

## **The Durable Goods Report**

January 2011 Report

Manufacturing Data Release of 1/4/2011 (November Preliminary)

Employment Data Release of 1/7/2011 (December Preliminary)

Retail Data Release of 12/15/2010 (November Advanced)

Industrial Production Data Release of 12/16/2011 (November Advanced)

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

John E. Layden, TCSC

# The Durable Goods Report – A Service of Time Compression Strategies

## By the Numbers:

Durable Goods Key Measures			
November	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	195,659	196,225	177,064
12 month moving average	192,027		170,035
% Change from Prior Year	12.9%		
Unshipped Orders - Durable	826,863	822,064	801,847
% Change from Prior Year	3.1%		
Value of Shipments - Durable	196,332	196,626	187,705
12 month moving average	194,875		183,545
% Change from Prior Year	6.2%		
Inventory - Durables	319,201	317,215	295,936
% Change from Prior Year	7.9%		
Inv to shipments ratio - Durable	1.63	1.61	1.58
Growth Index - Durable New Ord	1.032	1.036	1.043
Growth Index - Durable Shipmts	1.008	1.015	1.016
US Economy Key Measures			
	This period	Last period	Change
GDP Q2 vs. Q1	14,745.1	14,578.7	1.1%
Industrial Production (Nov)	2,493.8	2,501.6	-0.3%
Capacity Utilization % (Nov)	75.2	74.9	0.3
Manufacturing %	73.2	72.9	0.2
Durable Goods %	70.9	70.7	0.2
Autos and Parts %	59.6	63.3	(3.8)
Machinery %	75.8	74.8	1.0
Durable Goods (\$ Mil Seasonally adjusted) Nov Data			
New orders	195,659	196,225	-0.3%
Shipments	196,332	196,626	-0.1%
Inventory	319,201	317,215	0.6%
Unshipped Orders	826,863	822,064	0.6%
Total Retail (\$ Mil SA) Nov data	338,796	335,691	0.9%
Autos and Parts	66,852	67,405	-0.8%
Gasoline	38,144	36,687	4.0%
Core retail	233,800	231,599	1.0%
Employment (000's SA) Dec Data			
Non-Farm	130,712	130,609	103
Private	108,453	108,340	113
Goods Producing	18,041	18,043	-2
Manufacturing	11,670	11,660	10
Construction	5,603	5,619	-16
Durable Goods Mfg	7,194	7,184	10
Housing (000s of Units SA) Nov Data			
Single family starts	465	435	6.9%
Single family sales (new)	290	275	5.5%
Single family for sale (new)	197	202	-2.5%

## Random Thoughts:

- The size of the Durable Goods Report has grown over the past few years. It has caused some issues for a few readers. To correct this we will restrict the number of charts included regularly. Selective inclusion will flag any area of important change. Less significant indicators will be included as a brief text summary. Eventually the charts will be included on the website for those with insomnia.
- The Chinese economy has been artificially inflated. No surprise here. They've been investing in infrastructure. But now it comes to light that 64 million new housing units are unoccupied. That's half of the entire US housing stock. In some cases entire new cities stand empty.
- China's property investment bubble is now 10% of GDP. The bubble in Japan never exceeded 9% and the US peaked at 6%.
- China isn't as distracted as the West on CO2. They've made a big bet on coal as a primary energy source. Also building nukes at an unprecedented rate. China opens a new coal plant every other week. The US hasn't built one in two years.
- The two best books I've read recently: one on history and one on the future. "1491" by Charles Mann summarizes the most recent thinking on what the Americas looked like prior to Columbus. "The Next 100 Years" by George Friedman is an analysis of geopolitics in the coming century. Both will leave you stunned at "how many things you know for sure that just ain't so."
- The lame duck session of Congress did only moderate damage. The worst may be yet to come. The EPA has decided to regulate CO2 without cap and trade legislation.
- If Phoenix has a water shortage, how does someone in Indianapolis help by using a high efficiency toilet?
- Why do I need to forgo cheap energy from coal so that China, India and Saudi Arabia can burn coal? Some imported from the US.
- More work is being done on Thorium reactors. Unfortunately not in the US. We're still building windmills. Where is Sancho Panza when you need him?
- The US passed Russia as the leading producer of natural gas. We have a 1000 year supply of shale gas. Some politicians, regulators and environmentalists are attempting to block its use.

**Energy:** The EPA is moving to regulate carbon emissions despite the failure of cap and trade legislation in Congress. The motivation of regulatory agencies is unfathomable. At the risk of being repetitive:

- 1) There is no evidence that CO2 is the cause of warming. (As in NONE). If anything it may be the reverse. CO2 concentrations increase about 800 years after the temperature increases.

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- 2) There is a large and increasing body of actual science that says Earth's climate is controlled by solar output (~80%) and orbital dynamics (~20%). There's some evidence that the only human influence on global warming is the hot air coming out of Washington and the UN.
- 3) Scientists at the EPA have objected to the use of the discredited UN reports as justification for regulations. They have been told to drop the subject.
- 4) It now seems very likely that we're headed into another mini ice age. We need cheap energy more than any other commodity.

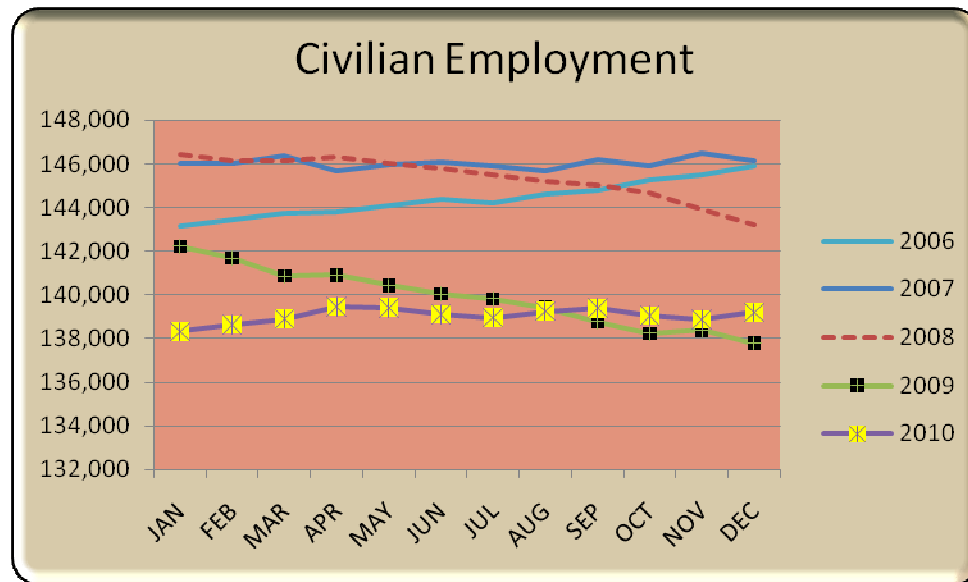
The EPA action is doubly damaging to the economy and especially to manufacturing. First It eliminates or delays development of US energy supplies. At the same time there is now evidence ([www.theoil drum.com](http://www.theoil drum.com)) that most oil exporting nations have reduced exports in favor of internal use of their energy as their economies grow. Supply is tightened. This means that the US will have no choice but to exploit its own massive supplies of energy, but in the meantime the prices will rise. Artificially raising prices of energy through taxes and regulation reduces manufacturing competitiveness.

For any manufacturing business involved in or competing with international manufacturers, the actions of the EPA could be a real setback. Consumer spending will be constrained by higher prices, because energy gets rolled into the cost of everything. There is currently a significant increase in food and clothing visible at retail. These factors are aggravated by the diversion of food products to ethanol and biofuel. (See the retail section for numbers on food inflation).

Watch energy costs closely. There will likely be a shift in the economics between gas/electric/oil. Watch for a shift to natural gas as shale gas makes it more competitive.

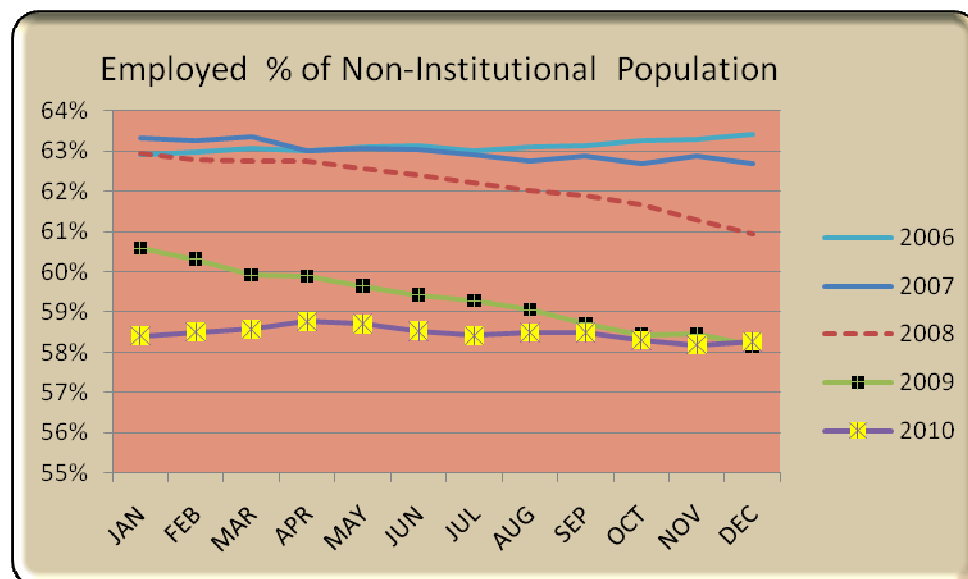
### **Employment:**

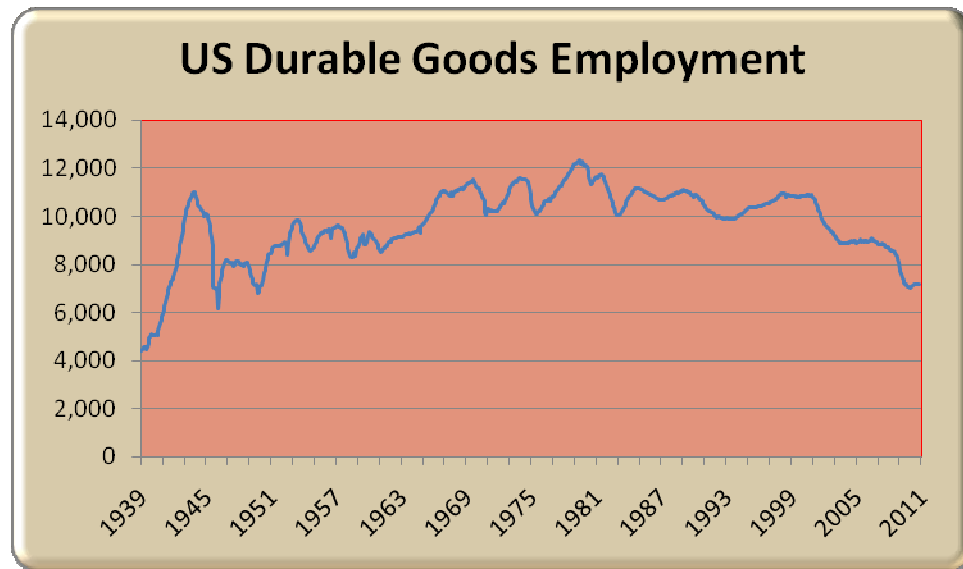
The improvement in the unemployment rate from 9.8% to 9.4% got all the attention last week. This statistical anomaly is why we avoid tracking that number. Of much greater significance is the size of the total employed labor pool and its relationship to population. It avoids the debate over who is in or out of the labor force.



Civilian employment increased by 318,000 in December. The entire year saw an increase of 1.4 million jobs compared to a population increase of 2 million. Of the 1.4 million jobs generated by the economy, only 87,000 net jobs were created in the second half. Economic growth has stalled.

Total employed portion of the population improved to 58.3% in December, up 0.1% from its record low in the prior month. The rate remains unchanged from December 2009. This is the weakest employment picture since the 1930s.



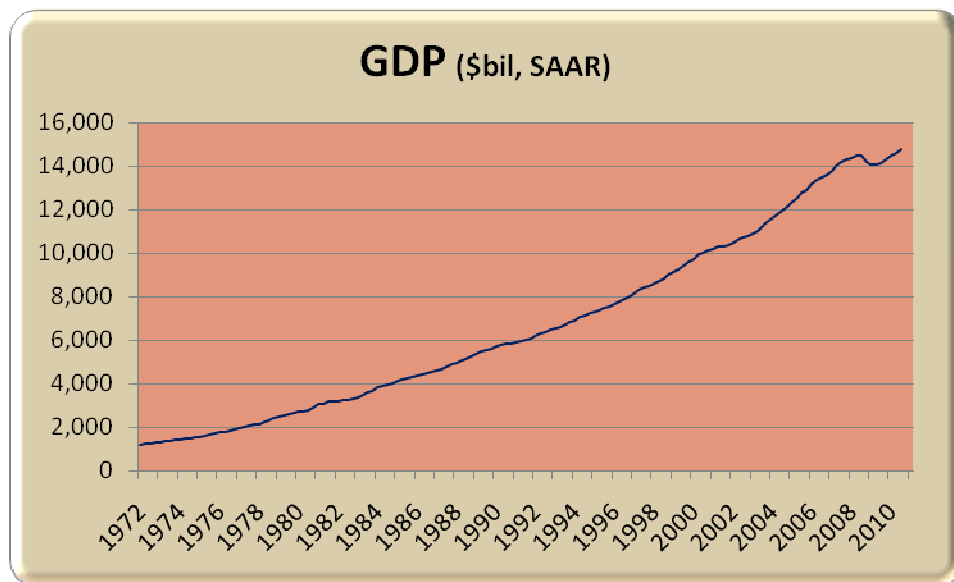


Durable goods employment gained 10,000 in November, but remained at the lowest level since immediately after WWII. Keep in mind that the value of durable goods output has grown since then, so these jobs produce greater value than in 1950. Most of these jobs were not lost to international competition. They just went away. But the loss of jobs to productivity needs to be compensated for through growth or the economy will slowly degrade.

## Summary and Sector Analysis

**GDP:** US GDP growth was revised upward slightly to 1.1% quarter to quarter increase. The average of the past 5 quarters has also been about 1%. The US GDP now stands at a record high of \$14.7 trillion, 4.5% above the fourth quarter of 2009. Note that our measure of GDP growth rate differs from the Department of Commerce. We use a simpler measure. It's the ratio of the annualized period measures without compounding adjustments. Here are the actual numbers and our growth calculations:

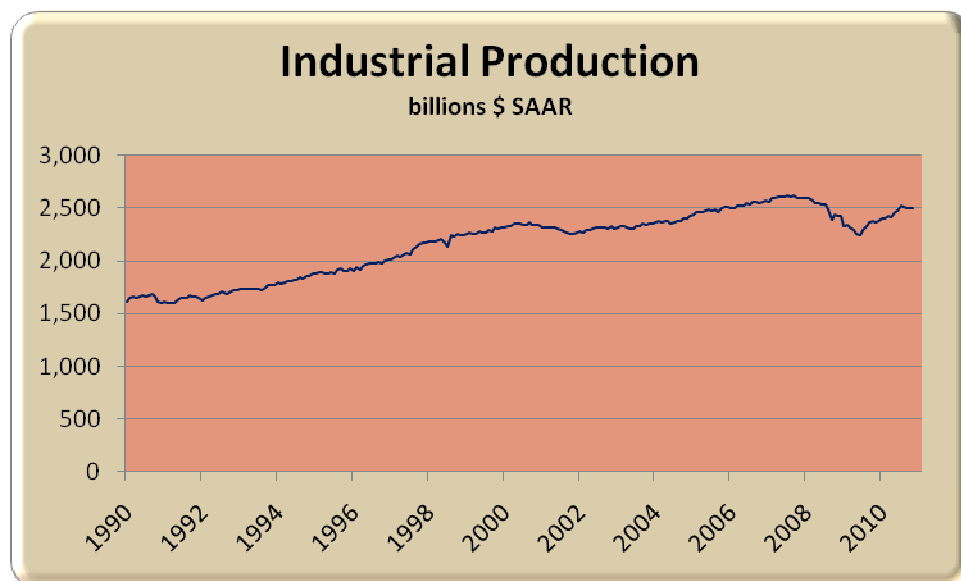
Gross Domestic Product				
Year	Qtr	GDP \$b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2008	1	14328.4	0.3%	3.9%
2008	2	14471.8	1.0%	3.3%
2008	3	14484.9	0.1%	2.3%
2008	4	14191.2	-2.0%	-0.7%
2009	1	14049.7	-1.0%	-1.9%
2009	2	14034.5	-0.1%	-3.0%
2009	3	14114.7	0.6%	-2.6%
2009	4	14277.3	1.2%	0.6%
2010	1	14446.4	1.2%	2.8%
2010	2	14578.7	0.9%	3.9%
2010	3	14745.1	1.1%	4.5%



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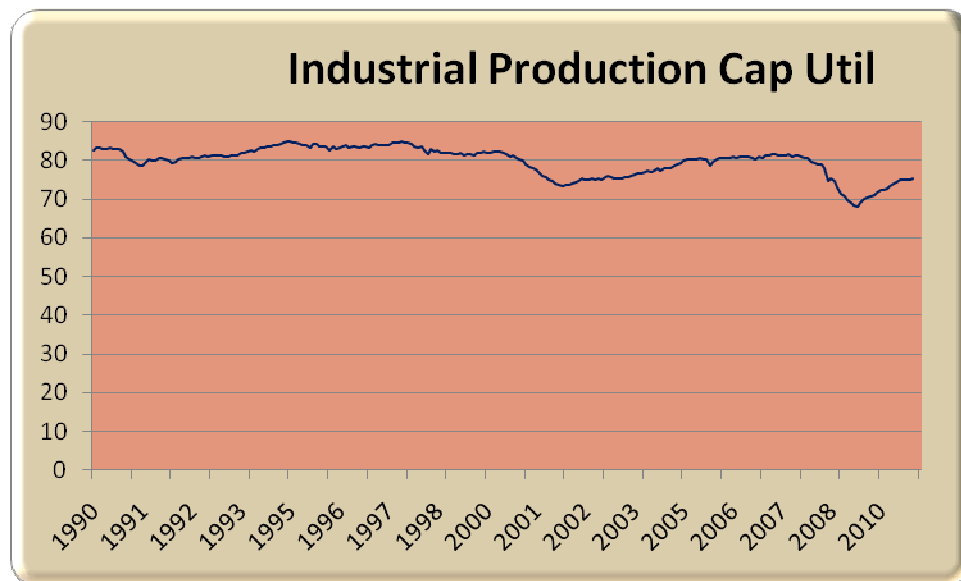
**Industrial Production** (excluding industrial supplies) decreased by 0.3% in November, the fourth consecutive month of declines. There will be no robust employment recovery until this sector can turn positive. This performance again raises the question of a possible double dip recession, immediately after we had declared it a non-issue.

Industrial Production \$b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2009	5	2,257.3	-1.6%	-11.2%
2009	6	2,249.1	-0.4%	-11.3%
2009	7	2,297.3	2.1%	-9.3%
2009	8	2,328.4	1.4%	-6.2%
2009	9	2,364.4	1.5%	-1.3%
2009	10	2,377.5	0.6%	-2.5%
2009	11	2,369.6	-0.3%	-2.3%
2009	12	2,380.9	0.5%	-1.7%
2010	1	2,401.7	0.9%	3.2%
2010	2	2,399.2	-0.1%	2.6%
2010	3	2,429.3	1.3%	5.0%
2010	4	2,420.5	-0.4%	5.6%
2010	5	2,469.3	2.0%	9.4%
2010	6	2,475.3	0.2%	10.1%
2010	7	2,521.1	1.9%	9.7%
2010	8	2,511.7	-0.4%	7.9%
2010	9	2,505.3	-0.3%	6.0%
2010	10	2,501.6	-0.1%	5.2%
2011	11	2,493.8	-0.3%	5.2%





## Capacity Utilization:



Industrial production capacity utilization remained flat in November (75%), as did manufacturing (73%) and durable goods (71%). Increases were noted in primary metals (66% to 68%), machinery (75% to 76%). Autos and light trucks declined from (63% to 60%).

Normal utilization rates are considered to be about 80% for most industries, about 90% in primary metals, and about 85% for machine builders. We now stand 15 to 20 points below the norm in every industry category.

While manufacturers have done an excellent job of remaining profitable through the recession, the excess capacity will constrain capital investment.

While capacity utilization in primary metals remains low, lead times are getting longer. This suggests that the mills are reluctant to expand deployed capacity. It could also signal supply chain “friction” as the change in production rates works its way through the supply network. The drop in utilization for autos may be related to this factor, as stories of retail inventory shortages pop up.

## The Durable Goods Sector:

**New Orders (November data):** Durable new orders declined by 0.3% to \$195.7 billion, the fifth decline in seven months. The trend suggests that the recovery in US durable manufacturing has stalled. Since this sector leverages more secondary jobs than any other, the stagnation is far more important than other sectors.

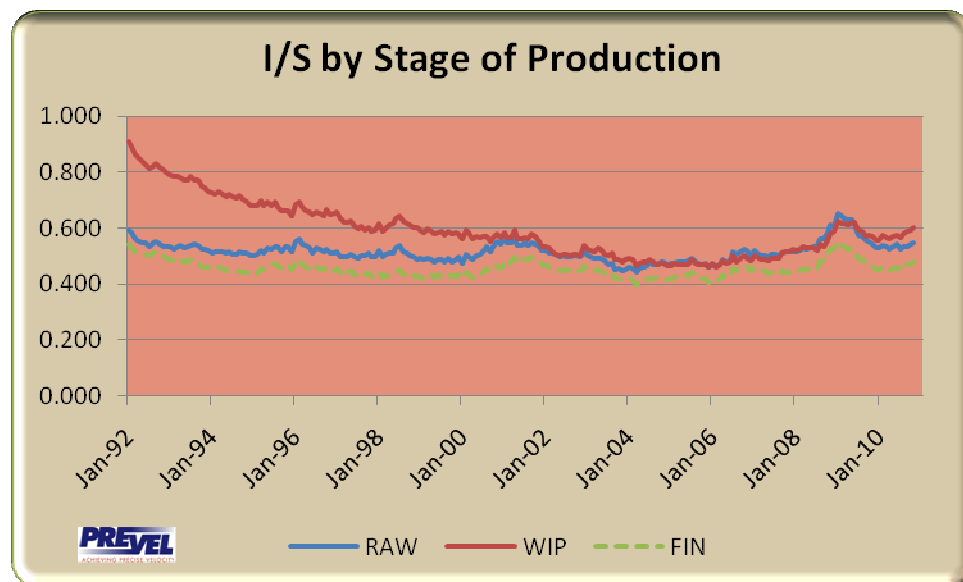
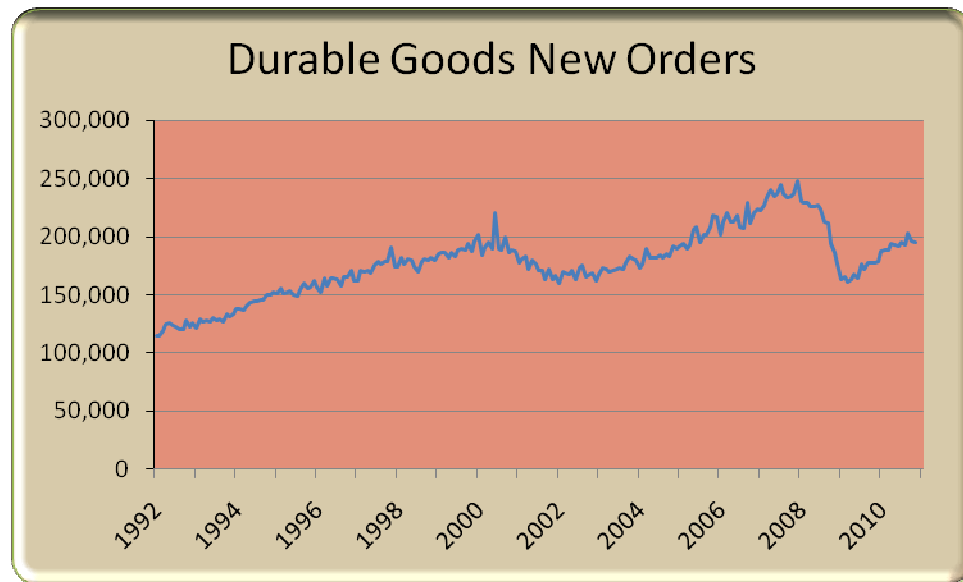
**Shipments** continue to track closely with orders at \$196.3 billion.

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**Unfilled Orders** to shipments remained stable at 5.75 months at current shipments rate.

**Inventory to Shipments ratio** climbed from 1.61 to 1.63 months in November. The value has increased from 1.53 since April.

The greatest increase in I/S has occurred in WIP inventory which suggests a decline in factory velocity. Caution is appropriate with this interpretation. It could also mean that growth is concentrated in industries with longer manufacturing cycles.



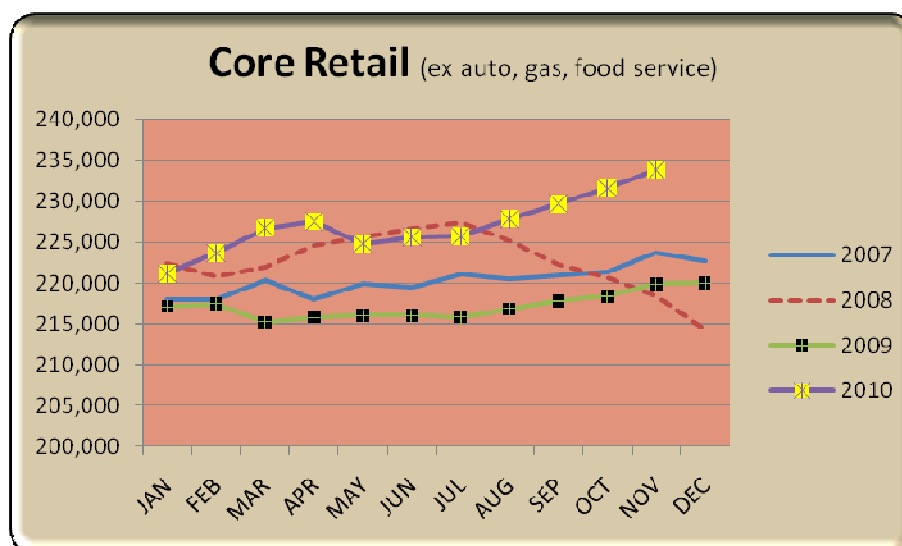
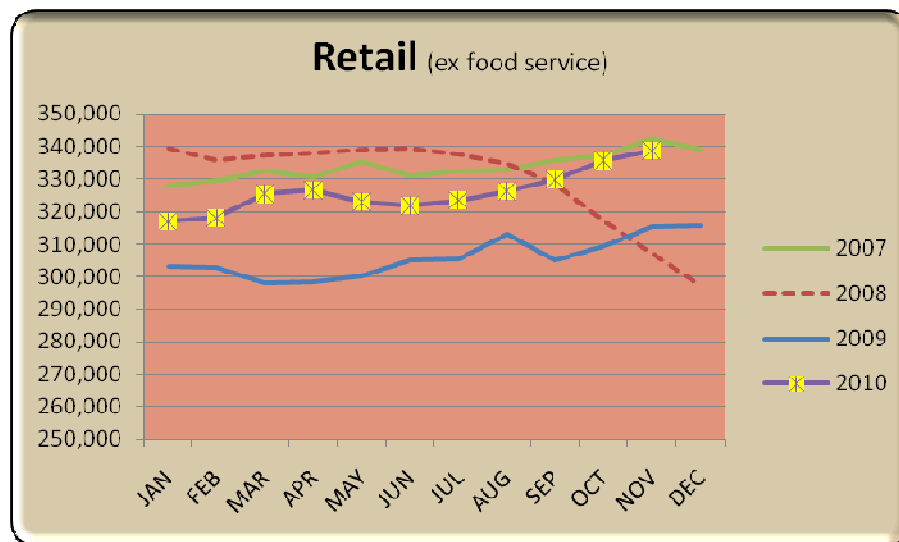
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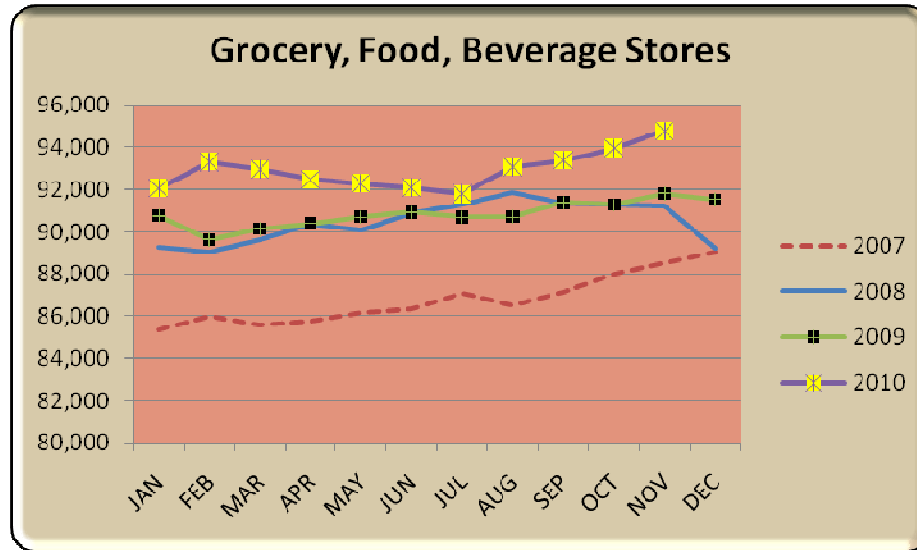
## Retail Data (November Preliminary Estimate)

**Retail Sales:** The November preliminary release for retail showed continued growth. The current level of retail sales is 7.4% above 2009, and \$17 billion above last June. The signs may be deceptive. Gasoline sales have increased \$3 billion since June.

Removing the auto and gas components leaves core retail with \$8 billion increase since June. Of this total, “grocery, food and beverage stores” increased by \$3 billion. We have not yet found a way to isolate the effect of cotton prices on retail numbers. But the 90% inflation in raw cotton prices must contribute a substantial portion of the total increase.

It seems likely that inflation accounts for more than half of the apparent retail growth.

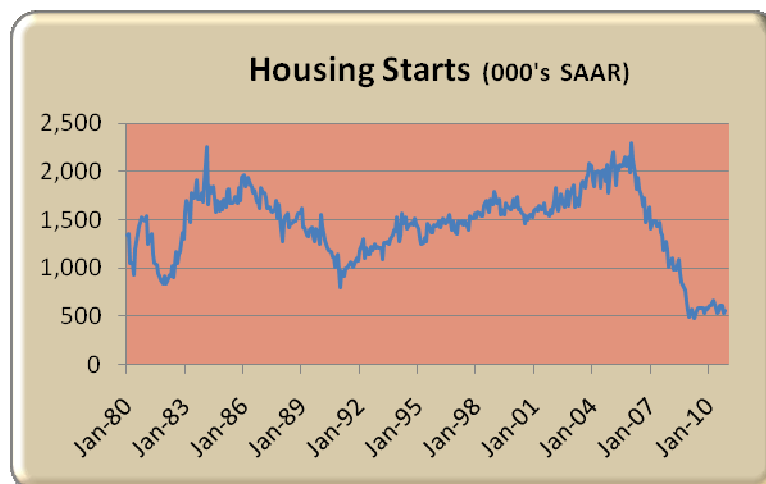




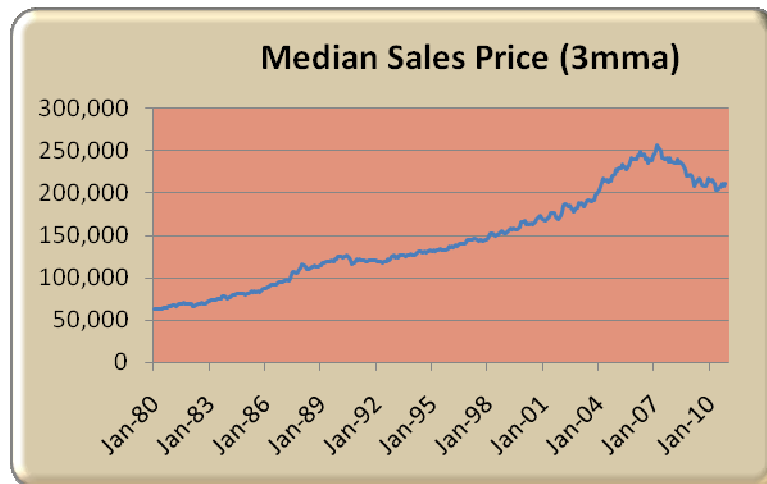
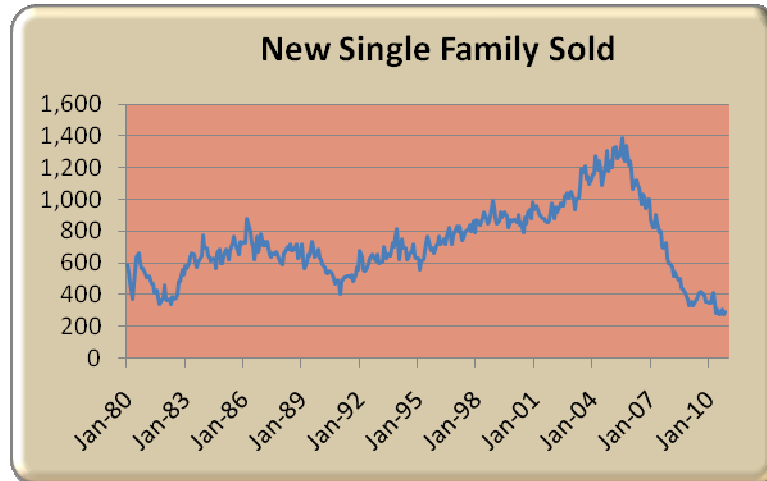
## Housing:

Housing remains flat and hovers around record lows. Inventory of unsold single family fell below 200,000 units for the first time since 1968. Single family houses sold reported below 300,000 units for 5 of the last 7 months.

Median home price suggests soft values, but this measure is deceptive. The influence of the “over \$750,000” category has decreased from 4% to 3% to 2% of the total market over the past three years. This produces a downward shift in the median regardless of what happens to the price of an individual property.



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## **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

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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

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