The Durable Goods Report

March 2011 Report

Manufacturing Data Release of 3/4/2011 (January Preliminary)

Employment Data Release of 3/4/2011 (February Preliminary)

Retail Data Release of 3/11/2011 (January Advanced)

Industrial Production Data Release of 2/16/2011 (January Advanced)

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

John E. Layden, TCSC

By the Numbers

Durable Goods Key Measures			
January	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	200,974	194,792	187,475
12 month moving average	194,530		172,231
% Change from Prior Year	12.9%		
Unshipped Orders - Durable	829,569	824,758	794,513
% Change from Prior Year	4.4%		
Value of Shipments - Durable	202,838	202,140	192,141
12 month moving average	196,512		183,193
% Change from Prior Year	7.3%		
Inventory - Durables	324,708	322,550	295,440
% Change from Prior Year	9.9%		
Inv to shipments ratio - Durable	1.60	1.60	1.54
Growth Index - Durable New Ord	1.014	1.012	1.051
Growth Index - Durable Shipmts	1.018	1.012	1.037

US Economy Key Measures			
	This period	Last period	Change
GDP Q4	14,861.0	14,745.1	0.8%
Industrial Production (Jan)	2,538.5	2,536.1	0.1%
Capacity Utilization % (Jan)	76.1	76.2	(0.1)
Manufacturing %	74.0	73.9	0.2
Durable Goods %	71.9	71.5	0.4
Primary Metals %	71.5	72.2	(0.8)
Autos and Parts %	62.1	60.4	1.7
Machinery %	78.8	77.7	1.1
Durable Goods ($Mil SA) Jan Data			
New orders	200,974	194,792	3.2%
Shipments	202,838	202,140	0.3%
Inventory	324,708	322,550	0.7%
Unshipped Orders	829,569	824,758	0.6%
Retail ex Food Srv($Mil SA) Feb	346,630	343,377	0.9%
Autos and Parts	71,426	69,844	2.3%
Gasoline	39,971	39,413	1.4%
Core retail (ex auto, gas)	235,233	234,120	0.5%
Groceries	95,925	95,427	0.5%
Employment (000's SA) Feb Data			
Non-Farm	130,515	130,323	192
Private	108,298	108,076	222
Goods Producing	17,902	17,832	70
Manufacturing	11,651	11,618	33
Construction	5,509	5,476	33
Durable Goods Mfg	7,217	7,187	30
Housing (000s of Units SA) Jan Data			
Single family starts	413	417	-1.0%
Single family sales (new)	284	325	-12.6%
Single family for sale (new)	188	190	-1.1%

US Economy:

Growth in Q4 GDP was reduced in the second official data release. Industrial production growth rate declined to 0.1% reversing the brief good news of last month's surge. Retail set a new record for January, but with increasingly clear signs that the growth is from inflation. The economic effect of the Japanese earthquake + tsunami damage is unknown, but real. The effect of the nuke problems is better known – roughly 0.0. The latter is the subject of breathless reporting about the "potential" of impossible scenarios.

Durable Goods:

New orders increased for the first time in four months, up 3.7%. Shipments grew for the third time in four months, up 0.3%. Order to shipments ratio now stands at 98%. This is the long term average for the category. Uneven performance in the sub categories.

Random Thoughts:

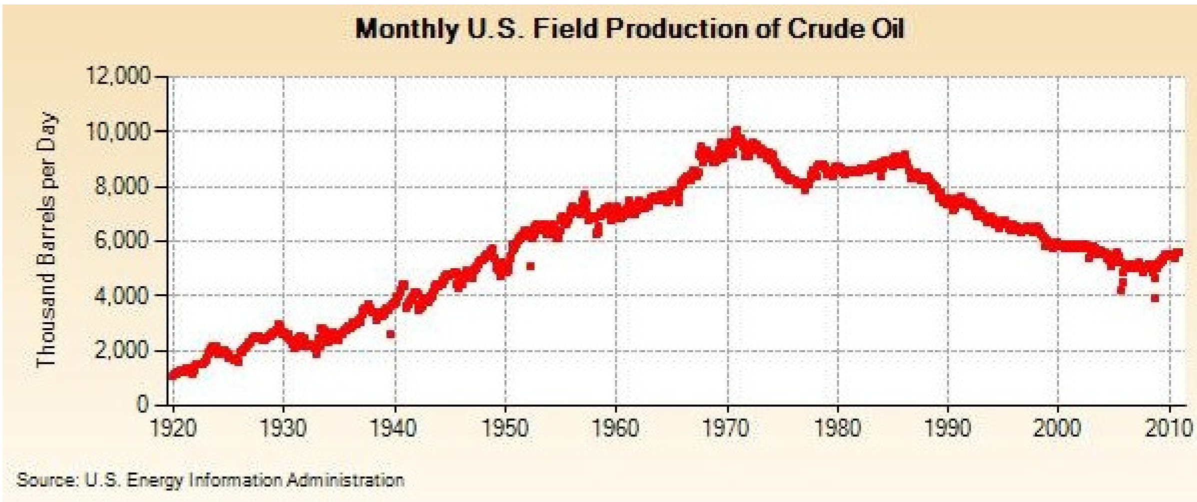
- The events in Japan will prove a setback for nuclear energy. Sen. Joe Liebermann (I-CT) (plus several Democrats, at least one Republican) says we should put the brakes on Nuke development. How could it be any slower? Is this the new Comedy Channel.
- Both political parties are now "focused" on creating jobs. Do they actually believe that government can create any jobs that create national wealth? This must be the new Comedy Channel.
- Recently heard from a member of Congress that the national debt isn't important because we just owe it to ourselves. Will they put the Comedy Channel out of business?
- Nancy Pelosi talking about the "great moral good" that government does. If this is the Comedy Channel, why am I crying?
- President Obama got the policy question right. Let's get the facts first, then decide what we need to do differently. After all these are forty year old first generation designs that survived a 9.0 earthquake.
- The green energy analysis from Spain showed that these "new economy" jobs destroy 2.2 jobs for every green job created. A new report from Scotland shows that their program destroyed 4 jobs for every green job created. The Scots always were over-achievers.
- Close attention is needed on raw material price increases. Inflation is now clearly evident in a wide range of consumer products (best estimate is 10-15% annualized). Not yet so dramatic in manufacturing raw materials. Steel and aluminum are probably in the mid single digit range. Make sure you have contract coverage on raw material increases.

- It was almost two years ago that we reported at length on the mechanics of inflation and how the fed was likely to avoid it. We itemized the three levers that the fed had available, with the only question being one of political will. The optimism was misplaced. Political courage is uncommon.
- North America has more coal, oil and natural gas than any other nation or block of nations in the world. And yet we are forced to pay $4 (soon $5?) for gas that under normal market conditions would end up closer to $1.50. Check out the energy section below.
- The fiction of "renewable" or "green" energy continues unabated, but only in Washington and California. Most of the rest of the nation has awakened to the reality of what we need to do, which is to expand the capacity of the proven energy supplies.
- Various reports indicate that 25% to 40% of the US corn crop is diverted to ethanol production. The effect on food prices of this single policy is evident in the surging price of corn vs. the recently stable price for soybeans and wheat. Despite its economic advantage to my extended family, this must stop. The moral case against pricing the poor into starvation is too strong.
- No example of a monopoly (except for DeBeers in diamonds) has ever existed without the active collusion of government.
- This applies to the union debates in Wisconsin, Ohio, Indiana, Maryland and other states. The problem with union negotiations between governments and unions is that both parties to the contract are not at the table. The other side is the taxpayer.
- Some argue that unions have become obsolete. I disagree. The business model of many unions has become obsolete or even corrupt. But unions once served to reduce friction in the supply chain by providing training programs and a clearing house for workers of known skill. Some still do. They also server to level the power relationships in the equation as long as the power to strike isn't abused. To the extent that any union returns to that model, they will again be in the role of creating value, and will thus warrant some wage premium.
- Note to those advocating "negotiations" to find some middle ground: What is the middle ground between broke and bankrupt?

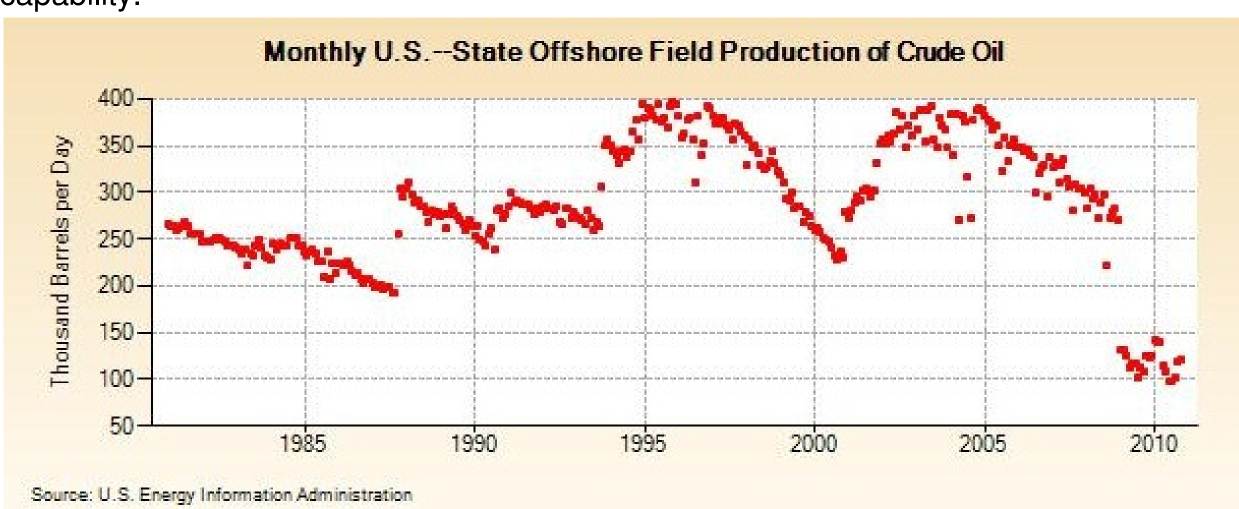
Energy: The supply and cost of energy remains the greatest threat to manufacturing and to the global economy. The recent events in Japan will reopen the debate on the safety of nuclear power. It's unfortunate, since this debate is too often devoid of any science, engineering or logic. That leaves us with the only other viable option - hydrocarbons.

The president spoke on energy issues this past week. He made three claims that were either completely in error or taken out of context. Here are the facts.

1. Claim: Domestic oil production is the highest in seven years.
   Fact: It was up during the Bush administration, flat since the Obama inauguration.



2. Claim: Oil companies hold millions of acres of offshore and onshore leases that they haven't developed.
   Fact: The administration has blocked the development of most energy supplies then blames the industry for not producing. Now the threat is for economic sanctions against "big oil" for being blocked by the government. Offshore leases have been frozen by executive order. The chart below shows the devastating effect of the administration's policies on offshore production. So far only one Louisiana driller has filed for bankruptcy. There will be more. The effect of the administration's policies is the gradual destruction of domestic production capability.



The onshore permitting process takes up to 10 years (before the current administration's slow walk strategy). If the statement were true then the oil companies must be run by idiots, which the administration seems to believe.

3. Claim: The US has only 2% of the world's supply of oil.
   Fact: The US oil reserves *currently in production* amount to 2% of reserves. But the administration has blocked access to our most important reserves by executive order.

   The total amount of hydrocarbon energy in the US is astonishing. It comes to 1.3 trillion barrels when converted to oil equivalent (Congressional Research Service). We have 167 billion barrels of recoverable oil reserves alone. No other country has anything close to these reserves.

Table 4. U.S. fossil fuel reserves and resources expressed as BOE

BOE = Barrels of oil equivalent

Fossil Fuel	Native units	BOE
Technically recoverable oil[a]	166.7 billion barrels	166.7 billion BOE
Technically recoverable natural gas	1400.4 trillion cubic feet	248.2 billion BOE
Recoverable reserve base of coal	262 billion short tons	903.9 billion BOE
	TOTAL U.S. fossil fuel endowment	1318.8 billion BOE

[34] http://www.aps.org/policy/reports/popa-reports/energy/units.cfm

[35] http://tonto.eia.doe.gov/kids/energy.cfm?page=about_energy_conversion_calculator-basics

[36] Btu is the abbreviation for British thermal units, a common measure of heat content. One Btu is the amount of energy in the form of heat required to raise the temperature of one pound of water one degree Fahrenheit.

In addition to this huge reserve, the Geological Survey offers a stunning insight into how much more energy is not yet "proven." The shale oil in the Rockies (blocked from development by executive order) includes 800 billion barrels (3x Saudi Arabia). ANWR includes 10 billion barrels. Offshore contains another 86 billion barrels. The offshore Arctic contains 90 billion barrels with about a third within Alaskan territory.

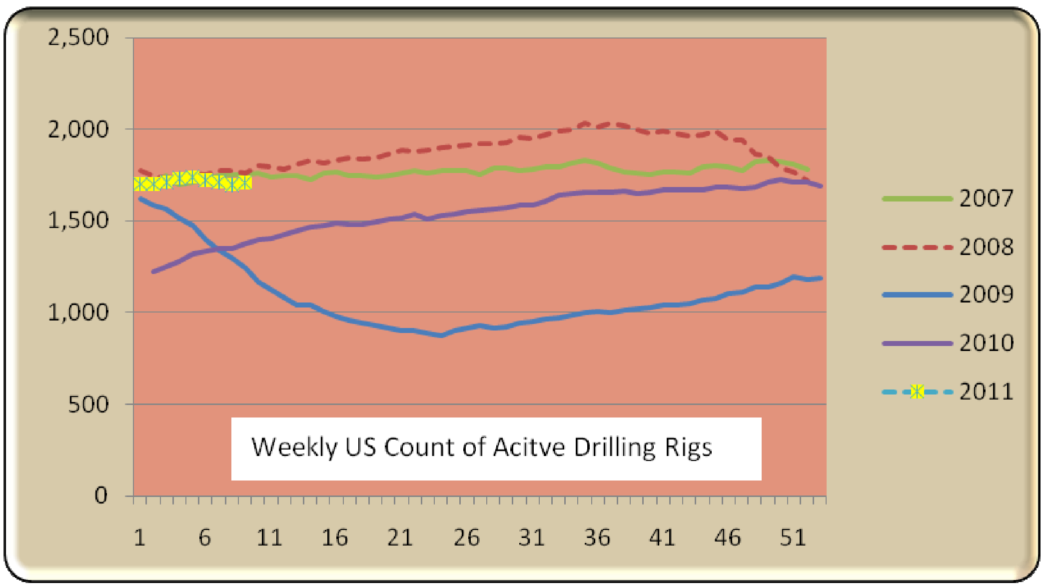
Despite this bounty, energy remains the most important threat to the manufacturing sector and the entire US economy. North America has the ability to completely eliminate imported oil in a very short time (personal guess - three to five years). There seems to be no political will to do it because it runs counter to some well established but false myths. They include

1. “Peak Oil Theory” says it’s a finite resource and we’re running out (not in the next 50 generations).
2. Burning hydrocarbons causes global warming (not that anyone can measure, and it increases plant growth anyway)
3. We need to convert to [alternate, green, renewable, sustainable – pick one] energy while we still can (None of these exist. You might as well base your energy policy on burning unicorn poop).

The current administration contributes to those myths on a daily basis.

The current turmoil in the Mid-East brings further evidence (if we needed any) of the wisdom of producing our own oil. The administration continues to resist issuance of drilling permits for offshore rigs (two issued since January 2009), and is slow walking the land permits. They are under court order to issue the permits they’ve been sitting on (reviewing), but they continue to ignore both the courts and national need.

It’s getting harder to reject the conspiracy theories.



Despite the best efforts of the Interior Department to “nudge” the country to the mythical green energy, the drilling industry continues to put existing rotary rigs back into play. But the use of existing rigs on existing leases won’t generate the rapid growth we need to shut off the imports.

In addition to a new policy on hydrocarbon production, there is a pressing need for a new direction in electrical generation. Transportation energy will always have very different requirements than stationary-use energy (industry and households). There is unlikely to be a practical substitute for hydrocarbon fuel in transportation in the next 50 years. No other form can store anywhere close to the 18,000 BTUs per pound available from hydrocarbons. For those concerned about safety, check out what happens to a lithium-ion battery when exposed to air.

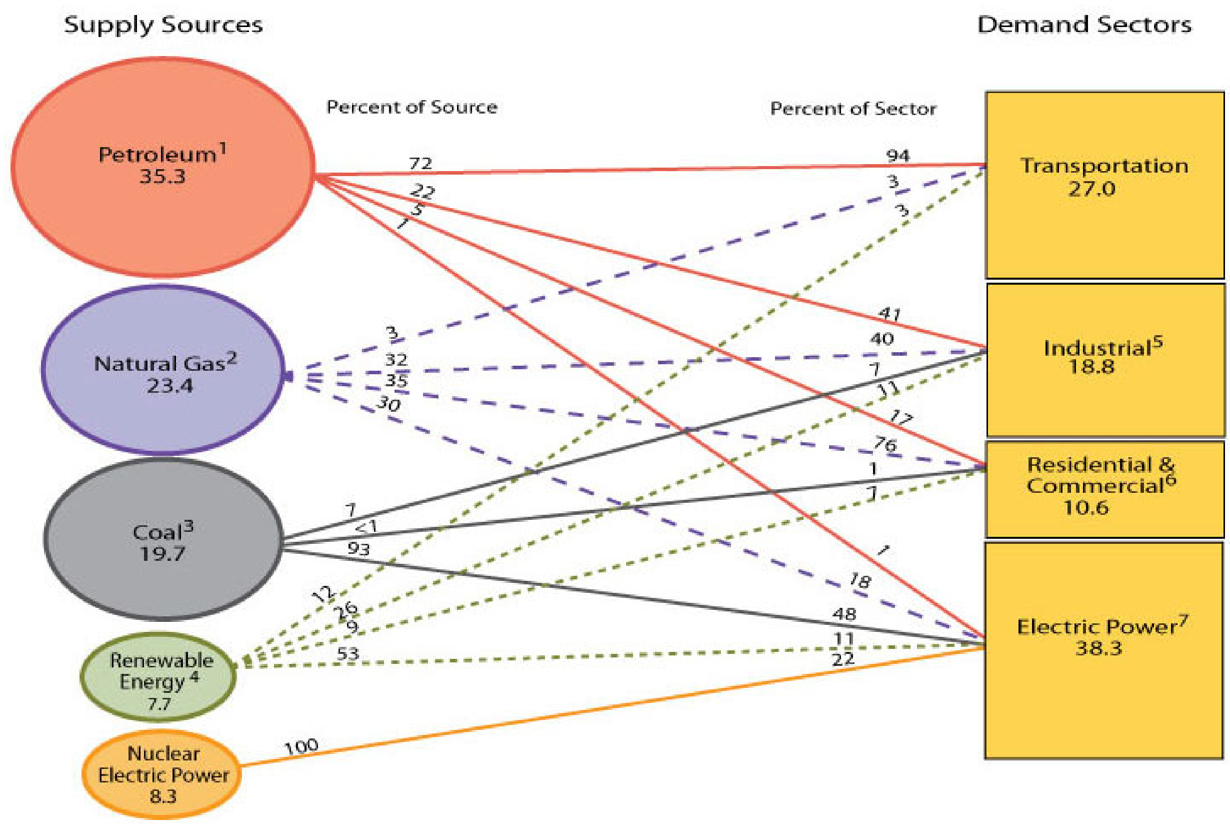
But electrical generation has real opportunity. A long term conversion to molten salt reactors fueled with thorium look to be ideal. No possibility of a meltdown, no weapons grade by products, minimal radioactive waste, limited refining of fuel, and a US based supply of 47,000 years. Furthermore the ability to build small scale reactors eliminates the complexity of the current electrical grid. What's not to like? And I forgot to mention that thorium is a by-product of the mining of rare earth minerals. You can buy a thorium rod on eBay for $10 (no idea what it's good for). We regulated the US production of rare earth minerals out of existence, so now we buy from China. As noted last month, China is stockpiling the thorium coming from this industry.

We need an urgent project to work out the engineering details of thorium reactors.

The massive earthquake in Japan has focused new attention on the safety of uranium reactors. The likely outcome is another round of "China Syndrome" scare discussions.

IT WAS A MOVIE, PEOPLE. IT CAN'T HAPPEN. FICTION ALL THE WAY DOWN!!

The legitimate debate should focus on getting thorium reactors into operation. Their version of a meltdown is a simply freeze-up of the salt when power to the pumps fails. To get it restarted you need to supply heat from an external source. When molten salt freezes, the beast shuts down without thermal or mechanical damage. The second advantage is scalability – downward, not upward. Buried neighborhood reactors the size of a refrigerator would eliminate the risk of distribution breakdown and greatly reduce any radiation risks.

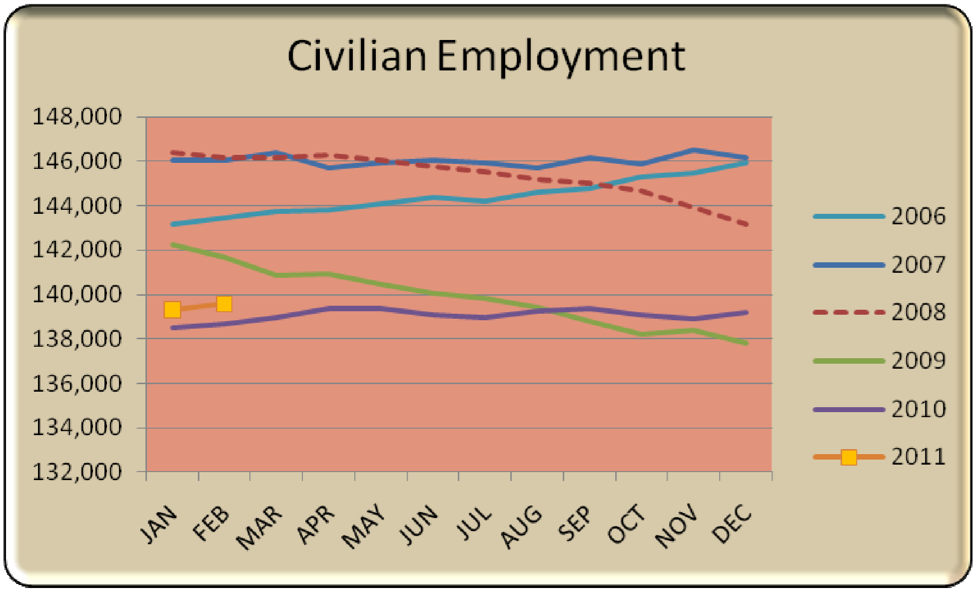


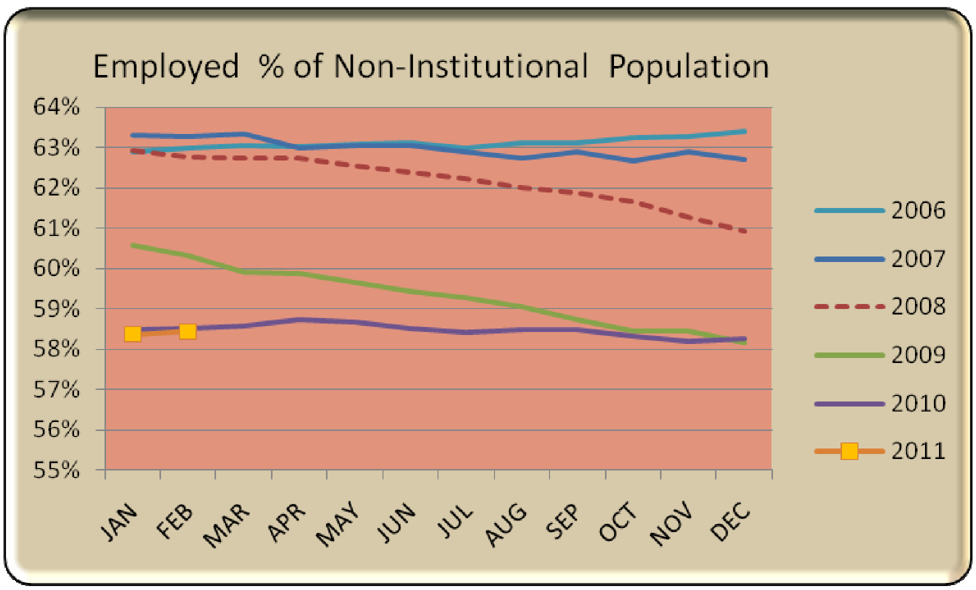
Courtesy of www.theoildrum.com

Employment:

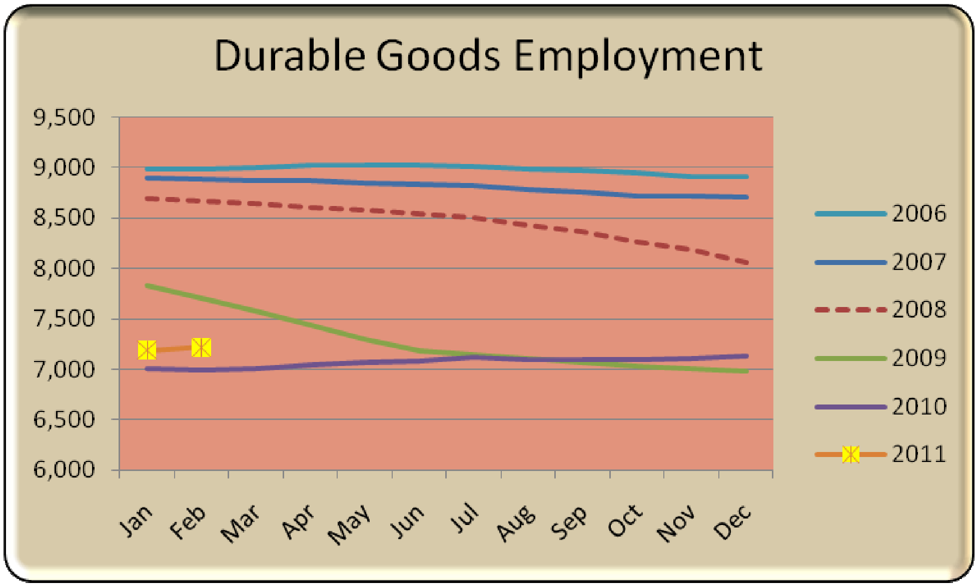
Employment in the US has remained static for the past year. First the official claims. Last month's report highlighted a job growth of 192k and unemployment of 8.9%. The administration claimed job growth of 1.5 million in the past year. Those numbers come from the non-farm payroll and the institutional survey respectively. These measures get fogged up by the debate over who is in the labor force. But as is usually the case the bigger picture shows a much different situation.

The bigger picture is based on total employment in the US. In February 2010 there were 138,698,000 persons employed (civilian employed over 16 years of age). A year later the number was 139,573,000. That's an increase of 875,000. The non-institutional population for those same months was 236,998,000 and 238,851,000, an increase of 1,853,000. The economy continues to lose ground on jobs. As a % of population, we slipped from 58.5% last year to 58.4% over the year. While some job creation is occurring, the population is growing faster.

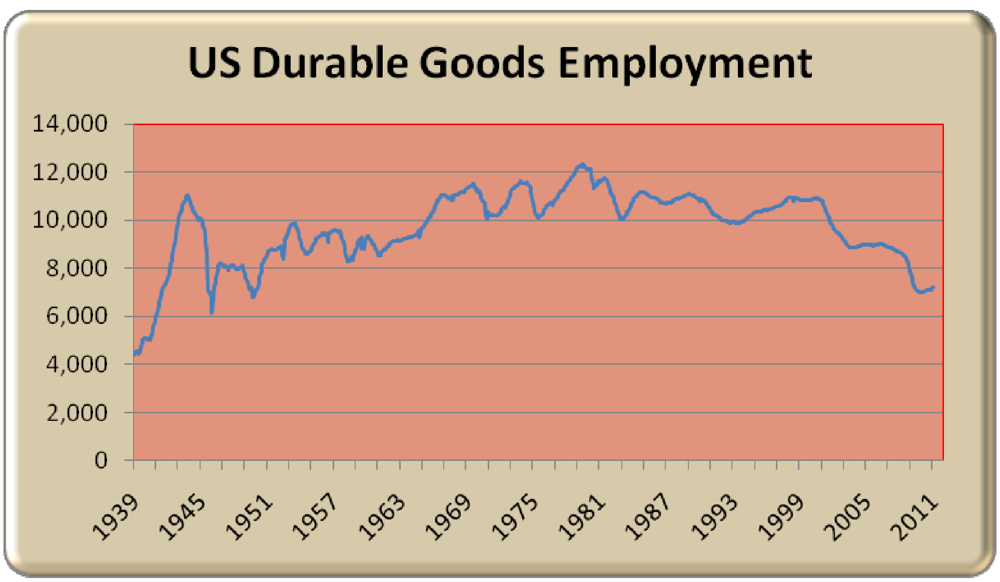




Durable goods continues to show a modest improvement, increasing from 6,994,000 to 7,127,000 over the past 12 months. This compares to 8,672,000 in February of 2008. Some question when these jobs will come back. Some worry that we've lost these jobs offshore forever. Both questions are off the mark. Manufacturing jobs are in decline in all of the top 20 industrial economies. China has been losing manufacturing jobs for two decades. The jobs don't go offshore. Most of them went away.



The following chart suggests that some of these jobs will return with improvement in the economy. But the overall trend since the peak in July, 1979 has been downward, even while industrial production increases. As labor is made more expensive by union bargaining, work rules and federal regulation, manufacturers find a way to get by with less labor. For most of durable manufacturing the lengthy supply chains involved with offshore manufacturing more than offset the lower labor cost. Why do Honda and Toyota require suppliers to US based assembly plants to locate within 100 miles? So the longstanding myth of chasing cheap labor is simply not supported. A classic example is the introduction of NAFTA.



Note the surge in durable employment starting in 1993. This was the result of the passage of NAFTA, which was supposed to produce a “great sucking sound” as US jobs moved to Mexico. Instead the growth of jobs in the US, Canada and Mexico was dramatic. Just what the supply chain economists predicted – go figure.

Summary and Sector Analysis

GDP: US GDP growth was revised downward from last month's advanced estimate. The current growth rate is far too slow to correct the current employment deficit. If government spending could create economic growth or jobs, we'd be booming now. The FDR administration took 7 years to recognize (publicly) that their massive spending had not done anything. We can only hope that Washington will come to grips with the same revelation sooner.

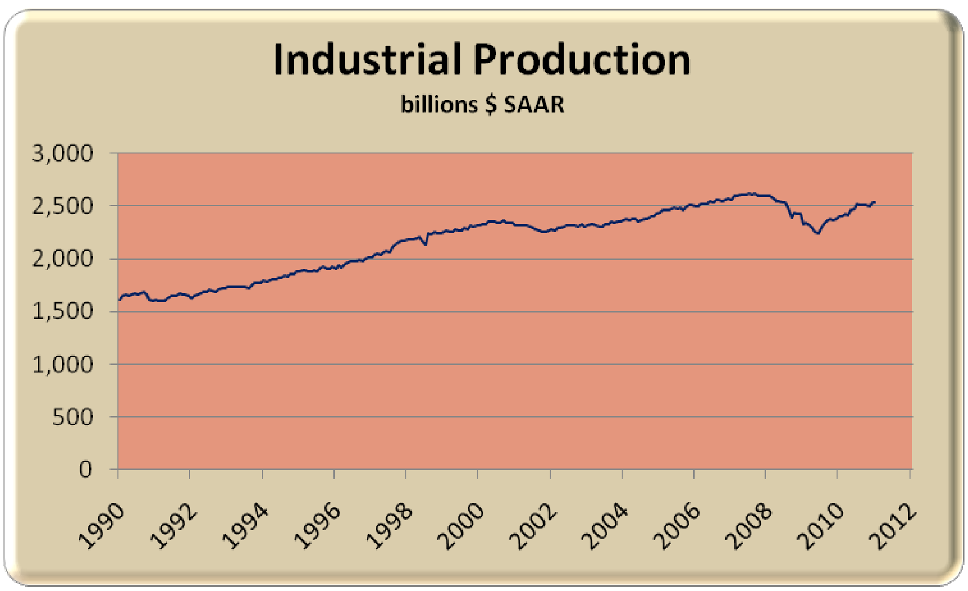
Gross Domestic Product				
Year	Qtr	GDP $b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2008	1	14,328.4	0.3%	3.9%
2008	2	14,471.8	1.0%	3.3%
2008	3	14,484.9	0.1%	2.3%
2008	4	14,191.2	-2.0%	-0.7%
2009	1	14,049.7	-1.0%	-1.9%
2009	2	14,034.5	-0.1%	-3.0%
2009	3	14,114.7	0.6%	-2.6%
2009	4	14,277.3	1.2%	0.6%
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	14,861.0	0.8%	4.1%

The appearance of new record levels of GDP is now almost certainly the result of inflation. We reported at great length in 2009 how the stimulus and money supply growth could be corrected without inflation. It now appears that the fed is more afraid of the depressing effects on growth than the depressing effects of inflation.

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	2510.2	-0.1%	6.2%
2010	10	2509.2	0.0%	5.5%
2010	11	2505.7	-0.1%	5.7%
2010	12	2536.1	1.2%	6.5%
2011	1	2538.5	0.1%	5.7%

Industrial production grew slightly in January, but the clear pattern since last July has been very close to flat despite last month's positive tick. This measure excludes energy, so is not yet influenced by the price of oil. But the overall indication is not positive. The strength of the US economy is anchored in the industrial sector. Improvement here is a prerequisite for a broad recovery.



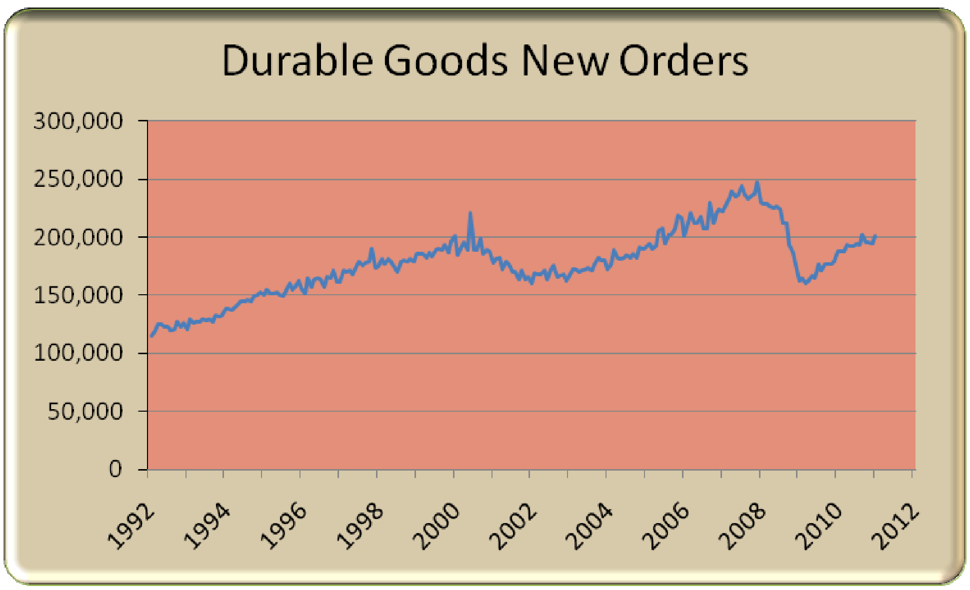
Capacity Utilization:

Industrial production capacity utilization was flat in January (-0.1 to 76.1%), as was manufacturing (+0.1 to 74%). Improvement is noted in durable goods (+0.4 to 71.9%), autos and light trucks (+1.7 to 62.1%), machinery (+1.1 to 78.8%). A decline in primary metals (-0.7 to 71.5%) is curious given the reports of longer lead times for steel and aluminum.

Foundries report increasing lead times and consistently point to steel and aluminum deliveries as the cause. A quick check with two aerospace executives suggests no serious problems with specialty metals (titanium and inconel, specifically).

The Durable Goods Sector:

New Orders (January data): Durable new orders grew by 3.2% to $201 billion. The surge was driven by a surge in aircraft orders.



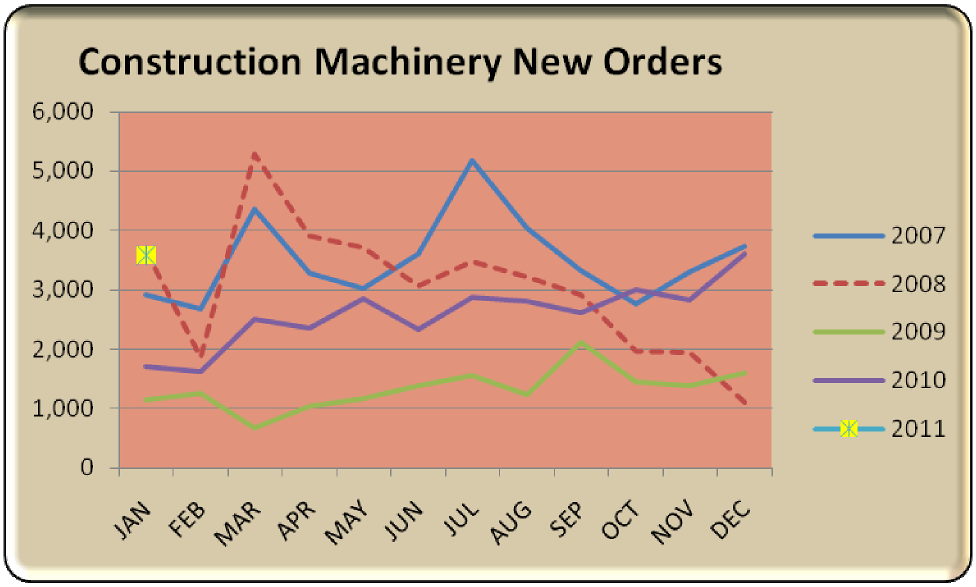
Shipments increased by 0.3% to $200.8 billion.

Unfilled Orders increased by 0.6% to $830 billion. The ratio of unfilled orders to shipments remained unchanged at 5.6 months.

Inventory climbed by 0.7% to $324.7 billion. The ratio to shipments remained unchanged at 1.6 months.

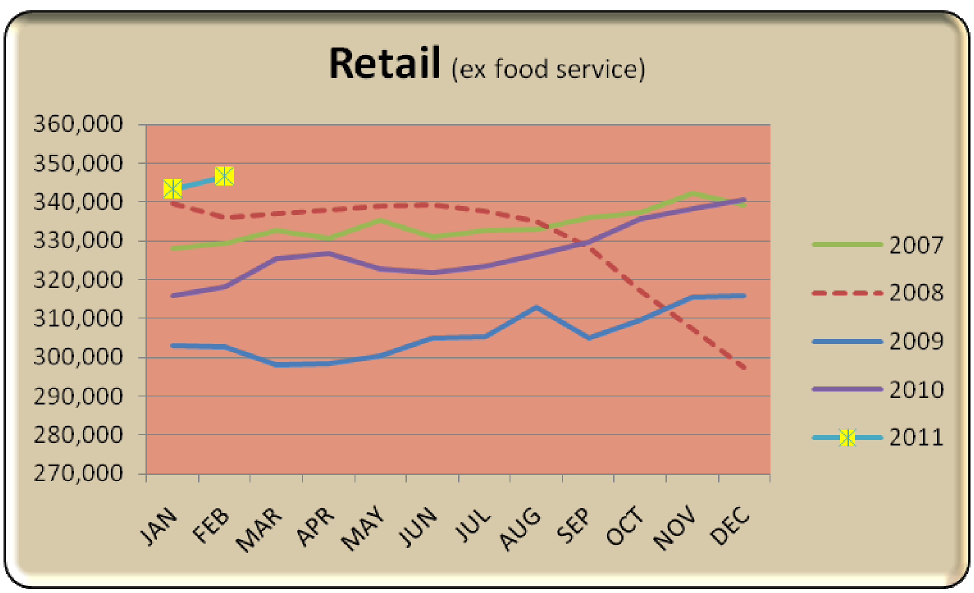
Construction machinery orders have returned to pre-recession levels. The solid performance is driven mostly from Asia. Peoria, IL based Caterpillar is the bell cow in this sub-segment, and was the subject of an interesting article in the March 8 Wall

Street Journal relating to the difficulty of doing business in Illinois. Government regulation, taxation and union issues were the drivers of the discussion.

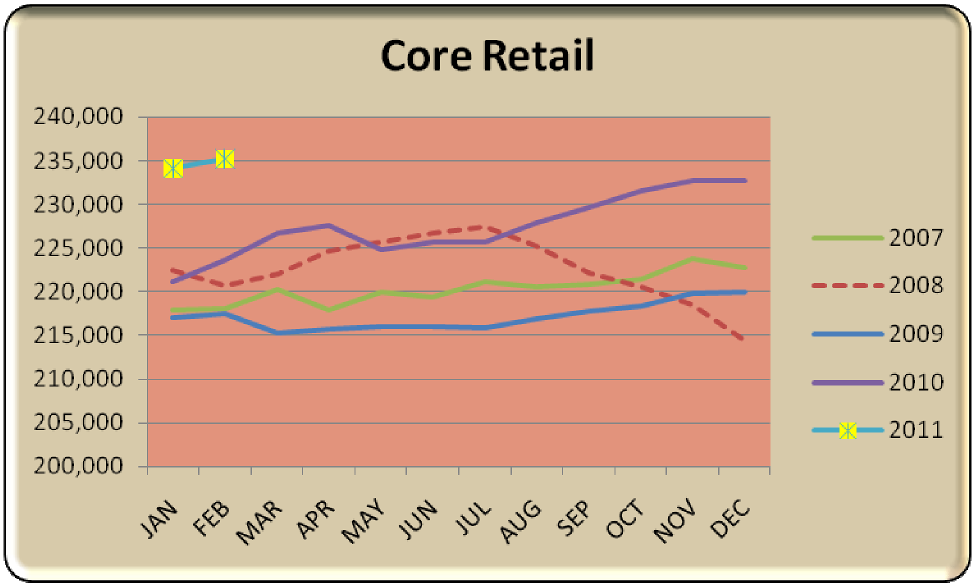


Retail Data (February advanced release)

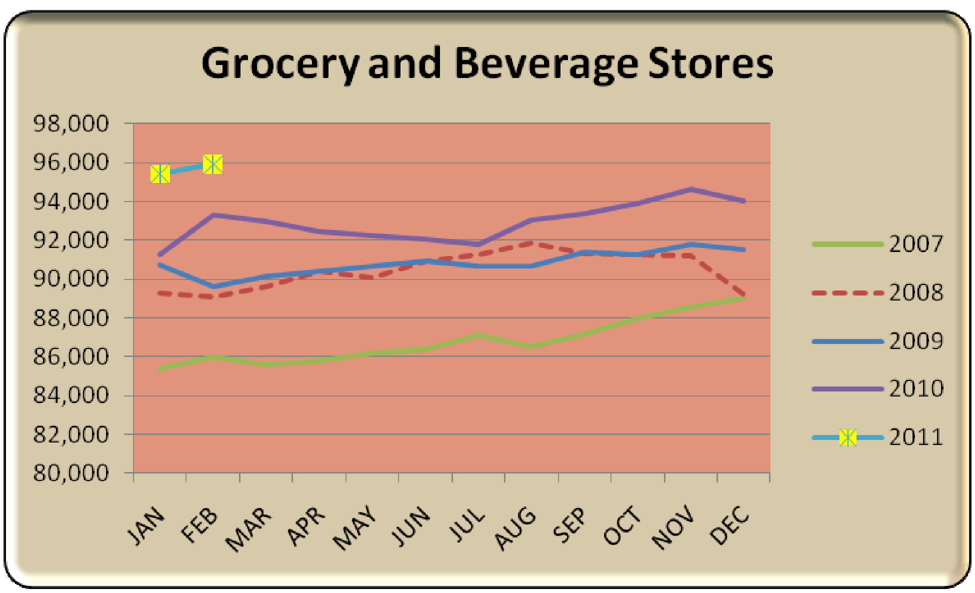
Retail Sales: Retail sales (excluding food service) increased to by 0.9% to $346.6 billion, and are now 9% above February 2009. This constitutes a near record, even though the growth rate has slowed. A substantial part of this apparent growth is actually inflation.



Core retail (excludes food service, gasoline, autos and parts) continues on the surging track that began in August 2010. The inflation effects on food and clothing are becoming clearer with each new data release.



The increased spending for food and beverage started in August and serves as a clear indicator of the inflation drivers in core retail. This does not represent real growth, but price inflation.

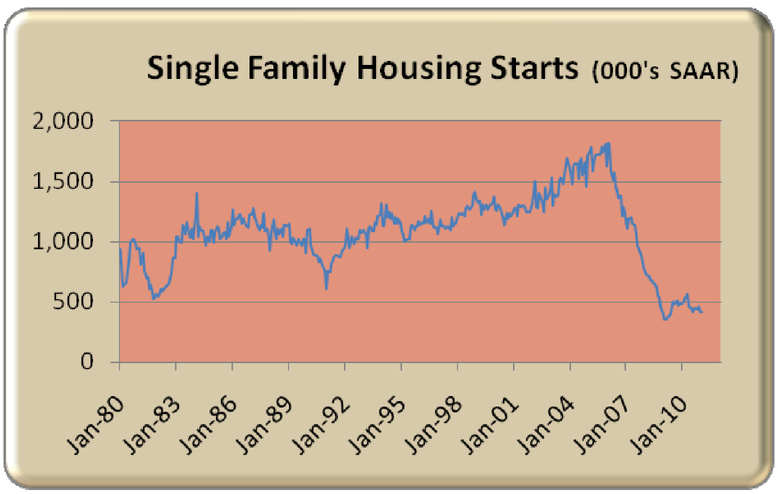


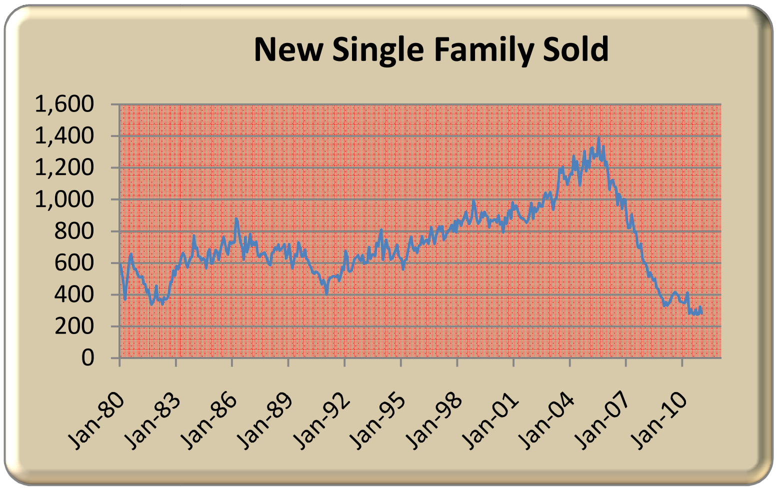
Housing:

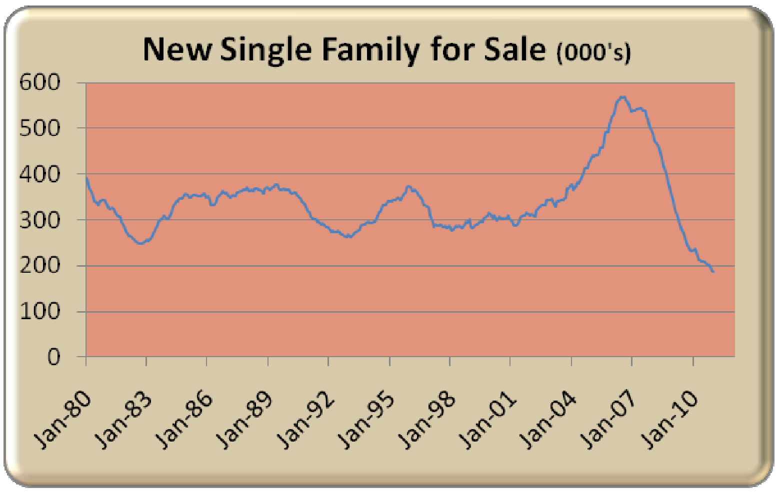
Housing activity remains stagnant. The primary problem is in the single family sector. Median home price has held up after last month's 14% jump. The three month moving average ($228,400) is at the highest level since August of 2008. Our mandatory disclaimer on over-interpretation:

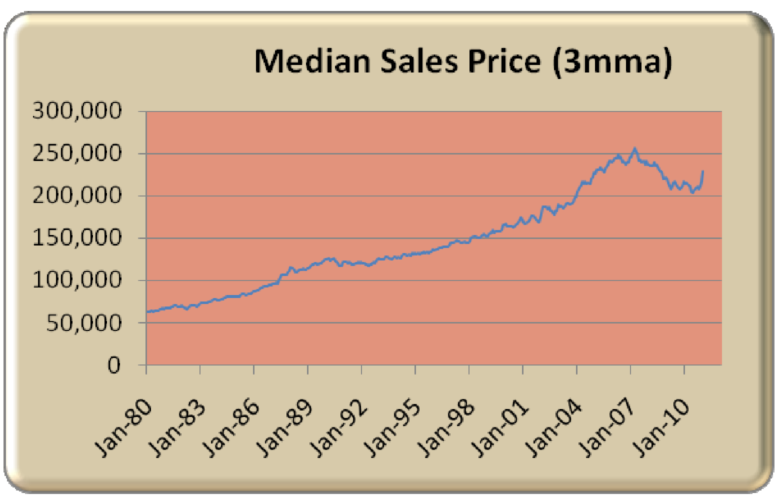
> "As we have previously pointed out, the apparent dramatic decline in home value reported in the Case-Schiller index is mostly the result of a "mix shift" - a decline in the top end of the market. Over the past three years the "over $750,000" segment has declined from 4% to 3% to 2% of total value of sales. We suspect the details will show the increase in median price is a result of a reversal of that trend."

This industry sector has a long way to go to get back to normal. The ill-advised attempts to artificially increase the home ownership rate over the past two decades made a mess a critical industry. This economic problem was intentionally caused by the good intentions of Congress.




New Single Family Sold
1,600
1,400
1,200
1,000
800
600
400
200
0
Jan-80
Jan-83
Jan-86
Jan-89
Jan-92
Jan-95
Jan-98
Jan-01
Jan-04
Jan-07
Jan-10


New Single Family for Sale (000's)
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


Median Sales Price (3mma)
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

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 analysis offers 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.

A similar analysis is available for many industry 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 Ancelus 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 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 jlayden@timecompressionstrategies.com or 888-218-0218 jlayden@temporaldyn.com.

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