



The Durable Goods Report

January 2010 Data

Source Data: US Census Bureau

Preliminary Data Release of 3/4/2010

John E. Layden, Prevel Technology

By the Numbers:

Prevel Technology - Durable Goods & Retail Summary			
	Jan-10	Dec-10	Jan-09
New Orders-Durable	174,941	170,500	159,509
12 month moving average	165,353		199,754
% Change from Prior Year	-17.2%		
Unshipped Orders - Durable	717,761	717,672	784,714
% Change from Prior Year	-8.5%		
Value of Shipments - Durable	180,217	180,942	177,696
12 month moving average	174,842		204,059
% Change from Prior Year	-14.3%		
Inventory - Durables	302,634	302,714	338,475
% Change from Prior Year	-10.6%		
Retail Sales (Feb data)	317,306	316,446	302,263
12 month moving average	308,885		326,242
% Change from Prior Year	-5.3%		
Inv to shipments ratio - Durable	1.68	1.67	1.90
Growth Index - Durable New Ord	1.034	1.028	0.856
Growth Index - Durable Shipmts	1.026	1.017	0.910
Growth Index - Retail (Dec)	1.025	1.028	0.933
1. Preliminary release data (~5 wks after the end of the period).			
2. Seasonally Adjusted, millions			
3. Prevel Growth Index = 3MMA / 12MMA		John Layden	317-842-6417

Monthly Rate of Change	This period	Last period	Rate-ofChange	Comments
GDP Q4 vs. Q3	14,461.7	14,242.1	1.5%	annualized curr \$
Industrial Production	2776.5	2749	1.0%	
Capacity Utilization %	72.6	71.9	0.7	
Manufacturing %	69.4	68.6	0.8	
Durable Goods %	62.9	61.9	1.0	
Autos and Parts %	55.0	52.2	2.8	
Machinery %	59.7	59.6	0.1	
Durable Goods (\$ Mil Seasonally adjusted)				
New orders	174,941	170,500	2.6%	
Shipments	180,217	180,942	-0.4%	
Inventory	302,634	302,714	0.0%	
Unshipped Orders	717,761	717,672	0.0%	828 bil 9/2008
Total Retail (\$ Mil SA) Feb data	317,306	316,446	0.3%	
Autos and Parts	57,884	59,051	-2.0%	
Gasoline	34,776	34,677	0.3%	
Core retail	224,646	222,718	0.9%	
Employment (000's SA) Feb data				
Non-Farm	129,526	129,562	(36.0)	138 mil 1/2008
Goods Producing	17,793	17,853	(60.0)	
Manufacturing	11,555	11,554	1.0	13.7 mil 1/2008
Durable Goods Mfg	7,056	7,055	1.0	8.6 mil 1/2008
Housing (000s of Units SA)				
Single family starts	484	477	1.5%	
Single family sales (new)	309	348	-11.2%	
Single family for sale (new)	234	231	1.3%	570 in 8/2006

Year	Qtr	GDP \$b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2007	4	14,031.2	0.6%	4.9%
2008	1	14,373.9	2.4%	6.4%
2008	2	14,497.8	0.9%	5.5%
2008	3	14,546.7	0.3%	4.3%
2008	4	14,347.3	-1.4%	2.3%
2009	1	14,178.0	-1.2%	-1.4%
2009	2	14,151.2	-0.2%	-2.4%
2009	3	14,242.1	0.6%	-2.1%
2009	4	14,461.7	1.5%	0.8%

Summary and Analysis

Overview of the US Economy

US GDP: The GDP grew 1.5% in Q4 based on the second estimate of annualized current dollar data (table at left). Compared to the same period last year the GDP was up by 0.8%.

The GDP adjusted for constant dollars was reported with a growth rate of 5.9% annualized. Inventory restocking is visible at all levels of the economy, accounting for well over half of the growth. More on this later.

Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2008	10	2,880.7	1.5%	-4.6%
2008	11	2,854.2	-0.9%	-5.8%
2008	12	2,825.0	-1.0%	-7.0%
2009	1	2,733.6	-3.2%	-10.3%
2009	2	2,723.3	-0.4%	-10.4%
2009	3	2,695.0	-1.0%	-10.6%
2009	4	2,678.5	-0.6%	-10.5%
2009	5	2,640.9	-1.4%	-11.4%
2009	6	2,632.3	-0.3%	-11.7%
2009	7	2,668.2	1.4%	-10.5%
2009	8	2,693.3	0.9%	-8.1%
2009	9	2,721.3	1.0%	-4.1%
2009	10	2,730.9	0.4%	-5.2%
2009	11	2,727.6	-0.1%	-4.4%
2009	12	2,749.0	0.8%	-2.7%
2010	1	2,776.5	1.0%	1.6%

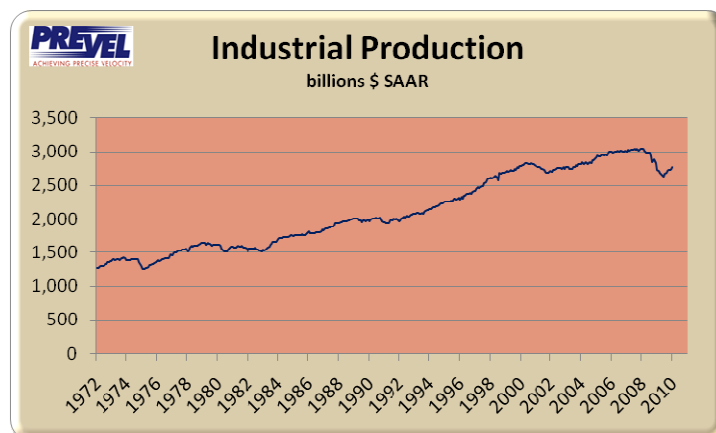
Industrial Production increased by 1.0% in January and the December growth was revised upward from 0.5% 0.8%. Compared to the same period last year, industrial production was 1.6% higher than the same period last year. This positive position is the first in 22 months. This has been the longest string of negative year to year comparisons on record.

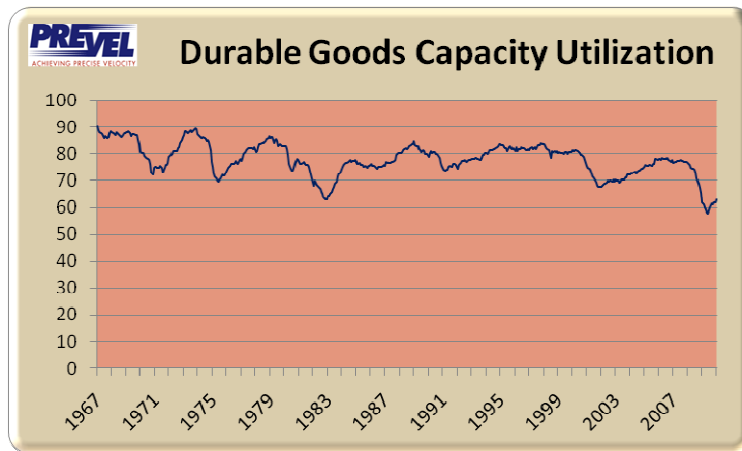
The actual value of \$2.78 trillion is about \$227 billion below the peak of \$3.05 trillion in January of 2009. About \$50

billion can be explained by energy price declines, so a return to pre-recession performance of the sector will require real growth of about \$175 billion. This assumes

that energy supplies remain sufficient to keep prices in check.

The steepness and magnitude of the decline is still stunning.





Durable goods capacity utilization continues to recover, but remains near the lowest level on record. The traditional target of 80% looks to be a long way off.

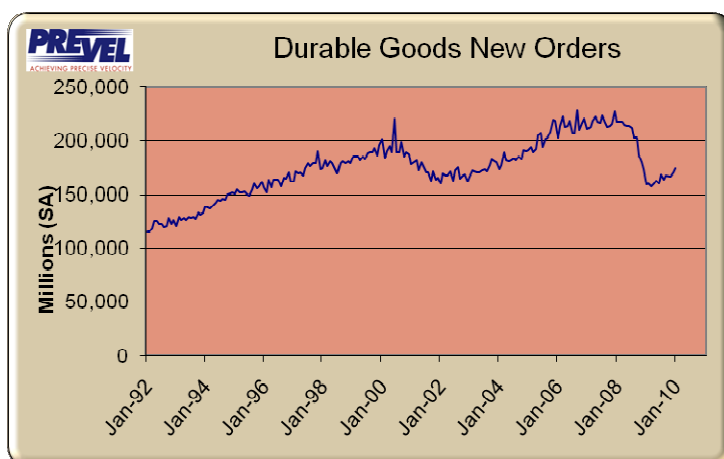
It is possible that durable manufacturers have permanently changed their strategy with regard to this metric. With rapid response deliveries becoming

more the norm, excess machine capacity no longer suffers such a negative reputation. The flip side of that view is that without the pressure to keep machines running, labor capacity is viewed as rapidly adjustable, as long as excess machine capacity is available.

This is not just idle speculation. Our conversations with CEOs over the past few months show a renewed interest in the fundamentals of business operations: delivery response, rapid adjustment to changing order demand, and dynamic capacity planning. Unfortunately these elements of the business model are not easily supported with the existing ERP systems, including the Advanced Planning and Scheduling systems. These systems are built on the premise managing machine constraints.

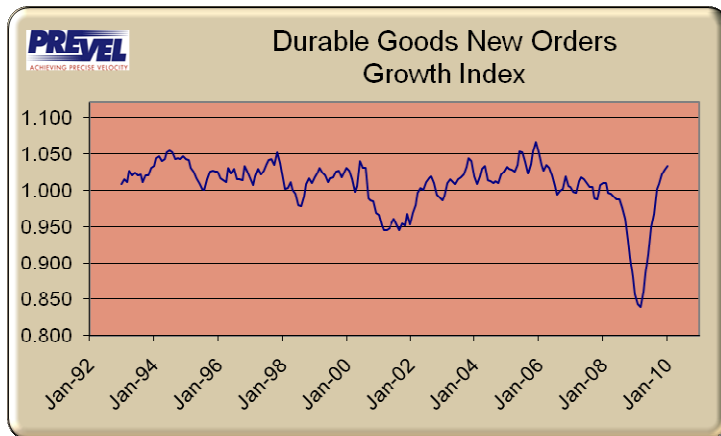
The Prevel focus on these key business goals has been successful in helping several clients get through the drama of the past year with profits, deliveries and cash intact. Check the preveltech.com website to see some of the tools we use in the process.

Durable goods new orders: The increase in new orders of 2.6% was the second positive month for the sector, following an upward revision to 1.8% for the prior month. Mining, oil and gas sector was especially strong at 16% order growth month-over-month.

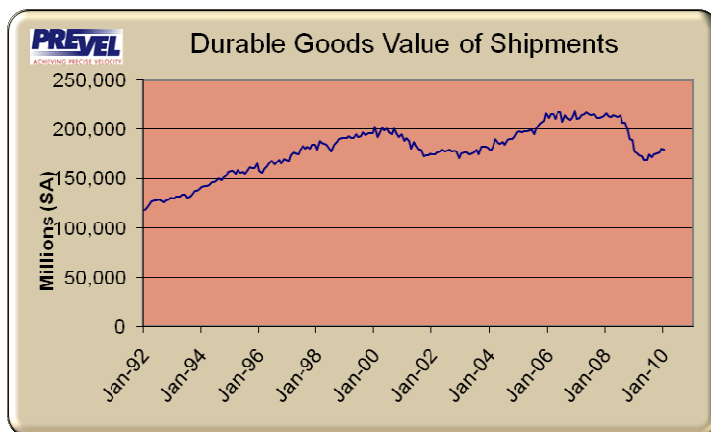


The Growth Index for new orders (3mma/12mma) is showing strong signs for the first time since late 2006.

While there are still reasons for caution, the current signals offer support for the argument that

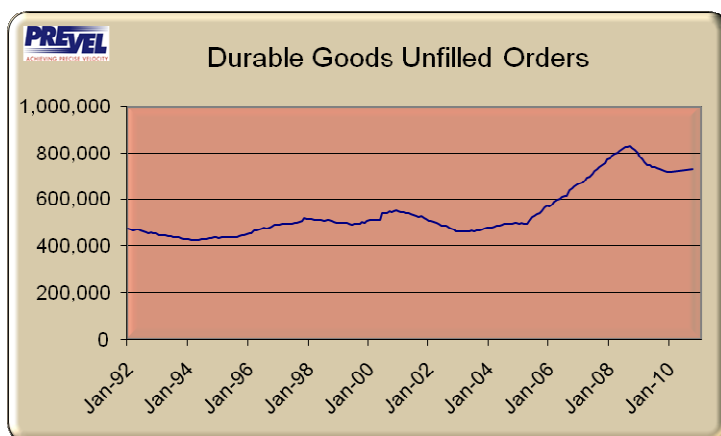


excess inventory and other bubble factors are cleared across most of durable goods. This will improve the sustainability of the recovery.

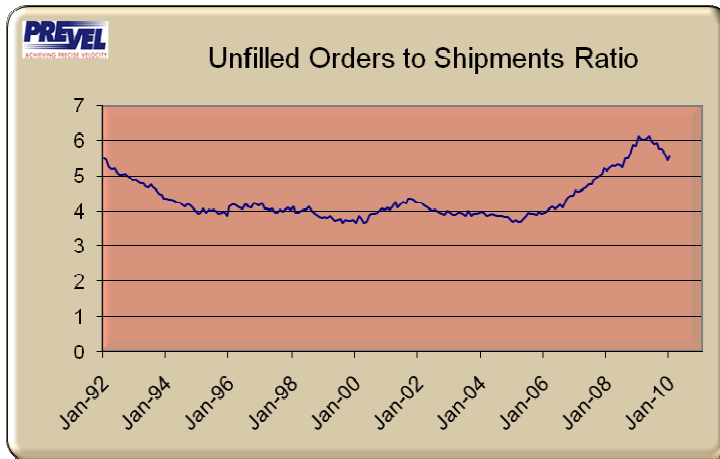


Durable goods shipments: The modest decline of 0.4% in shipments is likely a response to the imbalance between shipments and orders that we've highlighted for the past few months. This seemed to predict layoffs. It played out largely as advertised in January employment. Coupled with the increase in new orders for the month, that imbalance is largely gone. Layoffs should moderate as

a result. February employment data offer the first support for that view.



Unfilled Order Backlog increased for the first time in 15 months. The amount of the increase was negligible, but it still signals a return to balance in the relationship between new orders and shipments. The absolute value of order backlogs remains high by historical standards.

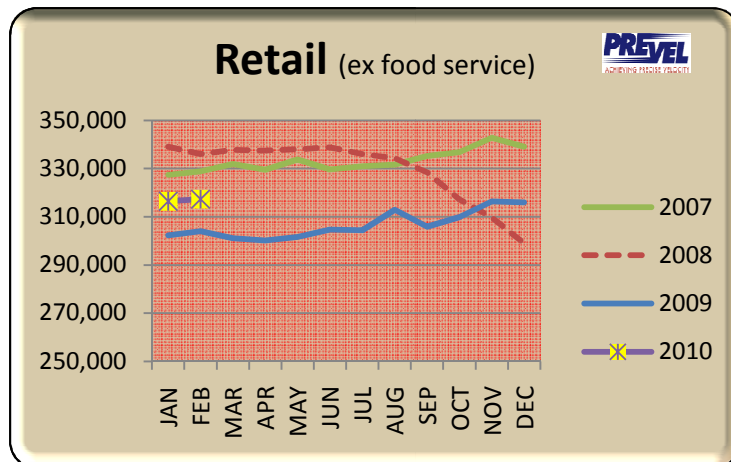


Unfilled Orders to Shipments

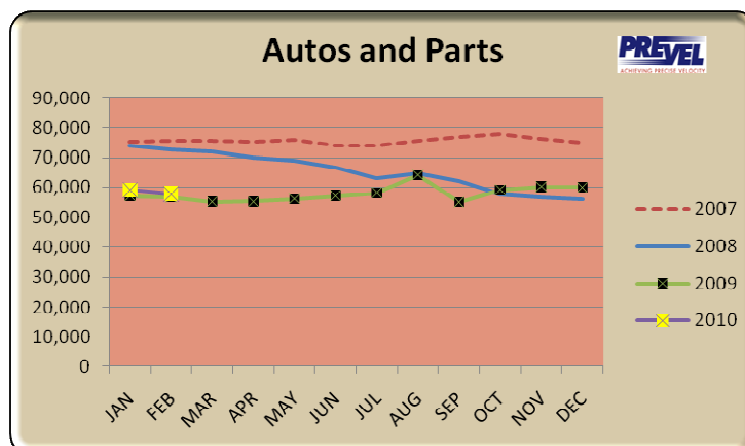
Ratio is the critical indicator for factory velocity, which in turn predicts delivery response. This performance indicator started to slip in mid 2006. Average delivery time stretched from 4 months to the high of about 6 months during the worst of the decline. The recent recovery to 5.5 months is positive, but will not be enough to resolve the delivery

complaints from customers. It remains an immutable fact that the core flow processes must change when the level of the business declines. Headcount reductions reduce cost, but also risk reduced factory velocity. This is especially true when kanban and pull

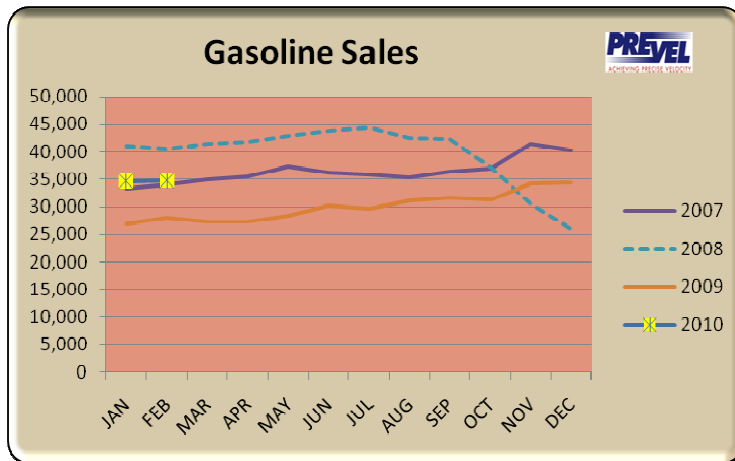
systems have been deployed to manage factory flow. Without careful attention the recovery will trigger another instability that will degrade both delivery and cash.



Retail Sales (February data) increased 0.3% from January and 4.4% above January of 2009. The market distortions from gasoline prices and auto sales declines are moderated in the current data.

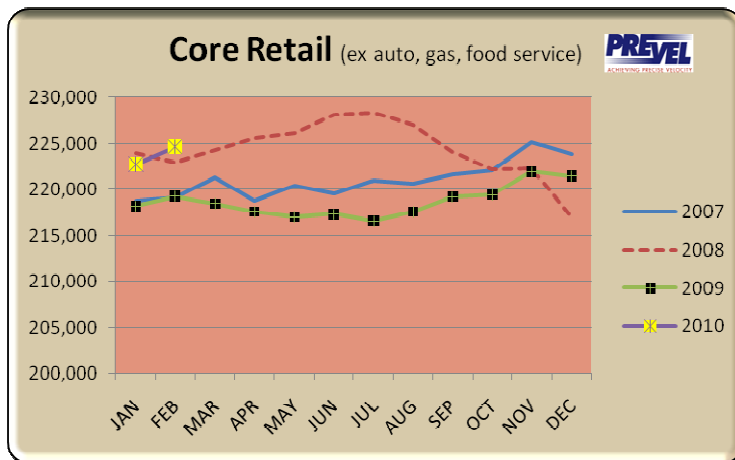


Autos and parts sales fell 2% from January, but remained 2.1% above 2009. The stabilization of this sector has contributed to the sense in the manufacturing community that the current modest growth may be sustainable.



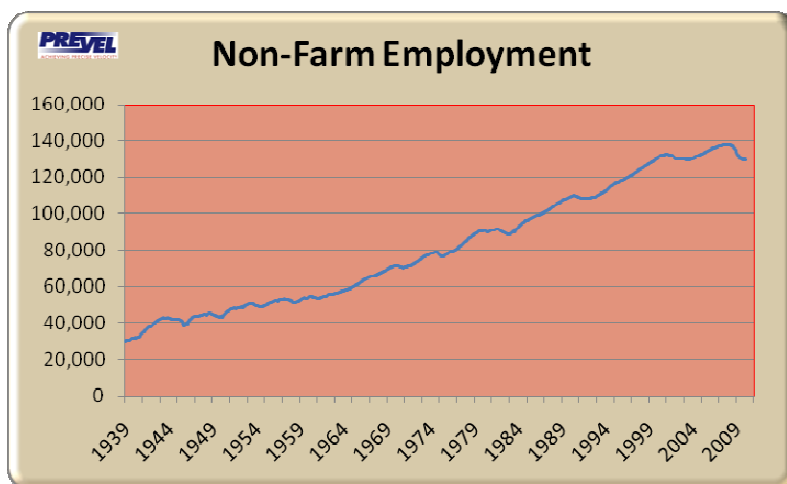
Gasoline sales currently stand 24% above 2009 and are roughly at the 2007 levels. The current price of gas could be substantially lower were it not for the attempts of government to intervene. The goal of “weaning us off our addiction” to oil is a misguided market intervention. See the sections below for details

on energy supply and the environment.



Core Retail, which excludes gasoline, autos and food service, was 0.9% above January and 2.5% above February 2009. This solid performance continues the trend that began in Q3 of 2009. This important component of the economy is now tracking above the “pre-crisis” 2008 levels. The numbers were surprising in light of the terrible weather conditions

in February widely expected to depress sales.

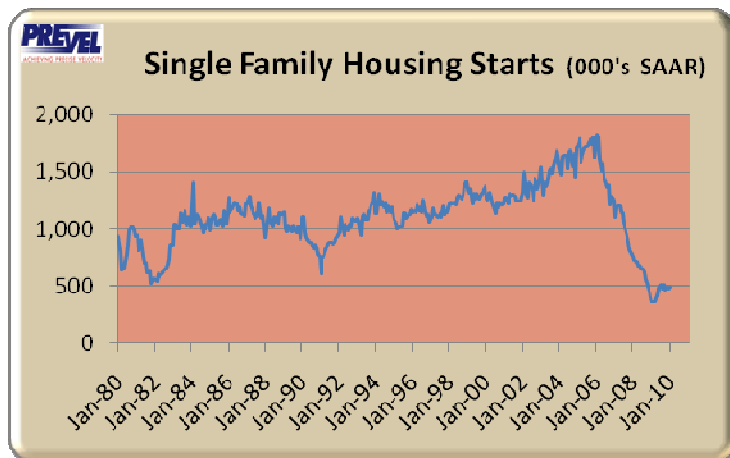


Employment (Feb data):

The February report was not a positive for the economy as a whole. Total job loss for February was 36,000, up from 20,000 in the prior month. There was a bright spot for manufacturing. Total manufacturing and durable goods segment were both essentially flat. This is

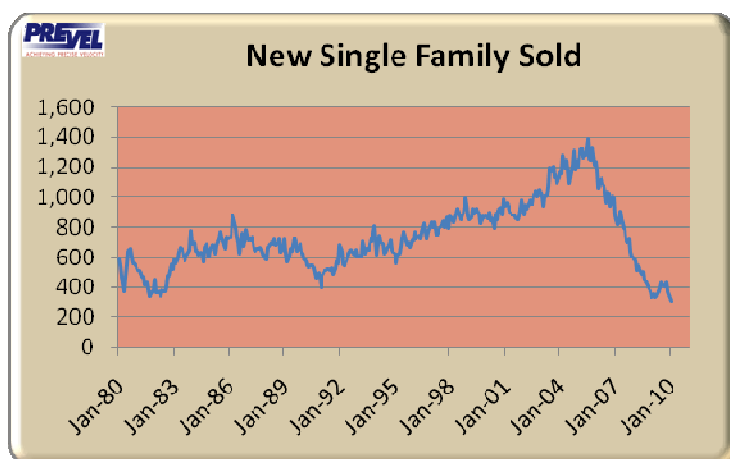
another hint that stability has been reached, at least for the moment. In the past 24 months, durable goods employment declined by 1.7 million. The real question is how many of these jobs are part of the permanent loss to productivity improvements and offshore relocation of factories or source of supply.

The construction industry lost 60,000 jobs in the period, partly due to weather. But it is increasingly clear that the jobs saved or created in the stimulus bill of 2009 were not in the “shovel ready” projects that got so much attention. Most of the jobs are in government. In cases where teachers, for example, are being retained when student enrollments have declined due to demographic shifts, it merely delays the day of reckoning. When it finally comes it will be more dramatic, as can be seen in Kansas City where almost half of the schools are to be closed. These moves are usually described as “cost reduction” due to declining tax revenue. It should more accurately be described as a drop in demand for teachers.

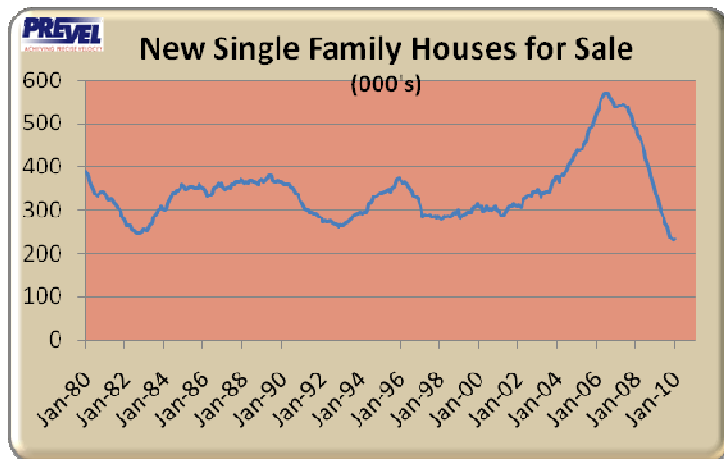


The housing industry reported increases in total starts and single family starts in January. The weather issues must have held this number below its potential.

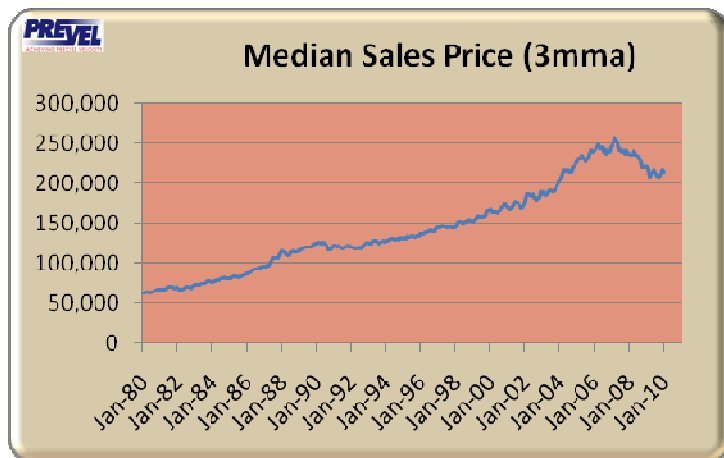
Sales of single family units dropped substantially from 348,000 to 309,000. This setback



will suppress starts in future months as the builders remain cautious about spec-construction. The incentives for first time buyers plus very attractive mortgage rates have been insufficient to lure large numbers of buyers back into the market. (Update: today's announcement on housing starts showed a decline of 5.9% for February).



Unsold new single family units increased for the first time in 31 months, from last month's record low of 231,000 units to 234,000 units. Despite this increase the number of units for sale remains at unusually low levels



Median prices declined slightly in January, but remained within the recent range of variability. Visual interpretation of the chart suggests that the bubble in housing prices is gone. It's also interesting to note the size of the prior bubble (1988-92). It looks puny by comparison.

Health Care Legislation: This is the week that will decide the outcome of this long debate. The political maneuvers are getting increasingly arcane, but the actual content of a final bill remains obscure. There is at least some evidence that congress is listening to the marketplace. With increasing talk among manufacturers of switching more of the workforce to contractor status, congress took steps to add language to prevent it.

The key steps needed to reduce actual costs seem still to be missing. Competition for insurance content/price options will not occur as long as the legislation dictates these factors. Tort reform is also missing. Cost containment is addressed by price controls and rationing, which achieves the opposite of actual insurance. Price controls reduce availability and quality of all products. It serves the unintended purpose of protecting the providers from the need to compete, and thus to be creative.

Cap and Trade and the Environment: The exposure of manipulated data on global temperature has now spread to the NASA dataset. Three of the four land based temperature datasets are now shown to be defective. None are truly independent since they used each other's data or methods. No reliable conclusions can be based on them.

One thing remains true: Despite loud claims to the contrary, there is still no science that supports the hypothesis of anthropogenic global warming (AGW). Science starts with a hypothesis which can be used to make a prediction. The prediction is tested. If the prediction fails a single test it is rejected. All (as in 100%) of the predictions regarding the process of AGW have now failed at least one test. No single supporting result has yet been reported.

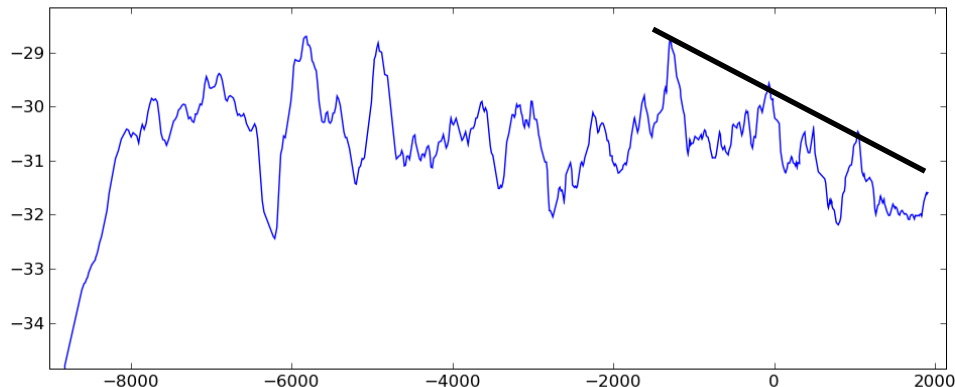
The flood of revelations on the inaccuracies in the UN report on climate change is now epic. Glacier retreat is debunked. Rain forest collapse is rejected. Severe weather claims are reversed. Sea level increases have slowed. Polar ice is expanding. The list seems endless.

In the face of the public recognition of the errors (or a possible hoax), the handful of scientists supporting the human-caused global warming hypothesis are about to launch a major PR campaign. They are violating the first rule of holes: On finding yourself in a hole, first stop digging. Increased exposure of their position is the last thing they should want. The lack of any science at the bottom of the house of cards will hold them up to ridicule. The more their positions are examined the more it becomes obvious that it was all made up.

The real temperature concern is the longer term picture. The chart below shows an 11,000 year temperature history of central Greenland, reconstructed from glacial ice

cores. Note the trend line added. There is a clear cyclical pattern to the temperatures. But starting with the Minoan warming through the Roman warming, Medieval warming, and modern warming, the top of each temperature cycle fails to reach the level of the prior warming. Something has started a long term cooling trend. The same pattern is noted in other locations where a single-site long term record is available.

Greenland Temperature Record - 11,000 years (based on O18 isotope)



The relevance of these observations is that the EPA has based its case for the regulation of CO₂ as a pollutant on the premise that it causes global warming, and that warming is a threat. This action would devastate the competitive position of the US relative to China, India and Brazil. These nations are unwilling to take any action to reduce emissions, although China encourages the UN to pressure others to do so.

The Senate has begun to take action to block the EPA action, so there may yet be hope. This is the greatest potential threat to manufacturing in the US.

The real science supports a completely different position:

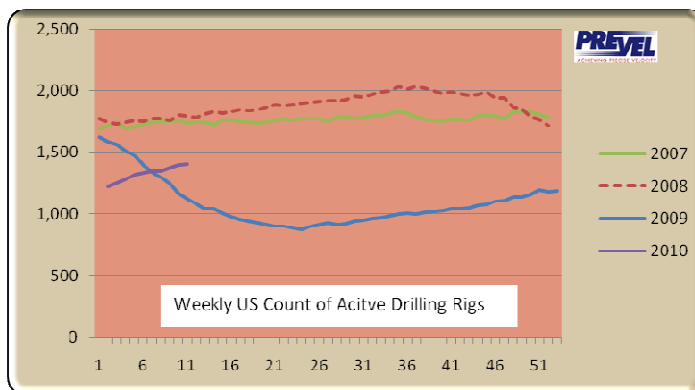
1. The atmospheric level of CO₂ is still far below the optimum. Plant life shuts down below about 150ppm. We currently have about 300ppm. Plant life thrives up to at least 1,500ppm with no adverse effects on humans. When plants thrive, all life thrives.
2. There is no significant impact on temperature from increased levels of CO₂. Only water vapor has an important effect as a greenhouse gas.
3. Human contribution of CO₂ to the atmosphere is negligible. Even if we wanted to increase it through overt action, we don't have an effective way to do it.

4. Earth's climatic temperature is modulated by the level of magnetic activity of the Sun and the orbital dynamics of the Earth and the rotation of the solar system around the galaxy. These factors explain about 98% of the temperature cycles.

I'll be happy to share the supporting science behind these key points with anyone wanting to get into the debate. Just send an email to jlayden@preveltech.com.

One important piece of good news arrived on the climate front. We are probably not (yet) entering another major ice age. Some serious solar scientists had expressed concern that the current low point in the solar sunspot cycle had gone on for far too long – almost two years. But in February the drought was broken when we had sunspot activity every day. This first in the past 24 months is a signal that we might soon start to recover from the snowiest decade on record.

Energy Production - First the good news: Active oil rigs increased again to 1,407 (US). The count is now a full 25% above the same period last year. New orders for



mining, oil and gas field equipment grew 16% over last month offering further support for a bullish attitude on the part of energy sector executives.

Still more good news arrived when Exxon announced that 2009 saw their oil discoveries at 133% of production. This “unexpected” feat has been accomplished by Exxon

for 16 consecutive years. And yet the myth of “running out of oil” persists. New oil discoveries over the past decade are at an all time high. Upward revisions to the recoverable reserves in existing fields are at an all time high. Oil reserves (both estimated and proven) are at an all time high. New evidence from the field of geology continues to point to the likelihood that hydrocarbons are not a “fossil fuel” left over from the Jurassic era, but are being continuously produced in the mantle of the Earth. How the “Peak Oil” myths survive in the face of such a flood of contradictory evidence is a real mystery.

The USGS revisions to the estimates of the Baaken field (North & South Dakota, Montana, Saskatchewan) now make it the largest oil field in the world. Their estimate of recoverable oil was increased 25 fold, from 150 million barrels to roughly 4 billion barrels using current technology. This is 8x the reserves of Saudi Arabia. Not yet included in this total is the discovery of a second dome 1,000 feet below the current

Baaken field. The estimates of Colorado shale oil reserves increase the total further. These estimates range up to the utterly ridiculous (one claim says 2 trillion barrels).

More important is the availability of shale gas. Natural gas supplies have been surging in the same fashion. The Marcellus Black Shale formation (western New York through West Virginia) was estimated to contain 500 trillion cubic feet of gas according to a report from professors Gary Lash (Fredonia State College) and Terry Engelder (Penn State). Before the ink was dry there was talk of an upward revision to 1,300 trillion cubic feet. The US currently consumes 20 TCF annually. So this one field contains a 65 year supply in an industry that considers anything over a 20 year supply to be discouraging to exploration.

Now the bad news: In the face of this decade-long stream of good news on energy, we are faced with a government that seems disconnected from scientific and commercial reality. We will assume they are ignorant of the facts and not competent to critically evaluate the specious claims of pending doom. Otherwise we would be forced to accept seemingly loony conspiracy theories assuming implausible levels of secrecy among hundreds.

This past week saw the Energy Secretary Chu announce further restrictions on energy development and further subsidies for “alternate energy” in the form of wind, solar and ethanol.

- Three year moratorium on offshore drilling.
- Increased investment in wind and solar energy.
- A Federal land grab in the West that will place the most promising development areas in the control of environmentalists.

None of the “alternate energy” sources are net producers of energy. The only net producers of energy are hydrocarbon combustion and nuclear (and the near cousin nuclear).

The fallacy of the “green jobs” argument was further exposed when the Spanish report on wind programs revised the estimate of jobs lost due to green investment. Originally estimated as 2.2 jobs lost per green job created, they now report 4.3 jobs lost per green job created.

Solar energy proponents continue to argue for increased subsidies to allow them to compete with traditional energy sources, despite the fact that no project has achieved energy break-even with solar. No amount of subsidy will ever change the thermodynamic reality.

Ethanol mandates have now been shown to be the primary cause in a run-up in food prices worldwide. This Holy Grail of the renewable energy crowd turns out to be a massive energy consumer (1.6 BTU input per each BTU delivered) and is also a massive water consumer. Its only benefit has been to farmers and politicians representing the corn growing states. Taxpayers subsidize this industry to the tune of \$8 billion, of which only \$4.5 billion go to corn growers. If the government targets for ethanol production are to be met, we'll need to convert all US cropland to corn for ethanol.

I have a question. If alternative energy is such a good idea, why is it that it only survives with massive government subsidies? Is it possible that the failure of any of these technologies to even approach thermodynamic breakeven would suggest that their only purpose is to justify a stream of revenue for politicians to control?

The editorial page of Investors Business Daily commented that "...this administration has no long-term energy solution, other than hoping for a lot of cloudless and windy days." This is utter folly. The nation with the largest energy reserves on the face of the Earth is being starved for energy by government policies that have the primary goal of artificially inflating the cost of hydrocarbon energy to allow "alternate" forms to compete. The theory is that once they get up to competitive size they will dominate. The fact that all are net **consumers** of energy seems to be lost on the political class.

About Prevel and The Durable Goods Report

Prevel Consulting supports manufacturing transitions to High Velocity Manufacturing. Prevel Technology delivers software applications and custom solutions in support of data driven decisions, real-time operations and rapid response business metrics, all key components of High Velocity Manufacturing.

The goal of the Prevel DGR 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 the current state. 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.

Prevel 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, available 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 Prevel for details about this subscription based service.

Technical Note: The “Prevel 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 Managing Partner of Prevel Technology, a management and technology consulting firm serving manufacturing, distribution, and their supporting technologies. Prevel has developed a suite of extremely high-performance real-time applications systems in support of their client industries.

Prior to launching Prevel, Layden’s career included 22 years’ in manufacturing and another 18 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 in 1997. 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 advisory services of Prevel 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 in the delivery of appliances to Sears.

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 jlayden@preveltech.com or 317-842-6417.



www.preveltech.com

317.842.6417