

The Durable Goods Report

June 2011 Report

Executive Summary of the US Economy

Manufacturing Data Release of 6/2/2011 (April Preliminary)

Employment Data Release of 6/3/2011 (May Preliminary)

Retail Data Release of 5/13/2011 (April Advanced)

Industrial Production Data Release of 5/17/2011 (April Advanced)

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

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By the Numbers

Durable Goods Key Measures			
April	Current Mo	Prior Mo	Prior Yr
New Orders -Durable	194,400	197,329	194,021
12 month moving average	194,978		179,077
% Change from Prior Year	8.9%		
Growth Index - Durable New Ord	0.985	1.002	1.063
Unshipped Orders - Durable	850,721	848,202	800,948
% Change from Prior Year	6.2%		
Value of Shipments - Durable	194,400	196,879	197,099
12 month moving average	197,609		186,822
% Change from Prior Year	5.8%		
Growth Index - Durable Shipmts	0.982	0.995	1.034
Inventory - Durables	350,572	347,292	301,985
% Change from Prior Year	16.1%		
Inv to shipments ratio - Durable	1.80	1.76	1.53
US Economy Key Measures			
	This period	Last period	Change
GDP Q1	15,010.3	14,871.4	0.9%
Industrial Production April Data	2,483.0	2,519.3	-1.4%
Capacity Utilization % April Data	76.9	77.0	(0.1)
Manufacturing %	74.9	75.3	(0.4)
Durable Goods %	72.6	73.4	(0.8)
Primary Metals %	71.8	73.2	(1.4)
Autos and Parts %	61.9	68.0	(6.1)
Machinery %	78.2	78.1	0.1
Durable Goods (\$Mil SA) April Data			
New orders	190,250	197,329	-3.6%
Shipments	194,400	196,879	-1.3%
Inventory	350,572	347,292	0.9%
Unshipped Orders	850,721	848,202	0.3%
Retail ex Food Srv (\$Mil SA) April Data	348,677	346,658	0.6%
Autos and Parts	68,186	68,061	0.2%
Gasoline	45,783	44,572	2.7%
Core retail (ex auto, gas)	234,708	234,025	0.3%
Groceries	97,114	95,819	1.4%
Employment (000's SA) May Data			
Civilian (Household Survey)	139,779	139,674	105
Civilian not employed (HS)	99,534	99,472	62
Non-Farm (Establishment Survey)	131,043	130,989	54
Private (ES)	108,916	108,833	83
Goods Producing (ES)	17,997	17,994	3
Manufacturing (ES)	11,694	11,699	-5
Construction (ES)	5,529	5,527	2
Durable Goods Mfg (ES)	7,258	7,250	8
Housing (000s of Units SA) April Data			
Single family starts	394	415	-5.1%
Single family sales (new)	323	301	7.3%
Single family for sale (new)	175	183	-4.4%

US Economy:

If a top TV producer were assigned to present a train wreck, it would look like this.

Q1 GDP showed growth at a 1.8% annual rate, a significant reduction from Q4 growth of 3.1%. It remains far short of the 5-6% typical of prior recoveries and necessary to produce real employment growth. The inflation imbedded in these numbers probably exceeds the growth rate. Initial signals suggest that Q2 will remain weak.

Industrial Production

Industrial production dropped by 1.4% in April. High energy costs, Japanese supply chain problems, increased regulation, and slowing consumer demand are the primary drivers. Autos showed the greatest drop in capacity utilization.

Employment:

Employment continues to lose ground. The number of employed increased by 54,000 based on the employer survey (half from McDonalds). Because the labor force grew faster than the jobs created, the unemployment rate also increased. A detailed analysis of the number is included under "Employment."

Durable Goods:

The drop in shipments was about as expected based on supply chain issues with Japan. But new orders dropped by 3.6% and the inventory to shipments ratio surged into red flag territory. The growth index (3mma/12mma) for durable goods new orders is now signaling contraction after 19 months of growth. Orders, shipments and inventory all had negative adjustments to the prior month as well. Energy cost, new regulation, and labor costs continue draining money from hiring and expansion.

Shipments exceeded orders by \$4 billion. Unless there is a May reversal (unlikely) expect more production cuts and layoffs.

There are serious red flags for manufacturing executives in the details. Check the "Durable Goods" section carefully.

Housing

Housing activity is still a major drag on the economy. The growth of the housing stock is slower than population growth. This requires that household formations must decline, and that the number of adults per household increase. This is what's happened since last September.

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The level of foreclosures is holding down prices, but not as dramatically in the middle market where most of the transactions are. The desire to state a single median price number to describe the entire market masks a major mix effect between price ranges.

The real effect of the pricing pressure is to make new housing uncompetitive. You can't build new for the same price as the foreclosures. The second important factor is the shrinking pool of qualified buyers (i.e. employed). Until these issues are resolved the new construction market will languish.

Critical Issues for Manufacturing Executives

The sudden reversal of fortunes in the durable goods and industrial production numbers is a red flag for manufacturing executives. Shipments behaved about as expected – a little more than 1% decline largely focused in autos. The serious erosion in new orders was not an expected result of the supply chain issues. It was broad based with few exceptions. Something else is going on, and it's probably an indicator of the overall state of the economy.

The negative adjustments to prior month numbers produced a real wake up call. A serious negative trend emerges that was not visible in prior months.

Most dramatic is the explosion of inventory positions. What had previously been seen as a gradual growth in inventory positions (consistent with a ramp up in supply chains) has now surged to red flag territory. Major growth in WIP with a declining order book is not a good combination. The inventory to shipments ratio for WIP is now higher than in January of 2009. Material planners seem to have been caught off guard.

The only general rule under these conditions is careful monitoring of the order book, plus regular time-phased review of material and capacity plans. There is no clear direction at this point, but it is possible that we are heading into a major correction. It will be much worse if you lose control of inventory synchronization.

Random Thoughts:

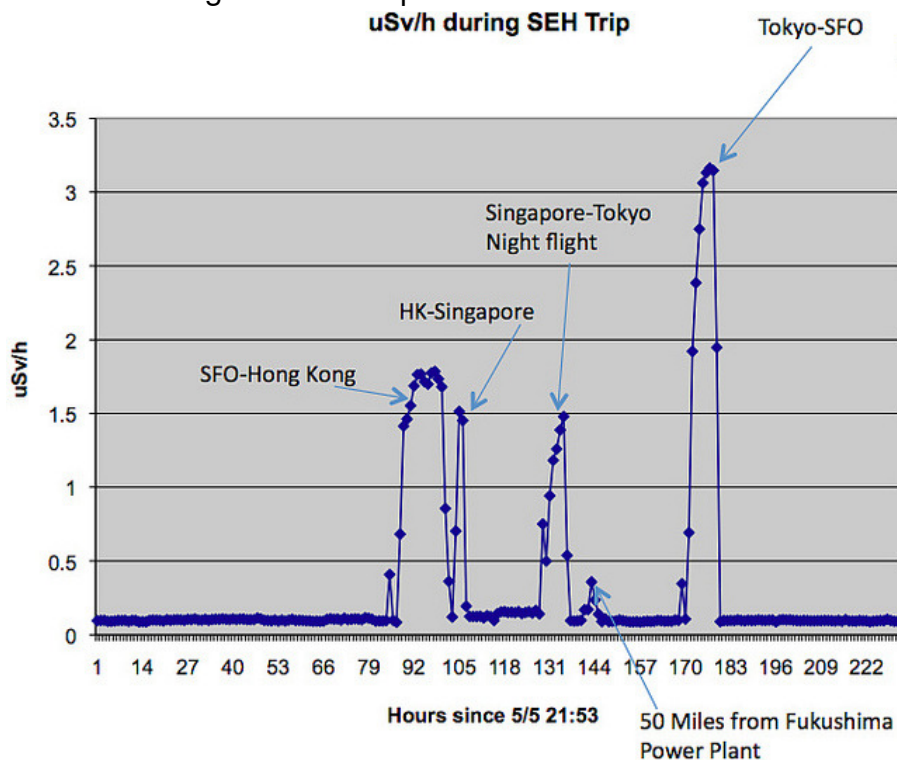
- Diesel engines are more efficient than hybrids. The VW turbo diesel is the champ.
- The slight increase in tornado incidence is being driven by a dramatic drop in the temperature of the lower troposphere in the Western US. Remember, this is weather, not climate.
- The number of tornado occurrences and the deaths per 100,000 population have steadily declined for a century.
- It's been 990 days since a hurricane made landfall in the US. Longest hurricane free period since before the Civil War.
- Sea levels have dropped 20 millimeters in the past 16 months (global satellite measurements). This is a big deal. The normal pattern has been about 2.5 mm per year increase for the past century. It slowed to 1.5 mm for the past 40 years. Still the alarmists predict imminent inundation. They are clearly not influenced by actual data.
- The University of Virginia is now under a court order to release all documents relating to the compilation of the famous "hockey stick" global temperature graph published by Dr. Michael Mann. The Virginia AG is investigating the possibility that the data or analysis was falsified to obtain government grants. This is the icon of the global warming alarmists because it (incorrectly) shows accelerating temperature increases in recent years.
- Germany is the home to the Green Movement. Their latest demand is for the shutdown of all nuclear power plants in 2022. This will result in an additional 40 million tons of CO2 emissions per year. Go figure. Clearly no German law requires rationality.
- The last two major E. Coli outbreaks have originated at organic vegetable farms.
- EU sovereign debt financing remains in a mess. The bailouts of a year ago haven't worked except to delay the event. Major defaults remain a likely outcome. Greece, Portugal, Spain, Ireland are the most likely.
- Dr. Polina Vlasenko at the American Institute for Economic Research reports that the size and duration of the recession in the US, EU, Japan and Canada was directly proportional to the total debt (public and private). The higher the debt to GDP ratio, the deeper and longer the recession. More evidence that Keynesian economic policies make the situation worse.
- Michael Lind writes at Salon.com that "Everything You've Heard about Fossil Fuels May be Wrong." That would be no surprise to readers of the DGR.
- Government subsidies always misallocate resources. The goal is to invest in things the free market doesn't value. That always results in shrinking the economy.
- Fair and balanced political bashing:

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- Chris Christy believes in anthropogenic global warming (AGW)!
 - Mitt Romney believes in AGW and likes ethanol subsidies!
 - Pawlenty once backed cap and trade (but now claims it was a mistake)!
 - Yeesh! Does anyone in the political class even know an engineer?
 - Does any engineer connected with the political class ever speak up?
- Of the active rotary drilling rigs in the US (see chart in “Energy” section), 82% are drilling for oil compared to 13% in 2004. The rest are drilling for natural gas. The gas boom may have caught up with its potential market. The demand for liquid hydrocarbons (the only viable transportation fuel) will continue to encourage this trend.
- The Department of Energy reports that:
 - 80% of the stimulus funding for “Green Jobs” was spent abroad.
 - Every green job in Spain eliminated 2.2 jobs in the private sector.
 - Every green job in the UK eliminated 3.7 jobs in the private sector.
 - 90% of green jobs created are temporary.
 - If the “new economy” will be driven by green jobs, somebody forgot to tell the economy.
- Kenneth P. Green, resident scholar at the American Enterprise Institute, testified before Congress that “...the idea that the government can create jobs on net in the economy is a myth, and painting the myth green makes it no less of a myth.” Read the entire speech here: <http://www.aei.org/speech/100219>
- “China, India and Saudi Arabia have lately leased vast tracts of land in sub-Saharan Africa at knockdown prices. Their primary aim is to grow food abroad using the water that African countries don't have the infrastructure to exploit. Doing so is cheaper and easier than using water resources back home. But it is a plan that could well backfire.” Read the entire article here: <http://www.newscientist.com/article/mg21028144.100-african-land-grab-could-lead-to-future-water-conflicts.html>
- JONATHAN FAHEY, AP Energy Writer reports: “Households spent an average of \$369 on gas last month. In April 2009, they spent just \$201. Families now spend more filling up than they spend on cars, clothes or recreation.”
- Haiti has a renewable energy economy. The primary energy source is charcoal. The Haitian half of the island is now 98% devoid of trees. The Dominican Republic half of the island is 41% forested due to their hydrocarbons based economy. This is the reason that modern economies gave up on renewable energy in the 14th century when much of Europe had been stripped of trees.
- Obligatory Comment on Representative Weiner: Sometimes the obvious answer is the obvious answer.

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- WALTER RUSSELL MEAD on the Supreme Court California prison decision: “Let there be no mistake: when you produce so many criminals that you can’t afford to lock them up, you are a failed state.”
- Harvard environmental scientist Willie Soon has published a WSJ article slamming the latest attempt by the EPA to reduce the already low levels of mercury emissions from power plants. He points out that the EPA argument has no scientific basis and will cause billions in damage to the economy. Mercury is and always has been common in all parts of nature for at least 650 million years. In its natural form it causes no harm to any form of life. The dangerous form, methyl mercury, is extremely rare and not present in power plant emissions. Read the article here:
<http://online.wsj.com/article/SB10001424052748703421204576329420414284558.html>
- Mark Hill, a Silicon Valley executive, recently carried a recording Geiger counter on a trip to Asia that included Japan. The following chart shows his exposure to radiation during the entire trip.



- Republican Majority Leader Eric Cantor has put forward a pro-growth strategy for the US economy. As far as I know this is a first for either party, and ignored by most of the media. Read the whole story here:
<http://biggovernment.com/lkudlow/2011/05/29/the-gop-might-have-discovered-a-pro-growth-strategy/>
- Kyoto Protocol: Japan, Canada and Russia have announced that they will not participate in another Kyoto round. The US never officially participated (Treaty

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rejected by the Senate 95-0). This is the closest we will see to the official end of the green movement.

- Julia Dale sang the National Anthem at game 2 of the NBA finals and it was hailed as a huge hit. We respectfully disagree. Despite the clear talent of the 10 year old, we repeat the prior challenge: We would pay extra to hear the National Anthem performed by someone who sings only the notes on the page.
- China has sold almost its entire holding of Treasury bills. About \$1¼ trillion.

Update on Japan:

The nuclear plants at the Fukushima site continue to present logistical problems for TEPCO, the utility company that owns them. The containment vessels of units 1 and 3 are probably cracked. These two units (possibly others) will never go back into production due to prohibitive repair costs (this was clear after week 1). Radiation contaminated cooling water is scheduled for clean up, but will require several months. The source of the contamination is primarily the waste fuel rod storage pools, not the containment system.

A third death has been reported among the workers at the site. No cause was reported, but this may be the first from radiation injuries.

Supply chain effects are now clearly visible in the US economy. Check the “Industrial Production” section for details. The biggest economic impact is the engine supply chain to US assembly plants of Japanese auto companies. There are also reports of spot shortages of electronic components. This may get worse as the many-level electronic supply chain depletes its inventory. Tooling, paint and chemical shortages have been a nuisance, but re-sourcing has been mostly successful.

Honda now estimates that its auto assembly plants will be back to normal by August. The new Honda plant in Eastern Indiana has approved hiring for a second shift with a September startup planned. It had been put on hold after the quake.

A related supply chain event in China (explosion in the Foxconn Technology Chengdu plant) killed two workers and caused a shutdown during the review of safety procedures. The initial cause was reported as aluminum dust. The plant is a contract manufacturer for iPad and iPhone and many other products.

The delayed reaction of over-water supply chains from Asia will require an equal delay to refill the pipe once full source production is achieved.

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Energy:

Catarina, TX is the hottest “new” giant oil field. This field had played out using conventional technology, but some enterprising wildcatter tried using the fracking process that works so well with natural gas. It worked and the field is now being drilled again. Wells will be profitable at \$60 per barrel, and new wells will break even in 8 months at \$100.

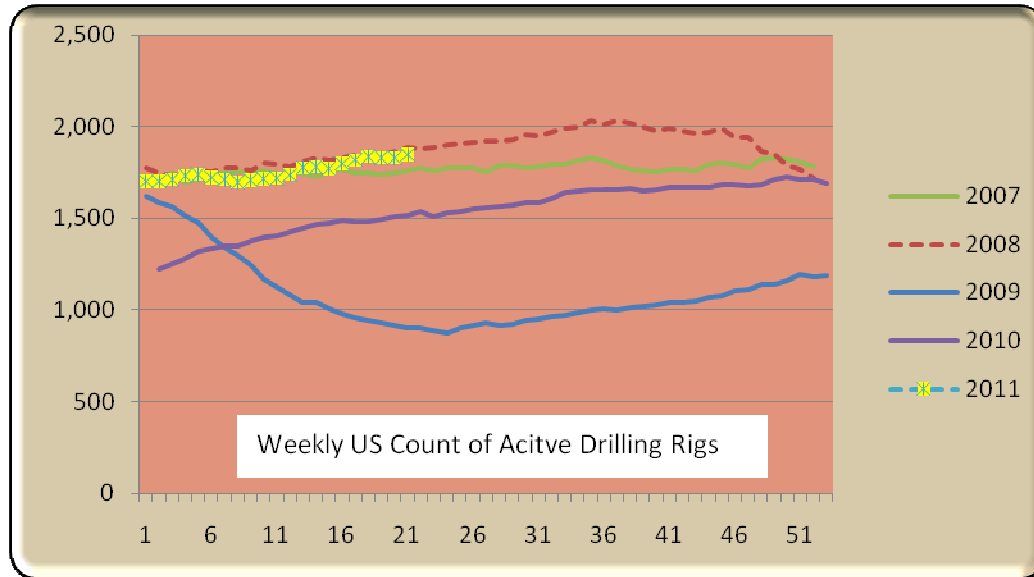
This is the third mega-field discovery in three years. As we have said before, we are awash in oil, natural gas and coal (if you can be “awash” in coal, but I really like the visual image). Oil and gas reserves have increased 600% in the past decade. The only barrier to \$1.50 gasoline is the attitude of regulators bent on punishing hydrocarbon energy.

A common example: Shell Oil has paid good cash money to the US Treasury for a 10 year drilling lease in Alaska. Four years have now passed without a permit to drill being issued. Shell is now concerned that the various US agencies are trying to run out the clock. After 10 years the lease reverts to the US Government and they get to auction it again. In the meantime politicians can blame the industry for “sitting on their existing leases.”

The regulatory agencies have hamstrung the industry with two parallel mindsets: 1) Bureaucrats normally over-regulate because they have no incentive to do otherwise. They are never lauded for the improved economy of a minimal regulation strategy, but are demonized if a disaster occurs. 2) The primary agencies have been populated for four decades with an anti-enterprise mindset. Private industry is the villain and the root of all evil.

Despite concerted efforts the EPA has been unable to demonize fracking technology. They reported that hydraulic fracking has not resulted in any contamination of surface water or ground water. There has been one example of methane contamination of ground water from a poorly implemented gas well, but there were many cases where methane contamination occurred with no nearby drilling. “Burning water” has been noted in New England and Colorado since the 1930s, long before fracking or gas drilling. In the Marcellus Shale region there seems to be a lot of methane around.

None of this has stopped the AG of New York from filing suit against the gas drillers in the Marcellus Shale region, or environmentalists filing suit against drillers in West Texas over an endangered lizard that may not even exist in the area.



So far the drillers have been unaffected by the bureaucrats and lawyers. But offshore drilling is at a near standstill and the roustabouts have started moving to New England to find work.

Employment:

The strange behavior of the employment/unemployment numbers tends to confuse many people. How can employment increase and unemployment rate increase at the same time? The simple answer is that sometimes the labor force grows faster than the jobs. When that occurs, both go up at the same time. But there are more subtle problems with the measures. The DGR has regularly reports on total employment as a % of the non-institutional population (defined as over 16, not in an institution or the military).

The first problem is that there are two surveys performed by the Bureau of Labor Statistics (BLS): The Household Survey and the Establishment Survey. The former is a broad based sample and is most representative of the overall employment picture. The latter gives a better view of the distribution of jobs by industries, but of necessity focuses on large organizations.

The second problem is the sampling method within the Household Survey. The concept of whether a person is “unemployed” or “not in the labor force” tends to be rather volatile. A substantial number of people move back and forth between those categories from week to week. The problem isn’t likely to be solved with better statistics. People change their minds.

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To compound this problem the BLS defines the “labor force” as the sum of the employed and the unemployed. This becomes the denominator for the unemployment rate. So the variability is compounded by inclusion in both the numerator and denominator of the unemployment calculation.

We’ve taken a look at the problem and decided that it doesn’t matter. The economy can’t tell the difference. If you’re employed you contribute to the wealth of the nation. If you’re not employed you don’t. Your intentions don’t matter. Those who are employed support those who are not.

The charts used for the DGR are based on the % of the population currently employed and not employed. This provides a more stable metric and eliminates one of the points of confusion.

Here’s a summary of the basic math using BLS Household Survey reported for May:

1	Non Institutional Population (BLS)	239,313,000
2	Employed (BLS)	139,779,000
3	Unemployed (BLS)	13,914,000
4	Not in the Labor Force (BLS)	85,725,000
	Note: 1=2+3+4	
5	Labor Force (BLS derived as 2+3)	153,693,000
	Unemp rate = 3/5	
	1=4+5	
6	Not Employed (DGR derived as 3+4)	99,534,000
	Note: 1=2+6	

For those who claim the unemployment numbers are being manipulated by the government for political purposes, think again. All of the numbers we’re talking about are included in the same report from the BLS. They’re available to anyone. It’s what gets reported and repeated that generates the confusion. If you expect the politicians that use these numbers to report objectively, you have a different problem. One not subject to quantitative correction.

What is disturbing in the trends is the ratio of productive to non-productive population over the past 12 months.

- Employed = + 426,000
- Not employed = + 1,388,000.

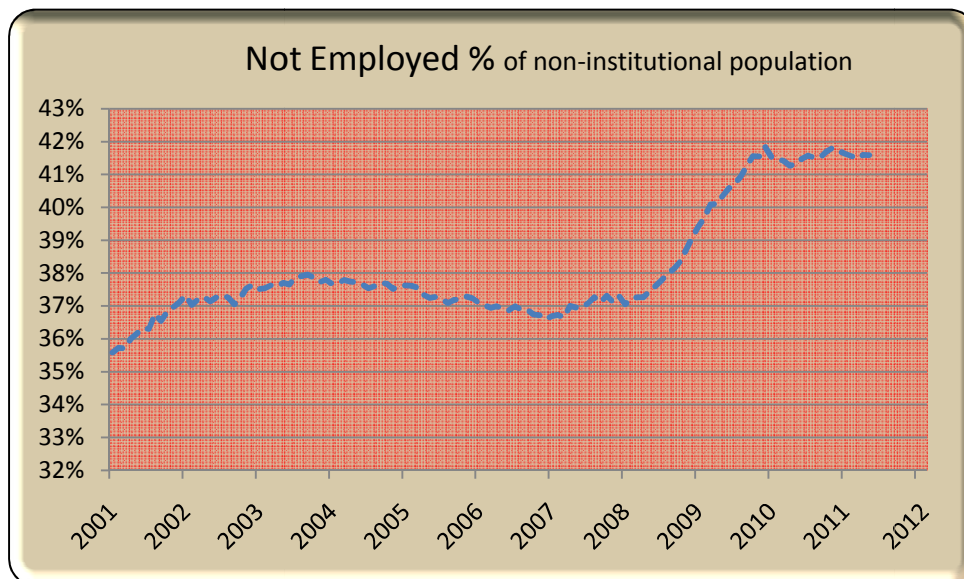
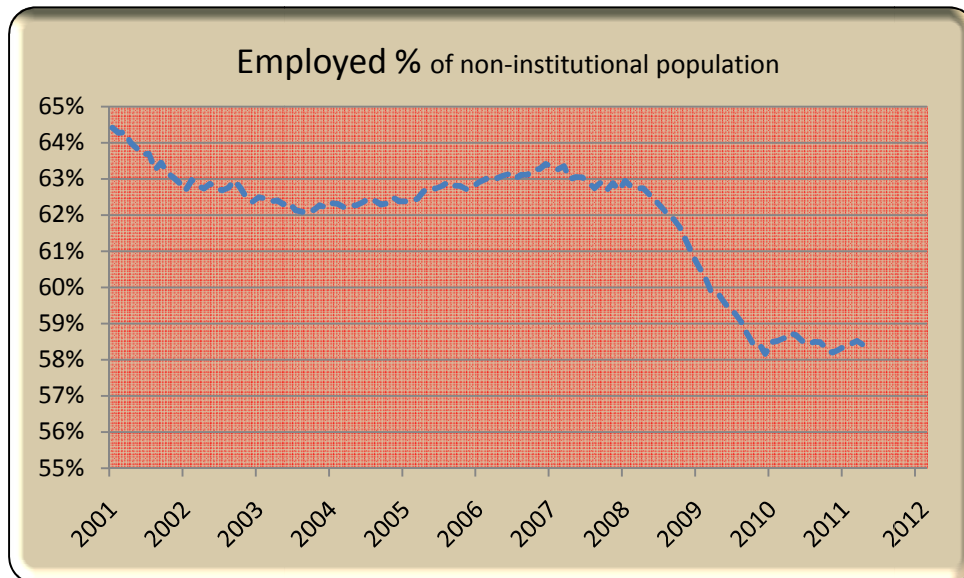
The “not employed” population has increased 3x faster than the “employed” population.

This is a serious problem for the economy. The employed population must support a

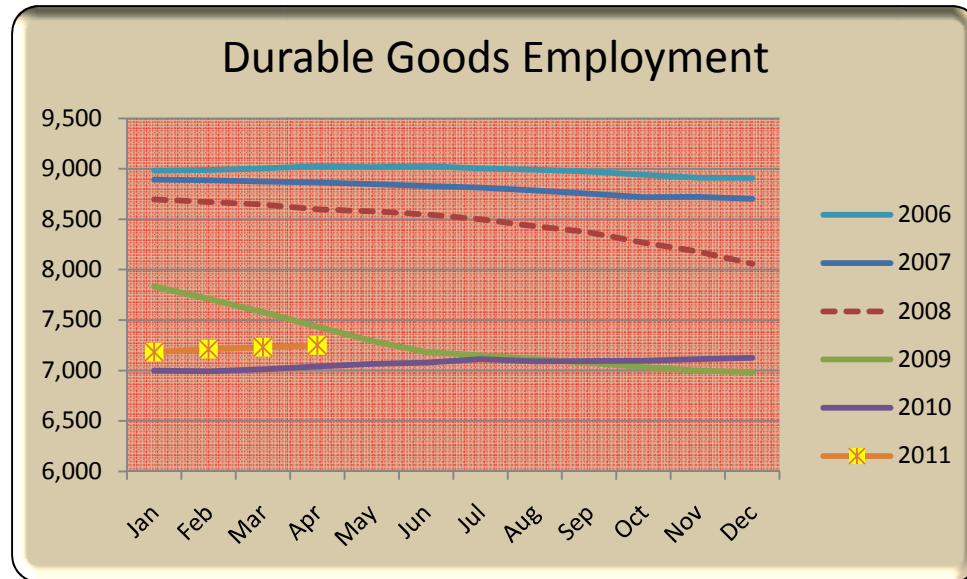
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rapidly growing not employed population. Whether this is done through personal charity or by government doesn't change the fact that the economy is less productive.

In the past 90 days the problem is less acute (2x), but the trend is still negative.



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Durable goods added 8,000 jobs in May. Job growth in this key sector peaked in January (57,000 jobs added) and has steadily declined each month since. The weakening of hiring precedes the Japan quake by two months, suggesting a much bigger issue in the economy. The \$4 billion excess of shipments over orders suggests the potential for negative numbers next month.

Sector Detail

GDP: US GDP 2011Q1 growth rate was reported at 1.8% SAAR (0.9% Q/Q; 3.9% Y/Y), down from 3.1% SAAR in Q4.

The real performance of the economy is probably worse than indicated, due to the inflation in food and energy. This puts a damper on the first-ever 15 trillion indicator of the economic activity (keep in mind that this is an extrapolation of the Q1 run-rate, not an actual yearly number). Under more normal circumstances the inflation-adjusted numbers would be used to gain some insights on real performance. However the reliability of the statistical adjustment methods is questionable given the unusual state of the current economy.

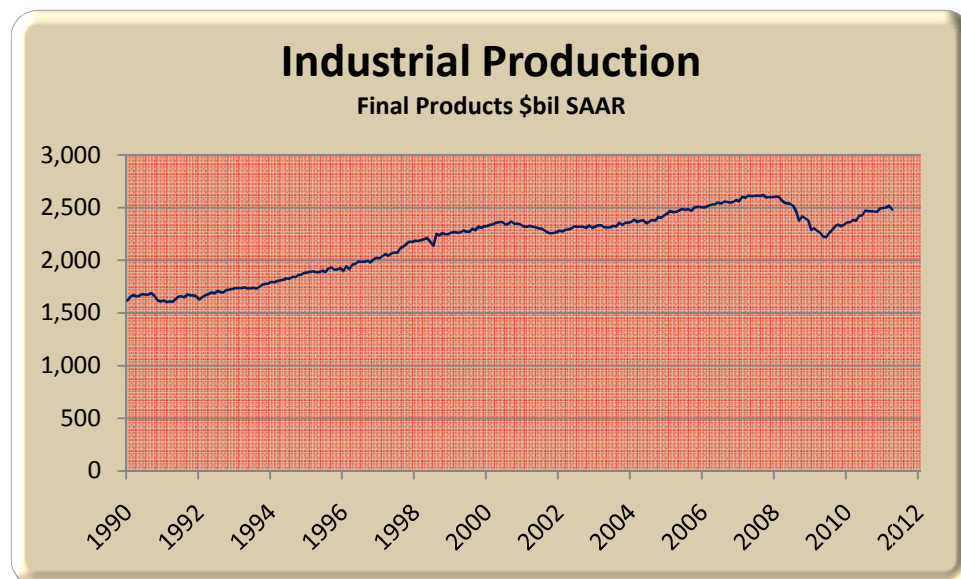
Declines in industrial production and the important durable goods sector suggest a weaker Q2 performance. If retail weakens as well it may move negative.

Gross Domestic Product				
Year	Qtr	GDP \$b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2008	1	14,328.4	0.3%	3.9%
2008	2	14,471.8	1.0%	3.3%
2008	3	14,484.9	0.1%	2.3%
2008	4	14,191.2	-2.0%	-0.7%
2009	1	14,049.7	-1.0%	-1.9%
2009	2	14,034.5	-0.1%	-3.0%
2009	3	14,114.7	0.6%	-2.6%
2009	4	14,277.3	1.2%	0.6%
2010	1	14,446.4	1.2%	2.8%
2010	2	14,578.7	0.9%	3.9%
2010	3	14,745.1	1.1%	4.5%
2010	4	14,871.4	0.9%	4.2%
2011	1	15,006.4	0.9%	3.9%

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Industrial Production (excluding industrial supplies like energy)

Industrial Production - final products \$b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2010	1	2359.3	0.8%	3.2%
2010	2	2361.5	0.1%	2.5%
2010	3	2383.6	0.9%	4.5%
2010	4	2374.4	-0.4%	4.9%
2010	5	2422.8	2.0%	8.8%
2010	6	2428.2	0.2%	9.4%
2010	7	2470.9	1.8%	9.4%
2010	8	2464.9	-0.2%	7.8%
2010	9	2465.2	0.0%	6.0%
2010	10	2463.7	-0.1%	5.4%
2010	11	2459.5	-0.2%	5.8%
2010	12	2492.4	1.3%	6.5%
2011	1	2497.1	0.2%	5.8%
2011	2	2504.0	0.3%	6.0%
2011	3	2519.3	0.6%	5.7%
2011	4	2483.0	-1.4%	4.6%



Industrial production (excluding energy) declined by 1.4% in April. Auto production showed the biggest decline, but all sectors except machinery were negative. The combination of high energy costs, Japanese supply chain disruptions and demand declines due to inflation combine to hurt this foundation of the US economy.

Capacity Utilization (April data):

Capacity utilization for industrial production declined slightly (-0.1 to 76.9%).

Manufacturing declined (-0.4 to 74.9%), durable goods declined (-0.8 to 72.6%), primary metals declined (-1.4 to 71.8%), and autos declined (-6.1 to 61.9%). Machinery showed a slight increase (+0.1 to 78.2%).

The Durable Goods Sector (April Preliminary Data):

Winning in Manufacturing

Despite the negative news in most of the economy, there are individual examples of companies gaining strength in the recession. They have an interesting common thread.

Caterpillar has repeatedly shown how to deal with adversity and get stronger. The first win was the move by Jim Owens, former CEO, to anticipate a future recession and put a “trough plan” on the shelf, ready to go. When the downturn occurred, Cat made an orderly pull back. The second win came from the current CEO Doug Oberhelman in the re-emphasis of a special component of the Cat brand – field service. It’s the only element of the business that the competition finds difficult to emulate. It emphasizes immediate, global response to a machine down in the field, and demands agility throughout the repair parts supply chain.

A recent briefing by Cat executives confirms our earlier speculation that a large part of their solid growth came from Asia and South America. US investment in construction and mining machinery is growing, but not at the same pace. Their approach has been to be prepared to respond anywhere in the world on short notice. That way you don’t care if the forecast is wrong.

A recent visit to a mid-sized pump manufacturer showed how to successfully battle the product proliferation inherent in the pump industry. Despite long foundry lead times and a wide range of processes, they successfully applied the now-familiar methods of Lean Manufacturing to rationalize manufacturing operations and use it to gain a competitive advantage. The difficulty of this initiative with the extended product variations assures that the competition is unlikely to match it soon.

The CEO of a mid size metal fabricator has taken a different and almost contrarian approach. We first met more than a decade ago. At the time his factory lead time was approximately 25 working days and roughly competitive for that industry. He implemented a new advanced planning and scheduling system, and we worked out a number of changes in business process that would support faster response. This got the company to an 8 day factory lead time. He continued to drive response time down

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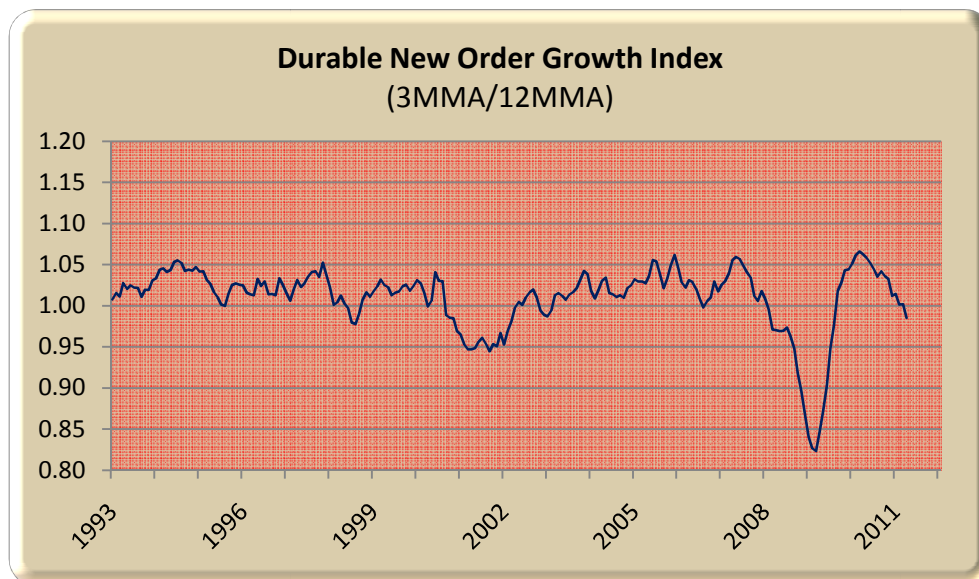
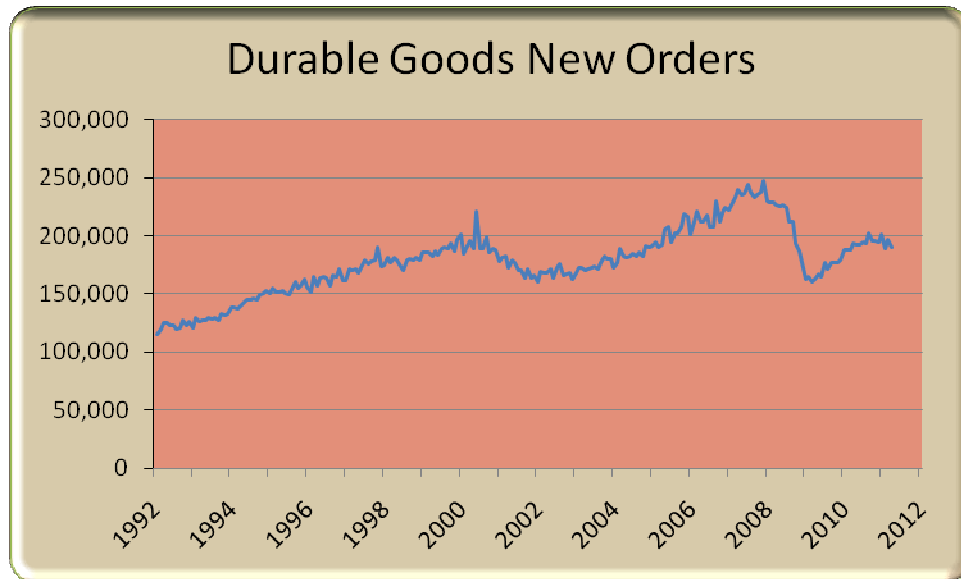
and is now at an amazing ½ day. His business has more than doubled with improved margins at a time when most in the industry contracted. His customers are finding that their in-house operations can't compete. Neither can his competitors..

In all of these examples there is a common thread. The executives were all committed to making customer responsive operations a critical competitive weapon. This approach is often at odds with the “level loading” and “sophisticated planning” models now in wide use. It isn't easy to break out in this area, but if it was easy they wouldn't need you. Because this is a serious challenge to implement it means it is very likely to be a sustainable advantage. It also offers the newly-fashionable advantage of profitable operation during serious downturns.

Agility trumps efficiency.

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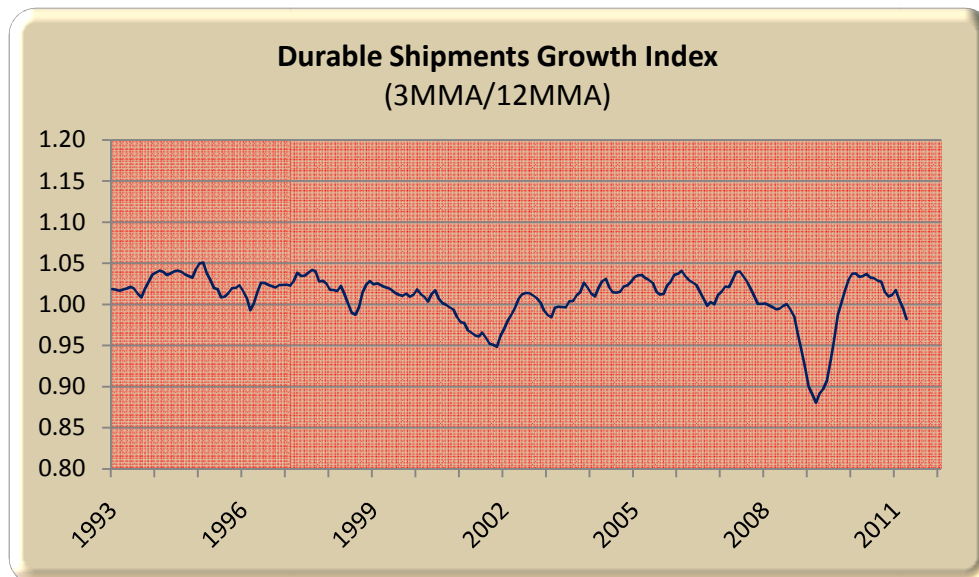
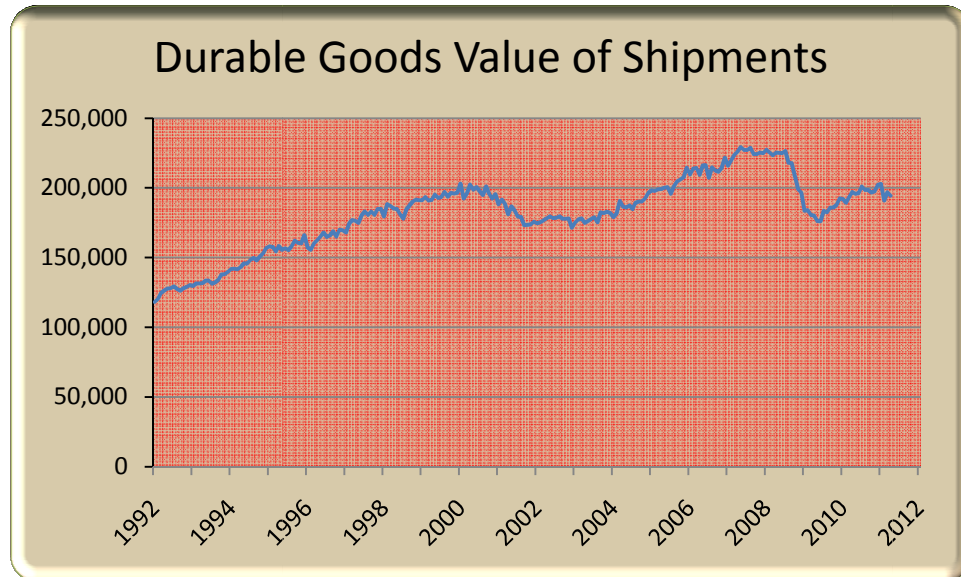
New Orders: Durable new orders decreased by 3.6% to \$190.2 billion. The shipment decline can be explained by issues with the Japanese supply chain, and a knock-on effect in orders would not be unusual. But the size of the order decline was and the surge in inventory suggest downward pressure across the board.



The new order growth index (3mma/12mma) dropped into contraction territory (0.985) for the first time in 19 months. Any value below 1.000 is considered an indicator of recent contraction. The gradual retreat from the peak of 1.066 in March of 2010 had seemed orderly until this month. Coupled with the negative adjustments to prior months, a major contraction is more likely.

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Shipments declined 1.3% to \$194.4 billion. While this decline was expected due to the impact of the Japanese supply chain, the drop in orders was so much greater that shipments now exceed new orders by \$4 billion. This is a reasonably clear signal of further reductions in production rates.



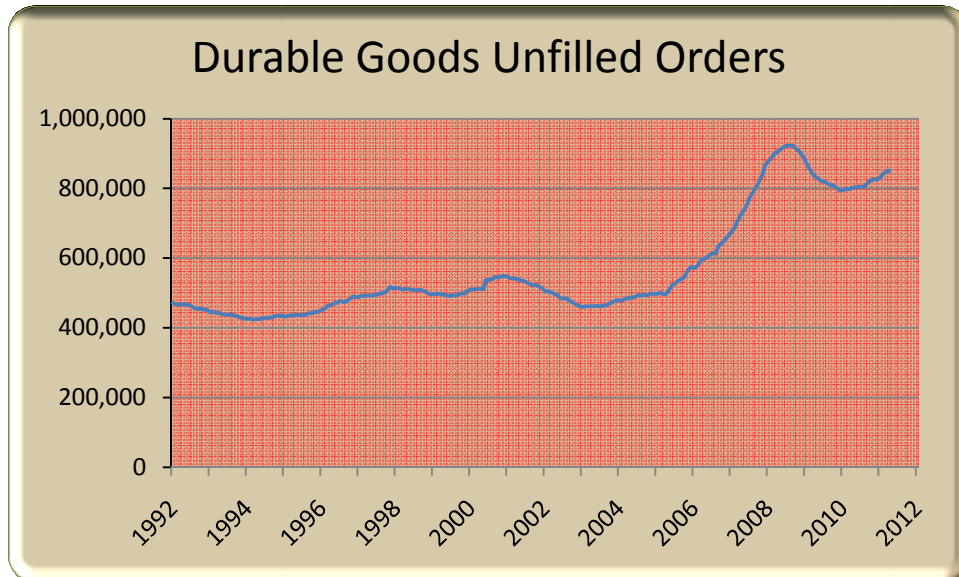
The growth index for shipments has now moved into contraction territory with a value of 0.982. The downward adjustment to the prior month's numbers also signal contraction.

For the past year the durable goods segment has been the only unqualified positive in the economy. That support has now ended.

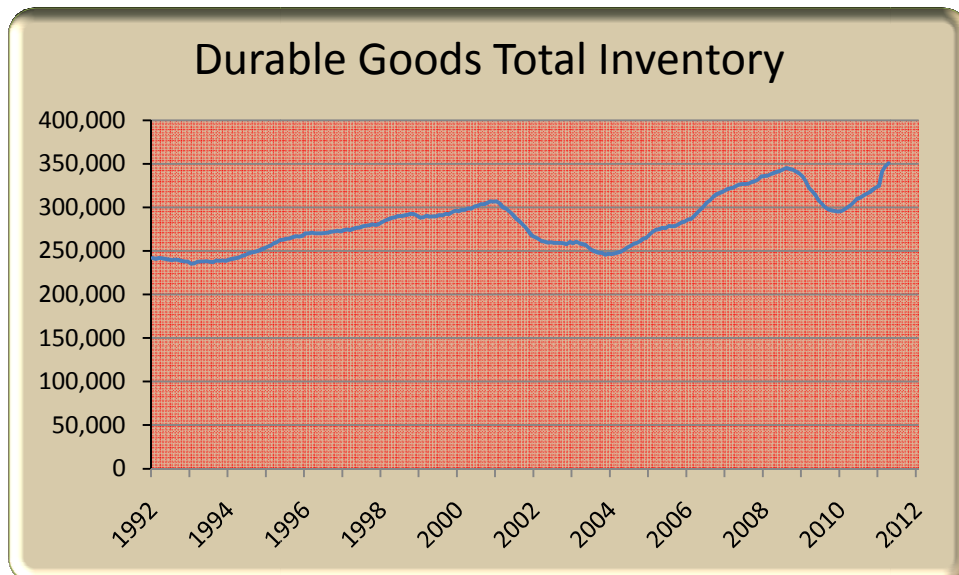
Unfilled Orders increased by 0.3% to \$850.7 billion. Last month's report was also increased from \$844 to \$848 billion. In combination the ratio of unfilled-orders-to-

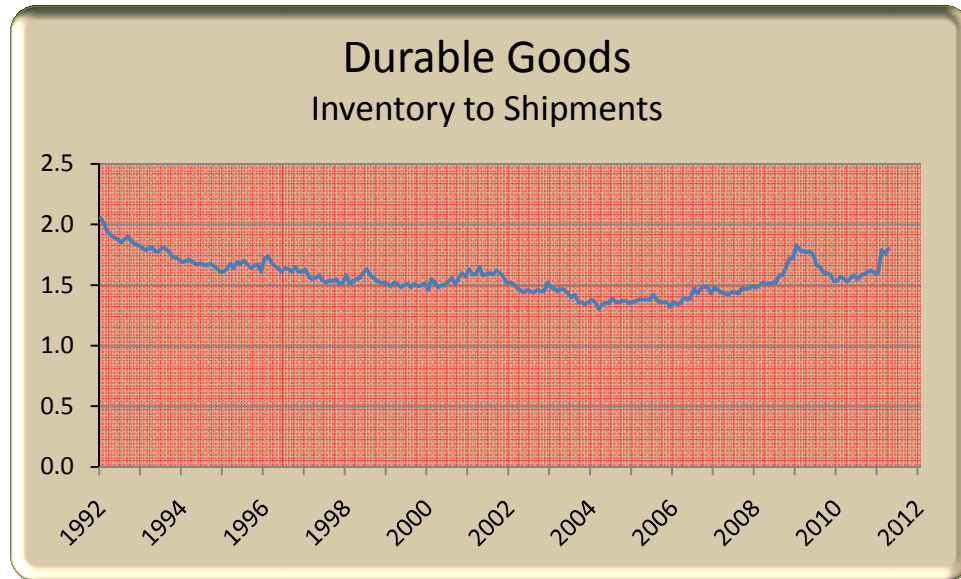
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shipments jumped from 5.5 to 6.1 months. Lead times for primary metals are long by traditional standards, but are no longer deteriorating.



Inventory climbed by 0.9% to \$350.6 billion. Last month's modest increase has now been adjusted upward. Inventory to shipments ratio has jumped to 1.8 months and is moving into dangerous territory. This level matches the previous high of January, 2009 as we spiraled into the recession. Of greater concern is the adjustment to prior month's inventory positions. A newly-visible pattern of inventory buildup will shift the focus to supply containment to get rebalanced. This exercise is harder than it looks. If you have excess inventory in strong movers you simply reduce orders and it fixes itself. Unfortunately it usually happens in the other 80% of the items. It's much harder to correct inventory that nobody wants.



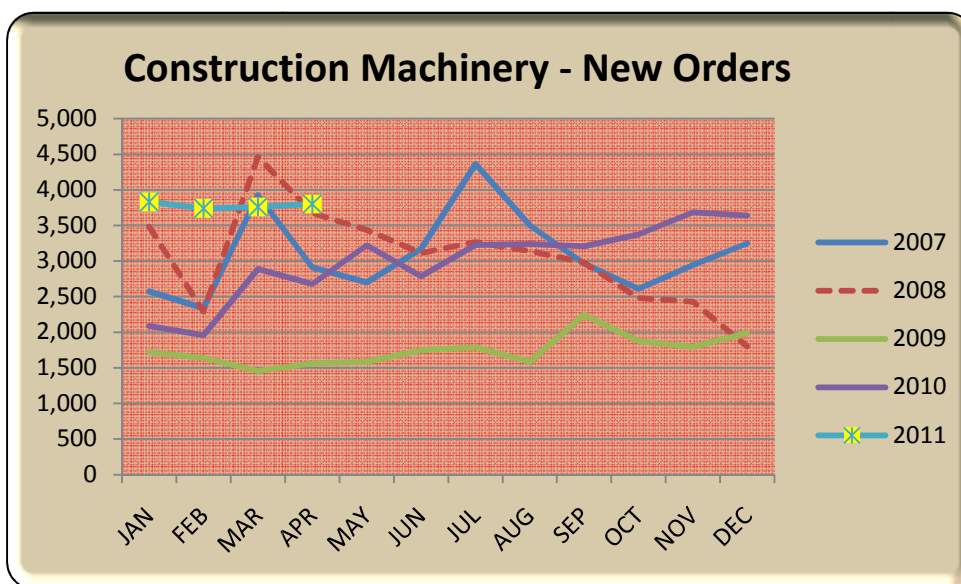


Key Durable goods sub sectors:

There are a few bright spots in the durable goods world. Construction machinery and mining, oil and gas machinery remain strong. Electronics and computers also showed positive results.

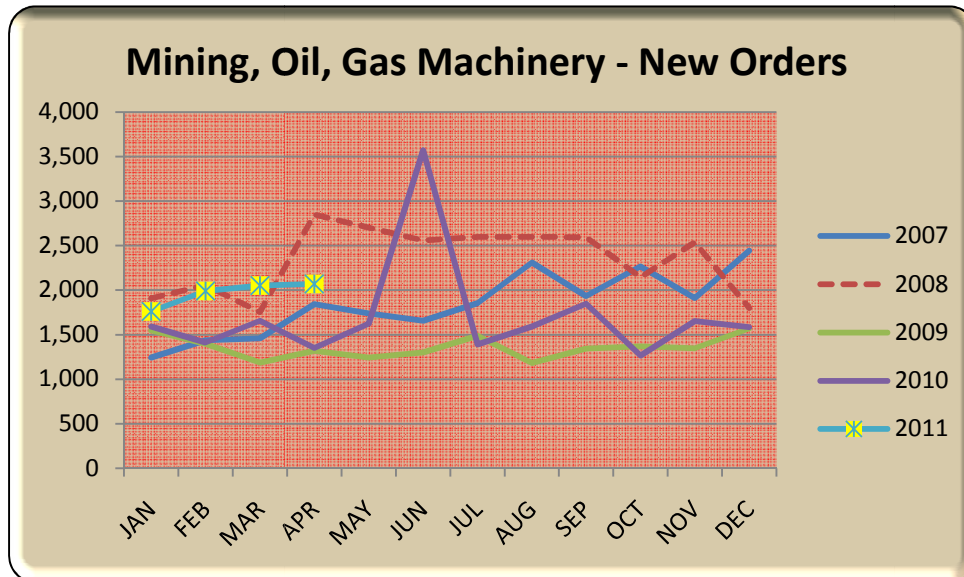
The declines in metalworking machinery and the broader capital goods sectors suggest new caution by manufacturers. The demand for new capacity is now less urgent. But it may signal that infrastructure upgrades are also slowing.

Construction machinery new orders increased by 1.1% to \$3.8 billion. Book to Bill ratio stands at a healthy 1.08.

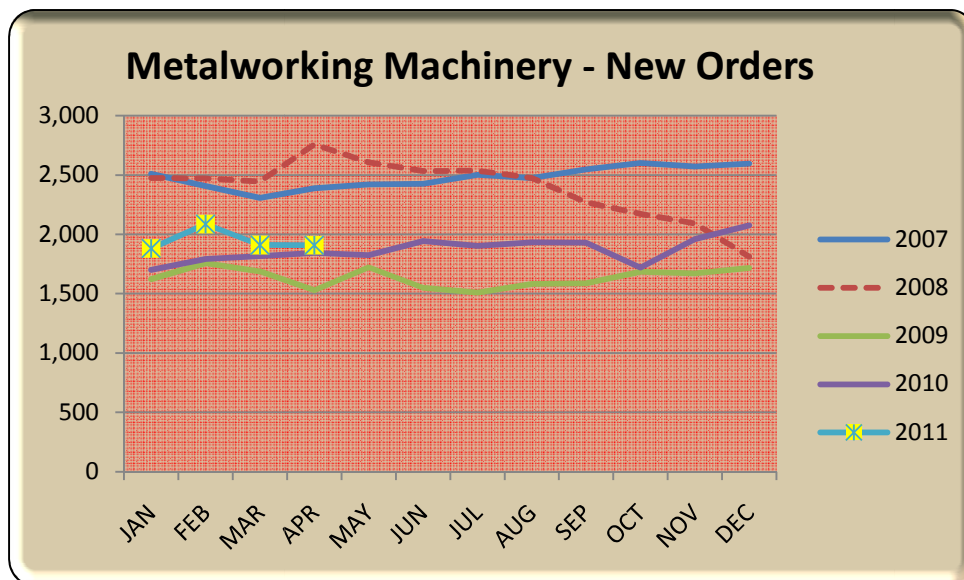


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Mining, oil and gas machinery new orders increased 0.9% to \$2.1 billion. Book to bill ratio stands at a strong 1.28.

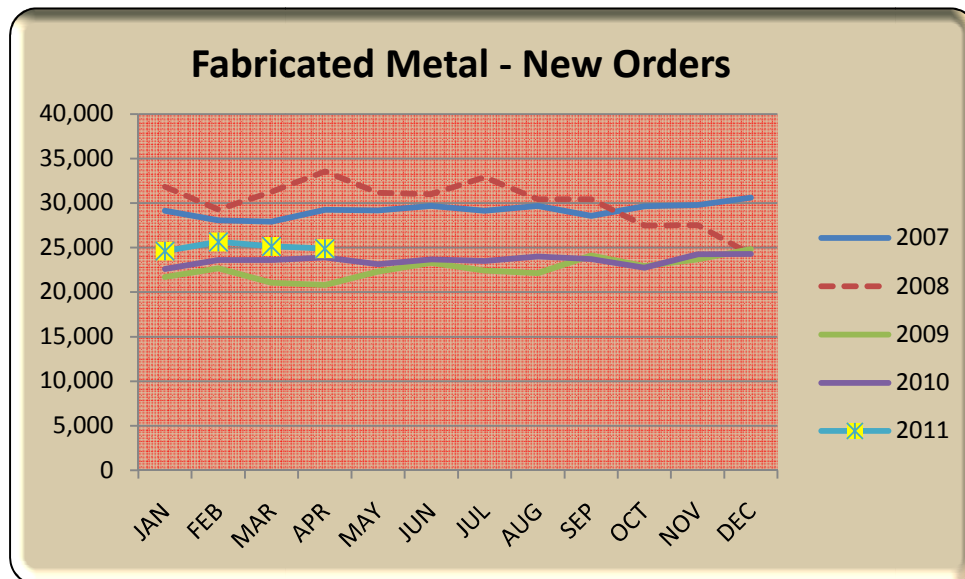


Metalworking machinery new orders declined by 0.1% to \$1.9 billion. Book to bill ratio is slightly positive at 1.03.

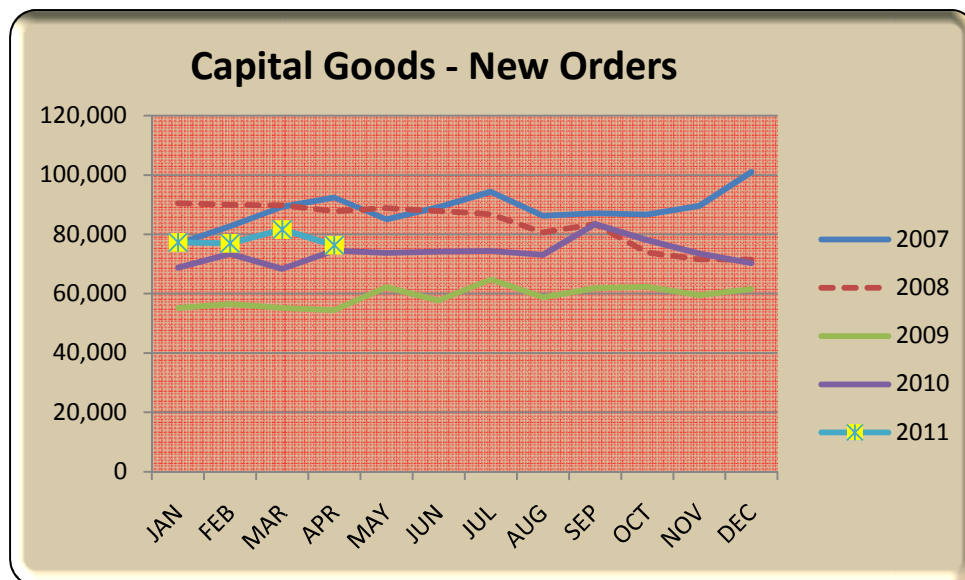


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Fabricated metal new orders declined 1.0% to \$24.9 billion. Book to bill ratio is neutral at 1.01.



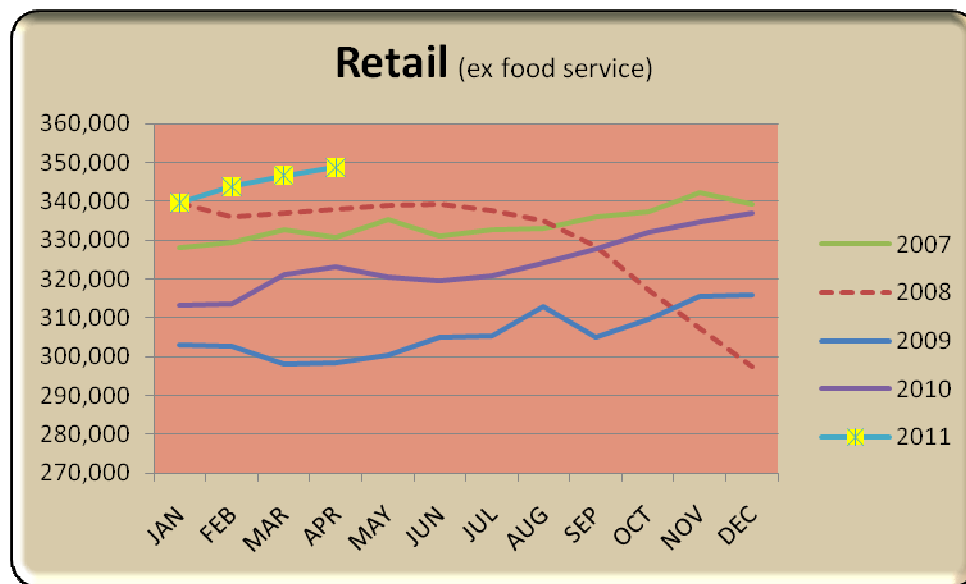
Capital goods declined by 6.5% to \$76.4 billion. Book to bill ratio is slightly positive at 1.03.



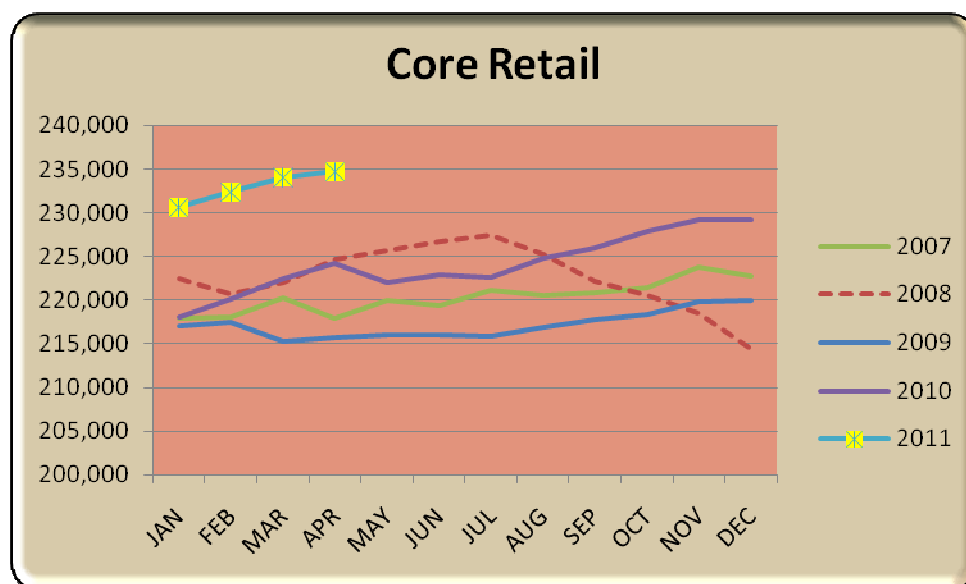
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Retail Data (April Advanced Release)

Retail Sales (excluding food service) increased by 0.6% to \$348.7 billion in April.

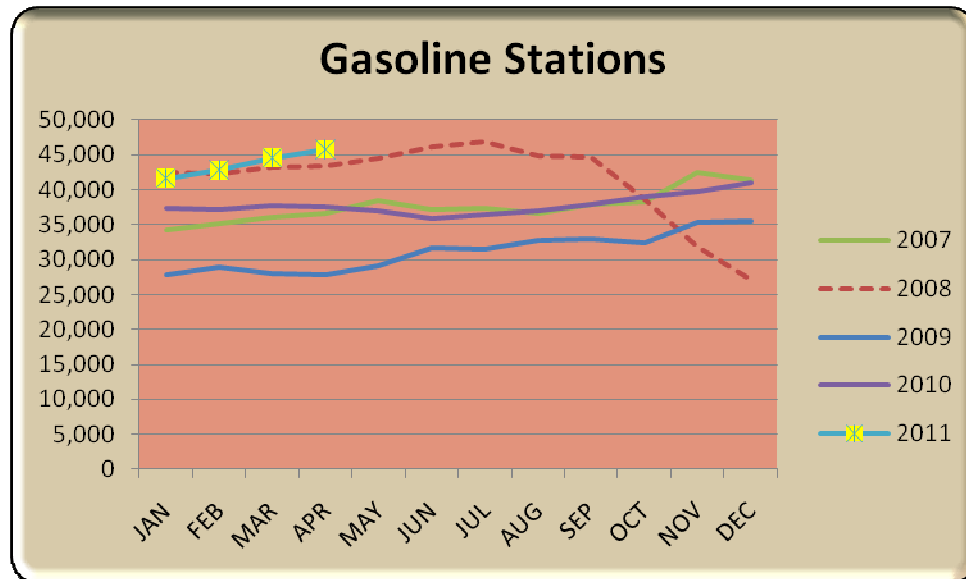


Core retail (excludes food service, gasoline, autos and parts) increased 0.3% to \$234.7 billion. Given any of the estimates of inflation, this is probably an actual decline.

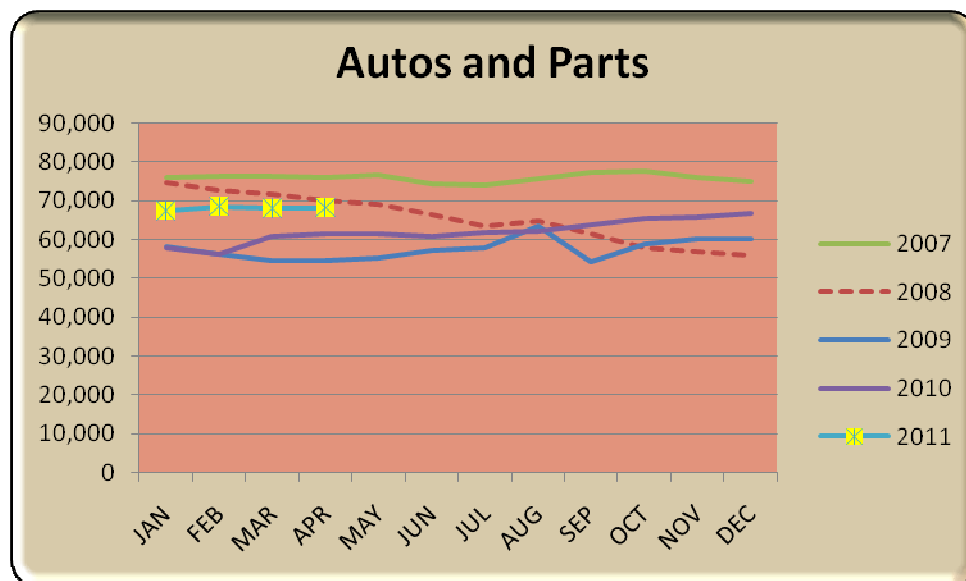


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Gasoline sales posted a modest increase. The growth in gas sales is still less than the increase in the price per gallon. Consumers are offsetting the rising cost by cutting miles and reducing other purchases. The CEO of Wal-Mart reported that "...our customers are running out of money."

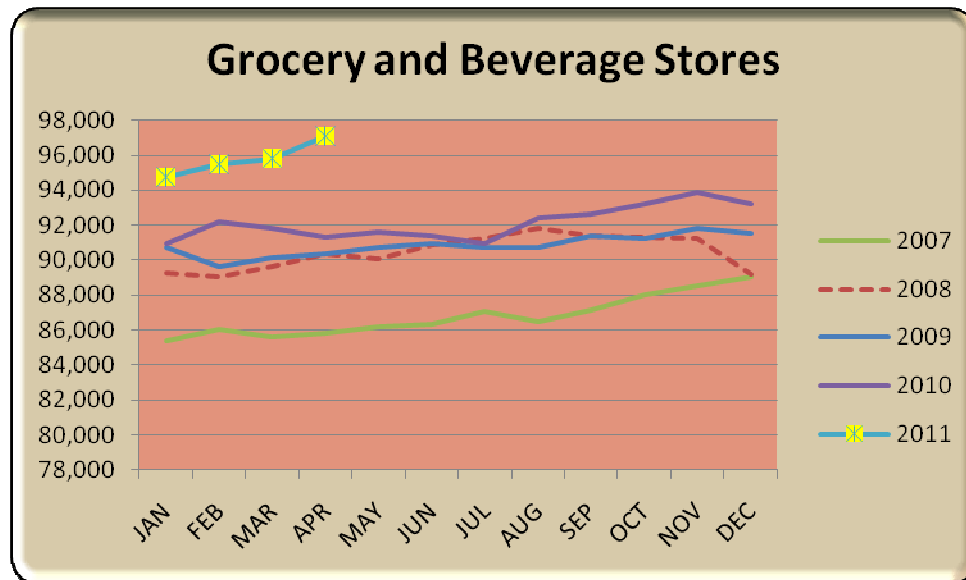


Auto sales remained relatively flat at \$68.2 billion. The modest pace of sales is not encouraging for this key sector.



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Grocery and Beverage stores sales surged 1.4% in April, to \$97.1 billion. This is the clearest sign of the core inflation rate. The category now stands 6.4% above the prior year, more than triple the rate of population growth.



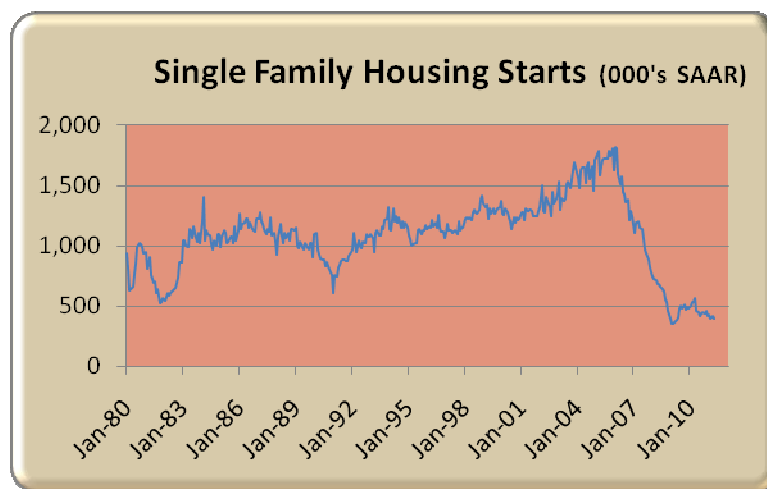
Housing (April Data):

The housing market remains in the tank. The heavy pace of foreclosures may have peaked, but the most important problem is the reduced pool of qualified buyers. The employment data show one of the reasons. The number of adults employed has dropped from 63% to 58% of the population. The lending rules further shrink the pool of buyers. This adjustment may be painful, but it is necessary to get the excesses of the housing bubble out of the economy.

Sales of existing homes also dropped in April. Vacancy rates have not changed dramatically for either single-family or multi-family units. The rate of turnover in the market has declined in the recession. The only explanation for the combination of measurements is that households are declining, as first reported last month.

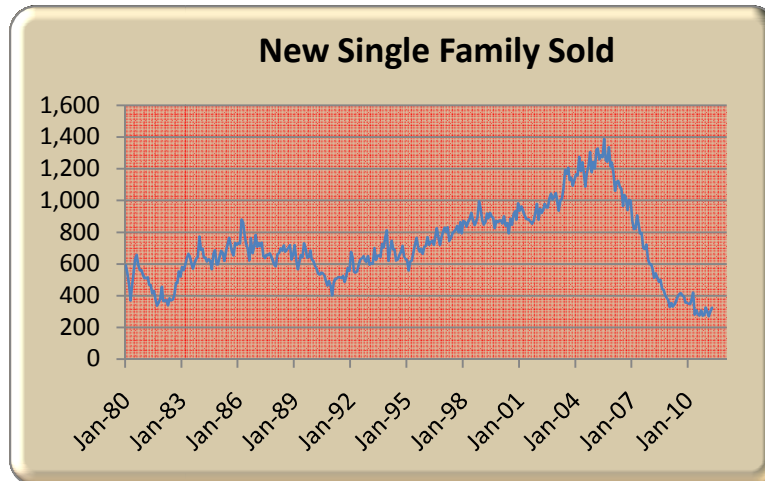
The high rate of foreclosure transactions is not an important measure of changes in the housing stock, as long as vacancy rates are not changing. But it does reduce the potential pool of qualified buyers.

Single family starts declined 5% to 394,000 SAAR. In the past 12 months the single family share of total starts has been 77%. This is down from 82% for the same period in 2005. This indicates that apartments are now an increasing share of our housing stock.

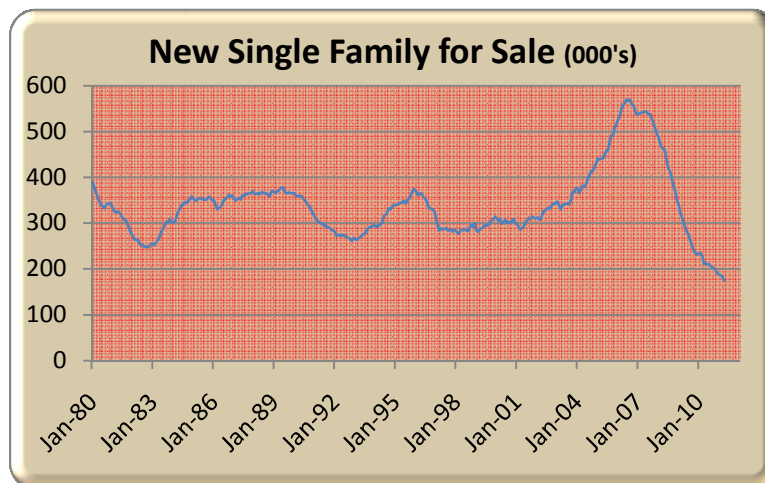


Single family sales increased slightly to 323,000, still far below traditional rates.

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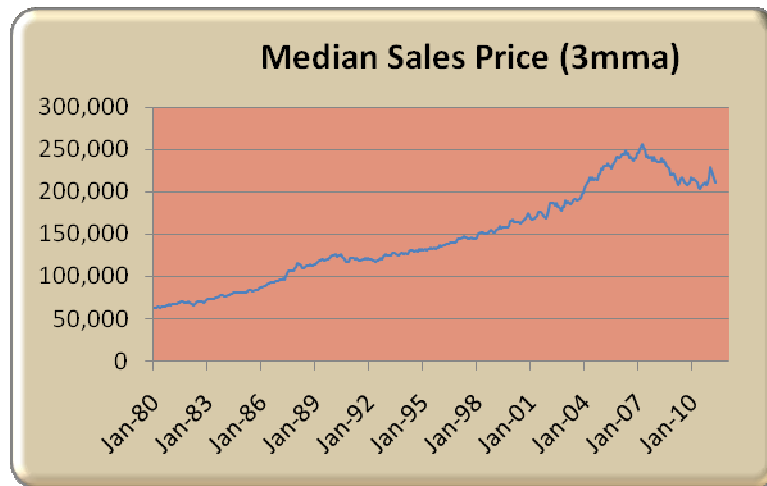


Single family homes for sale declined again to 175,000, about half of what was once normal.



Median Sale Price declined slightly from 215,500 to 211,000 (3mma). No relief expected here until the foreclosure activity runs its course. But the current price trends seem consistent with the longer term (pre bubble) valuations.

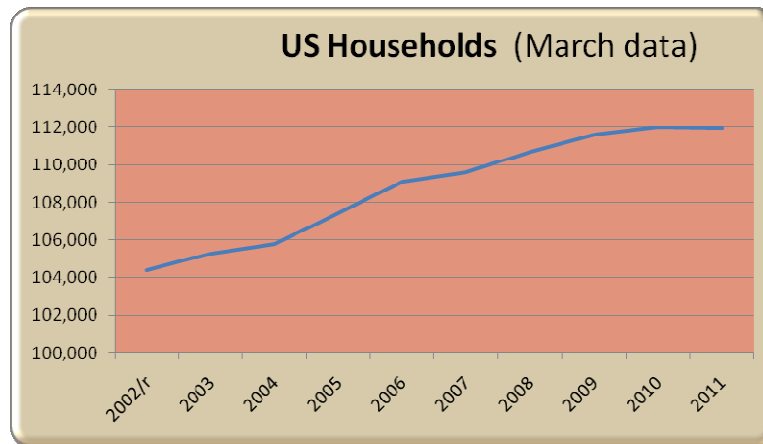
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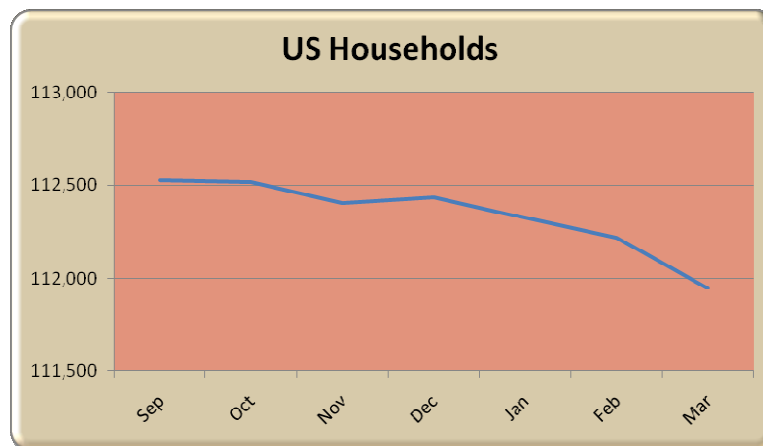
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New Household Formations: For several years the DGR has raised the question of how the depressed levels of housing construction could support a normal level of household formation. We now have some added insight. For the first time since WWII the count of total households in the US is declining. The charts below show a clear pattern. The exploded detail since September is most dramatic. Actual declines in households are an ominous signal for the housing market.

Total US Households



Exploded View Sept - Mar



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 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

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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 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

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