# The Durable Goods Report

December 2010 Report

Manufacturing Data Release of 12/3/2010 (October Preliminary)

Employment Data Release of 12/8/2010 (October Preliminary)

Retail Data Release of 11/15/2010 (October Advanced)

Industrial Production Data Release of 11/16/2010 (October 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 | | | |
|---|---|---|---|
| | Current Mo | Prior Mo | Prior Yr |
| New Orders-Durable | 195,708 | 202,576 | 177,469 |
| 12 month moving average | 190,434 | | 170,843 |
| % Change from Prior Year | 11.5% | | |
| | | | |
| Unshipped Orders - Durable | 821,562 | 816,371 | 807,298 |
| % Change from Prior Year | 1.8% | | |
| | | | |
| Value of Shipments - Durable | 196,642 | 198,431 | 185,949 |
| 12 month moving average | 194,877 | | 184,480 |
| % Change from Prior Year | 5.6% | | |
| | | | |
| Inventory - Durables | 316,916 | 315,405 | 296,632 |
| % Change from Prior Year | 6.8% | | |
| | | | |
| Inv to shipments ratio - Durable | 1.61 | 1.59 | 1.60 |
| Growth Index - Durable New Ord | 1.035 | 1.042 | 1.028 |
| Growth Index - Durable Shipmts | 1.015 | 1.027 | 1.001 |

| US Economy Key Measures | | | |
|---|---|---|---|
| | This period | Last period | Change |
| GDP Q2 vs. Q1 | 14,730.2 | 14,578.7 | 1.0% |
| Industrial Production (Oct) | 2,505.5 | 2,521.5 | -0.6% |
| Capacity Utilization % (Oct) | 74.9 | 74.8 | 0.2 |
| Manufacturing % | 72.5 | 72.4 | 0.0 |
| Durable Goods % | 70.2 | 70.6 | (0.4) |
| Autos and Parts % | 62.0 | 66.0 | (4.0) |
| Machinery % | 72.7 | 72.7 | (0.0) |
| Durable Goods ($ Mil Seasonally adjusted) Sept Data | | | |
| New orders | 195,708 | 202,576 | -3.4% |
| Shipments | 196,642 | 198,431 | -0.9% |
| Inventory | 316,916 | 315,405 | 0.5% |
| Unshipped Orders | 821,562 | 816,371 | 0.6% |
| Total Retail ($ Mil SA) Oct data | 326,339 | 323,473 | 0.9% |
| Autos and Parts | 67,005 | 63,799 | 5.0% |
| Gasoline | 36,353 | 36,073 | 0.8% |
| Core retail | 229,981 | 229,047 | 0.4% |
| Employment (000's SA) Oct Data | | | |
| Non-Farm | 130,539 | 130,462 | 77 |
| Private | 108,278 | 108,222 | 56 |
| Goods Producing | 18,026 | 18,049 | (23) |
| Manufacturing | 11,648 | 11,669 | (21) |
| Construction | 5,615 | 5,625 | (10) |
| Durable Goods Mfg | 7,176 | 7,181 | (5) |
| Housing (000s of Units SA) Sept Data | | | |
| Single family starts | 433 | 420 | 3.1% |
| Single family sales (new) | 288 | 288 | 0 |
| Single family for sale (new) | 206 | 210 | -1.9% |

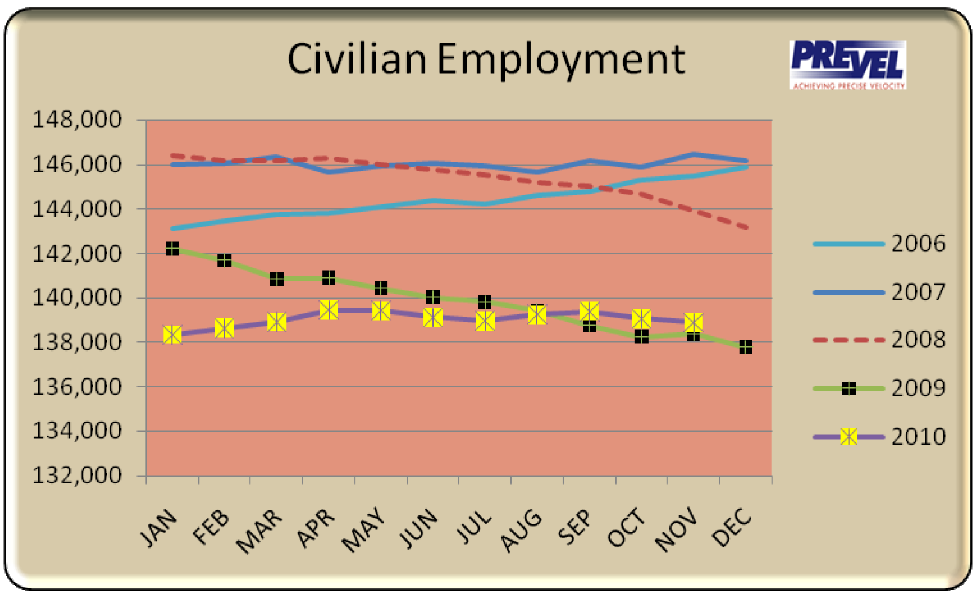
**Random Thoughts:**

- The deficit commission got it half wrong. The proposals to increase taxes, intended to reduce the deficit, will damage the economy to exactly the same degree as the same amount of deficit spending.
- The college debt bubble is ready to explode. The run-up in tuition has far exceeded inflation, and even exceeded the housing priciebubble. At the same time the value of a college education has declined in almost every field. Check out this article: http://www.openmarket.org/2010/12/03/the-college-debt-bubble-is-it-ready-to-explode/
- Hans Rosling, a Swedish academic, studies global demographics. His dynamics graphics make the argument for the connection between economic wealth and physical well being. Compelling video here: http://www.youtube.com/watch?v=jbkSRLYSojo&feature=player_embedded
- Capital gains taxes take the greatest toll on economic growth and productivity. The US has the highest capital gains tax in the industrial world. The president of the Czech Republic was recently asked where they planned to set their capital gains tax rate. His answer: “We’re not stupid. It’s zero.” The biggest damage from the pending tax increase is the capital gains component, currently at 15%.
- You won’t find a better case against the folly of Keynesian economics than in the video from this young lady. We’ve known for a century that it doesn’t work. The real question has been how politicians could remain deluded by the arguments for so many decades. This video explains the logical errors driving us to the edge of bankruptcy: http://www.youtube.com/watch?v=D9kfMx8Llcc
- Still the best defense of capitalism and free markets is the Milton Friedman interview by Phil Donahue in 1969. It’s 2:24 long, and his challenging questions have never been answered: http://www.youtube.com/watch?v=RWsx1X8PV_A
- The administration has now reversed its position on offshore drilling in a draconian response to a single blowout in the Gulf. No offshore drilling until they figure out how to make life perfectly safe. That will be the 12th of never.
- The ethanol lobby seems to be losing the argument, such as it was. The facts are becoming widely known: it takes 1.6 BTUs of energy to deliver 1 BTU of ethanol from corn. Somewhat less, but still below breakeven, for sucrose based ethanol. It also takes six gallons of water per gallon of ethanol, and results in food shortages. How could it take so long for common sense to prevail?
- Notice to Mariners, November 6, 2010: "Intermittent missile firing operations 00001Z to 2359Z daily Monday thru Sunday in the Naval Air Warfare Center Sea Range. The majority of missile firings take place 1400Z to 2359Z and 0001Z to 0200Z daily Monday thru Friday."
  - The contrail video from the KCBS television crew occurred during these time periods. The question remains – missile launch or passenger jet?

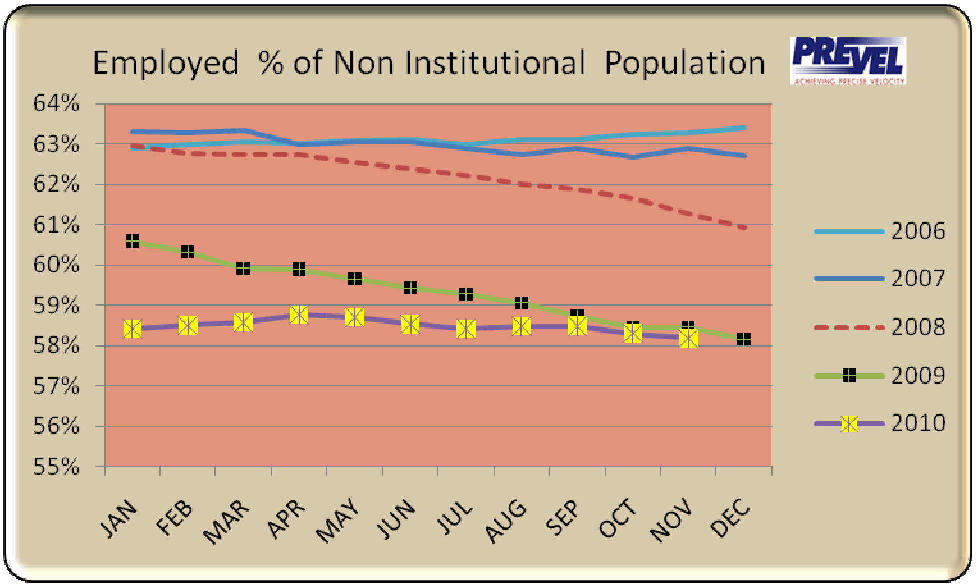
**Energy:** The Cap and Trade legislation is dead for this session of Congress. This was a closer call for manufacturers than it should have been. Low cost energy is a fundamental resource of any industrial economy. A substantial portion of the congress believes in the myth of "peak energy" and alternative energy as the solution. Alternate energy does not yet exist. None of the new proposals have demonstrated thermodynamic break even.

Manufacturers for drilling rigs received orders for 17 new rigs in October, after 5 months of silence from the drillers. Either the drillers are convinced that the current price levels are real, or they believe the election will reverse the insanity. The actions of the administration to restrict drilling will likely keep prices high. It's not clear that political logic has come to Washington. Put a small bet on the price argument.

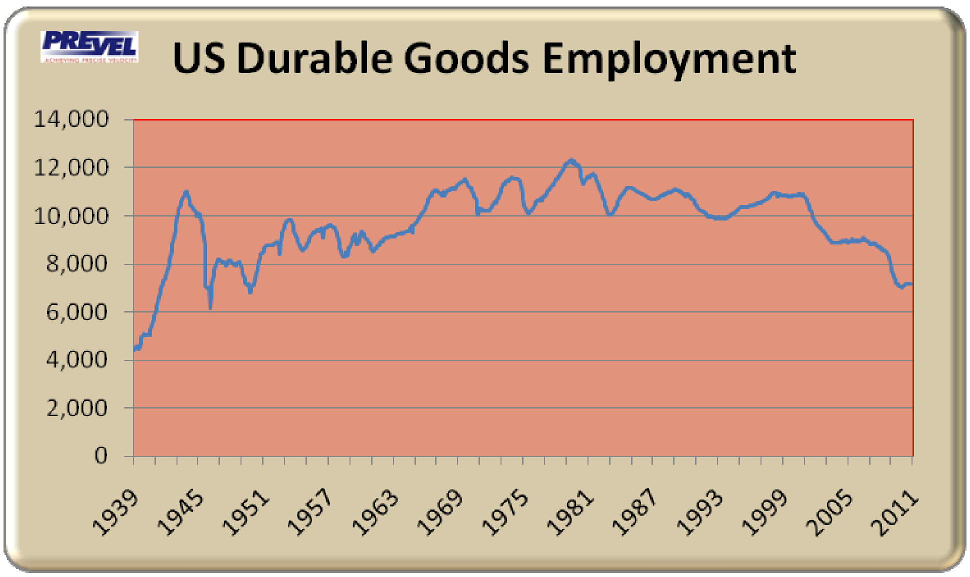
## Employment:




Civilian employment declined by 173,000, but remained slightly better than the bottom of the trench in 2009. The dramatic shrinkage since the peak in 2007 remains sobering. Growth in total employment is a necessary prerequisite to real economic growth.




Labor force participation rate declined again to a record low of 58.2%. Employment weakness is the root cause of the troubles in the economy.

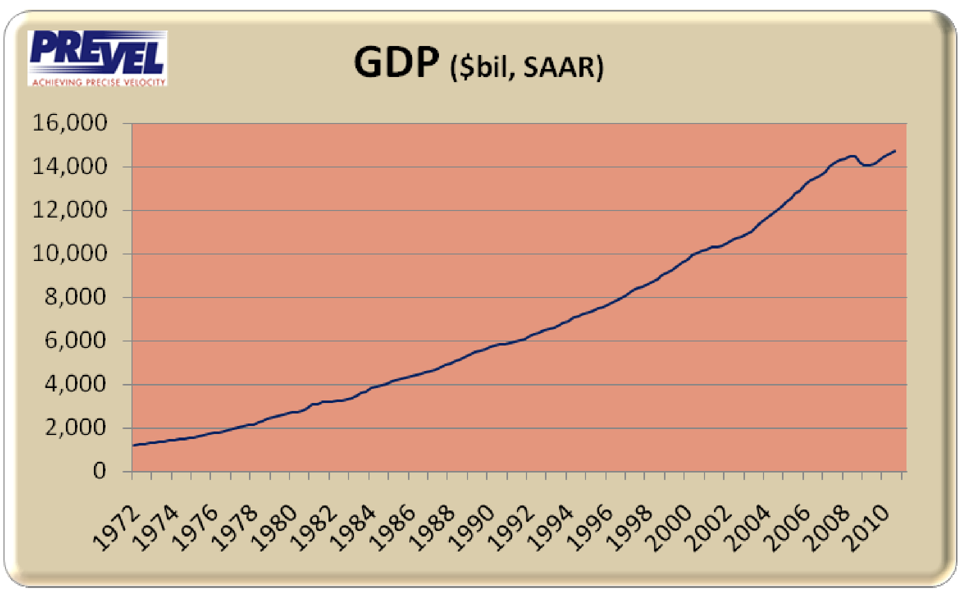



Durable goods employment has remained stagnant since June. The discussion below on the state of durable goods will help explain the causes of flat or shrinking payrolls.

## Summary and Sector Analysis

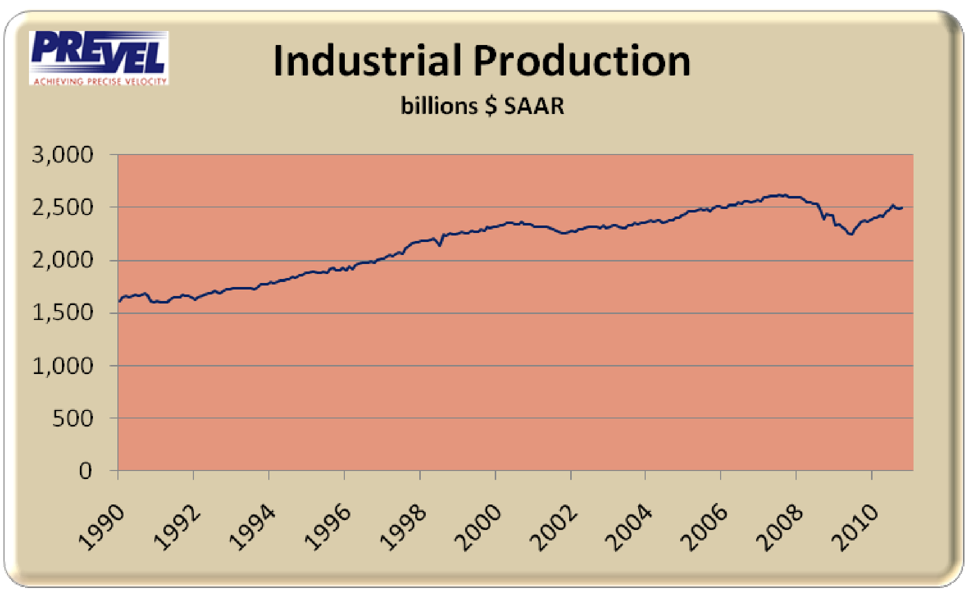
**GDP:** US GDP showed a 1% increase over the prior quarter. The average for the past 5 quarters has also been about 1%. The US GDP now stands at a record high of $14.7 trillion, 4.4% above the third quarter of 2009. Note that our measure of GDP growth does not match the numbers published by the Department of Commerce. We use a simpler measure. It's the simple 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 | 14730.2 | 1.0% | 4.4% |

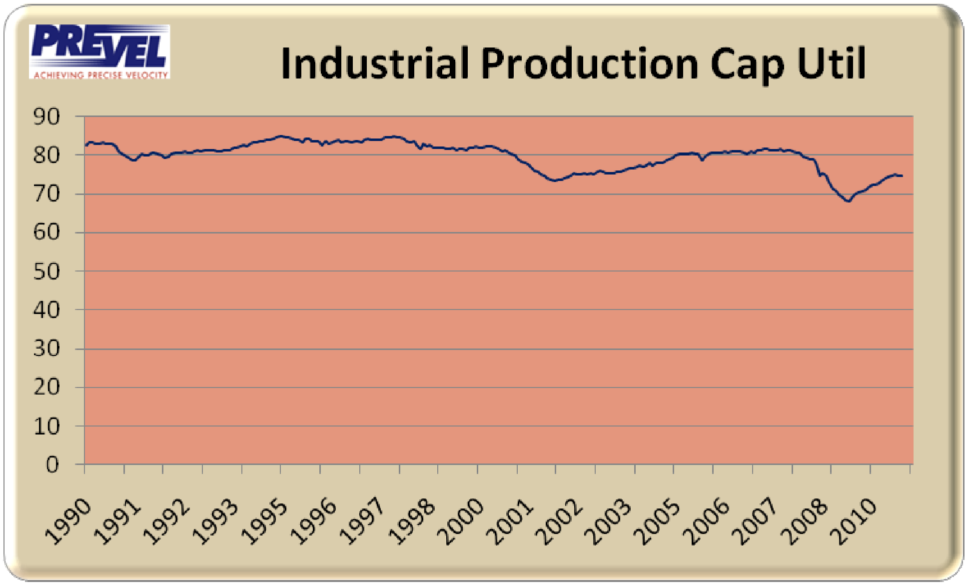


**Industrial Production** (excluding industrial supplies) decreased by 0.6% in August, the biggest drop since May 2009. While the current value is 6.8% above the prior year, it remains 5% below the 2007 peak. This is the main problem with job growth, since this sector has the greatest secondary hiring impact.

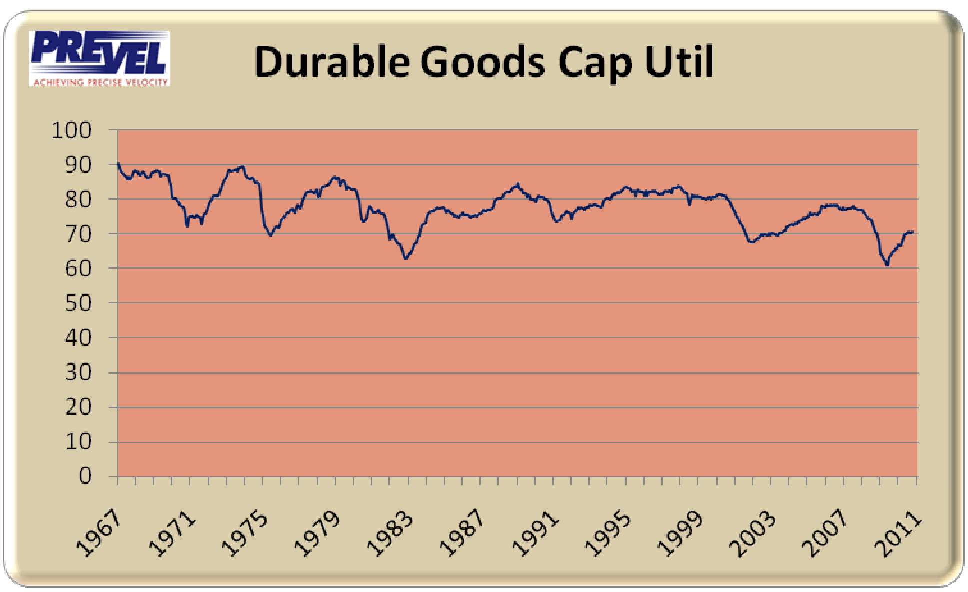
| Industrial Production $b SAAR | | | | |
|---|---|---|---|---|
| Year | Mo | Ind Prod - Value of Prod | Chg from Prior Pd | Chg from Prior Year |
| 2009 | 5 | 2,257.3 | -1.6% | -11.2% |
| 2009 | 6 | 2,249.1 | -0.4% | -11.3% |
| 2009 | 7 | 2,297.3 | 2.1% | -9.3% |
| 2009 | 8 | 2,328.4 | 1.4% | -6.2% |
| 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 | 2,475.8 | 0.3% | 10.1% |
| 2010 | 7 | 2,521.5 | 1.8% | 9.8% |
| 2010 | 8 | 2,505.5 | -0.6% | 7.6% |
| 2010 | 9 | 2,492.8 | -0.5% | 5.4% |
| 2010 | 10 | 2,495.6 | 0.1% | 5.0% |



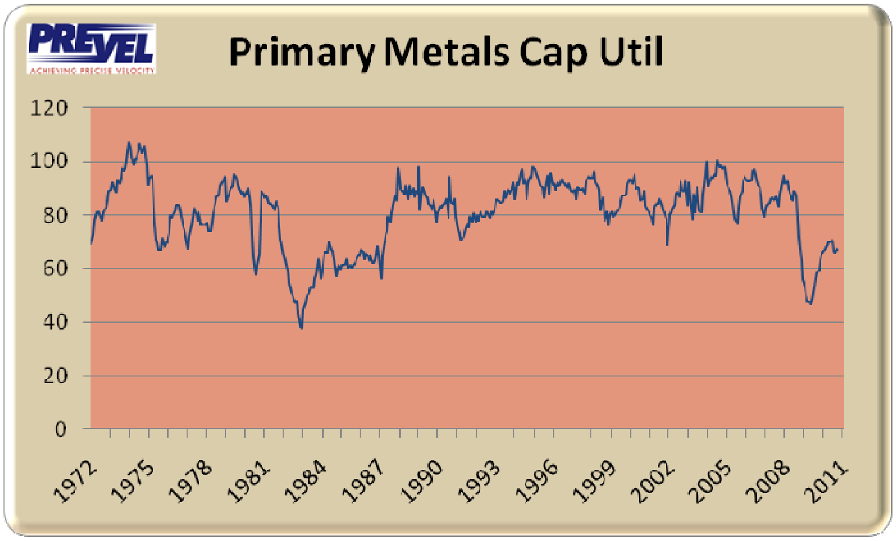
**Capacity Utilization:**

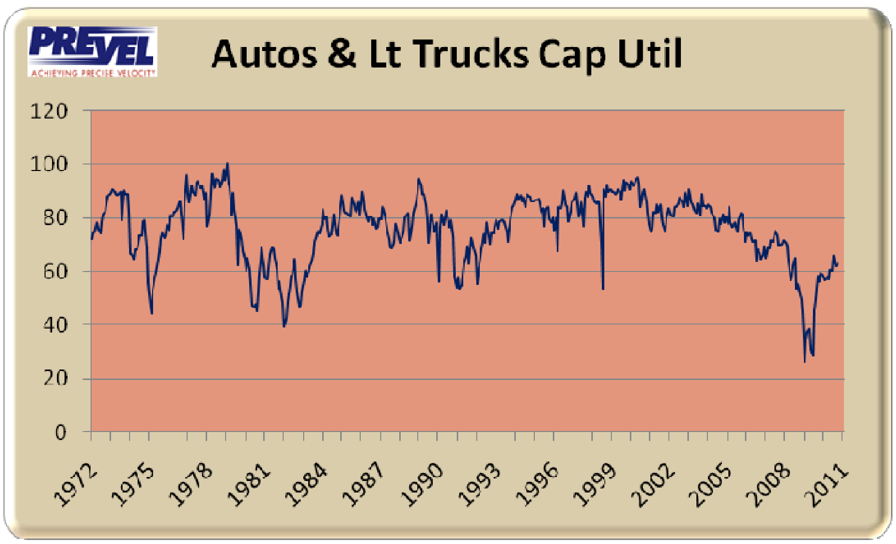


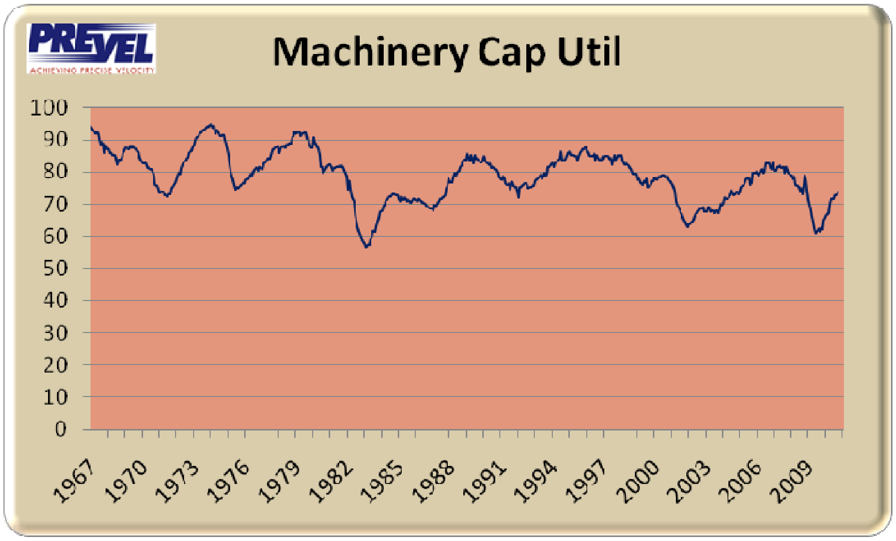

Utilization of industrial capacity remains below 75%, well short of the 80% norm. The recovery in utilization rates has been flat since June. Don't expect major improvements in capital investment spending until this measure improves further. Politicians are fond of pointing to two trillion of cash on balance sheets and asking why businesses don't invest. Simple answer: excess capacity. When there is real demand, or when entrepreneurs see a market opportunity, investment will happen. Anything else would be irresponsible (maybe like the way government "invests" in infrastructure we don't need?)



The durable goods sector capacity utilization remained flat at just over 70%. That's an improvement from the 66% level in January, but all of that improvement happened in the first 5 months of the year. The nominal 80% target for this sector offers at least 10 points of expansion before plant and equipment becomes a priority. There will be spot exceptions, of course, but overall manufacturers are not faced with capacity constraints.

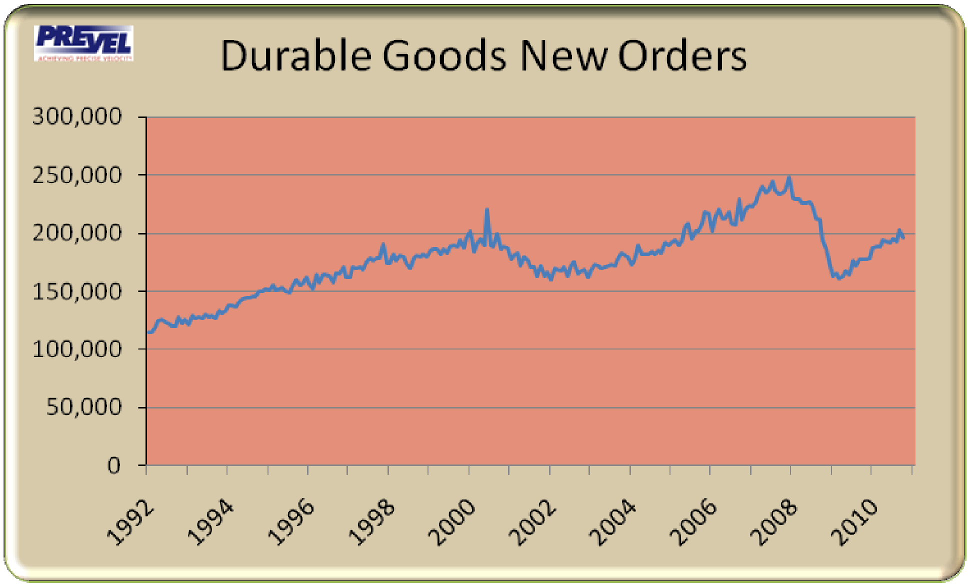


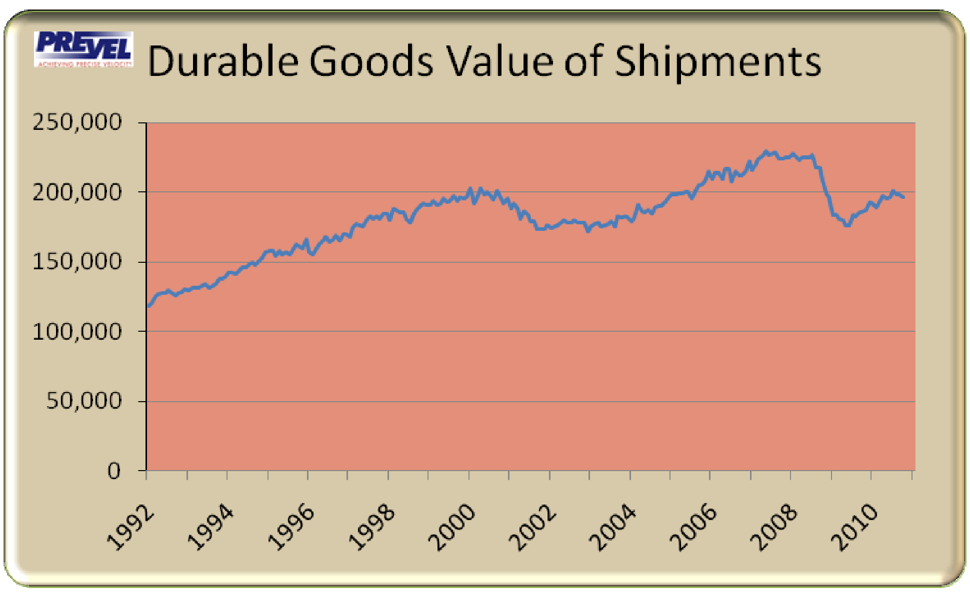



It's interesting to note that machine builders are increasing their utilization rates, but commercial and industrial contractors are still largely on the sidelines. We've noted for six months that there is interest in automation to avoid hiring production workers, even though current physical plant capacity is still slack. Labor has just become more expensive (health care etc.). Automation takes over more jobs when that happens.

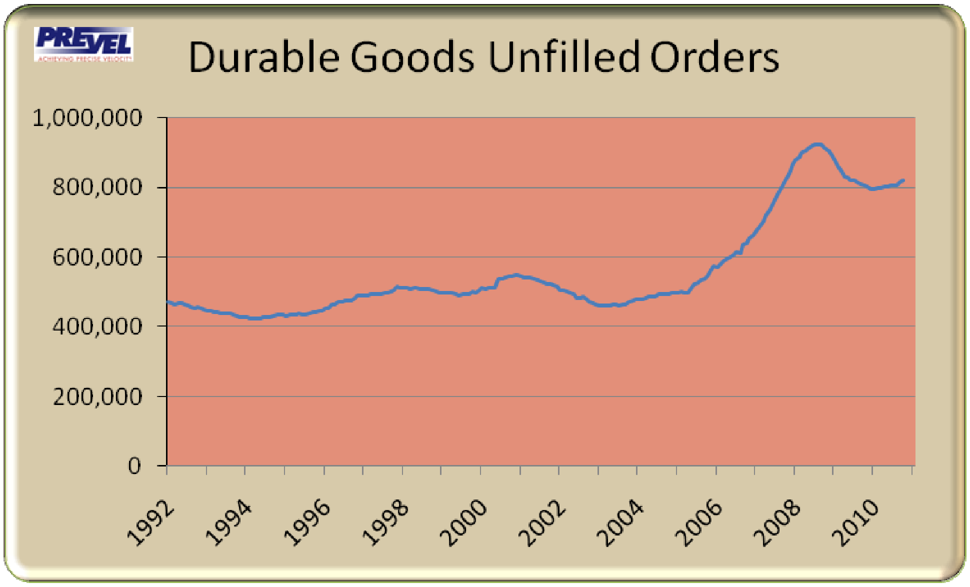
**The Durable Goods Sector:**



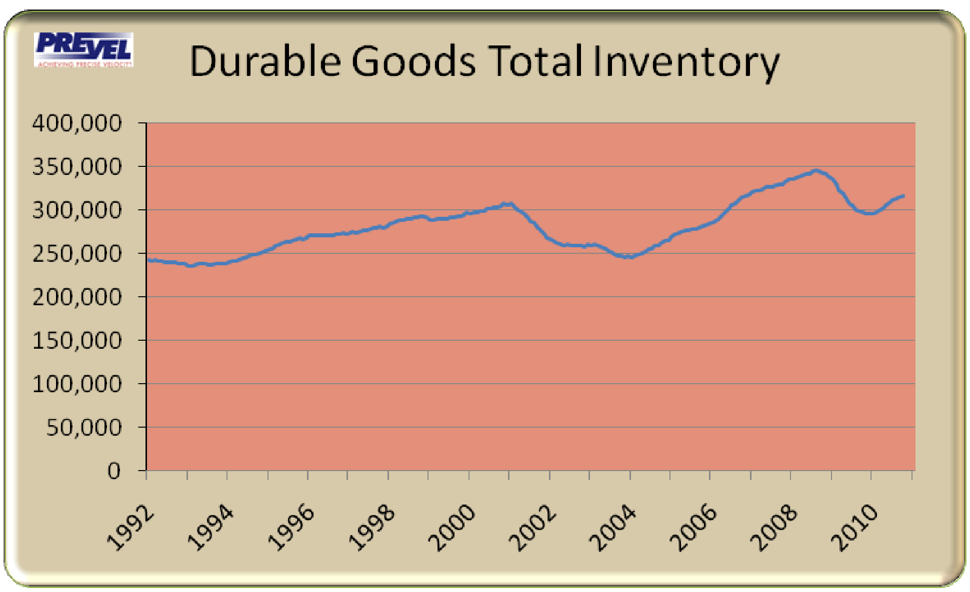

**New Orders (October data):** Durable new orders fell back to $196 billion after one month above $200 billion – the first in 2 years. There was concern expressed by the size of the cutback in orders (down 3.3%). But that fails to note that September showed an increase of 4.8%. What really happened was a one month blip, visible in the charted data. The broader context – it's pretty much flat since June. The flat trend was first signaled a month ago in the industrial production numbers.



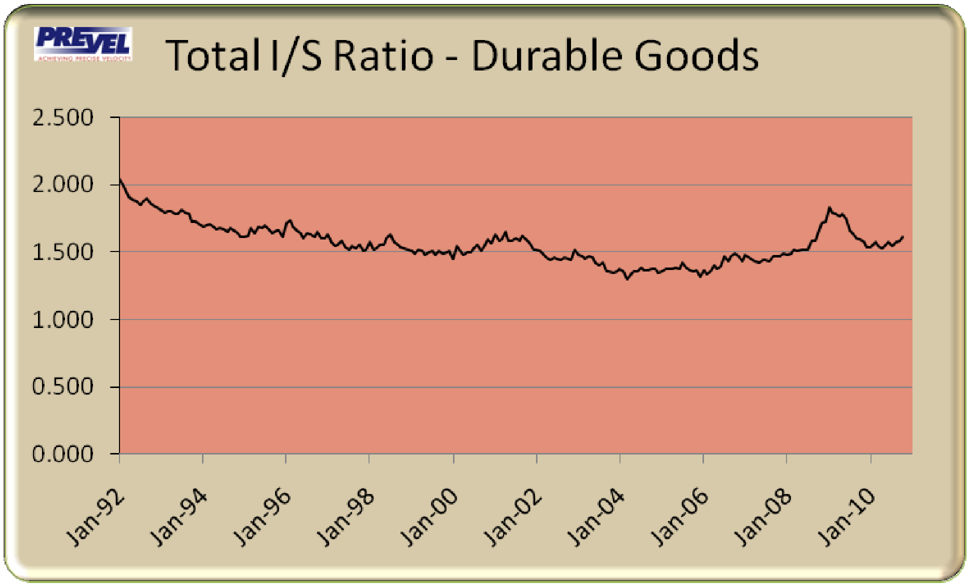

**Value of Shipments:** Shipments declined by 0.9% to $197 billion in October. Manufacturing production rates did not respond to the one month blip in orders. It turns out to have been influenced by the transportation sector which often shows "lumpy" aircraft orders. In the broader durable goods arena the continued economic uncertainty coupled with supply chain friction discussed last month are still constraining output.



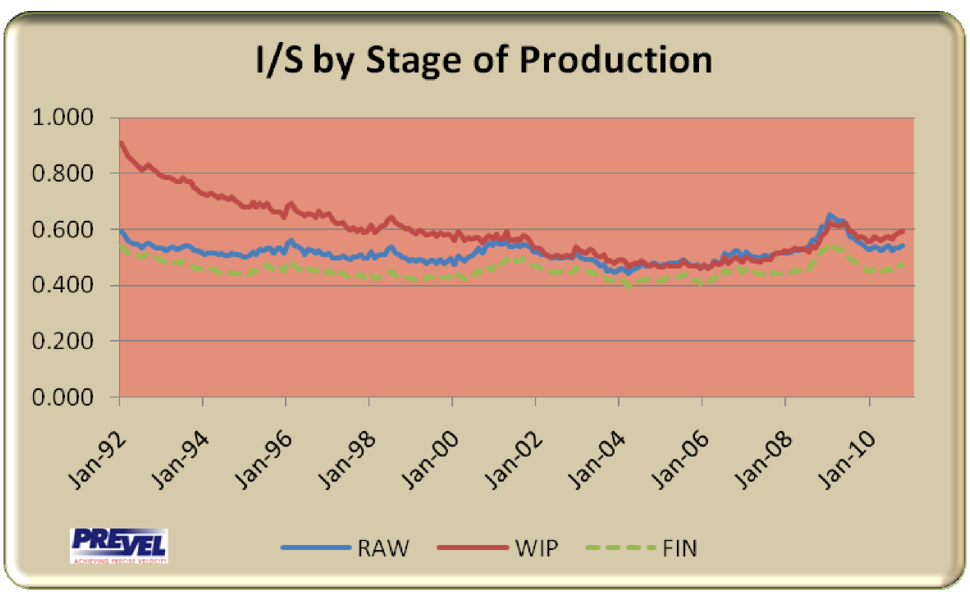

**Durable Goods Unfilled Orders:** Backlogs of unfilled orders continued to grow in October, up by 0.6% to $822 billion. The ratio to shipments implies an average lead time of 5.8 months. The persistently higher backlog of orders compared to historical norms is still an unexplained curiosity. The people at Census have noted the same thing and have no clear explanation.



**Inventory:** Climbed to $317 billion, the fourth month of increases. This represents 1.6 months of inventory at current production rates. The inventory growth is a potential caution flag.

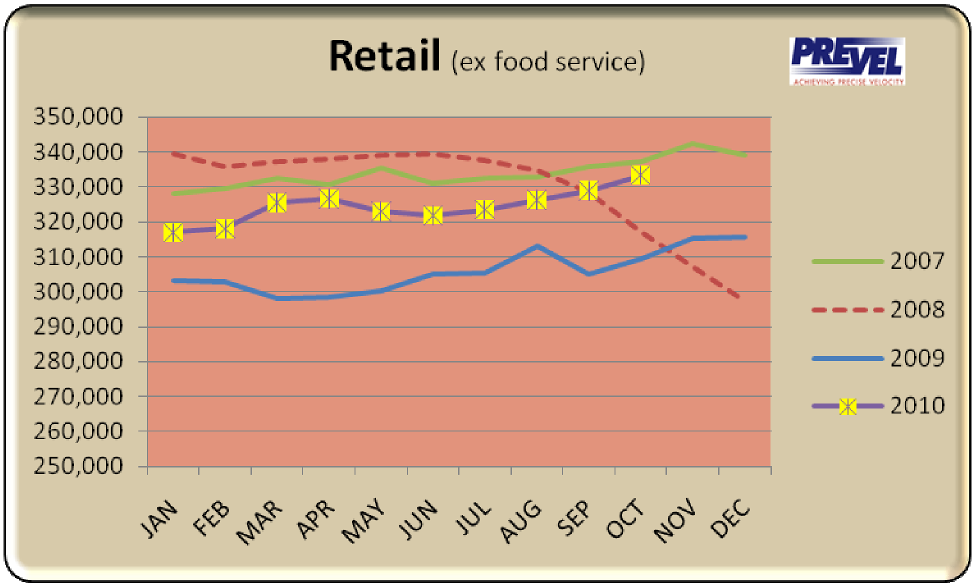


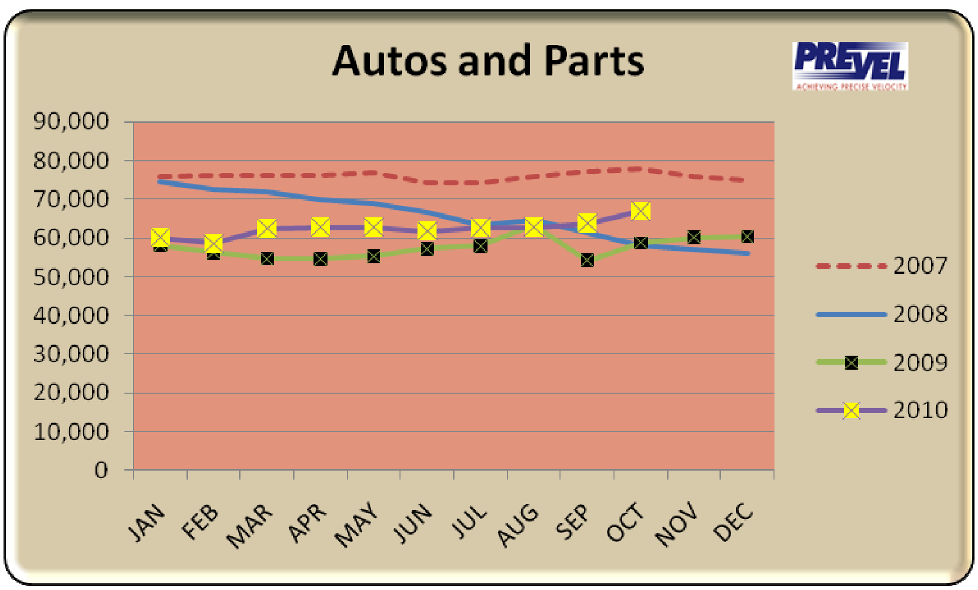

The climb in inventory to shipments (I/S) suggests that we are at risk of a modest slowdown to rebalance if it continues for another couple of months. I/S by stage of production (below) shows continued increases in WIP inventory. Raw materials and finished goods remain flat. This suggests internal synchronization is not expanding smoothly. A loss of factory velocity, if not corrected, will put a drain on productivity and return on assets.

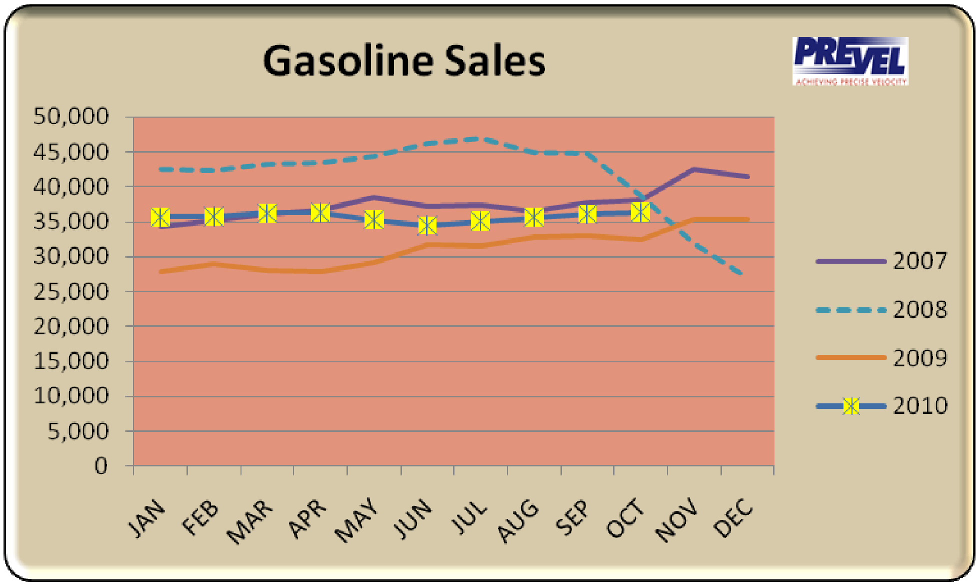


**Retail Data (October – Advanced Estimate)**

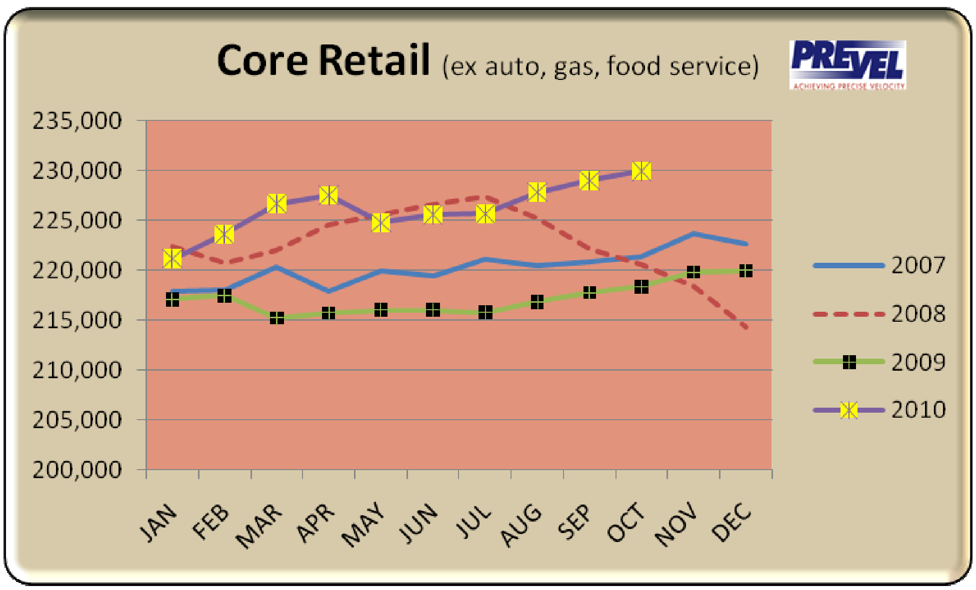
**Retail Sales:** The October Advanced Release showed signs of significant improvement, led by the 5% growth in autos and parts. Gasoline sales also increased by 0.8% and now stand over 12% above the year ago value, mostly due to price inflation.



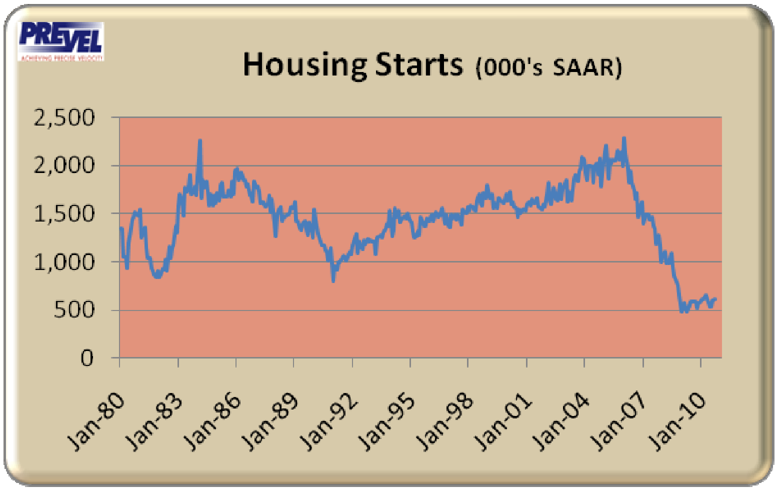


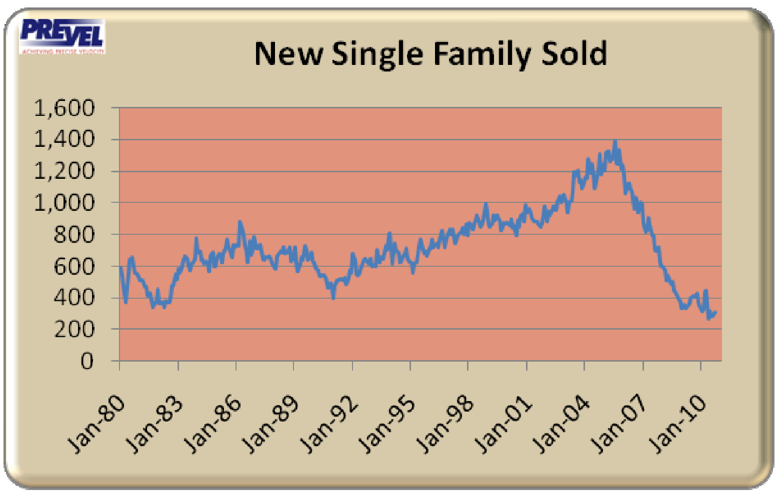

**Core Retail Sales (excluding food service, autos, gas):**

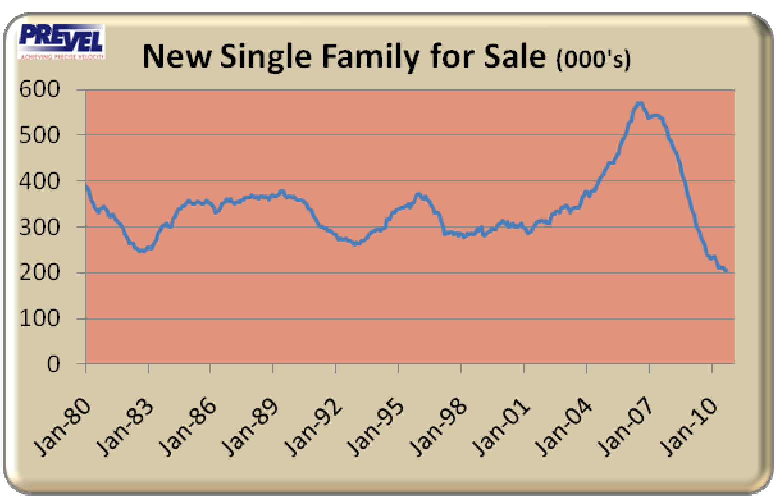


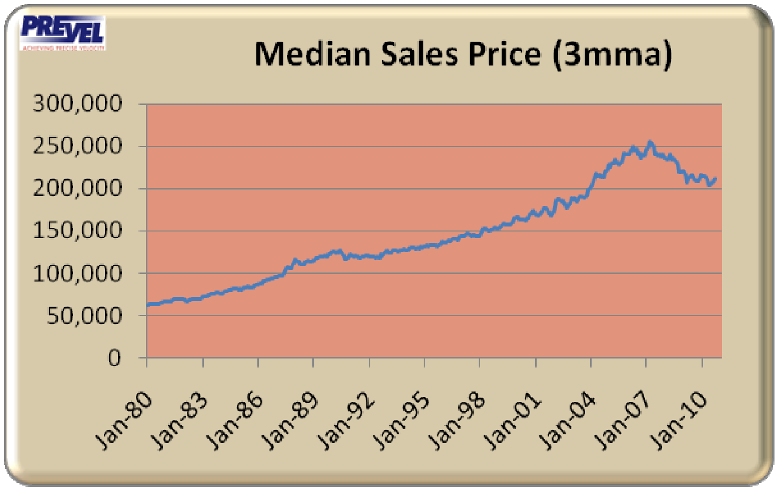

**Core Retail** set a record in the October advanced release data. There are reasons to question how well the numbers reflect physical reality. Signs of inflation have appeared according to a recent Wal-Mart survey of typical commodity items. Grain and cotton prices are exploding. This inflation is being driven by a smaller crop worldwide, diversion of grain stocks to ethanol production, and the actions of the Federal Reserve. The Fed has the ability to control the inflation by shrinking the money supply as economic activity increases, but they seem to fear the risk reversing the fragile recovery. Milton Friedman argued that the Fed should be replaced with a computer to prevent this problem. It's sounding like a better idea every day.

**Housing:**


PREVEL
Housing Starts (000's SAAR)
2,500
2,000
1,500
1,000
500
0
Jan-80
Jan-83
Jan-86
Jan-89
Jan-92
Jan-95
Jan-98
Jan-01
Jan-04
Jan-07
Jan-10


PREVEL
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


PREVEL
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




The slight uptick in housing activity is a sign of…nothing. The advanced release for October starts was off almost 12%. For the past few months we've reported the same thing on housing. No sense trying to come up with a clever way to say it differently:

"Housing activity remains depressed. Unsold inventory of new single family homes is at an all time low. The only explanation of the slow sales and starts is that the "phantom inventory" of homes in foreclosure is serving to satisfy the demand caused by new household formation. A variety of subtle factors outside the standard measures can also influence activity. One is the return of illegal immigrants to their home countries. Eventually this segment of the economy must gain some steam for the economy to thrive."

Nothing new to add.

## 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.

Time Compression Strategies Corp

Business and Technology Services

www.timecompressionstrategies.com

317-842-6417

Temporal Dynamics, Inc.

Extreme Performance Database Technology

www.temporaldyn.com

888-218-0218