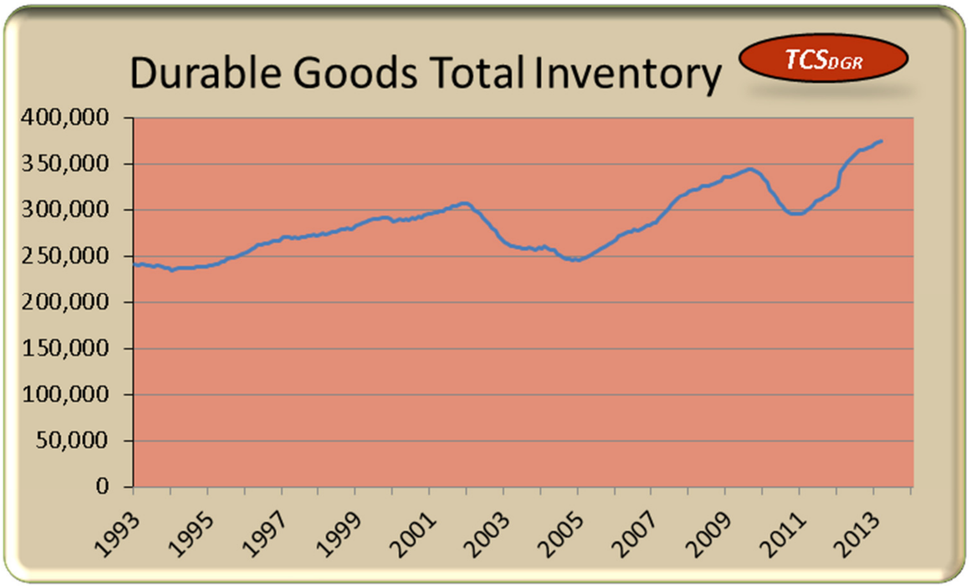
New Orders: Durable new orders decreased by 4% to $203.0 billion. The new order growth index declined to 1.023. The modest recovery in Q1 has now faded sharply.

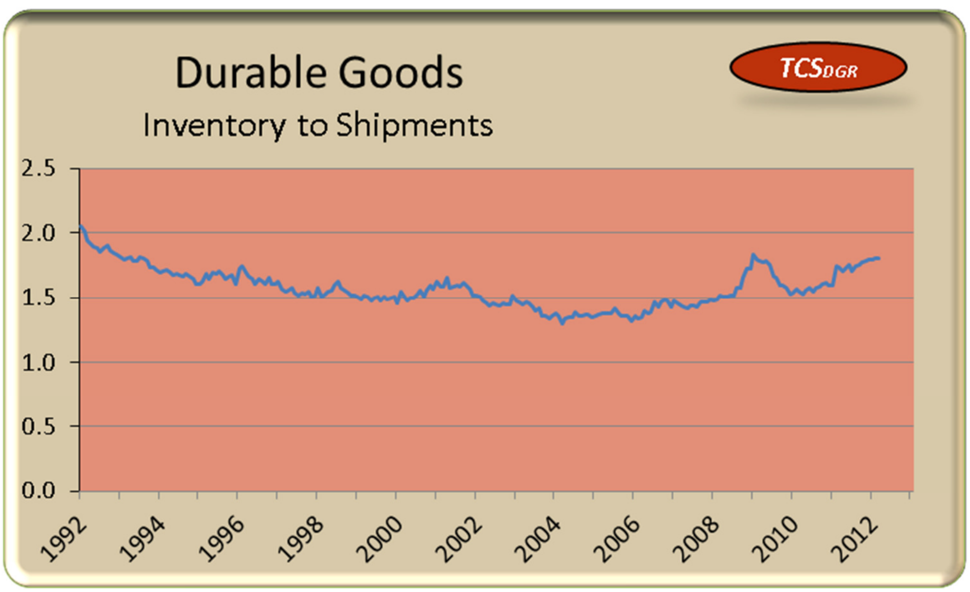
Shipments increased 0.9% to $208.8 billion. Book to bill ratio dropped to 0.97 (long term average is 0.98).



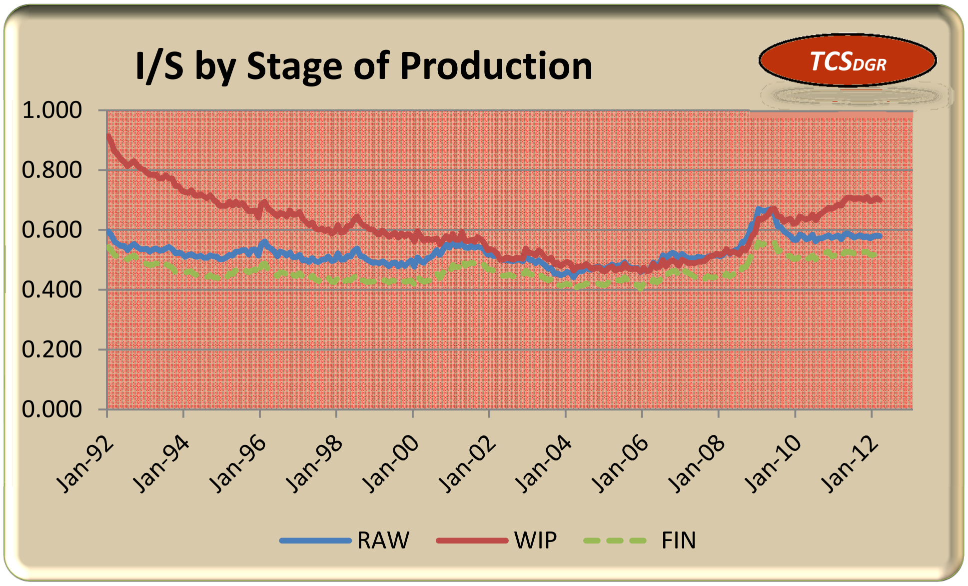
Unfilled Orders increased by 0.1% to $930.6 billion.

Inventory Total inventory increased by 0.5% to $375.1 billion, another record high. Inventory to shipments ratio remained steady at 1.80, the worst performance since January 2009 at the beginning of the manufacturing retrenchment into recession.





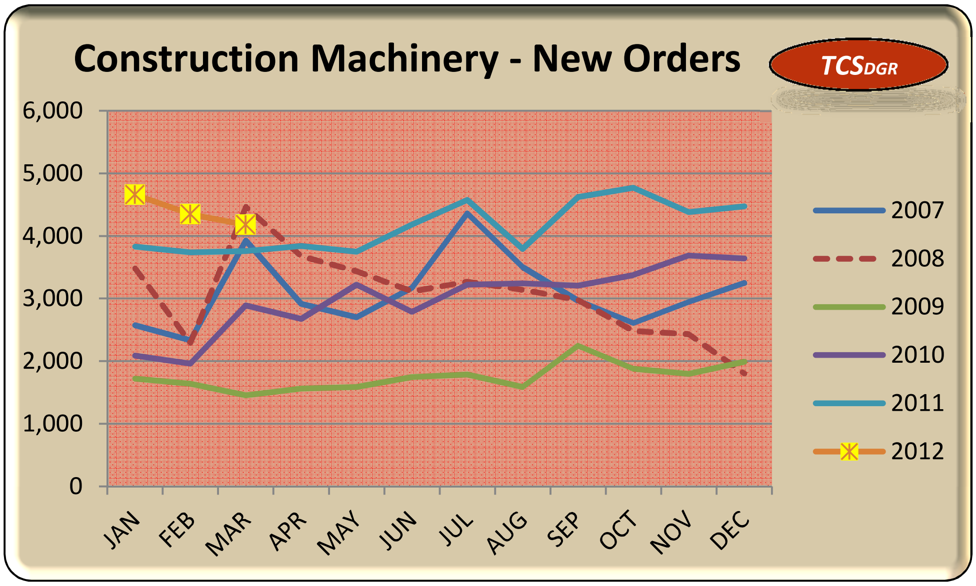
From 1992 until 2007 the inventory to shipments ratio made steady progress as supply chain velocity improved. This recession has reversed all that progress. Financial efficiency will be degraded as a result.

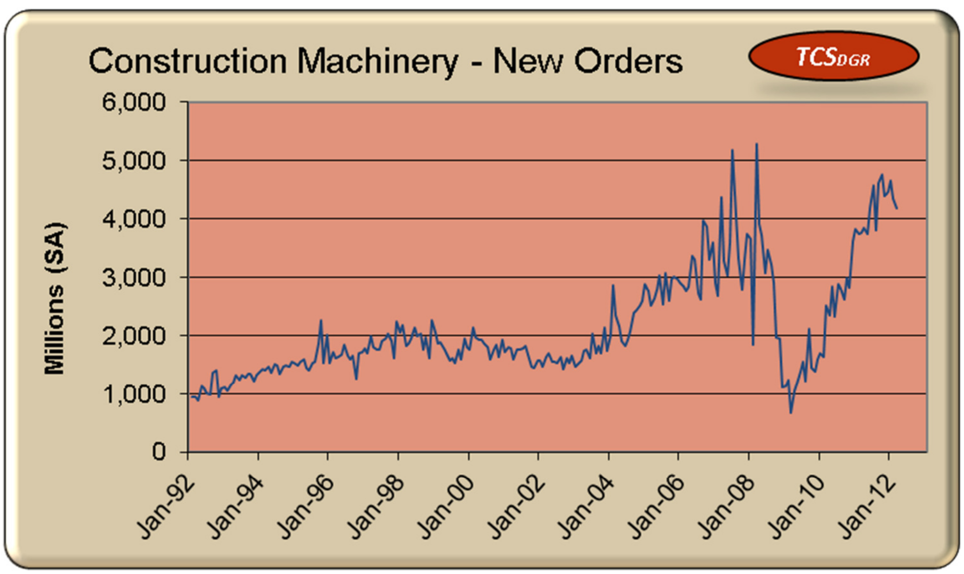


Recent I/S problems are focused in WIP inventory. The persistent state of elevated WIP suggests a prolonged difficulty in maintaining factory velocity. In terms of delivery performance this measure is ambiguous. It might signal poor management of factory flows or it may equally demonstrate aggressive in-process staging to improve delivery response. Probably the former.

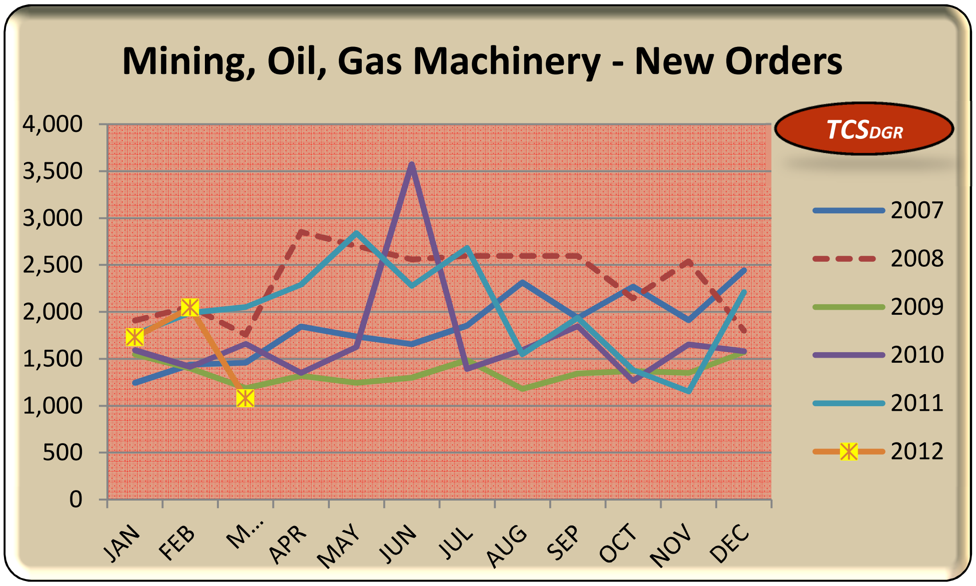
Durable goods sub sectors:

Construction machinery new orders decreased by 3.9% to $4.2 billion. 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. The CAT strike in Peoria adds to the uncertainty in this softening economy.

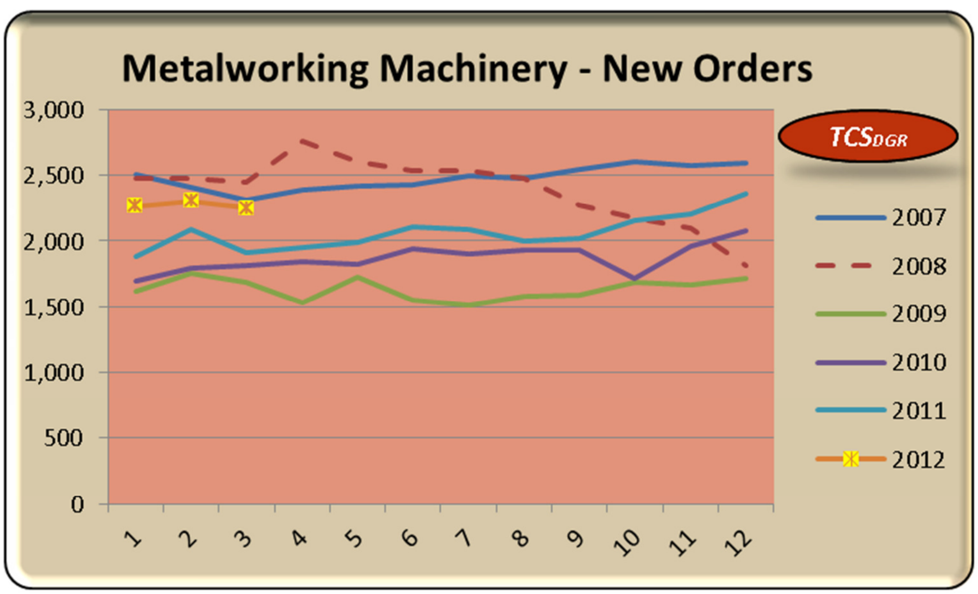




Mining, oil and gas machinery new orders decreased by 47% to $1.1 billion. Book to bill ratio collapsed to 0.64 (long term average = 1.03). This is the lowest level of new orders since 2005.

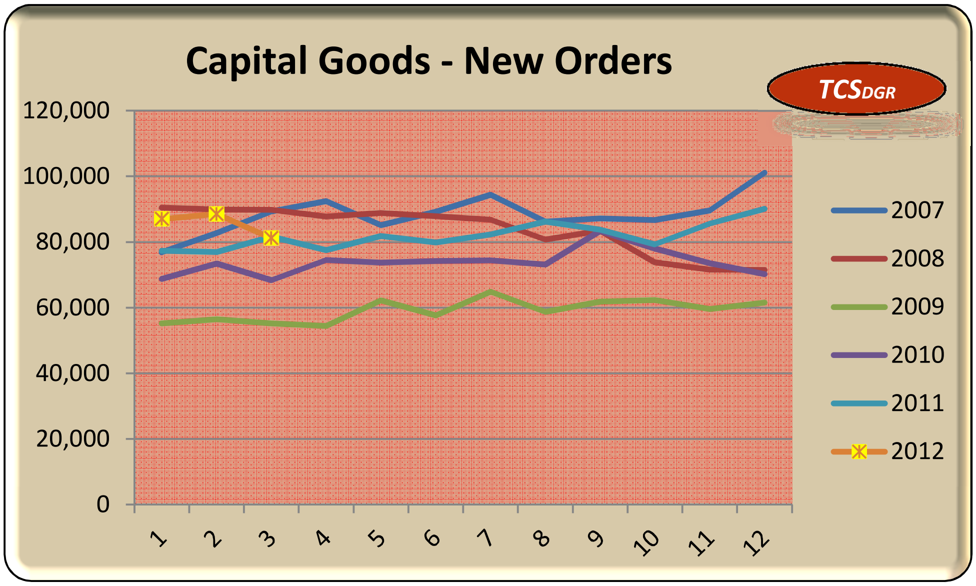


Metalworking machinery new orders decreased by 2.3% to $2.3 billion. Book to bill ratio remained at 1.03 (long term average = 1.00).

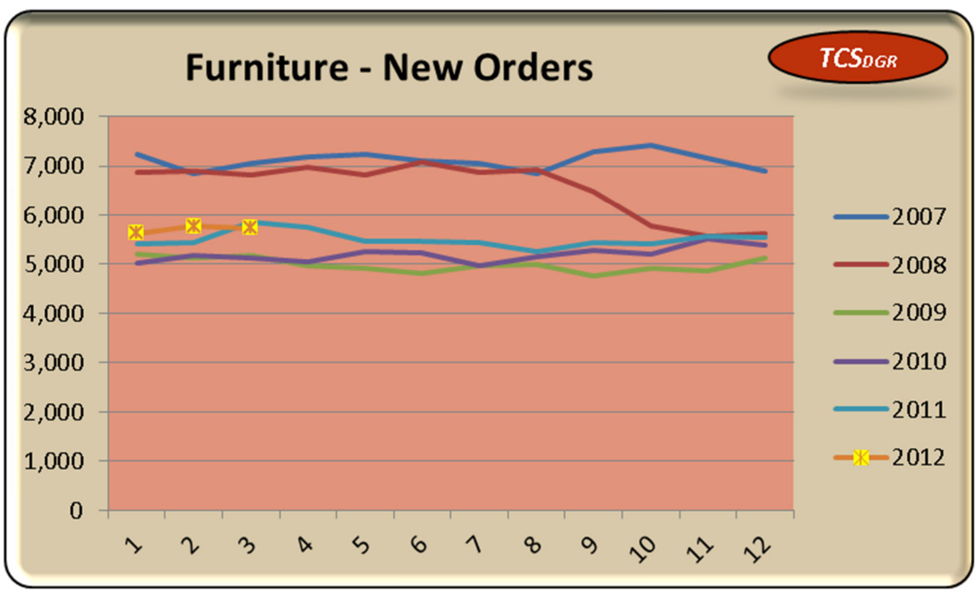


Fabricated metal new orders decreased 0.4% to $26.6 billion. Book to bill ratio is reported at 1.02 (long term average = 1.00).

Capital goods decreased by 8.4% to $81.1 billion. Book to bill ratio declined to 1.00 (long term average = 1.01).

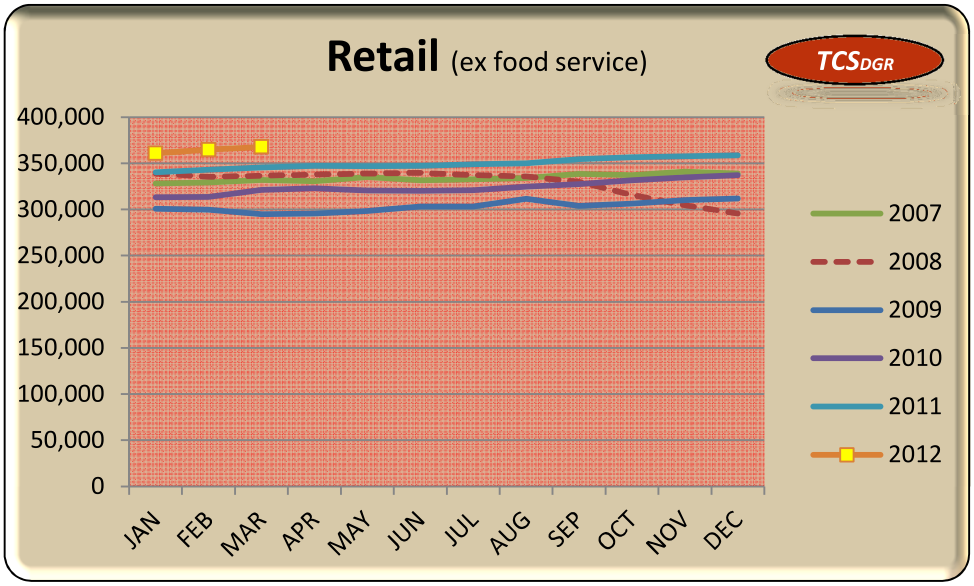


Furniture: New orders decreased 0.5% to $5.7 billion. The book to bill ratio increased to 1.02. Growth index increased to 1.030.

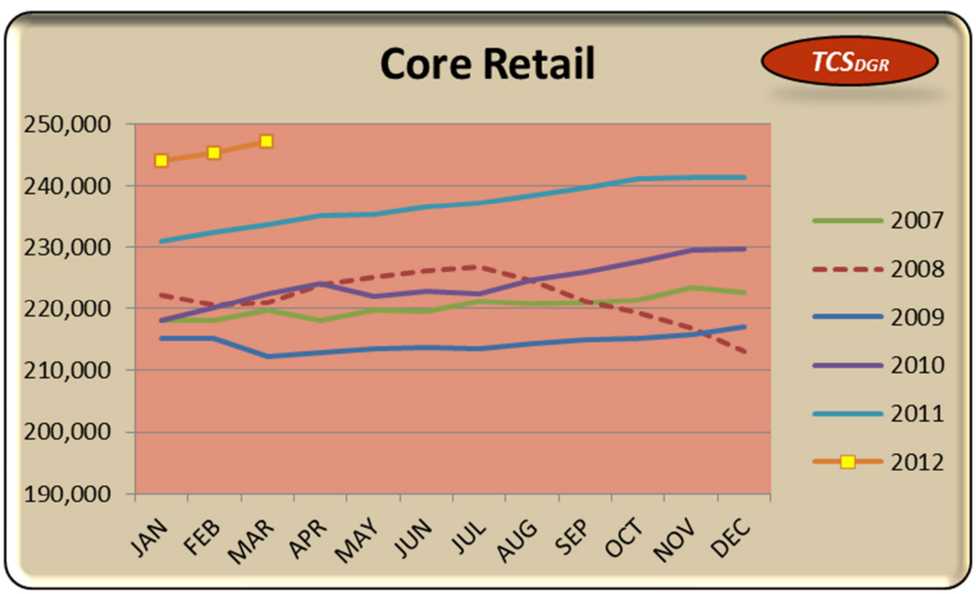


Retail Data (Advanced Release)

Retail Sales (excluding food service) increased 0.8% was to a record $367.8 billion in March. The current recession is not led by a lack of demand and thus will not respond to added stimulus.

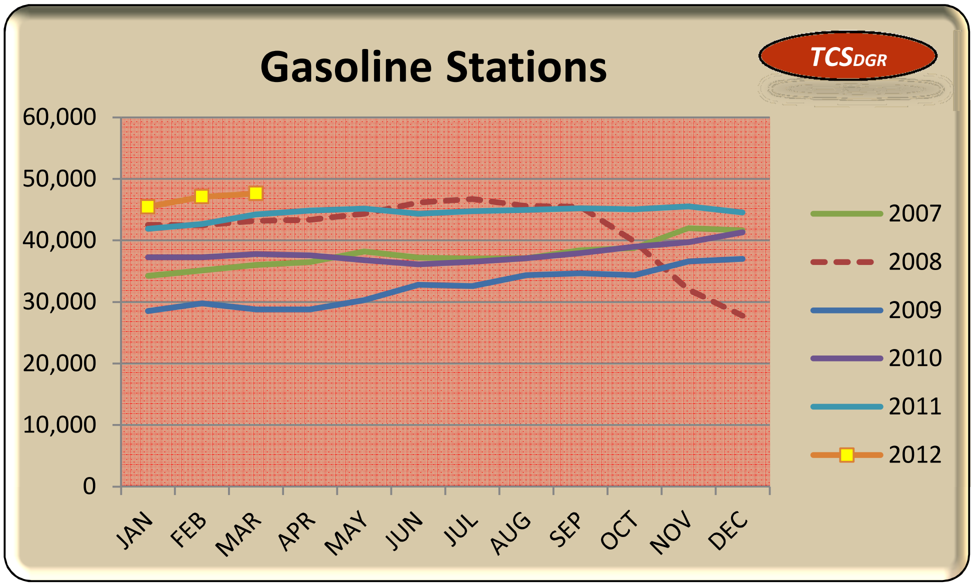


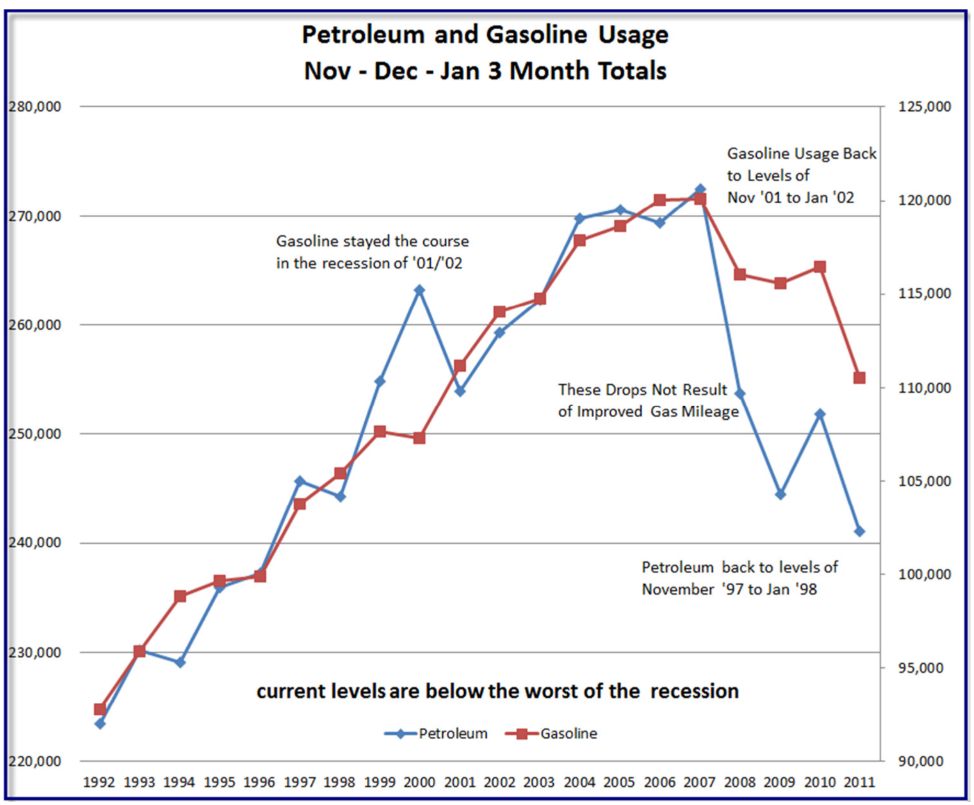
Core retail (excludes food service, gasoline, autos and parts) increased 0.8% to $247.2 billion, another all-time record. See the Groceries chart for a better reading on the inflation component.



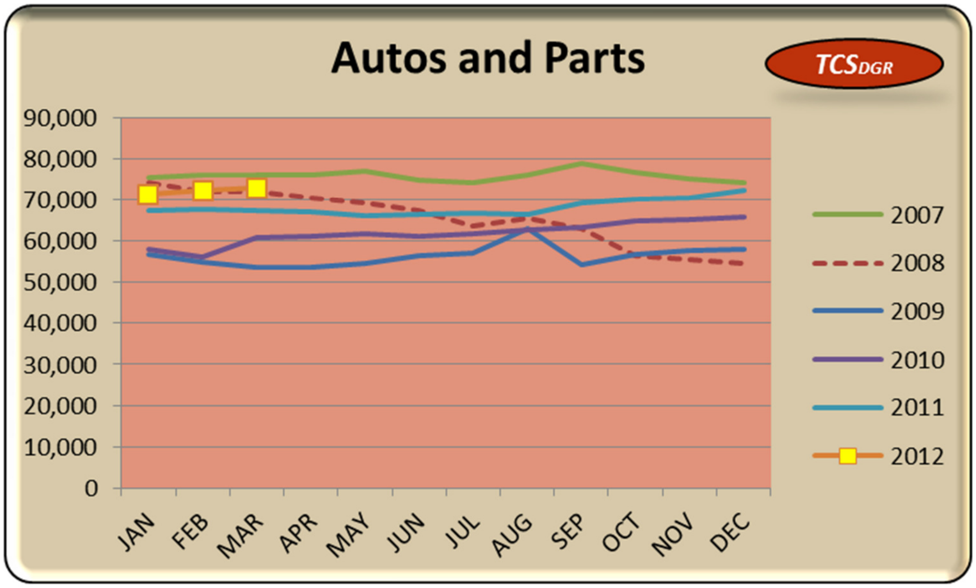
Gasoline sales increased 1.1% in March to $49.6 billion. Gas sales now stand 7.6% above the same month in the prior year. Rising prices masked the continued decline in unit sales. See the two charts below for the full picture.

Retail (and the entire economy) would clearly benefit from less diversion of money to gas.

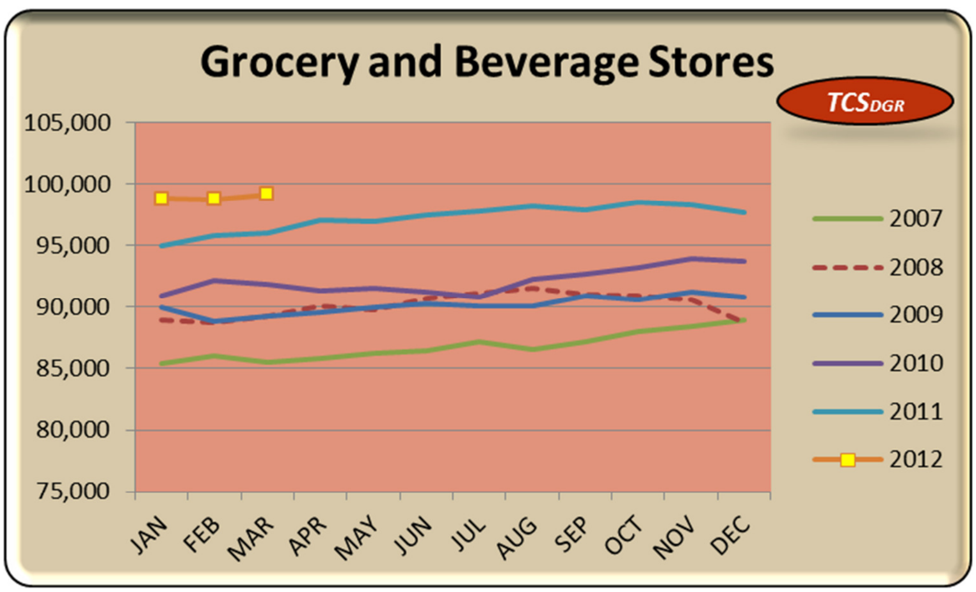




Auto sales increased of 0.9% to $73 billion in March and now stand 8.3% above last year, despite the drop in capacity utilization at the factories. Inventory is still too high so there will be more adjustments to come.



Grocery and Beverage stores sales increased 0.4% in March $99.1 billion (3.3% above last year).



Housing:

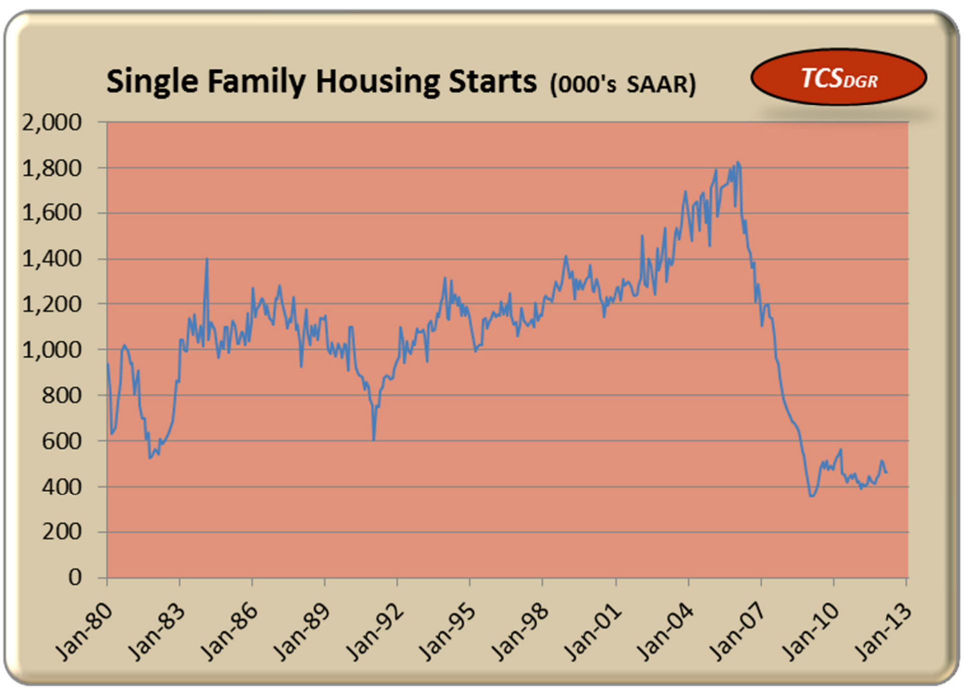
Housing sector remained weak. Single family starts decreased 0.2% to 462,000. New single family sales decreased by 7.1% to 328,000 units. Inventory of unsold new single family homes set a new record low of 144,000.

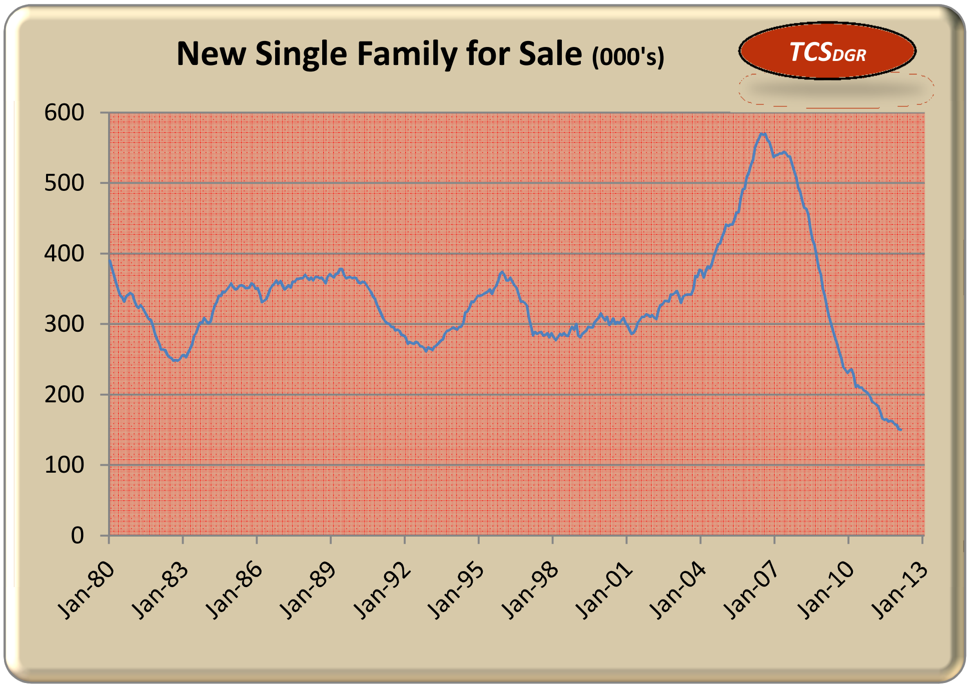
These numbers show two things. First the market is still upside down. Starts are substantially higher than sales. This can't continue. Second, the length of this disrupted market points to a permanent cultural shift in housing expectations. This is a pretty big deal for the economy. If the current generation of young people decide that home ownership is too risky or too burdensome, the industry may have suffered permanent damage. Further evidence is seen in the stronger multi-family share of the market.

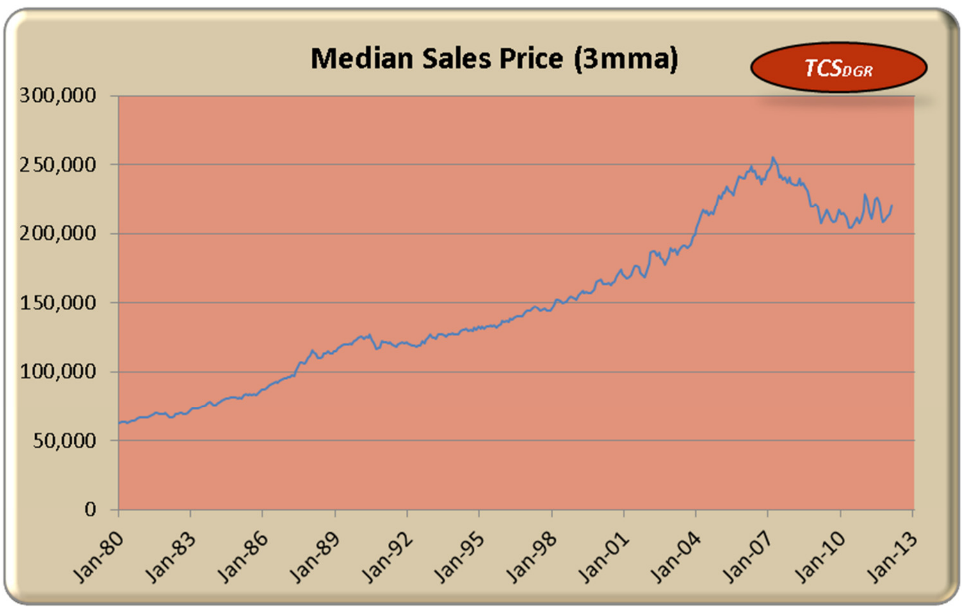
Several factors have people of household-formation age re-thinking home ownership:

- The investment potential is no longer an accepted argument
- The risk of going upside down (and becoming immobile) is real
- The interest deduction has no value to the half of all wage earners who don't pay federal income tax

Home ownership has been a foundational aspiration of American culture for 70 years. The impact of a reversal in expectation could be a major economic and cultural setback.




New Single Family for Sale (000's)
TCSDGR
600
500
400
300
200
100
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


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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