The Durable Goods Report

April 2012

Executive Summary of the US Economy

Manufacturing Data Release of 4/3/2012 (Feb Preliminary)

Employment Data Release of 4/9/2012 (Mar Preliminary)

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

Industrial Production Data Release of 3/16/2012 (Feb 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	212,457	207,463	188,693
12 month moving average	202,176		194,559
% Change from Prior Year	3.9%		
Growth Index - Durable New Orders	1.047	1.050	1.001
Unshipped Orders - Durable	931,085	919,011	842,152
% Change from Prior Year	10.6%		
Value of Shipments - Durable	206,693	207,421	190,921
12 month moving average	201,246		186,005
% Change from Prior Year	8.2%		
Growth Index - Durable Shipments	1.029	1.030	1.025
Inventory - Durables	373,564	372,165	341,416
% Change from Prior Year	9.4%		
Inv to shipments ratio - Durable	1.81	1.79	1.74
US Economy Key Measures			
	This period	Last period	Change
GDP 2011 Q4	15,294.3	15,176.1	0.8%
Industrial Production	2,501.2	2,499.7	0.1%
Capacity Utilization %	78.7	78.8	(0.0)
Manufacturing %	77.9	77.7	0.1
Durable Goods %	77.6	77.4	0.2
Primary Metals %	79.1	79.9	(0.8)
Autos and Parts %	72.3	73.1	(0.9)
Machinery %	84.6	84.9	(0.4)
Durable Goods ($Mil SA)			
New orders	207,463	214,960	-3.5%
Shipments	207,421	207,200	0.1%
Inventory	372,165	370,100	0.6%
Unshipped Orders	919,011	912,507	0.7%
Retail ex Food Srv ($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	99,146	98,756	0.4%
Employment (000's SA)			
Civilian employed (Household Survey)	142,034	142,065	-31
% of potential workforce	58.5%	58.6%	-0.1%
Civilian not employed (HS)	100,570	100,370	200
% of potential workforce	41.5%	41.4%	0.1%
Non-Farm (Establishment Survey)	132,821	132,701	120
Private (ES)	110,824	110,703	121
Government (fed, state, local) (ES)	21,997	21,998	-1
Goods Producing (ES)	18,314	18,283	31
Manufacturing (ES)	11,928	11,891	37
Construction (ES)	5,551	5,558	-7
Durable Goods Mfg (ES)	7,455	7,429	26
Housing (000s of Units SA)			
Total housing starts	698	706	-1.1%
Single family starts	457	507	-9.9%
Single family sales (new)	313	318	-1.6%
Single family for sale (new)	150	151	-0.7%

US Economy:

Industrial Production

Industrial production was flat at $2.50 trillion (excluding industrial supplies). February performance is now 5.9% above the same period last year.

Durable Goods:

Durable goods new orders increased by 2.4% to 212.5 billion in February. Inventory to shipments ratio worsened from already high levels.

Retail:

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

Employment:

The household survey showed that 58.5% of the working age population was employed in March. That's the same as 3, 12, 24 and 30 months. In January of 2007 the number was 63.3%. The number of people not working was 100.5 million.

Random Thoughts:

- On the subject of the history of class warfare - From Robert Heinlein (via instapundit.com):

  "Throughout history, poverty is the normal condition of man. Advances which permit this norm to be exceeded — here and there, now and then — are the work of an extremely small minority, frequently despised, often condemned, and almost always opposed by all right-thinking people. Whenever this tiny minority is kept from creating, or (as sometimes happens) is driven out of a society, the people then slip back into abject poverty.

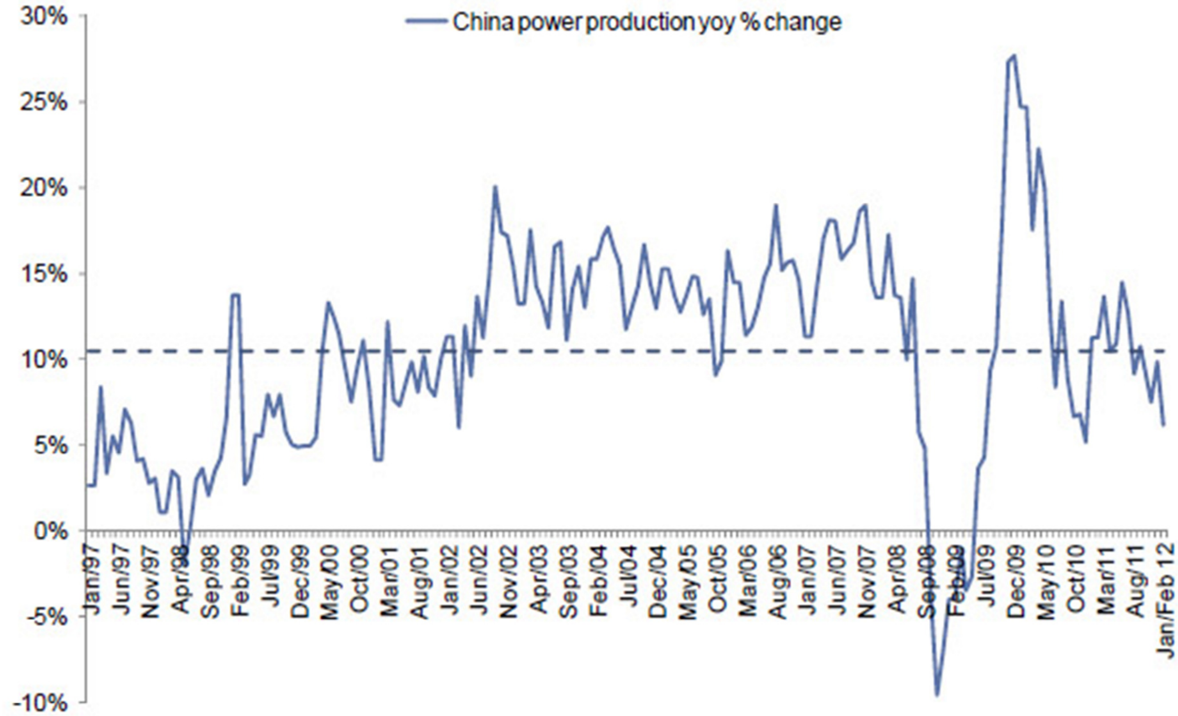
  This is known as "bad luck."

- "Men are the only animals that devote themselves, day in and day out, to making one another unhappy. It is an art like any other. Its virtuosi are called altruists." (H. L. Mencken)

- The government decides to try to increase the middle class by subsidizing things that middle class people have: If middle-class people go to college and own homes, then surely if more people go to college and own homes, we'll have more middle-class people. But homeownership and college aren't causes of middle-class status, they're markers for possessing the kinds of traits — self-discipline, the ability to defer gratification, etc. — that let you enter, and stay, in the middle class. Subsidizing the markers doesn't produce the traits; if anything, it undermines them. (instapundit.com)

- The global economy is not doing well. Growth rates are slowing in China, India and the EU.
  - Electricity production growth in China has declined from 14% to 5% in the past 12 months.

Quieter
Total Chinese power production, yoy % change



Source: CEIC.

- The Telegraph (UK) – "The downturn in shipping is hitting the industry so hard that some of the world's biggest vessels are now worth little more than their scrap value, new figures show. Shipyards have been turning out new vessels at a pace designed to service global demand that has simply failed to materialise, meaning the industry is now sinking under massive overcapacity. As owners have seen the rates charged to carry freight plunge, demand for their ships has collapsed to the point that selling them for scrap makes financial sense much earlier in a vessel's life."

- There are two ways for a nation (or business) to fail economically: 1) spend money you don't have and take on debt in excess of productive return, and 2) spend money you do have on infrastructure that doesn't produce an economic return. Both drain the wealth of a nation into a swamp, never to be seen again. China is doing #2. But the US is doing both.

- China seems to be able to learn. They are dropping subsidies to the solar panel industry.

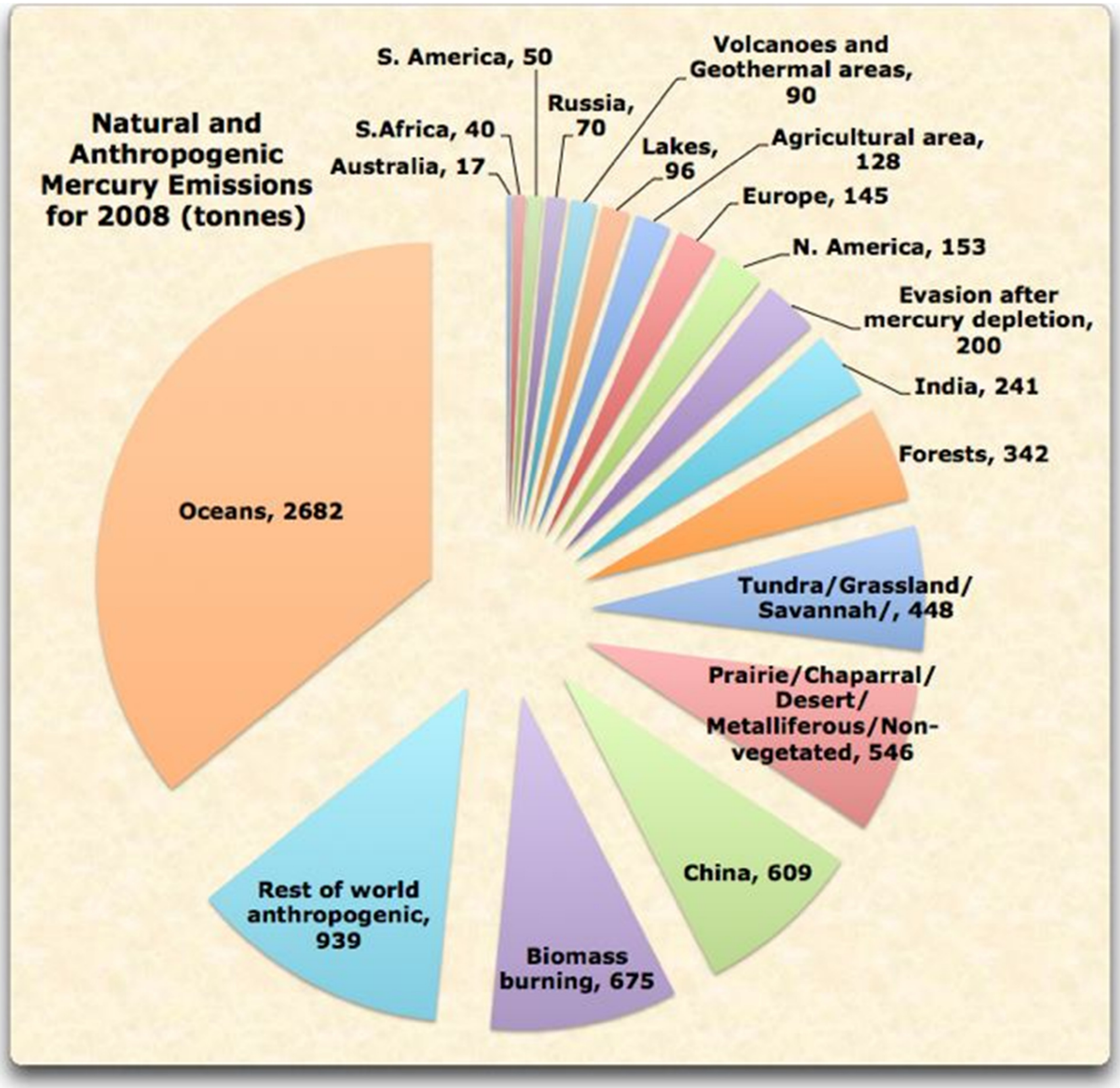
- The US has the most progressive tax system in the world. And Warren Buffet thinks it should be more so.
  - This proves an important adage: Celebrity makes you stupid.
- R. L. Polk and Co study shows that only 35% of hybrid owners buy a second hybrid. Unlike electric cars, there are reasons to consider a hybrid. But it's because it improves the efficiency of an internal combustion engine, not because it saves the planet. Even the economics are false if you remove all the subsidies.
- Long time readers of the Durable Goods Report will recall our disdain for "sentiment surveys." They have regularly been shown to be correlated to news reports and not at all to economic activity. The Purchasing Manager's Index is a classic example. But there is an exception. In the site selection business perception is reality. The decisions will be made before facts can show them to be wrong.
  - A Harvard Business School Study determined that 57% of the US based respondents involved with plant re- location were looking outside the US.
  - Only 9% of non-US-based respondents were considering a US site.
  - Problems with US locations: Taxation, uncertainty, regulation are the primary reasons. Plus they hate US politicians.
- Lots of coverage of the fact that the US now has the highest corporate tax rate in the world. Someone missed the point. That's been true for at least a decade when federal state and local taxes are combined. And the past decade has seen a slow drift downward in US competitiveness. Do you think there might be a connection?
- Industrial-scale charity is at all times to be suspected and rejected. As soon as there is a charity industry, it needs to grow its market. The stunning reduction in US poverty after WWII came to an abrupt halt with the launch of the War on Poverty. It's been flat at 15-18% of the population since then. Once there is an industry dependent on the existence of a poverty crisis there will be no effort spared to assure there is a poverty crisis. Whenever the situation improves the definition is adjusted to maintain the market.
- The industrial-scale race industry has the same problem. Crimes against blacks (Indianapolis) come from other blacks (80%) or other minorities (18%). Black kids have almost nothing to fear from whites, but the racial discrimination industry continues to push a completely false narrative. The goal is simple – keep the government programs (money) coming.

- The global warming alarmists have been successful at one thing. Discrediting their cause. Their incessant scare tactics have raised the visibility so high that serious scientists have done some real science on the subject. As a result the entire crisis narrative has been rejected. Not one piece of science supports a human connection to global climate. The rejection of the hypothesis has been so complete that it will be at least three generations before they can recycle the scam.
- A coalition of 49 ex-NASA employees, including seven Apollo astronauts, have accused the U.S. space agency of sullying its reputation by taking the "extreme position" of concluding that carbon dioxide is a major cause of climate change.
- Based on sun spot activity and magnetic profiles of the Sun, multiple scientists are predicting a long climate cooling cycle.
- Bering Sea Ice Area sets an all-time record. Greatest sea ice extent since the beginning of record keeping. Four of the five highest years have occurred in the last five years. (Courtesy of real-science.com).
- Anchorage sets new record for snowfall. Beats 1954-55. 133.6 inches.
- A survey of Polar Bears in the area west of Hudson's Bay (previously thought to be threatened) shows a record count, up about a third from prior numbers.
- China has dropped subsidies for solar energy projects. The end of the solar industry is in sight.

The EPA Launches Phony War on Mercury

I stumbled on an amazing article from Willis Eschenbach entitled "The EPA's Mercurial Madness." In reviewing the new regulations published on Mercury he discovered some real science that exposes how utterly corrupt the rule making process has become at EPA. Here are the highlights:

- North America accounts for 153 tonnes of anthropogenic emissions of Mercury. The global total (natural plus anthropogenic) is 7500 tonnes. The biggest emitter is the oceans at 2682 tonnes. All of North America comes in 10^{th}. Power plants in North America are less than 0.5% of the total. (University of Oregon study).
  - Conclusion #1: this whole thing is a waste of time from an environmental perspective.
- The controls are applied to power plants. The evidence shows no elevated concentration around power plants. The concentrations are around deserts.
  - Conclusion #2: the regulations will have no measurable effect.
- The study showed that the highest concentrations of Mercury exist downwind from an ocean (West Coast) or a desert (Great Plains).

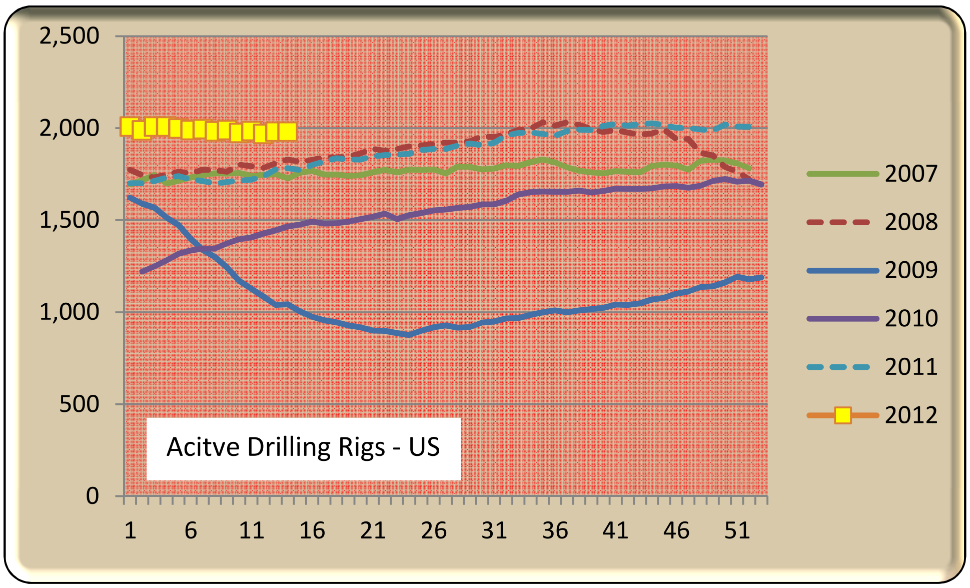

Natural and Anthropogenic Mercury Emissions for 2008 (tonnes)
Australia, 17
S.Africa, 40
S. America, 50
Russia, 70
Volcanoes and Geothermal areas, 90
Lakes, 96
Agricultural area, 128
Europe, 145
N. America, 153
Evasion after mercury depletion, 200
India, 241
Forests, 342
Tundra/Grassland/ Savannah/, 448
Prairie/Chaparral/ Desert/ Metalliferous/Non-vegetated, 546
China, 609
Biomass burning, 675
Rest of world anthropogenic, 939
Oceans, 2682

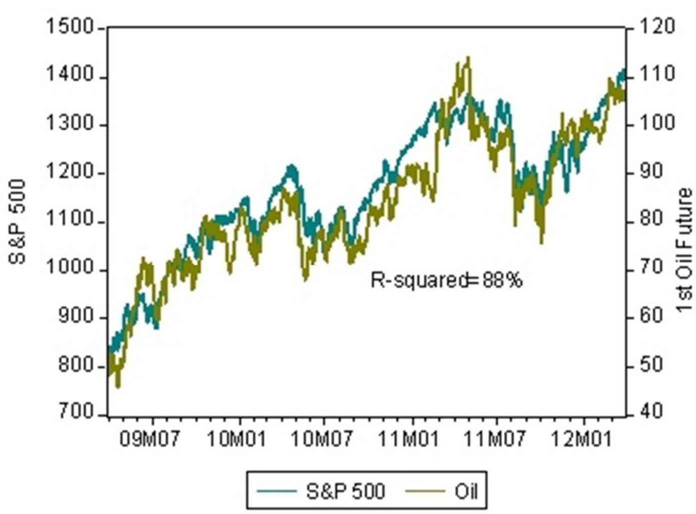
Energy:

US drilling activity remains at record levels.

Canada has announced that they will pursue closer economic ties with China as a customer for their energy exports. The Keystone Pipeline decision has seriously damaged this strategic relationship. The expected reversal by the Obama Administration prior to the election will not repair the damage. The clear signal is that politics is the driver and the radical environmentalist lobby is the engine.

In sports this is called and unforced error.

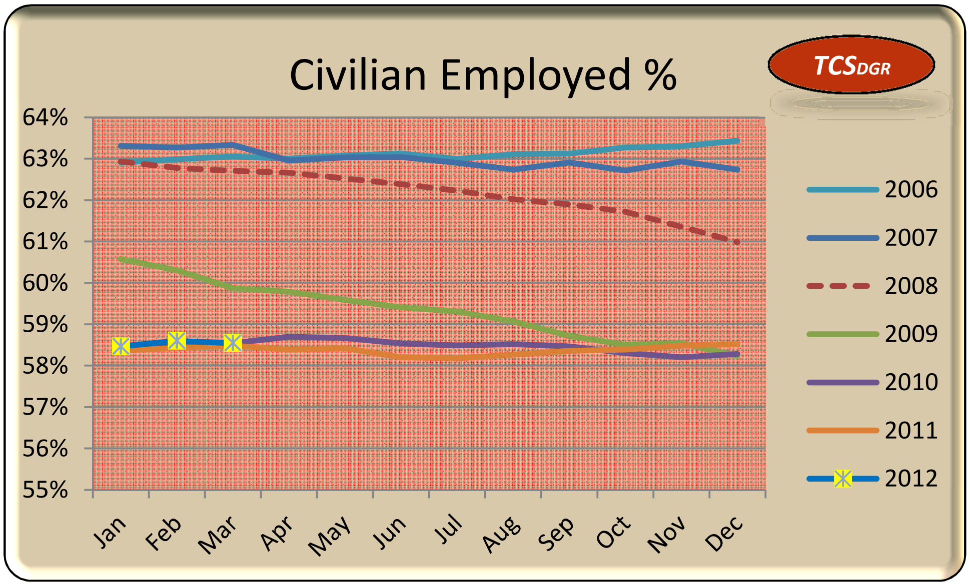




\

The price of oil is correlated with the stock market. Both are driven by growth expectation. This seems to counter the argument that there is a risk premium built into the market due to tensions in the Middle East.

Employment:



The employed % of the non-institutional population was 58.5% in March, unchanged from three and 12 months ago, 24 months ago and 30 months ago. Employment has made no progress since it collapsed in 2009. Since 1980 the % employed has averaged 61.6%. It had reached a near record 63.3% in January 2007.

Date	% Employed	# Not Employed
March 2012	58.5%	100.6 million
December 2011	58.5%	99.8 million
March 2011	58.5%	99.2 million
March 2010	58.5%	98.3 million
October 2009	58.5%	98.1 million
January 2007	63.3%	84.6 million

The number of people not working (and thus supported by someone else) is now above 100 million, the highest level in US history.

Keep in mind that to be classified as “employed” a survey respondent need only work for one hour in the prior week. In next month’s report we will begin to track the total hours worked in the economy as an indicator of the “amount” of employment.

The Bureau of Labor Statistics divides the not employed category into "unemployed" (looked for work in the past week) and "not in the labor force." This distinction is highly volatile, especially in a recession when looking for work is viewed as futile.

The economy doesn't care if you want a job or not. The economy is unaware of your view of yourself as underemployed (a subjective personal judgment). Even though it might give some idea of expectations, economically it is simply not relevant. If you're not working you are supported by someone else who is. We track employed and not working to avoid the subjective and focus on the economic impact.

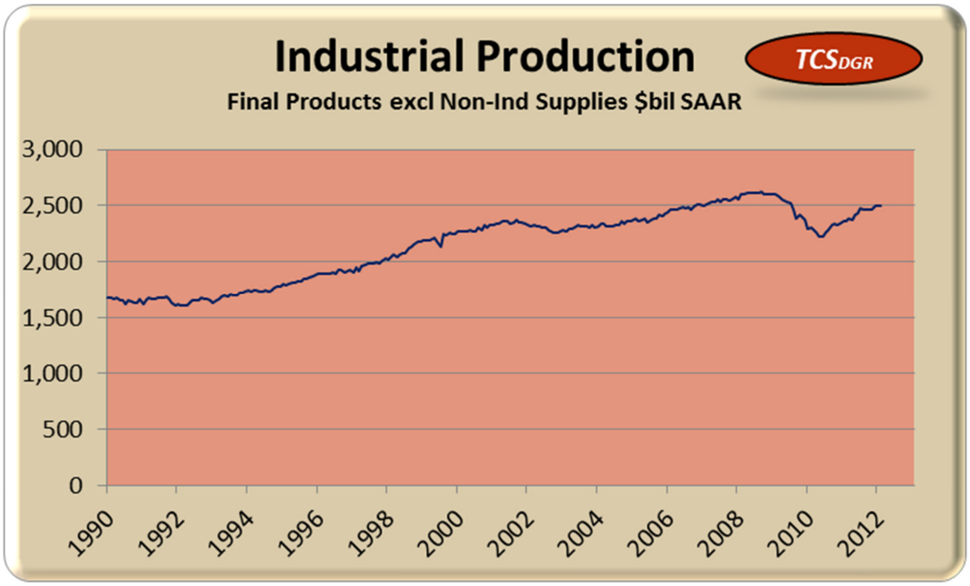
Mar-12				
(000's)	This Month	3 Months Ago	12 Months ago	Jan-07
Employed	142,034	140,790	139,764	146,028
Not Employed	100,570	99,794	99,236	84,622
Total Pop	242,604	240,584	239,000	230,650
Total non-institutional population over 16				

Change in Number (000's)	vs. Prior month	From 3 Months Ago	From 12 Months Ago	From 1/1/2007
Employed	(31)	1,244	2,270	(3,994)
Not Employed	200	776	1,334	15,948
Total Pop	169	2,020	3,604	11,954

% of Population	This Month	3 Months Ago	12 Months ago	Jan-07
Employed	58.5%	58.5%	58.5%	63.3%
Not Employed	41.5%	41.5%	41.5%	36.7%

Sector Detail

Industrial Production (excluding industrial supplies like energy) increased by 0.1% in February. We are now 5.9% above the same period last year. This recession has been the worst on record. The recovery has been largely stalled for the past eight months.



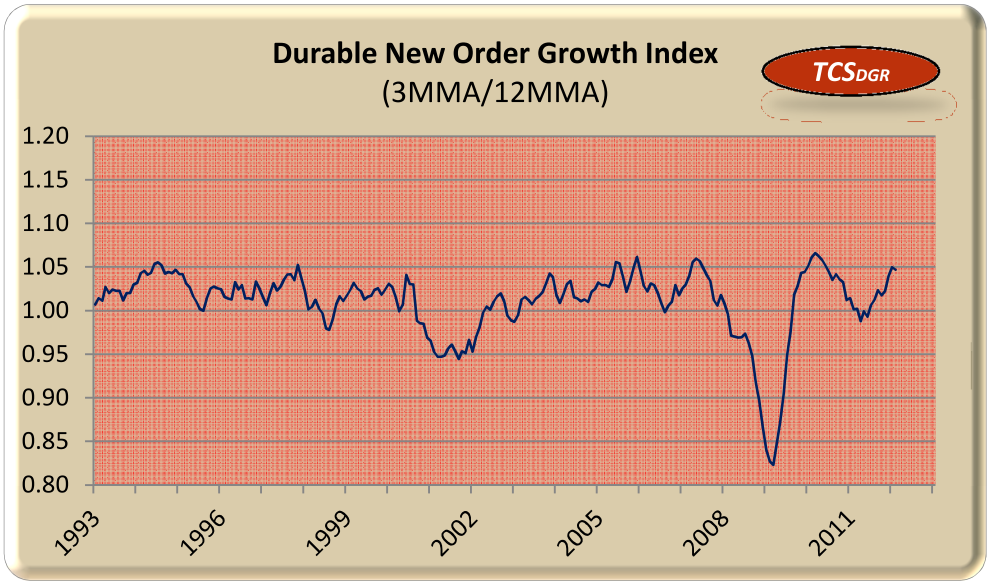
Industrial Production - final products $b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2010	1	2286.3	-3.8%	-12.2%
2010	2	2304.5	0.8%	-11.6%
2010	3	2281.4	-1.0%	-11.4%
2010	4	2262.7	-0.8%	-11.2%
2010	5	2225.8	-1.6%	-12.4%
2010	6	2219.2	-0.3%	-12.5%
2010	7	2258.7	1.8%	-10.3%
2010	8	2286.1	1.2%	-7.2%
2010	9	2324.6	1.7%	-2.2%
2010	10	2338.3	0.6%	-3.3%
2010	11	2324.4	-0.6%	-3.1%
2010	12	2339.5	0.6%	-1.6%
2011	1	2359.3	0.8%	3.2%
2011	2	2361.5	0.1%	2.5%
2011	3	2383.6	0.9%	4.5%
2011	4	2374.4	-0.4%	4.9%
2011	5	2422.8	2.0%	8.8%
2011	6	2428.2	0.2%	9.4%
2011	7	2470.9	1.8%	9.4%
2011	8	2464.9	-0.2%	7.8%
2011	9	2465.2	0.0%	6.0%
2011	10	2463.7	-0.1%	5.4%
2011	11	2459.5	-0.2%	5.8%
2011	12	2493.1	1.4%	6.6%
2012	1	2499.7	0.3%	5.9%
2012	2	2501.2	0.1%	5.9%

Capacity Utilization (February): Capacity utilization for industrial production remained constant at 78.7%.The primary metals sector declined markedly by 0.8% to 79.1%. Other sector performance: Manufacturing up 0.2% to 77.9%; Durable goods up 0.2% to 77.6%; Autos down 0.8% to 72.3%; Machinery down 0.3% to 84.3%.

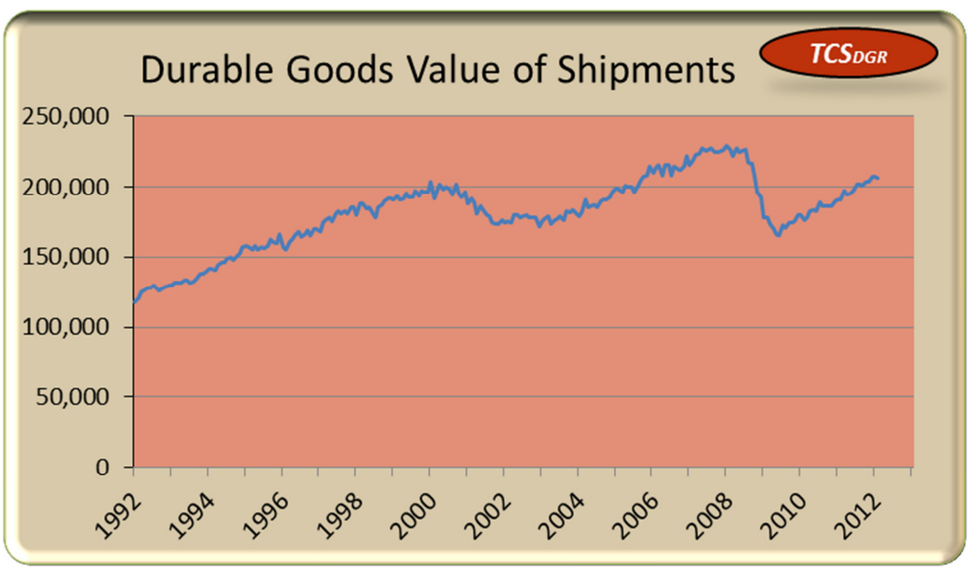
There is no sector of the economy that is currently performing at a normal level. What had started to look like an auto recovery now seems to be fading. It hasn't been helped by the GM decision to stuff the channel with inventory prior to year end.

The Durable Goods Sector:

New Orders: Durable new orders increased by 2.4% to $212.5 billion. The new order growth index declined to 1.047. The modest recovery shows no signs of picking up steam.

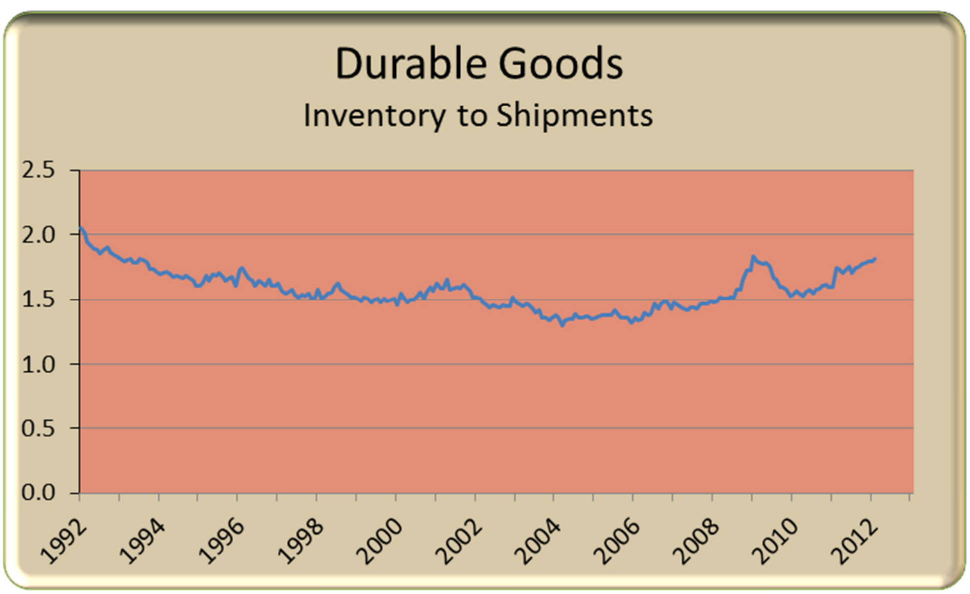


Shipments decreased 0.4% to $206.7 billion. Book to bill ratio increased to 1.03 (long term average is 0.98.

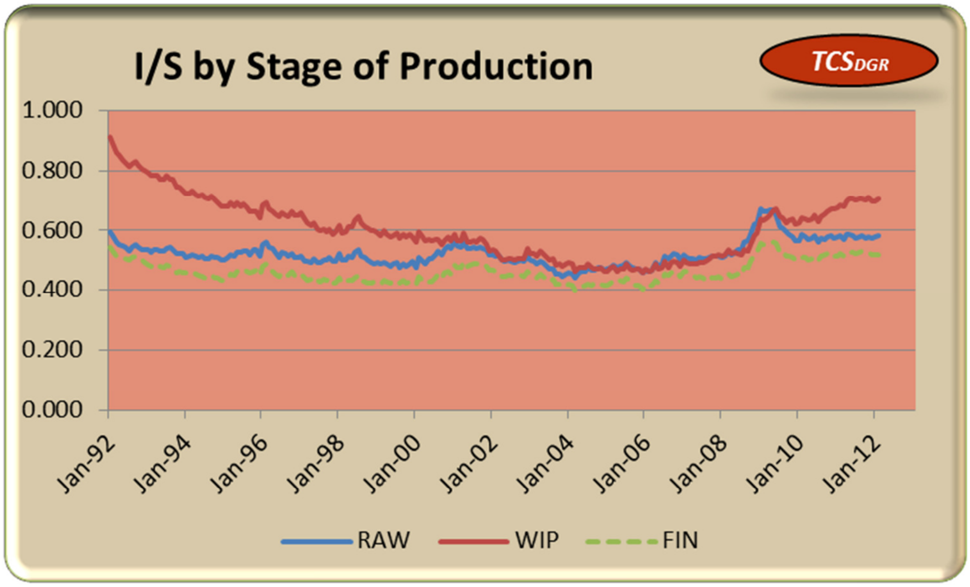


Unfilled Orders increased by 1.3% to $941.1 billion. This is an unusually high level by traditional norms, and represents 6.2 months of orders at current shipping levels. As previously reported we believe this to be caused by a shift in the mode of supply chain management. The theory is that customers are sharing more long-term information with suppliers in the form of planned orders. This is a strategy to help stabilize the supply chain.

Inventory Total inventory increased by 0.4% to $373.6 billion, another record high. Inventory to shipments ratio increased to 1.81, the worst performance since January 2009 at the beginning of the manufacturing retrenchment into recession.



There is one important difference in the current inventory positions compared to 2008-2009. The 2009 pullback into the current recession was notable by the increase in RAW, WIP and FIN inventory positions. The current deterioration is occurring inside the factory in WIP inventory only.

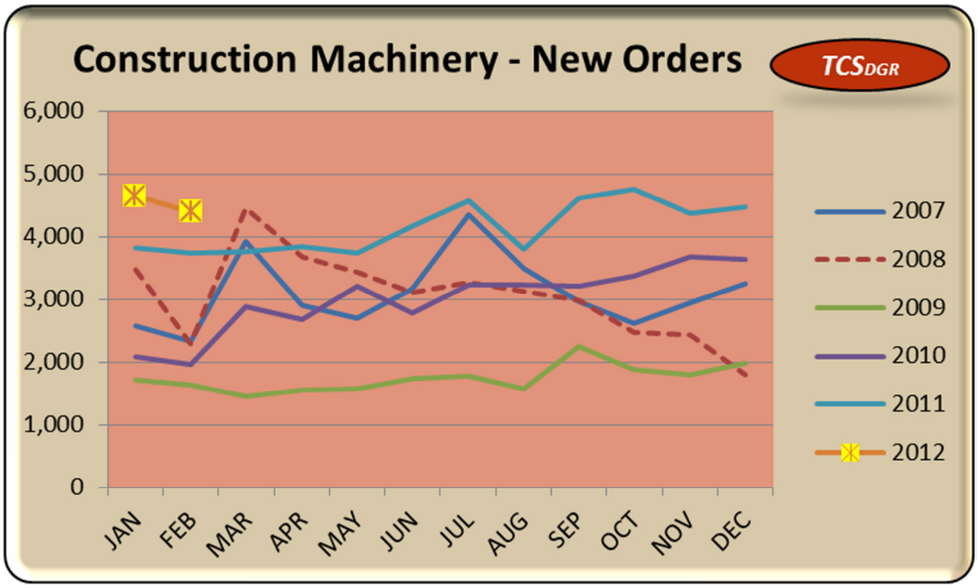


One possible explanation is shifting production sources in supply chains. When a foundry takes over production of a part from another foundry, the early production runs don't go smoothly. It takes some time to get tools and fixtures sorted out and operating at full efficiency. This reduces factory velocity temporarily. What we see here may be a reorganization of supply chains.

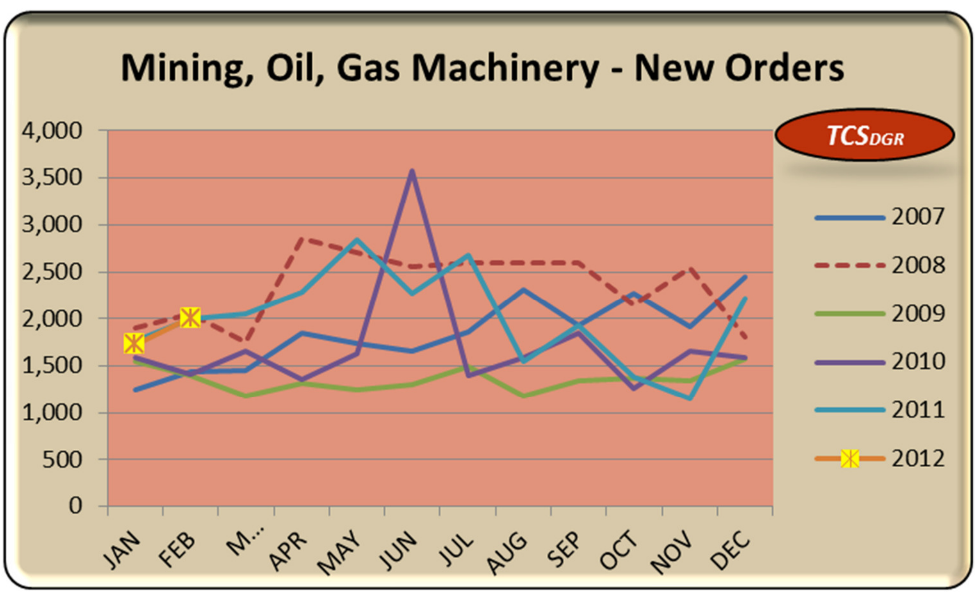
It's possible this is not a signal of coming pullback as in 2009. But it is no time for complacency. For manufacturers the rule is the need for close attention to the order book and to inventory positions. After all the debate and analysis is done, orders matter.

Durable goods sub sectors:

Construction machinery new orders decreased by 5.5% to $4.4 billion. Book to Bill declined to 1.02 (long term average 1.02). Level of business is still strong, but some caution should be noted in the trend.



Mining, oil and gas machinery new orders increased 5.8% to $2 billion. Book to bill ratio remained positive at 1.21 (long term average = 1.03).

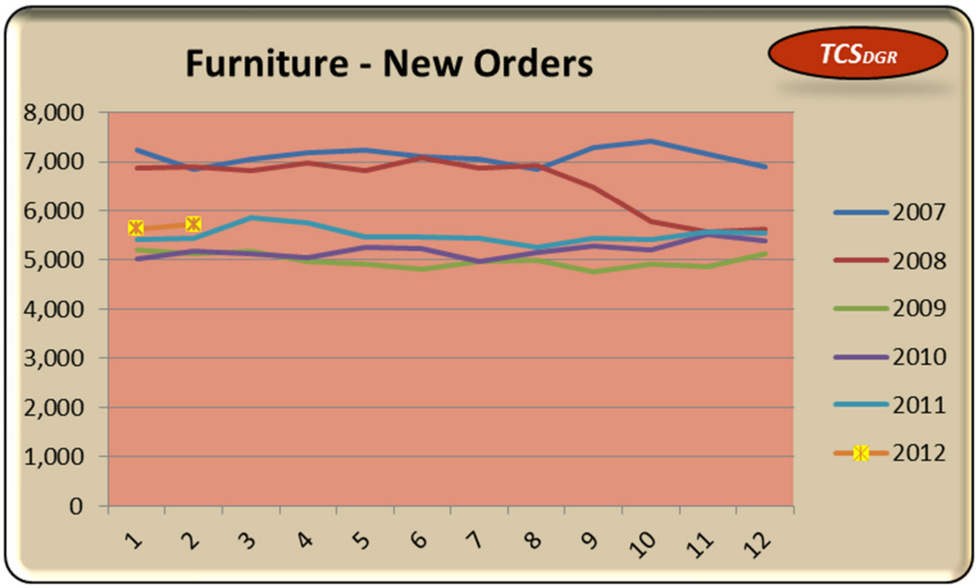


Metalworking machinery new orders increased by 1.9% to $2.3 billion. Book to bill ratio remained at 1.03 (long term average = 1.00).

Fabricated metal new orders decreased 0.5% to $26.8 billion. Book to bill ratio is reported at 1.02 (long term average = 1.00).

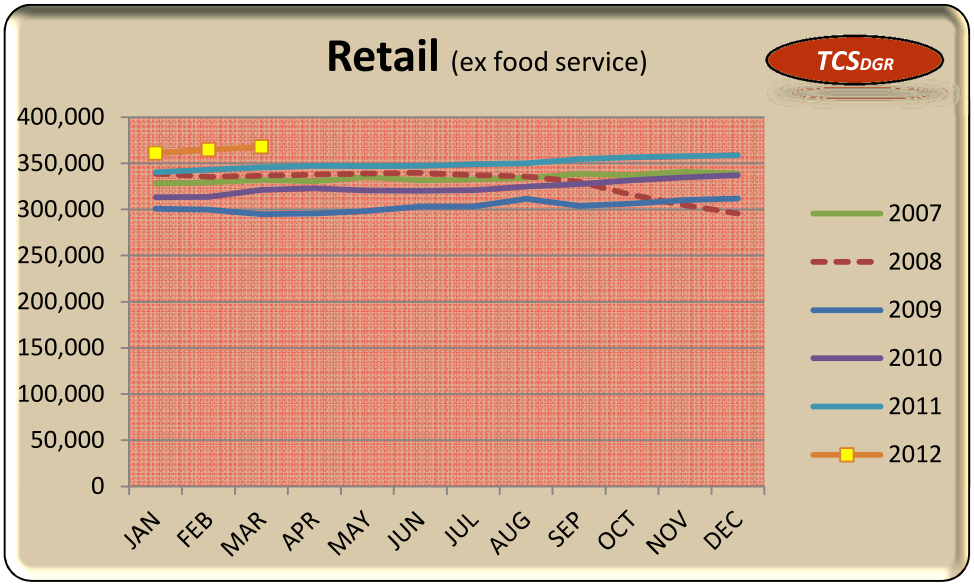
Capital goods increased by 2.7% to $89.3 billion. Book to bill ratio declined to 1.00 (long term average = 1.01).

Furniture: New orders increased 1.7% to $5.7 billion. The book to bill ratio increased to 1.03. Growth index increased to 1.015.

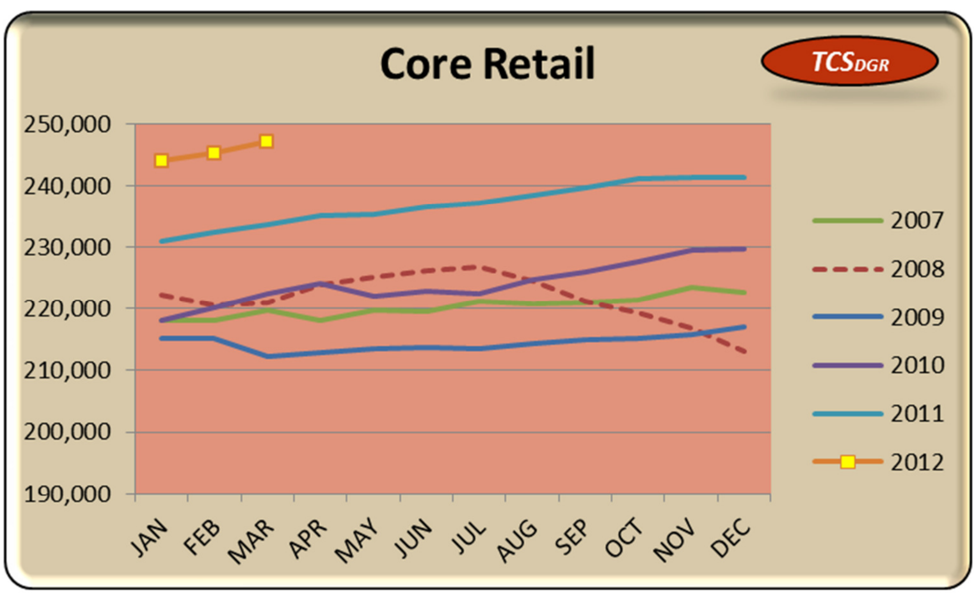


Retail Data (Advanced Release)

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.

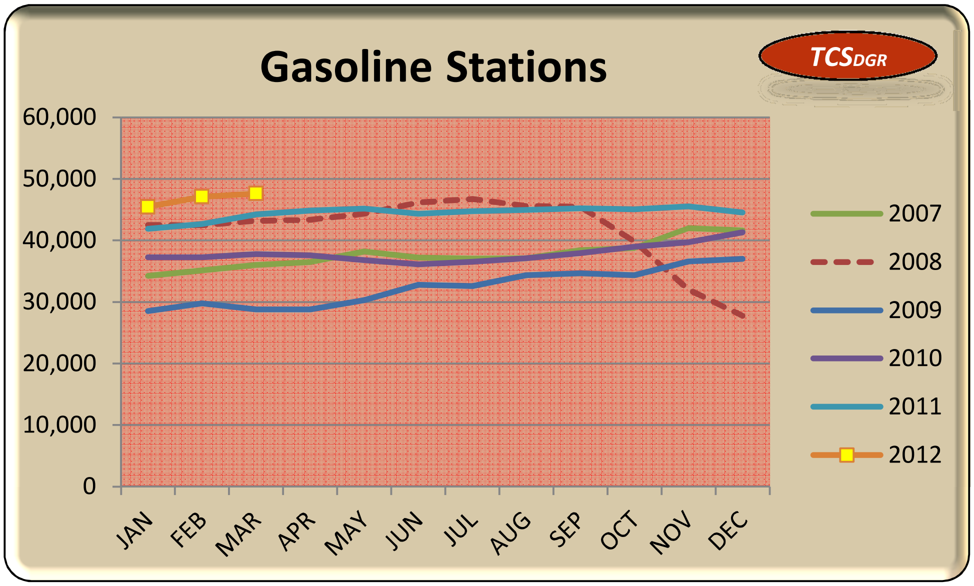


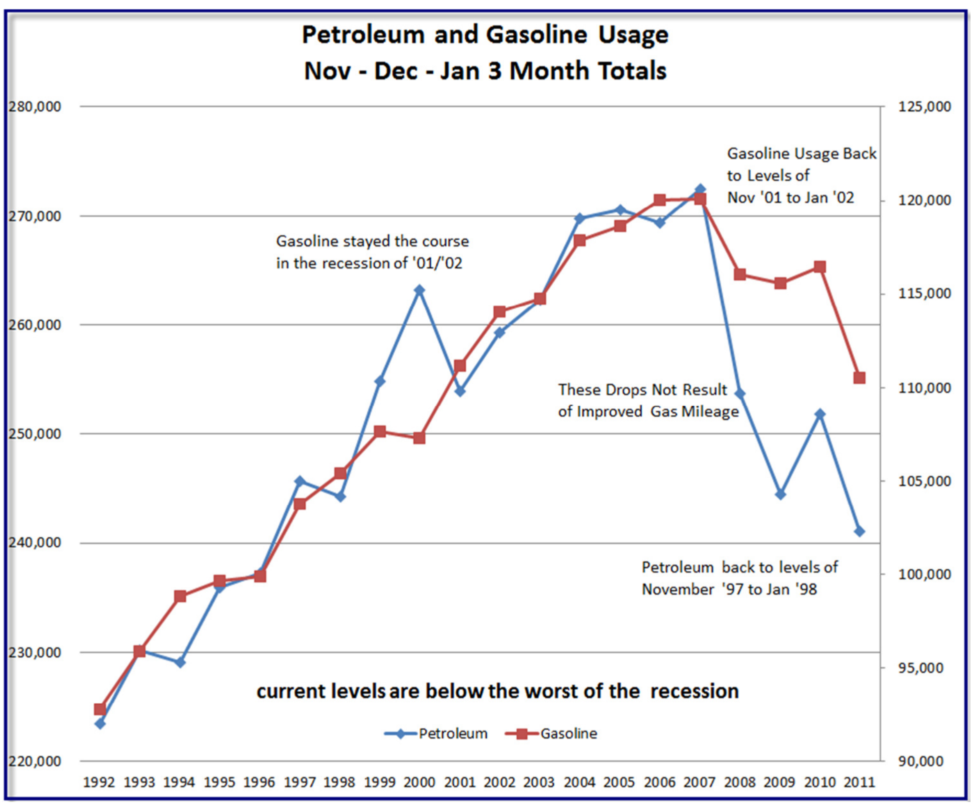
Core retail (excludes food service, gasoline, autos and parts) increased 0.8% to $247.2 billion, another all-time record. See the Groceries chart for a better reading on the inflation component.



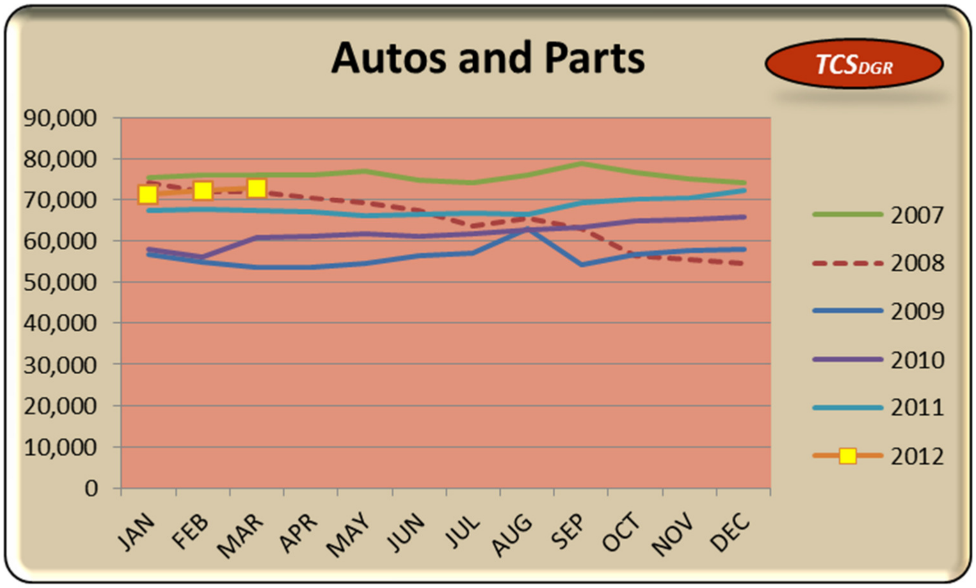
Gasoline sales increased 1.1% in March to $49.6 billion. Gas sales now stand 7.6% above the same month in the prior year. Rising prices masked the continued decline in unit sales. See the two charts below for the full picture.

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

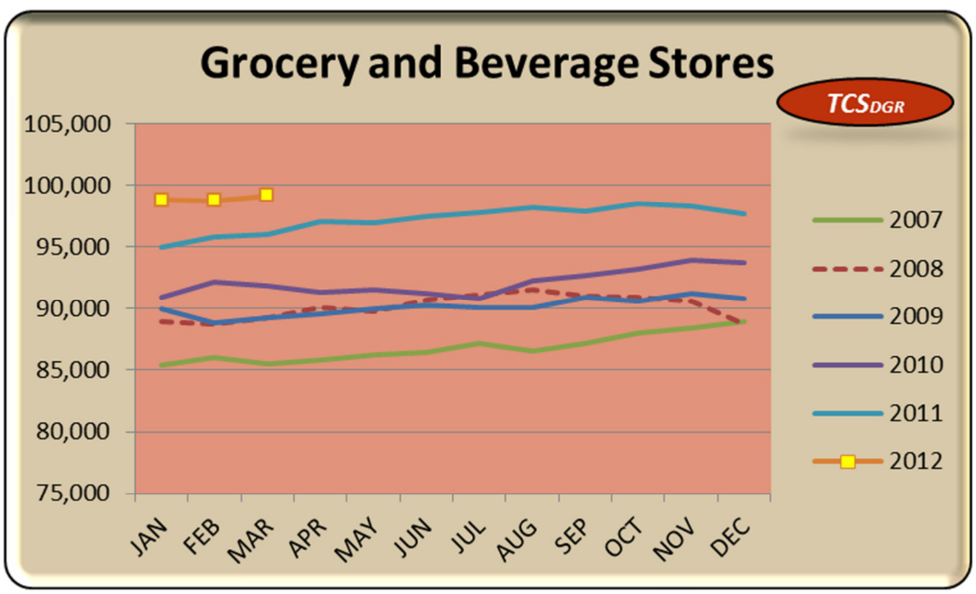




Auto sales increased of 0.9% to $73 billion in March and now stand 8.3% above last year, despite the drop in capacity utilization at the factories. Inventory is still too high so there will be more adjustments to come.



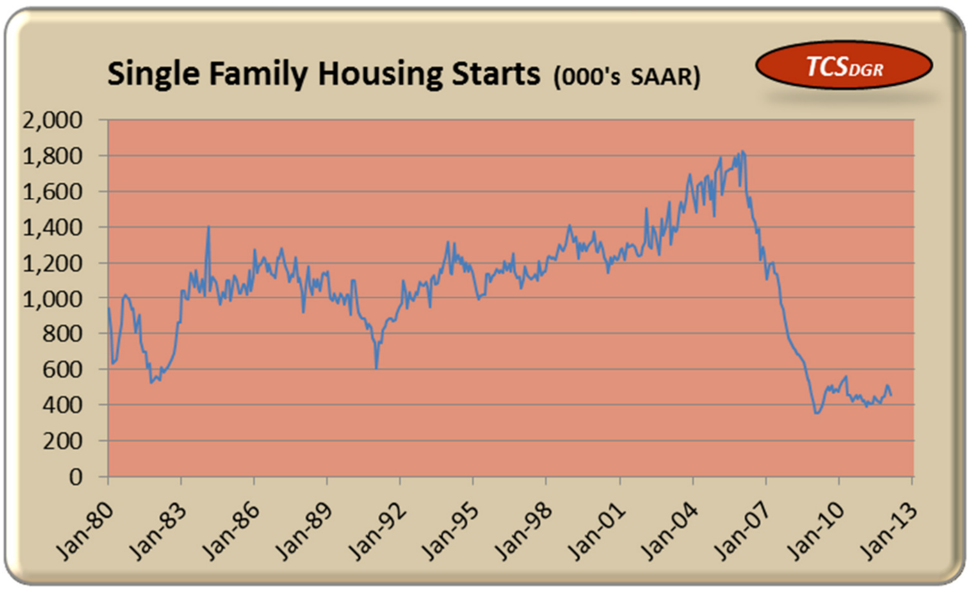
Grocery and Beverage stores sales increased 0.4% in March $99.1 billion (3.3% above last year).

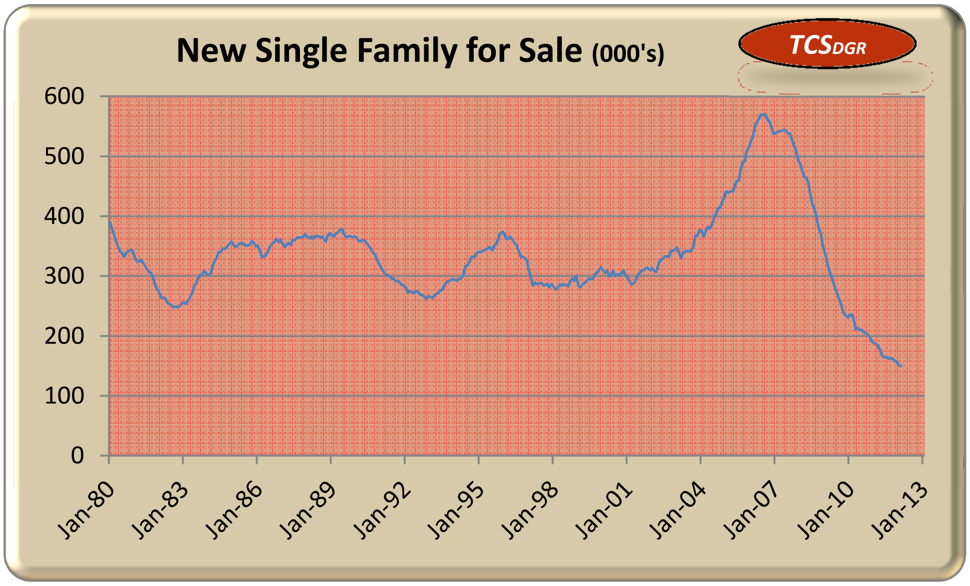


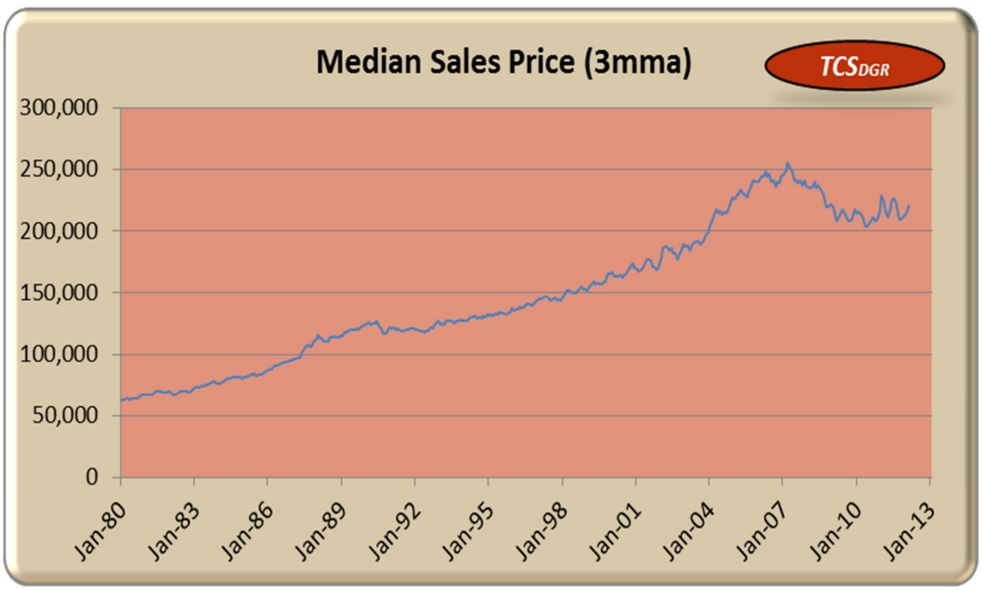
Housing:

Housing sector remained weak. Single family starts decreased 9.9% to 457,000. New single family sales decreased by 1.6% to 313,000 units. Inventory of unsold new single family homes set a new record low of 150,000.

These numbers show two things. First the market is still upside down. Starts are substantially higher than sales. This can't continue for long. 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. The median sale price (3mma) increased to $220,400. A strong showing. The Case Schiller Index of the top 20 metro areas showed a decline in value. The top-20 markets no longer dominate the picture.




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

Time Compression Strategies Corp

Application Development and Support

www.tcsdb.com

317-842-6417

Temporal Dynamics, Inc.

Technology for the Time Domain

www.temporaldyn.com

888-218-0218