

The Durable Goods Report

April 2011 Report

Manufacturing Data Release of 4/31/2011 (February Preliminary)

Employment Data Release of 4/1/2011 (March Preliminary)

Retail Data Release of 4/13/2011 (February Advanced)

Industrial Production Data Release of 3/17/2011 (February Advanced)

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

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By the Numbers

Durable Goods Key Measures			
February	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	200,751	200,974	188,346
12 month moving average	195,564		174,161
% Change from Prior Year	12.3%		
Unshipped Orders - Durable	834,835	829,569	798,552
% Change from Prior Year	4.5%		
Value of Shipments - Durable	203,019	202,838	189,328
12 month moving average	198,544		184,359
% Change from Prior Year	7.7%		
Inventory - Durables	328,756	324,708	297,545
% Change from Prior Year	10.5%		
Inv to shipments ratio - Durable	1.62	1.60	1.57
Growth Index - Durable New Ord	1.017	1.014	1.061
Growth Index - Durable Shipmts	1.021	1.018	1.038
US Economy Key Measures			
	This period	Last period	Change
GDP Q4	14,871.4	14,745.1	0.9%
Industrial Production (Feb)	2,556.9	2,554.8	0.1%
Capacity Utilization % (Feb)	77.1	77.0	0.1
Manufacturing %	74.9	74.3	0.6
Durable Goods %	72.5	71.3	1.1
Primary Metals %	72.1	70.9	1.1
Autos and Parts %	63.0	60.6	2.4
Machinery %	78.8	76.2	2.6
Durable Goods (\$Mil SA) Feb Data			
New orders	200,751	200,974	-0.1%
Shipments	203,019	202,838	0.1%
Inventory	328,756	324,708	1.2%
Unshipped Orders	834,835	829,569	0.6%
Retail ex Food Srv(\$Mil SA) Feb	348,028	346,944	0.3%
Autos and Parts	68,676	69,849	-1.7%
Gasoline	41,754	40,681	2.6%
Core retail (ex auto, gas)	237,598	236,414	0.5%
Groceries	96,305	96,121	0.2%
Employment (000's SA) Feb Data			
Non-Farm	130,738	130,522	216
Private	108,572	108,342	230
Goods Producing	17,939	17,908	31
Manufacturing	11,667	11,650	17
Construction	5,514	5,515	-1
Durable Goods Mfg	7,227	7,210	17
Housing (000s of Units SA) Feb Data			
Single family starts	375	425	-11.8%
Single family sales (new)	250	301	-16.9%
Single family for sale (new)	186	188	-1.1%

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US Economy:

Q4 GDP was revised upward slightly in the final revision. The weak growth pattern remains evident. Signs of a slowdown in Q1 are accumulating. Similar pattern in industrial production. Retail showed modest growth in the advanced data for March. Given the clear signs of inflation this probably represents a decline in physical activity. Gasoline sales are reflecting only half of the retail price inflation of the past 12 months. This suggests a decline in real consumption.

The Chinese economy shows more signs of stress. Housing bubble may be popping. (See “Random Thoughts”)

Employment:

The reports of declining unemployment are false. Last year reported the worst employment rate since the Great Depression. This year is worse by 0.1% in each of the first three months of the year. See the Employment section for details on the real numbers.

Durable Goods:

New orders decreased in February, but only by 0.1% after the 3.2% surge in January. Shipments increased slightly, while inventory increased by 1.2%. Order to shipments ratio is balanced at 99%. Growth index remains positive, but slowing.

Random Thoughts:

- DGR has been reporting for four years that the numbers from China don't add up. Our recent reports covered the construction of excess housing to keep GDP growth high – 64 million residential units, 12 complete cities, all empty. Now the bubble may have popped. Beijing housing prices declined in March by 27%, new sales were down 40% m/m and 51% y/y. The government claims to be cracking down on speculation to cool the market. What's the average equity position in Beijing housing? This sounds familiar.
- The supply chain disruptions from Japan are hitting autos and electronics. No good predictions on when it gets back to normal, but a few months would be a good guess.
- Major hedge funds are dumping US treasuries. S&P downgraded the US credit outlook. Washington insiders think it's because they can't get along and find a compromise. What am I missing? Doesn't this mean they broke the bank?
- The idea that we can ever be independent of global competition is a fanciful fiction. Global supply chains are at least 30,000 years old.

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- Supply chains are necessary. No single company knows how to build anything. Not even the lowly No. 2 pencil. Check out this excellent piece.
 - o <http://www.thefreemanonline.org/featured/i-pencil/>
- If capitalism and industrial society are so evil, why has the life expectancy in industrial economies doubled in just over 100 years?
- In two or three generations the world has gone from starvation to obesity as the single biggest concern. Starvation kills quicker.
- Hypothesis:
 - o No monopoly can exist without the active collusion of government.
 - o All major institutions (corporations, unions, bureaucracies) attempt to manipulate government to achieve monopoly position.
 - o The goal of major institutions is to avoid competition from (innovative companies, worker-centered local unions, decentralized government services).
 - o Talk among yourselves.
- Kilimanjaro snow cap is growing again after several years of shrinkage due to drought. No connection to global warming or cooling.
- Wal-Mart has dropped their green initiative after 7 bad quarters.
- Studies in Spain, Scotland and the UK show that renewable energy initiatives result in a net loss of 2.2 to 4.5 jobs for every green job created. When investment is redirected into subsidized (i.e. uneconomic) activity, how would you expect anything else?
- Forbes lists the five critical reasons we left renewable energy behind in the 13th century. It is literally the energy of the past.
 - o http://www.forbes.com/forbes/2011/0425/opinions-taylor-van-doren-capital-flows-green-energy_print.html
- Coal fired power plants emit 100x more radioactivity than a nuke. This is not because the coal plants are so radioactive. It's because the regulations on nukes are so tight.
- Congress complains that the president didn't consult congress on Libya. Really? And would they get to that before or after last year's budget?
- Of course the question really is whether we are now committed to an intervention in every civil war? Which ones? Can I decide?
- David Pimentel, Cornell University professor emeritus, states that ethanol from corn consumes 29% more energy than the fuel produces, switchgrass requires 45% more energy than the fuel produces, and wood biomass requires 57% more energy than the fuel produces. In other words, Professor Pimentel finds that the entire biofuel industry wastes more energy than it produces.
- The above numbers are slightly at odds with numbers previously quoted here (60% vs 29% for corn, for example). But the trend is consistent. All studies have

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shown that ethanol as a fuel is a net consumer of energy, not a source. To be a useful source of energy the input/output ratio needs to be 0.3 or lower.

- US corn production: 37% to ethanol, 16% to exports, 8.3% to food (USDA). Still looking for a good number for the amount of corn used by feed lots.
- In the search an interesting snippet showed up: 50% of all the antacids produced in the US go to feed lots to keep the cows and pigs happy.
- A UPS cargo plane caught fire and crashed in the Middle East last year. The cause was lithium batteries that were somehow exposed to air. What will happen when the first hybrid/electric vehicle crashes and exposes the lithium to air?

Energy:

Soaring oil prices continue to represent a major threat to global manufacturing. US manufacturing is faced with the additional burden of government programs that increase the cost to acquire or use energy. There is debate about whether this is an intentional policy or an unintended consequence. It doesn't matter except to political junkies. Incompetence and malice have the same impact on your business. But there are a few interesting technologies (and a few scams) that are worth understanding.

Whenever gas gets above \$3, attention is directed to "new" engine designs that claim improved efficiency. Some are old scams recycled. An example is the engine that burns water with a magical new catalyst that separates hydrogen and oxygen, then burns them again. Note to physicists: If this were possible wouldn't the universe explode?

There is some interesting work going on, but most of the excited commentary confuses two competing goals in engine design. 1) maximum extraction of energy from the fuel and 2) minimum weight to horsepower ratio. The Carnot equation sets the upper bound on fuel efficiency:

$$(T1-T2)/T1.$$

Combustion temperature minus exhaust temperature divided by combustion temperature.

High compression (and turbo charged) engines are more efficient because they operate at higher combustion temperatures (T1). Some achieve over 30% thermal conversion efficiency. The melting point of steel sets a limit on that approach for now.

There is a really cool design that takes the other approach – reducing the exhaust temperature using slow rpm and very long stroke. It achieves about 50% thermal efficiency, compared to about 25-30% for a conventional automobile engine. At 44 ft. high, 89 ft. long, 108,000 HP and 2300 tons, it's not likely to be available in autos

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anytime soon. It weighs 42 pounds per horsepower. Your auto engine comes in at roughly 1 pound per hp. But it works out fine for a supertanker where the weight is carried by buoyancy rather than tires, and where acceleration is by appointment only.

<http://qualityjunkyard.com/2009/05/27/worlds-biggest-engine-the-wartsila-sulzer-rta96-c/>

The new “wave disk generator” claims to achieve 3.5x efficiency of auto engines, uses 60% of the energy output for propulsion, and reduces emissions by 90%. These numbers are likely to be poorly constructed comparisons, rather than the thermal impossibility that appears on the surface. They haven’t published their methods. But the engine looks strangely like the Wankle Rotary that was supposed to be an efficiency revolution in the 70s. It turned out to be less efficient than internal combustion because it operated at a lower compression ratio (temperature). It had initial problems with sealing the combustion chamber. The real accomplishment was a serious weight reduction and it is still available today in the Mazda RX 8. I expect the same from this offering.

http://www.msnbc.msn.com/id/42460541/ns/technology_and_science-innovation/

Research into alternate fuels continues. While wind, solar and ethanol head for the dustbin of history, efforts continue to find a way to get solar to practical contribution. Direct conversion to electricity is unlikely to ever succeed for a critical reason. There is still no efficient way to store large amounts of electricity, or to do demand-following.

One interesting approach to this problem is the use of algae to convert sunlight into hydrocarbons. We have often commented on the amazing efficiency of hydrocarbon storage of energy. Stellar Wind Energy uses bio-reactors to do the magic. They have actual working prototypes. Check it out here: <http://stellarwindbioenergy.com/>

Japan Nuclear Update:

This event is important to the political future of electrical power generation in the US. This is the primary form of stationary power use in the US and empowers the many small businesses that are key to the economy.

There was no nuclear explosion at the Daiichi reactor site. There was almost no possibility that there could be. That involves a process called “re-criticality” where the fuel re-assembles itself into a critical mass. Not impossible, but almost so. The explosions replayed in TV coverage were hydrogen explosions which caused the blow-out panels in the upper part of the building to...blow-out. The hydrogen was generated from overheated cooling water. A minor version of this happens when you go on vacation for a couple of weeks, and then get some gassing from the hot water faucet.

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The second level of risk was a “meltdown” (containment vessel breach, as opposed to the “meltdown” of the fuel rod tubes – much reporting confusion on this). It so far looks like that hasn’t happened either. Pressure levels are holding steady in the containment vessels. It was a low probability. Occasional spikes in radiation are most likely from the spent fuel storage pools, not from the containment vessels.

The next threat is the escape of radiation by venting of steam. There was some initial venting, but not at dangerous levels.

The escape of radioactive material from the spent fuel storage pools is a more realistic concern. This is where all the ugly radioactive by-products end up. The discussion of radiation levels below will help clarify the level of risk.

The wet storage pool design used at Daiichi (and most US sites) is now considered obsolete. Dry cask storage has been debated in the US for some time. The fact that the dry cask method was used for part of the spent fuel at Daiichi, and that these casks survived intact, will likely tip the argument in that direction.

The disaster at Daiichi 1, 2 and 3 is economic. These units will never be put back into operation. The meltdown that caused the problem wasn’t like the “China Syndrome”, but the meltdown of the fuel rod tubes (think of a Pez dispenser where the plastic melts...you do remember Pez dispensers, don’t you?). These plants are 40 years into a 50 year life, and the clean-up will be too expensive to consider. There will be further economic impact to clean up the surrounding area, but it will be much lower.

The human risk of radiation exposure is the primary concern. Units of measure in the field complicate the task of understanding the impact. REM, RAD, Gray, Becquerel, Roentgen, Rutherford, Sverdrup, Curie and Sievert. Looks like the industry had a lot of famous people that needed something named after them. There are measures of source output and measures of received effect on tissue. There are rates per hour and cumulative totals. For example the Curie (Ci) is a measure of source output. The Sievert (Sv) is an estimate of human effect at the receiving end. The Spokane example is a good test case.

Associated Press: “The Environmental Protection Agency said a March 25 sample of milk produced in the Spokane, Wash., area contained a 0.8 pico curies per liter level of iodine-131, which it said was less than one five-thousandth of the safety guideline set by the U.S. Food and Drug Administration.”

Wikipedia: “The typical human body contains roughly 0.1 μCi [micro Curies] of naturally occurring [potassium-40](#).”

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Now some conversion: 0.1 uCi is equal to 100 pico Ci. So the human body normally contains more than 125 times the radiation measured in Spokane. The FDA “safe dose” is 50 times higher than that. What we see in Spokane is not a measure of radiation risk, but a testament to exceptional measurement technology. As a radiation source, this doesn’t matter.

The effect of the dose goes down as the third power of distance from the source (that’s really fast). The following listing would suggest that you would need to eat 500 bananas to get to the same dose. While this would likely have unpleasant effects on your body, radiation damage wouldn’t be among them. Note that sleeping next to someone produces more than 50 times the Spokane dose. (Of course distance comes into the equation, suggesting...Oh, never mind.)

Radiation Exposure Examples	
1 μSv	= 0.001 mSv (mille) = 0.1 mrem (mille) = 0.0001 rem
0.05 μSv	Sleeping next to someone
0.09 μSv	Living within 50 miles of a nuclear plant
0.1 μSv	Eating a banana
1 μSv	One x-ray of arm
1 μSv	Using old CRT monitor for a year
1.2 μSv	Extra dose received from one day visit of Grand Canyon region
3.5 μSv	Approximate dose in town close to Fukushima nuclear plant on 3/17/11
5 μSv	One x-ray of teeth
10 μSv	Normal daily dose of natural background radiation
30 μSv	EPA annual target from nuclear power plant
40 μSv	Airplane flight from NY to LA
50 μSv	Chest x-ray
70 μSv	Living in a brick, stone or concrete house for one year
80 μSv	Average Three Mile Island accident dose at distance of 10 miles
200 μSv	Round trip airplane flight from NY to Tokyo
600 μSv	Abdominal x-ray
1,000 μSv	Maximum external dose from Three Mile Island accident
3,000 μSv	Mammogram
3,600 μSv	On 3/16/11 approximate dose at 2 locations 30 miles from Fukushima nuclear plant
3,650 μSv	Average person's dosage during a one year period
6,900 μSv	A tomography chest x-ray
10,000 μSv	Visiting Guarapari Beach in Brazil
50,000 μSv	Maximum annual dosage for radiation worker (medical, nuclear, emergency)
100,000 μSv	Lowest one year dose linked to possible increase in cancer
400,000 μSv	Single dose that would cause symptoms of radiation poisoning
A C3Headlines.com Chart	
Source: http://wattsupwiththat.files.wordpress.com/2011/03/xkcd_radiation.png	
Source: http://www.mext.go.jp/component/a_menu/other/detail/_icsFiles/afieldfile/2011/03/18/1303840_2_1.pdf	
Note: μSv represents 1 micro Sievert - measurement of biological effect from dose of radiation	

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Recent long term studies have shown some surprising results as to safe dosage. Apparently the relationship between radiation dosage and health is a “J” curve. Cancer risk initially declines before turning back up. At first an increased dose of radiation reduces the risk of all cancers. The therapeutic dose seems to be much higher than originally thought.

There have been scattered studies and anecdotes around for years.

- At TMI there was no increase in cancer rates. Of course no person was exposed to more radiation than a coal fired power plant would have produced.
- At Chernobyl we mostly learned the Soviet statistics are unreliable. But we know that the “hero of Chernobyl” who ran in immediately after the explosion to fight the fires is currently living in Moscow. He had symptoms of radiation poisoning within an hour and was unable to stand after 5 hours.
- Downwind in the radiation plume from Chernobyl (UN study) there was a 10 fold reduction in the incidence of cancer of all kinds.
- An apartment building in Taipei accidentally used building materials contaminated with Cobalt 60. The 10,000 residents tracked showed a 10 fold reduction in the incidence of cancers of all kinds.
- Survivors of Hiroshima who did not suffer blast or burn injuries showed a similar reduction in lifetime cancer.
- A handful of people were exposed to both the Hiroshima and Nagasaki bombs. The only one to speak out publicly died last year at the age of 92.

All this suggests that the primary risk in nuclear events is similar to conventional explosions. The greatest risk is blast and burn injuries. This assumes evacuation from exposure to the heavier radioactive isotopes in a reasonable time. The economic issue of cleaning up the long lasting radioactive isotopes is another serious consideration for the use of uranium/plutonium nukes, whether from the spent fuel rods or from an accident.

The biggest casualty in this event will be the future of nuclear power development. The fears may be irrational, but they are no less real. Education has failed to help people understand the reality of nuclear radiation or the amazing safety record of nuclear power. Nothing is free from risk, but nuclear power comes close.

Note: TWh = terra watt hours

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Energy Source	Death Rate (deaths per TWh)
Coal – world average	161 (26% of world energy, 50% of electricity)
Coal – China	278
Coal – USA	15
Oil	36 (36% of world energy)
Natural Gas	4 (21% of world energy)
Biofuel/Biomass	12
Peat	12
Solar (rooftop)	0.44 (less than 0.1% of world energy)
Wind	0.15 (less than 1% of world energy)
Hydro	0.10 (Europe death rate, 2.2% of world energy)
Hydro – world including Banqiao	1.4 (about 2500 TWh/yr and 171,000 Banqiao dead)
Nuclear	0.04 (5.9% of world energy)

<http://nextbigfuture.com/2011/03/deaths-per-twh-by-energy-source.html>

To address the political issues it will probably be necessary to redirect the debate to thorium reactors. This would be positive if it could occur. But today's entrenched nuclear industry is the primary roadblock to this advancement in the US.

GE and Westinghouse are major players in the nuclear industry. The CEOs of both companies traveled to Rio with the Obama team. What are the odds that the current administration will support thorium R&D? Take the short side of this bet for now.

China and India are placing their long term bets on thorium. Aker Engineering of Norway has acquired the patents for a thorium reactor design and is going after the China-India market. Norway has huge reserves of thorium and plans to lead the world in the technology. Someday US politicians will wake up to what's happening outside the beltway.

The arguments in favor of Thorium reactors:

- They operate at sub critical levels. Power must be supplied to generate the neutrons that keep the fission reaction alive. Failure of this system causes a shutdown.
- They can be used to burn the radioactive waste of uranium reactors by mixing small quantities with the thorium.
- They produce small amounts of radioactive waste with a much shorter half life.
- They use molten salt as the heat transfer medium. Excessive heat causes a plug in the bottom to melt, draining the salt into a pan and shutting down the system.
- They can be built in very small sizes, thus making the "smart grid" and "smart meters" irrelevant (other GE innovations). In fact the grid becomes irrelevant.

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- The US has a 47,000 year supply. It's a by-product of rare-earth metals which are currently sourced mostly from China. US mines are now re-opening.

Environment:

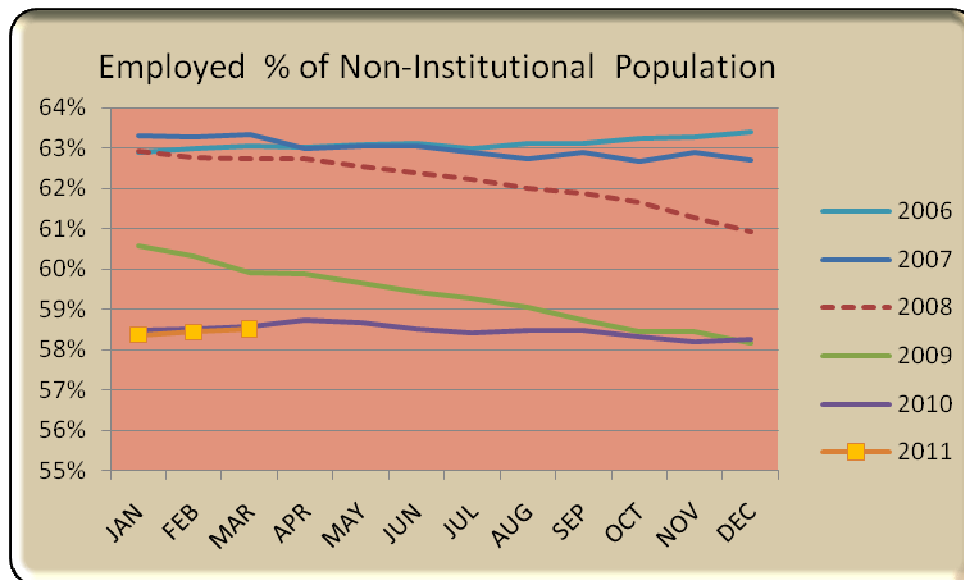
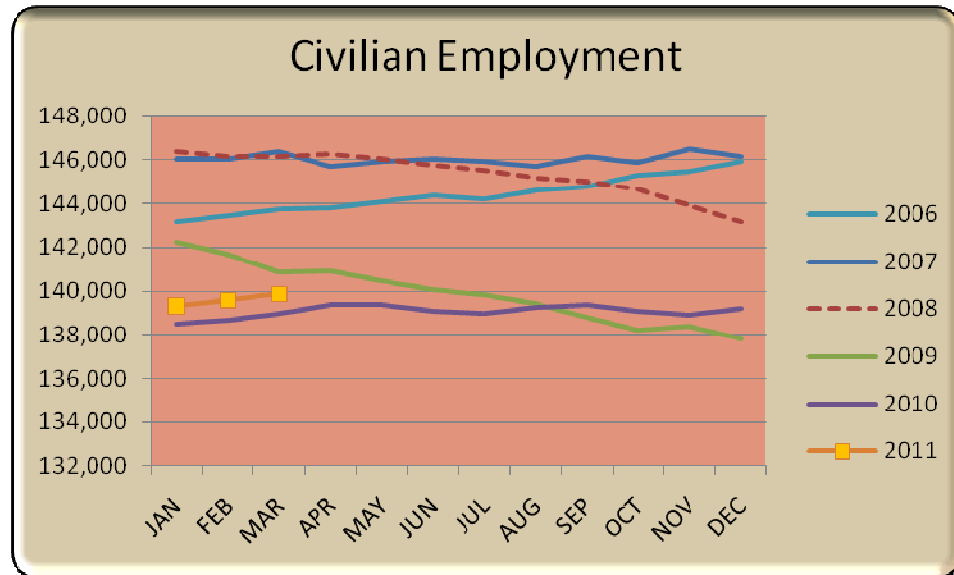
It's been a while since we covered the CO2 debate. Not much has changed.

- Google and Facebook have decided to jump in and support those scientists who champion the theory of anthropogenic global warming. In fact Facebook has decided to treat the postings of "climate change deniers" as abusive.
- The EPA continues to try to regulate CO2 as a greenhouse gas.
- Still no observation in the real world (or the Solar system) that shows the existence of the CO2 greenhouse effect.
- New study shows that the mixture of CO2 with water vapor in atmospheric proportions actually creates a cooling effect compared to water vapor alone. How did it take this long to run this experiment?
- Dr. Roy Spencer's challenge (show a single peer reviewed study that rejects the null hypothesis – it's all natural) remains in place and unclaimed.
- The dramatic cooling of the past 18 months has stabilized. We're cooler, but no imminent ice age. Sunspots have started to increase again, although about two years later than expected.
- Ignore all discussion of the land based temperature measurements. The data sets are badly corrupted by "adjustments" made with a political agenda. The measurements are also heavily influenced by the urban heat island effect and degraded measurement sites (an air conditioner installed adjacent, for example).
- The satellite measurement series is much better but only goes back to 1979. It has the advantage of picking up the 68% of the Earth's surface that is not land based. We are currently below the 30 year average temperature of this series.
- The first US indictment is possible in the next few months. Falsification of data to obtain government grants to study global warming.

Employment:

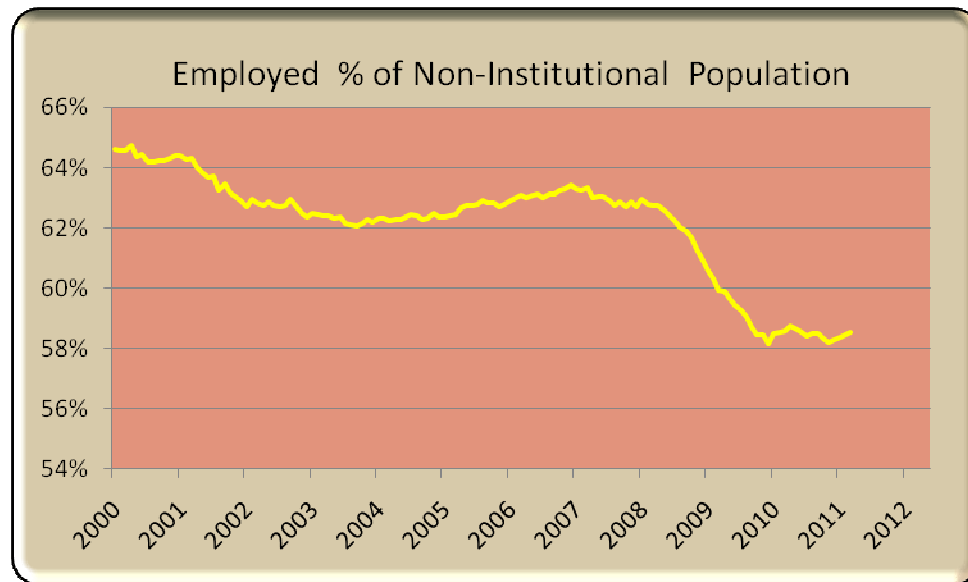
This is currently the critical problem for the US economy. While employment is growing slowly, it is not keeping pace with population growth. With employment rates at record lows (as a % of employable population) the economy is unable to generate significant wealth. Until that begins to change there will be no chance of a complete recovery.

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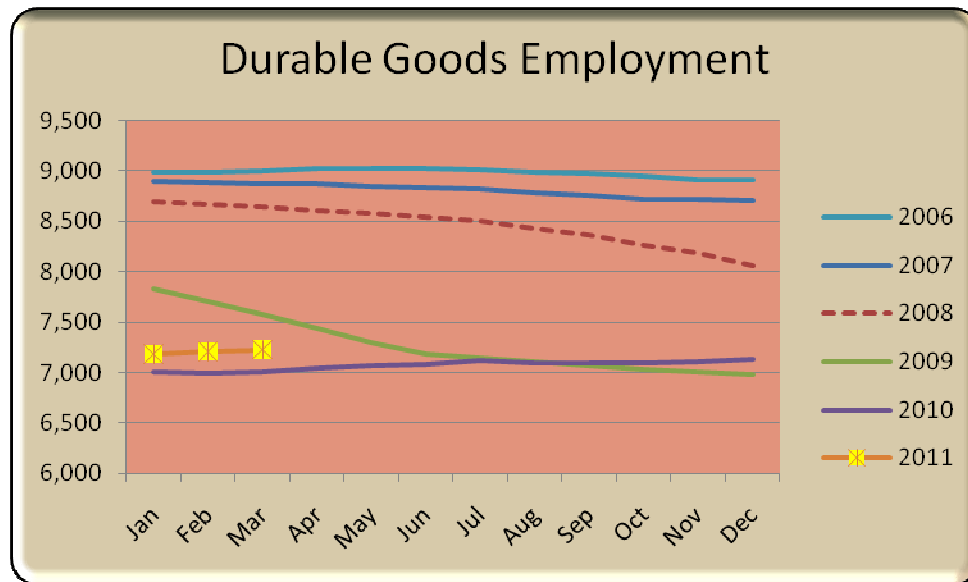
The employed % stands at 58.5%. Employment growth does not yet match the growth in the labor pool. Until there is a reversal of this trend the economy is at risk of further deterioration from any form of upset. High oil prices might be one example.

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The economy began a recovery mid 2003, but had not yet fully recovered when the downturn of the current recession started in early 2007. The 2007 timing has tempted some to apply a political lesson to this turning point (The Democrats took over congress in January of 2007). More likely it was driven by the housing market, which had become a huge bubble. Housing starts were running at double the rate of household formations and inventory was almost 600,000 units (now below 200,000). This bubble occurred because the fed accommodated the desire of both political parties in congress to increase home ownership rates above their natural level.

An old saying in physics: It's ok for $2+2$ to equal 5 for a while. As long as $2+2=3$ for a similar amount of time.



Durable goods sector continues to show modest increases in employment. Don't expect a surge in this sector to carry the economy. The higher levels of capital investment with no compelling capacity constraint suggest that manufacturers are responding to the higher labor cost (regulation and health care cost) by making labor unnecessary. As has been the trend for decades, most of the "lost" jobs are not going offshore. They're just going away. While durable goods may continue to improve, retail and housing need to make a bigger contribution to launch a real recovery.

Summary and Sector Analysis

GDP: US GDP growth was revised back to 3.1% annual rate (0.9% Q/Q; 4.2% Y/Y) this level of growth will not repair the unemployment situation in the US economy. If this were a real recovery we would see 5-6% growth.

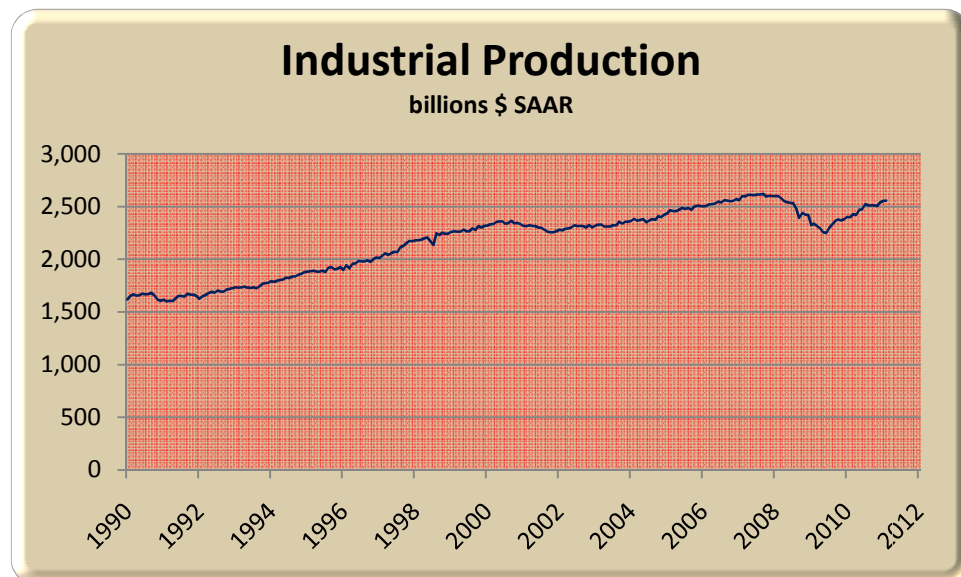
There are increasing signs that the economy is headed into a second dip (see housing and retail). If this is the case the real employment situation will get worse, government revenues will decline and the amount of government borrowing will continue to put stress on the financial markets. Inflation is now showing up across the board and has the perverse effect of reducing the value of the debt, but does so at the expense of the purchasing power of savers. It also means that interest rates are likely to increase.

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%

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Industrial Production (excluding industrial supplies)

Industrial Production \$b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2010	1	2401.7	0.9%	3.2%
2010	2	2399.2	-0.1%	2.6%
2010	3	2429.3	1.3%	5.0%
2010	4	2420.5	-0.4%	5.6%
2010	5	2469.3	2.0%	9.4%
2010	6	2475.3	0.2%	10.1%
2010	7	2522.8	1.9%	9.8%
2010	8	2512.4	-0.4%	7.9%
2010	9	2511.1	-0.1%	6.2%
2010	10	2511.3	0.0%	5.6%
2010	11	2507.2	-0.2%	5.8%
2010	12	2540.7	1.3%	6.7%
2011	1	2554.8	0.6%	6.4%
2011	2	2556.9	0.1%	6.6%



The growth of industrial production (excluding energy) has slowed but is still positive. Higher growth rates are needed here to get real employment improvement. The elevated cost of oil is putting a serious drag on the economy, and may turn it back into negative numbers. This measure of industrial production includes only the indirect effect of energy cost.

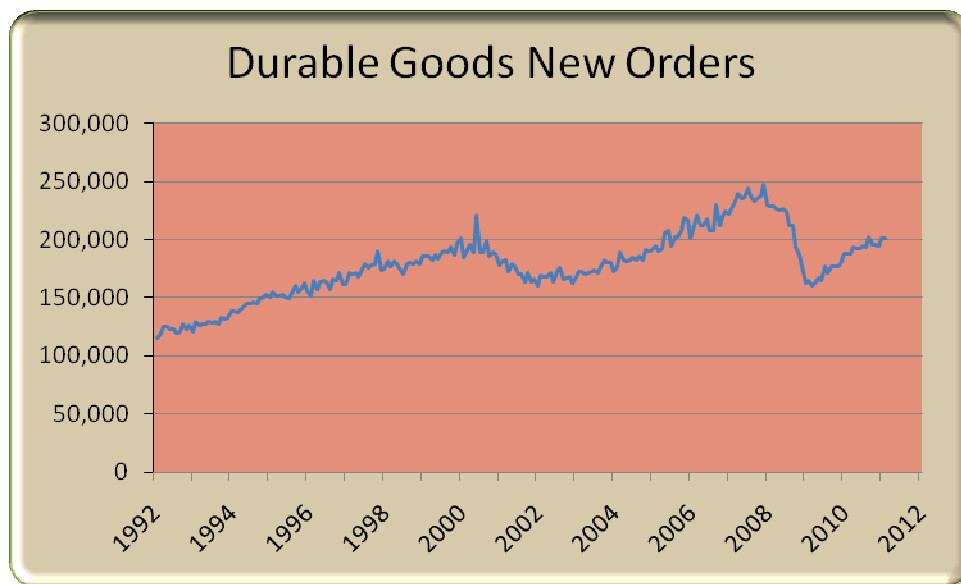
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Capacity Utilization:

Capacity utilization for industrial production declined slightly in February (-0.1 to 77.0%), manufacturing was up (+0.4 to 75.3%). durable goods (+0.9 to 73.4%), autos and light trucks (+2.5 to 65.6%), machinery (flat at 78.8%). Primary metals continued its decline in capacity utilization (-0.8 to 71.3%) despite continued reports of longer lead times.

The Durable Goods Sector:

New Orders (Feb data): Durable new orders fell by 0.1% to \$200.8 billion after a 3.2% increase in January.

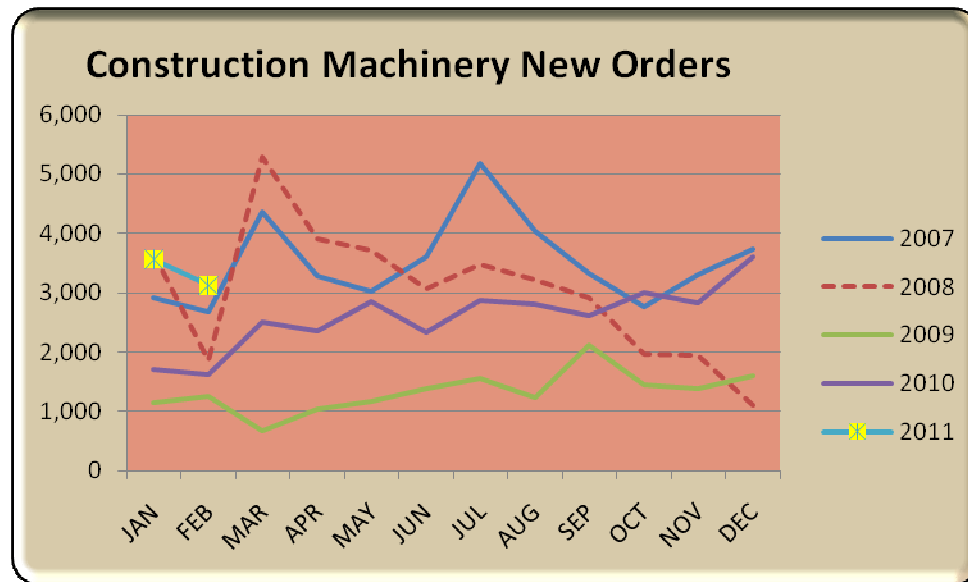


Shipments increased by 0.1% to \$203 billion. Orders to Shipments ratio remained stable at 99%.

Unfilled Orders increased by 0.6% for the second month to \$834.9 billion. The ratio of unfilled orders to shipments increased by 1.3% to 5.64 months.

Inventory climbed by 1.2% to \$328.8 billion. The ratio of inventory to shipments remained unchanged at 1.6 months.

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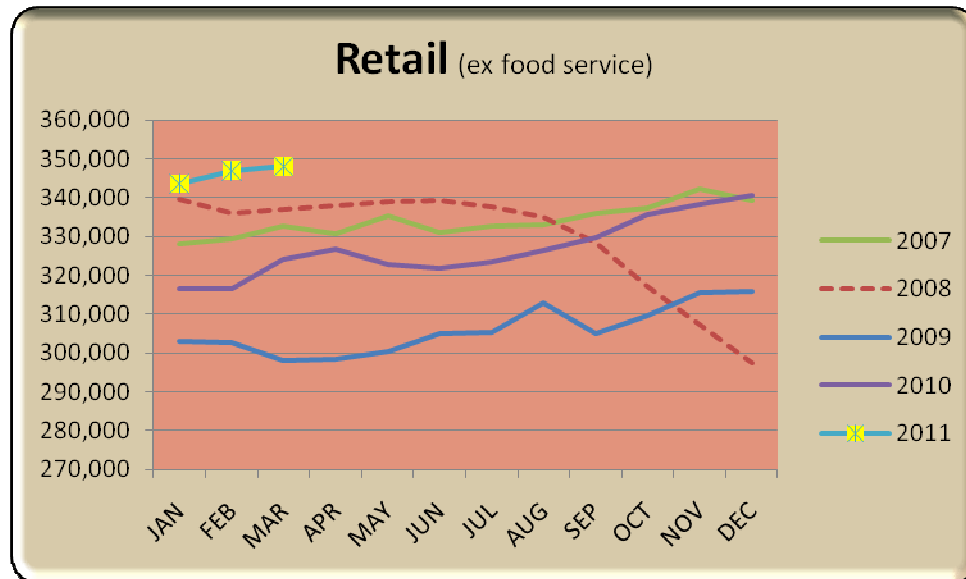


Construction machinery orders declined in February, but remained at a relatively high level for the month.

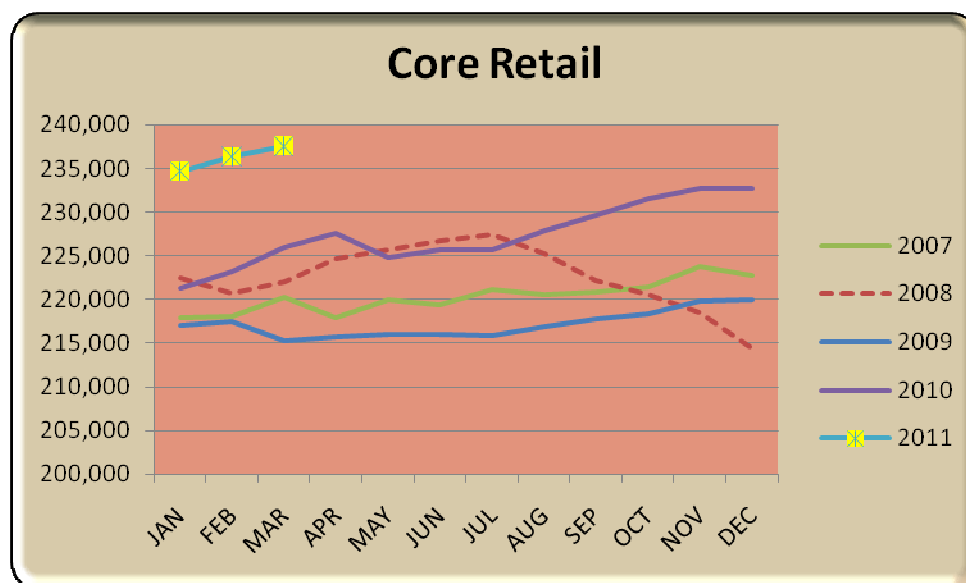
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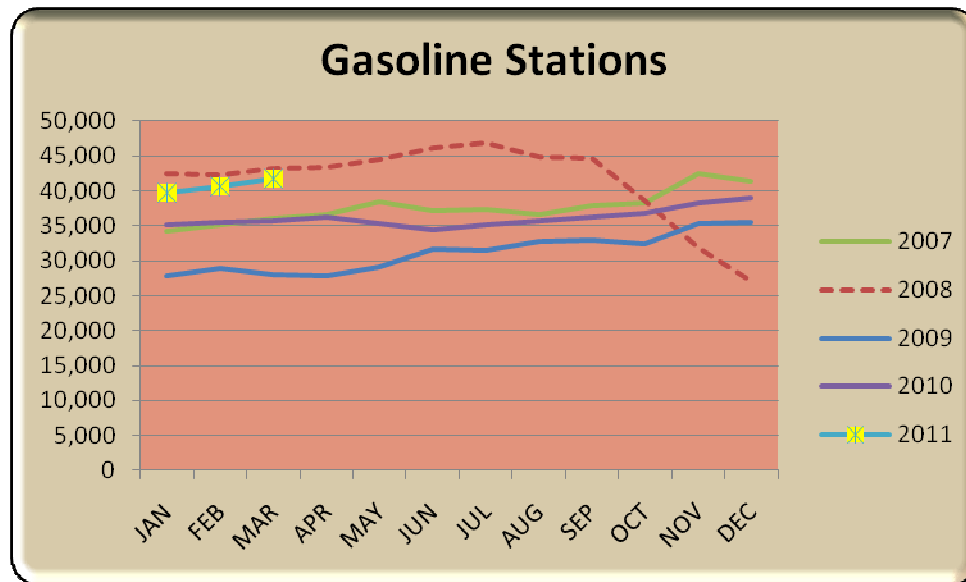
Retail Data (March advanced release)

Retail Sales: Retail sales (excluding food service) increased by 0.3% to \$348 billion. Given the dramatic surge in inflation in most categories, this probably represents a decline in physical buying activity.

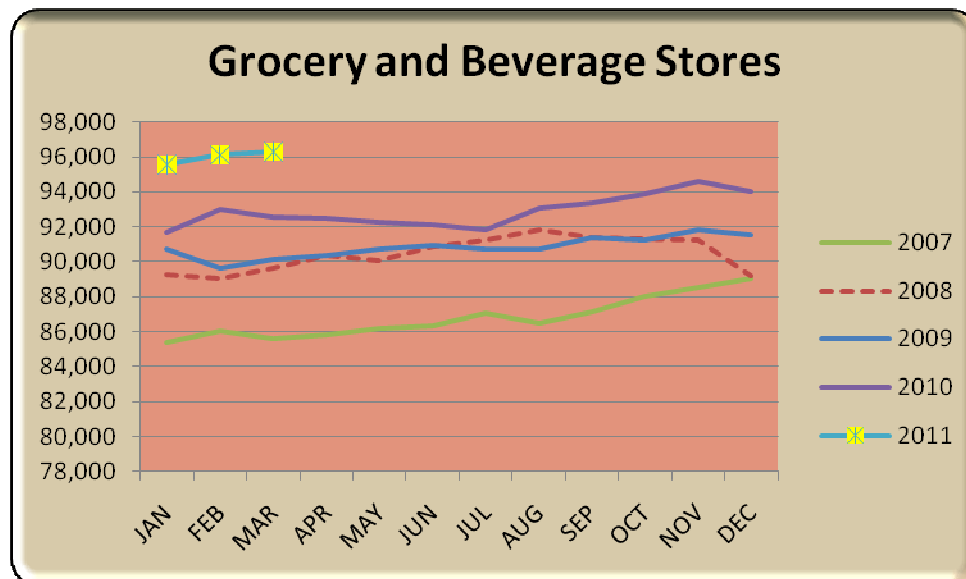


Core retail (excludes food service, gasoline, autos and parts) continues to surge. Most of this increase is likely due to the inflation in cotton, gas and food.





Gasoline sales posted a modest increase. Compared to last year revenue is up by 16.7%, about half the increase in the price per gallon at the pump. Drivers are clearly cutting miles to compensate for higher gas prices. It is also likely that they are cutting other purchases to cover this inflation component.



Grocery and Beverage stores also showed a modest increase. The category stands 4% above the prior year, about 2.5x the rate of population growth.

Housing:

The housing market has spent an unusual amount of time at the bottom of the worst recession on record. Now it seems to have headed lower. It isn't clear how that's even possible, given continued population growth.

February data:

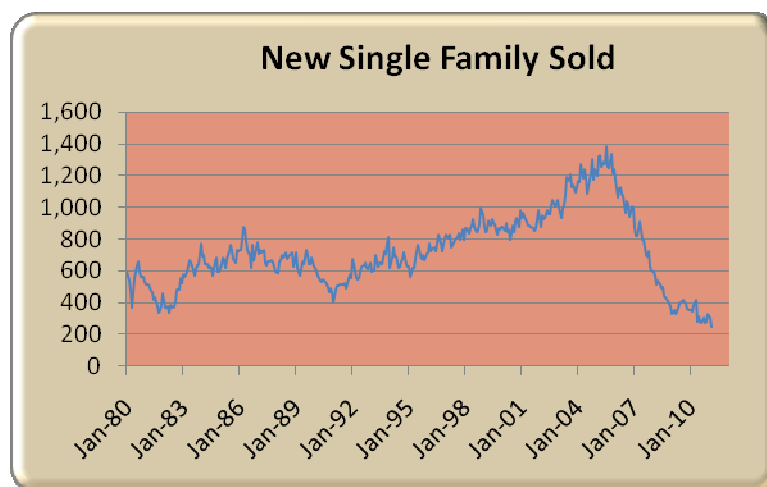
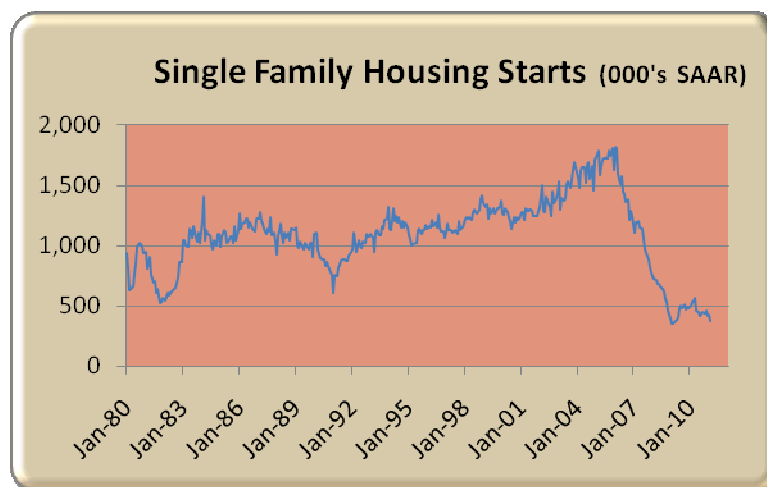
Housing starts: -22%

Single family starts: -12%

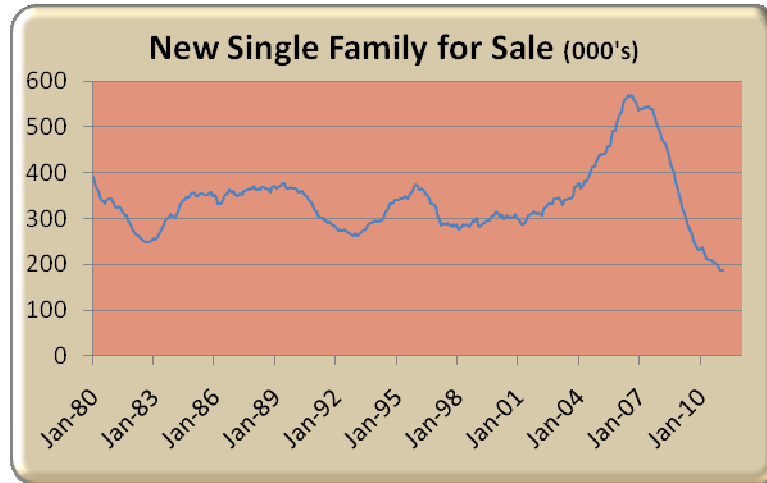
Single family houses sold: -17%

Single family for sale: 186,000 (lowest on record)

These numbers must qualify as a state of collapse. To see the full drama you need to look at the charts. How much lower can this go?



The Durable Goods Report – A Service of Time Compression Strategies



About Time Compression Strategies and the Durable Goods Report

TCSC provides business consulting and information technology support to high performance organizations. Our focus is on manufacturing and telecom, and through our business partners we support health care and other high-demand business environments.

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 TCSC for details about this subscription based service.

Technical Note: The “TCSC 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 (TCSC), 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 AncelusDB high performance database company. TCSC has developed a suite of high-performance real-time applications systems in support of their client industries.

Prior to launching TCSC, Layden’s career included 22 years’ in manufacturing and another 20 years in enterprise software. Most recently he has served as VP of Supply Chain Management for SAP and VP of Supply Chain Market Development for Frontstep, Inc. He served as President of Pritsker Corporation, an early innovator in

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discrete event simulation and Advanced Planning and Scheduling fields. He negotiated the Pritsker acquisition by Frontstep. He was a founder and CEO of Automated Technology Associates, Inc., a leader in the development of real-time quality control systems and factory management applications.

Layden has authored over 40 articles and papers on both the theory and practice of manufacturing and supply chain operations. He was described by one editor as one of the “founding fathers” of the Advanced Planning and Scheduling (APS) industry. He also authored the supply chain chapter in Maynard’s Industrial Engineers Handbook. He speaks worldwide on the subject of world class operating strategies. He has been the keynote speaker at numerous conferences including the Automation Hall of Fame Awards.

As a software company CEO, Layden delivered to market the first real-time advanced planning and scheduling system; the first real-time SPC system; and the first real-time, fourth-normal-form database system. He is the originator of the Return on Capacity modeling process for analysis and improvement of supply chain profitability and delivery performance.

As a key partner to Motorola, Layden developed the quality control concepts that became the Six Sigma Initiative. He introduced the same concepts to GE and the Cadillac Division of General Motors. These initiatives contributed to the Malcom Baldrige awards won by Motorola and Cadillac, and to the highly publicized Six Sigma program at GE. He introduced the Six Sigma concepts to software development and delivered the only application software release to meet these exacting quality standards. Layden holds three patents and is the only American to hold a Japanese patent in quality control.

Prior to his tenure in manufacturing software, Layden spent 20 years as an engineer, operating executive and board member with three Fortune 200 manufacturing companies. The TCSC 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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