



The Durable Goods Report

Manufacturing Data Release of 4/4/2010 (February Preliminary)

Retail Data Release of 4/14/2010 (March Advanced)

Source Data: US Census Bureau

John E. Layden, Prevel Technology

By the Numbers:

Prevel Technology - Durable Goods & Retail Summary			
	Feb-10	Jan-10	Feb-09
New Orders-Durable	178,468	176,917	160,596
12 month moving average	167,007		195,013
% Change from Prior Year	-14.4%		
Unshipped Orders - Durable	722,229	718,960	772,059
% Change from Prior Year	-6.5%		
Value of Shipments - Durable	179,796	180,817	176,094
12 month moving average	175,201		200,985
% Change from Prior Year	-12.8%		
Inventory - Durables	303,986	302,871	334,112
% Change from Prior Year	-9.0%		
Retail Sales (Mar data)	324,003	318,406	301,057
12 month moving average	310,992		320,514
% Change from Prior Year	-3.0%		
Inv to shipments ratio - Durable	1.69	1.68	1.90
Growth Index - Durable New Ord	1.050	1.037	0.843
Growth Index - Durable Shipmts	1.030	1.026	0.901
Growth Index - Retail (Mar)	1.029	1.027	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 (Feb 2008 data unless noted)				
	This period	Last period	Rate-ofChange	Comments
GDP Q4 vs. Q3	14,453.8	14,242.1	1.5%	annualized curr \$
Industrial Production	2764.7	2768.6	-0.1%	
Capacity Utilization %	72.7	72.5	0.2	
Manufacturing %	69.4	69.4	-	
Durable Goods %	63.1	63.2	(0.1)	
Autos and Parts %	52.8	55.0	(2.2)	
Machinery %	61.5	61.3	0.2	
Durable Goods (\$ Mil Seasonally adjusted)				
New orders	178,468	176,917	0.9%	
Shipments	179,796	180,817	-0.6%	
Inventory	303,986	302,871	0.4%	
Unshipped Orders	722,229	718,960	0.5%	828 bil 9/2008
Total Retail (\$ Mil SA) Mar data	324,003	318,406	1.8%	
Autos and Parts	62,734	58,806	6.7%	
Gasoline	34,723	34,855	-0.4%	
Core retail	226,546	224,745	0.8%	
Employment (000's SA) March data				
Non-Farm	129,750	129,526	224.0	138 mil 1/2008
Goods Producing	17,870	17,793	77.0	
Manufacturing	11,579	11,555	24.0	13.7 mil 1/2008
Durable Goods Mfg	7,086	7,065	21.0	8.6 mil 1/2008
Housing (000s of Units SA)				
Single family starts	499	502	-0.6%	
Single family sales (new)	308	315	-2.2%	
Single family for sale (new)	236	234	0.9%	570 in 8/2006

Gross Domestic Product				
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	14,453.8	1.5%	0.7%

Summary and Analysis

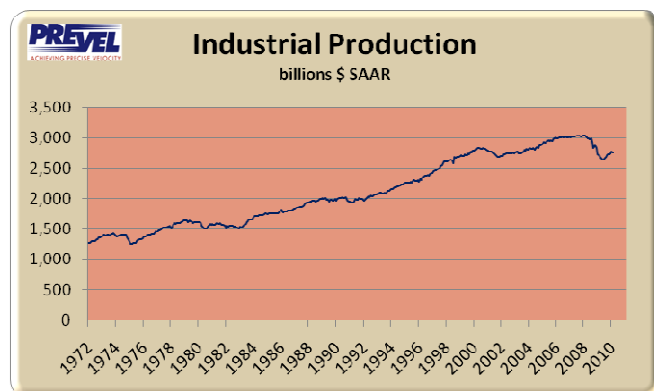
Overview of the US Economy

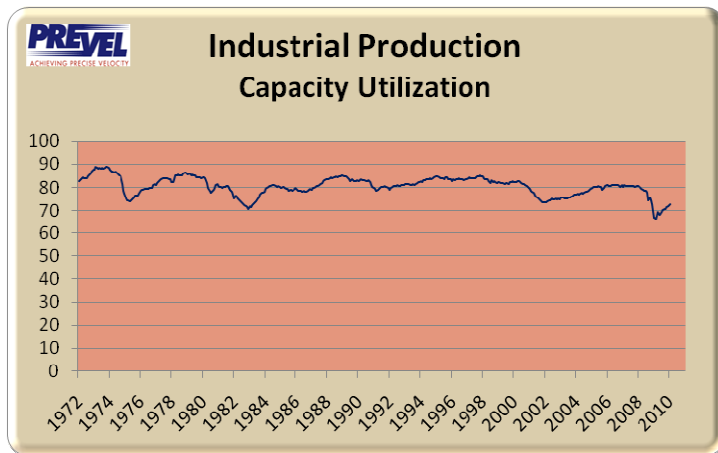
US GDP: GDP was again revised downward fractionally. Early indications suggest that the torrid pace of growth from Q4 will retreat to a more modest pace in Q1. Growth is expected to remain positive.

Industrial Production				
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	2,721.2	1.0%	-4.1%
2009	10	2,729.9	0.3%	-5.2%
2009	11	2,729.0	0.0%	-4.4%
2009	12	2,744.5	0.6%	-2.9%
2010	1	2,768.6	0.9%	1.3%
2010	2	2,764.7	-0.1%	1.5%

Industrial Production declined slightly in February, possibly weather related. The year-to-year comparisons continue to be favorable at 1.5%. The increase in the cost of energy understates the decline.

Overall the news remains fairly positive. The growth trend is slow but steady. The modest reversal in February should be viewed in the broader context of positive year-to-year comparisons and a generally upward trend.

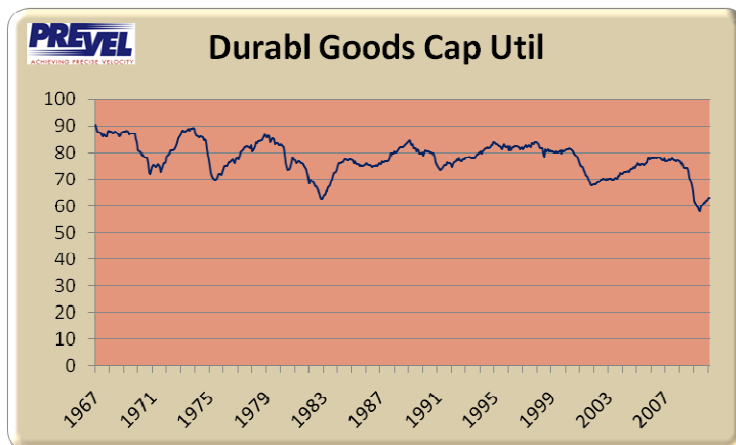




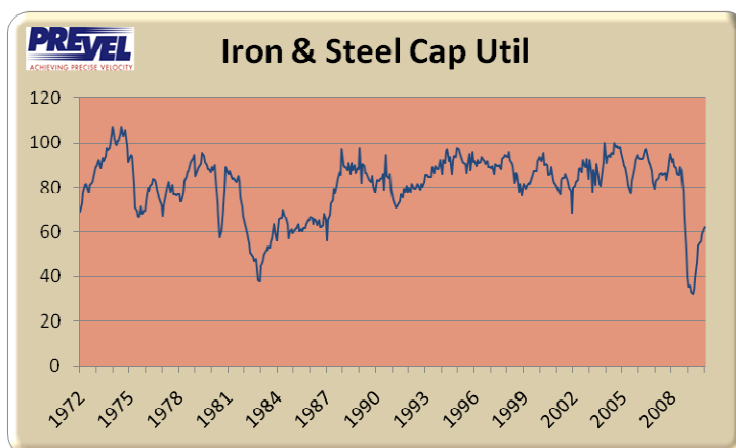
Capacity Utilization remains low by traditional standards. We remain 8 points below the “normal” level of 80%.

We commented last month on the possibility of companies intentionally reducing their target levels of utilization to improve responsiveness to customer demand. In effect that they were intentionally keeping surplus

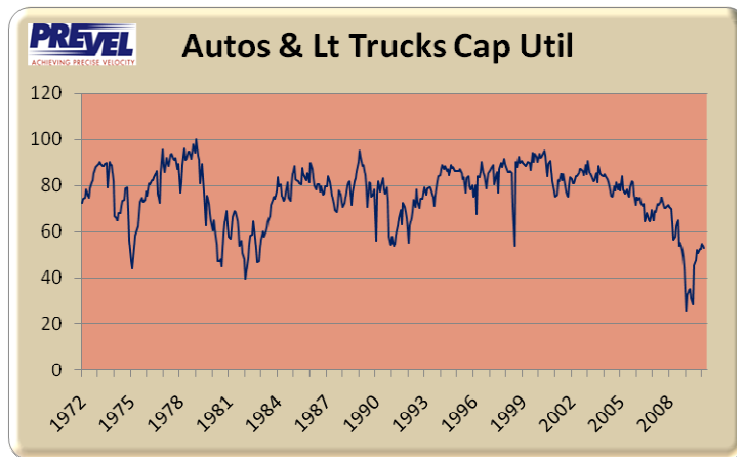
equipment around to handle surges. This month we drill down a little more on this hypothesis and find a mixed bag.



The durable goods supply chain starts with primary metals, then component and sub-assembly suppliers, then final assemblers. While the middle stage of this supply chain may follow the “extra capital equipment is good” approach, it is unlikely to be true with primary metals.



Here the capital costs are far too high to invest in assets that may be productive only in rare cases. The typical operating level from 2005 through mid-2008 averaged 88%. It is unlikely that the current 60% level had anything to do with attempts to improve delivery response. They were



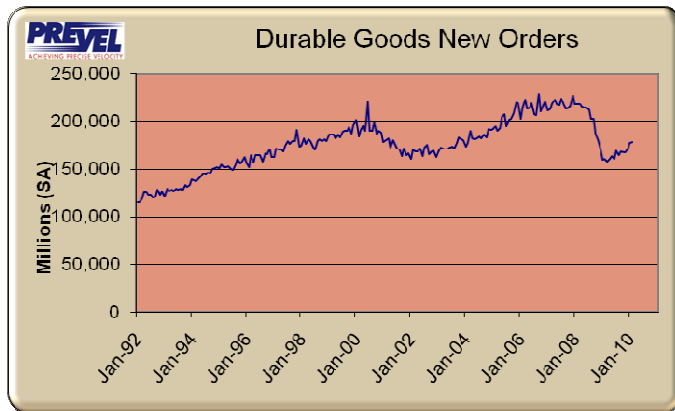
hammered by a massive and rapid downturn.

In the case of the auto industry it seems unlikely as well. With utilization in the 53% range, it is more likely an indication of excessive industry capacity worldwide, rather than a policy of rapid delivery response. The global auto industry has gambled on new assembly plants for

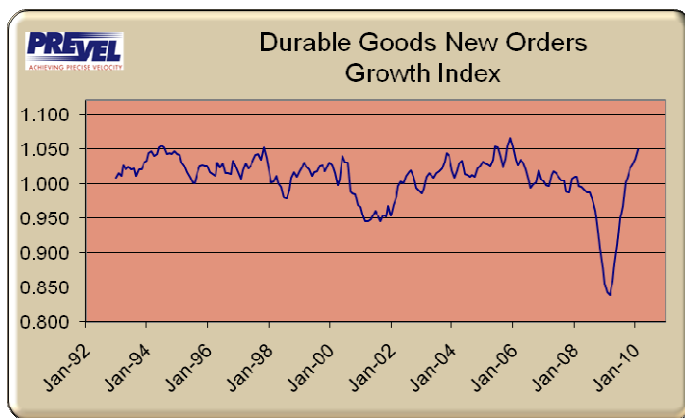
decades with the expectation of capturing someone else's market share. This is the same mindset that keeps Las Vegas running. Thus we have a 90 million unit global capacity chasing a 50 million unit demand. More plants need to close. Someone is required to shrink or go broke. That puts a little different face on government intervention to "save jobs", doesn't it?

So the theory of shifting from machine constraints to labor constraints seems to be at play only in the middle of the supply chain, and may not be broadly adopted there. This will have a major impact on the shape of the durable goods recovery when the winners and losers are sorted out. This middle position in the supply chain will be the critical constraint in the coming attempt to ramp up in a recovery. Those with the ability to respond quickly will be the winners in the next lottery. Many companies who barely held on through the downturn will find that the next phase will not be a pleasant time. Delivery response declined through the downturn for most companies. This presents a clear sign that the business processes and information technologies are not yet in place to respond rapidly to the recent turnaround to growth and generate cash at the same time. This will cause a surge of business failures during the recovery that will surprise many observers and even some CEOs.

For the past year, Caterpillar has encouraged its supplier base to be ready for the coming ramp up in the hopes of avoiding a supply chain crunch. Most of the supply base held their fire waiting for new orders to supplant the optimistic policy letters. But since the first of the year the signals have been concrete. Orders are increasing across the board and Cat management now advises that the year may come in at the upper end of the 15 to 25% growth estimates. Street rumors indicate that mining equipment is sold out through the end of the year.



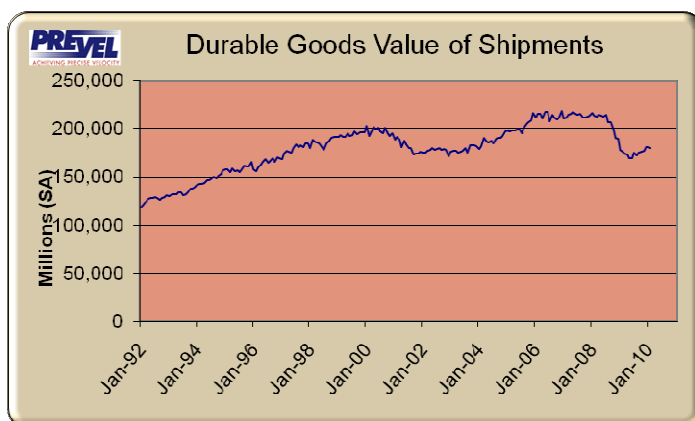
Durable Goods new orders increased by 0.9% and reached a level last seen in November of 2008. Four of the last six months have shown positive growth. The breadth of the positive growth is also impressive with all key sub-segments showing positive movement. It becomes increasingly clear that manufacturing will lead the recovery.



The **New Order Growth Index** achieved a 1.050 value for the first time since January of 2006. This is a further indication of a solid recovery in the core manufacturing sector.

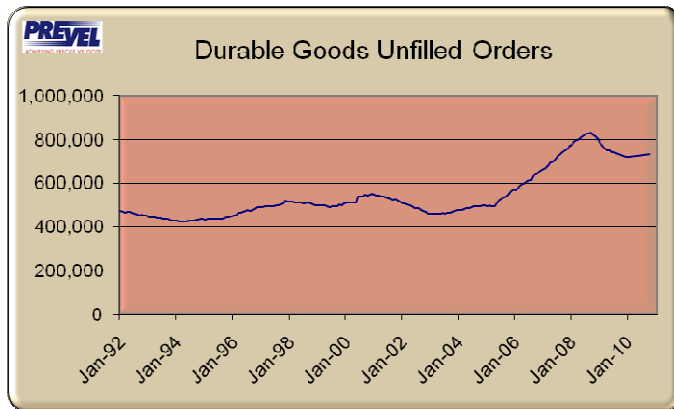
The new order picture in durable goods is the most important foundation block in the US economy. This sector generates more indirect jobs than any other, and helps to fuel

the international economy. No US economic recovery has been successful without a solid recovery in durable goods. In spite of several remaining potential pitfalls, this looks like a solid foundation.



Durable Goods Shipments

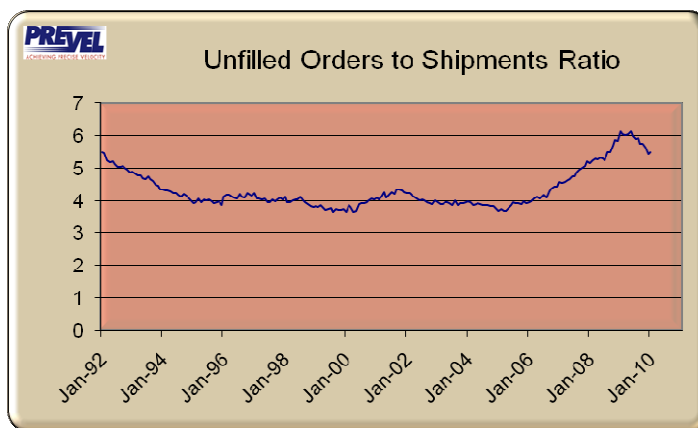
retreated slightly in February, but not enough to reverse the generally upward trend. February orders and shipments were well balanced, suggesting no serious pressure for dramatic adjustments in either direction.



Unfilled Order Backlog climbed to \$722 billion in February, the second month of growth after a bottom of \$718 billion in December. The ratio to shipments also climbed for the second month to 5.55 months average lead time, up from 5.44 in December. The importance of delivery lead time in a supply chain recovery is crucial. No supply chain

can plan effectively with long lead times at multiple stages. Unless there is improvement in this measure as orders improve, growth will stall from supply shortages.

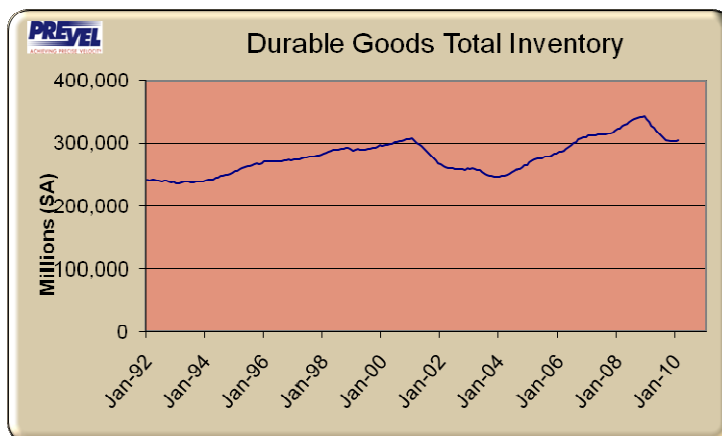
For individual companies in the early and middle stages of a supply chain, the opportunity to capture market share on some basis other than pricing is rare. The



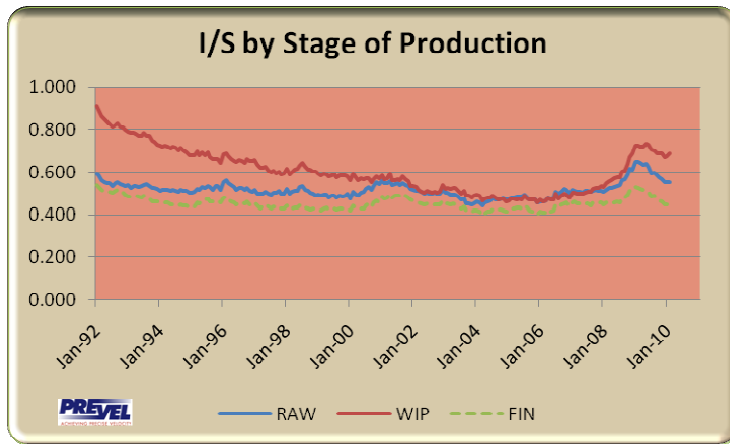
current state of the durable goods economy is a once-in-a-career event. It will probably see some important new winners. Don't forget that every re-sourcing decision picks both a winner and a loser.

Durable Goods Inventory grew by 0.4% in February, not enough to support the theory that inventory

restocking is a major component of the industry growth. However there are signs that all is not going smoothly. One key test is the inventory to shipments ratio, and this measure shows that the improvement of inventory performance has stalled. During a growth period this is usually due to sporadic supply chain constraints (discussed earlier)



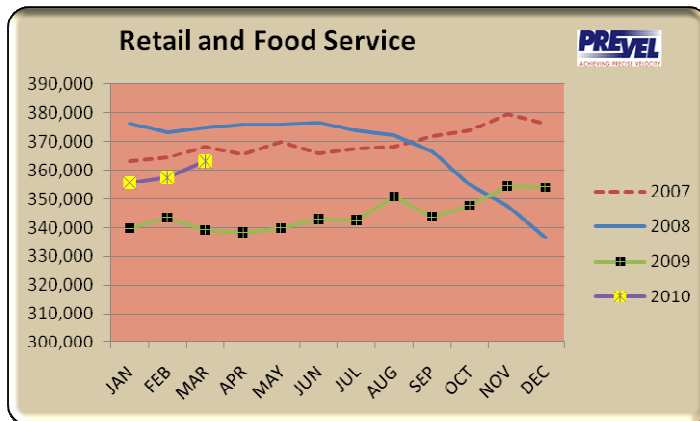
or to unbalanced inventory positions. This latter condition is common after severe cuts in inventory. Fast moving items can be adjusted by cutting orders and using up stocks. Slow moving items exist because (by definition) no one is buying them. It takes a long time to fix that problem.



Especially troubling is the upturn in WIP inventory (the red line). This is a common symptom of poor factory velocity, and is supportive of the earlier discussions on delivery performance. Companies using JIT, Kanban and Drum-Buffer-Rope techniques to manage supply and internal process flows are especially vulnerable to the

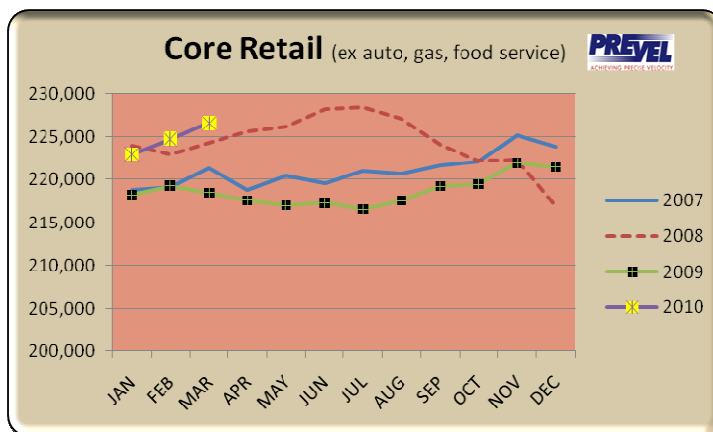
issues of supply chains in transition. All of these methods assume and require a stable production plan. They are unstable and counter-productive in transitions.

Dealing with the dynamics of today's real world requires an aggressive use of information technology coupled with business processes built on a similar set of assumptions. As can be inferred from the data, this combination is still too rare. Far too many companies continue to rely on the ERP technologies built on an accounting foundation, or simplified operating models of factory operations based on unrealistic assumptions.



Retail Sales and food service

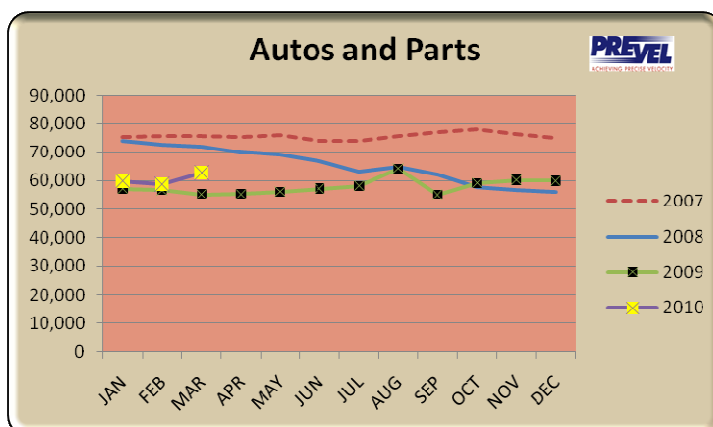
(March data) increased 1.5% from the prior month and 7.1% above prior year. Both core retail and autos made strong positive contributions to the retail sector.



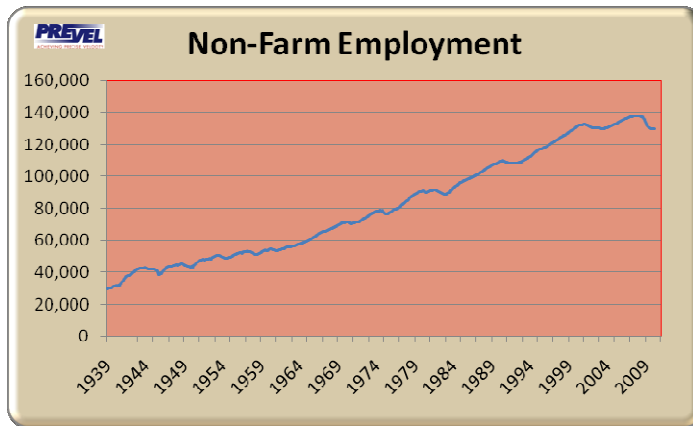
Core Retail was the primary contributor to March retail performance, up 0.8% over the prior month and 3.7% vs. prior year. This is the most solid signal that the current recovery is broad based increasing the probability that it is sustainable.

Autos and parts showed strong performance in March at 6.7% above the prior month and 13.5% above prior year. This is the strongest one-month performance from autos in

two years (excluding cash for clunkers.)

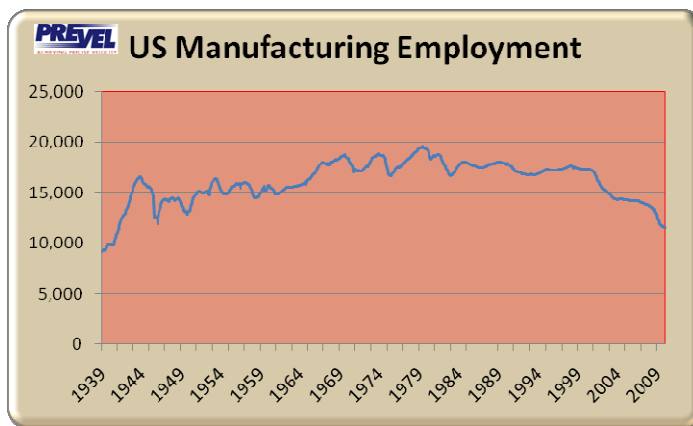


Gasoline sales remained stable (decline of 0.4%) and had no distorting effect on the retail numbers for March.



Employment (March Data): The March report showed a growth in total jobs of 162,000 with about 1/3 of these represented by the temporary census jobs. Under normal conditions workforce growth plus productivity improvements require about 250,000 to 400,000 jobs per month to break even, so high unemployment will be with us for a while.

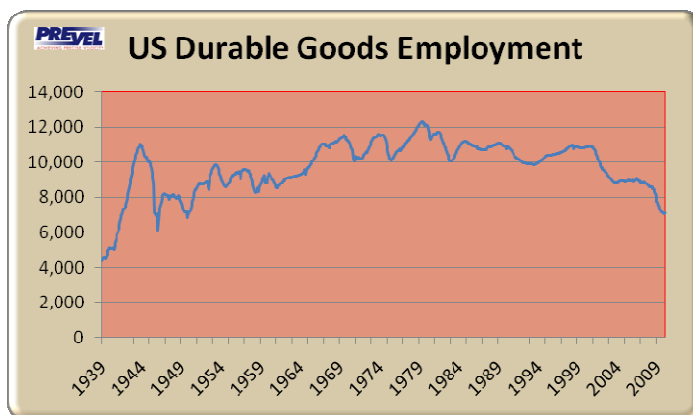
The manufacturing sectors also showed some job growth with total manufacturing adding 24,000 jobs on a base of 11.6 million jobs. Durable goods accounted for 21,000 of those jobs on a base of 7 million. This might signal that the surge in productivity



improvement has about run its course, and output can grow only by expanding the workforce. This is a small portion of the 1.5 million durable goods jobs lost during the recession, but at least it's in the right direction.

Note that both total manufacturing and durable manufacturing employment peaked in 1979 and has been in a slow decline since

that time. Critics of the manufacturing economy have argued that we are losing our manufacturing base and we should diversify into other "modern" industries. Unions especially have argued that we have exported our manufacturing jobs to low wage countries.



Both arguments are mythical.

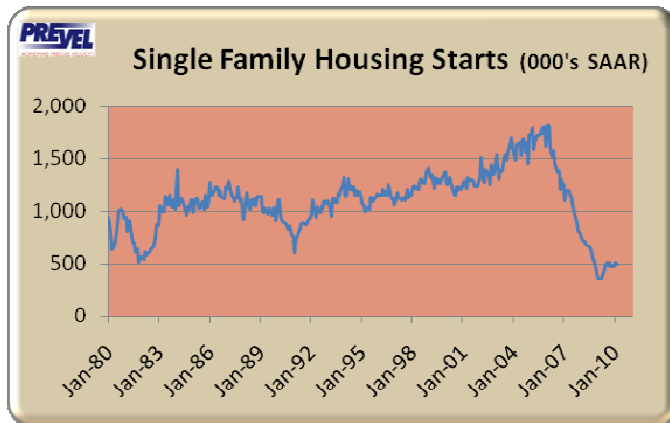
If you review the industrial production chart at the beginning of the report you'll discover that during the period of declining employment, industrial output increased. Note also that for almost a decade after the passage of NAFTA, durable goods employment surged in the

US, reversing a long trend and refuting the theory of the “great sucking sound” of US jobs moving to Mexico.

During the period after the Y2K recession the decline in jobs also reversed, but did not make up for the entire loss. The argument was that the jobs had moved to China. But the evidence for that is slim at best. During the eight year period of the study the manufacturing workforce in China declined by 15%, and the global manufacturing workforce declined by 31 million. So where did the jobs go? They went away. When output goes up and the workforce declines, it's called productivity. This is how the standard of living increases, and the industrial economies of the world have made a major contribution to reducing poverty worldwide. The complaint that third world workforces are paid less than their industrial economy counterparts is a false straw man argument. The option isn't between high wages and low wages. It's between low wages and automation.

And when unions use their monopoly position to gain higher wages and benefits, they have made it easier to justify the automation of that job. The same is true of mandated increases in health care benefits. The claim of improved wages and benefits made by unions are true as far as they go. But in the long run it's a chimera. You can't fool Mother Nature or the iron laws of economics. Trying to wring more financial benefits out of a labor negotiation is always self defeating in the long run.

The real benefits that unions contribute center on education & training, and an orderly supply mechanism for skilled labor. Unions focused primarily on these roles have made a positive contribution to the economy and to their membership.

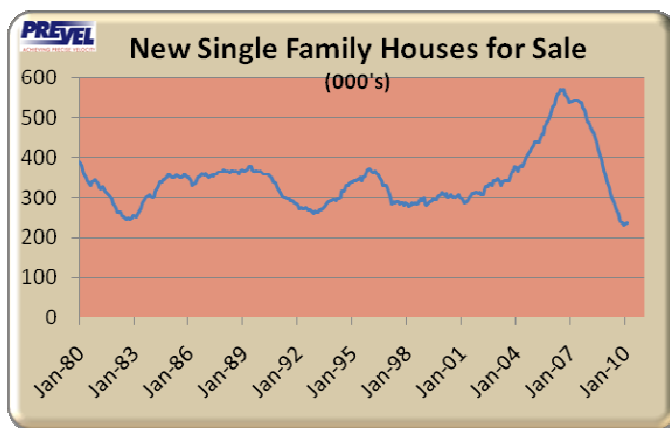


The housing industry remains on the sidelines with **Single Family Housing Starts** remaining flat in February.

This is probably a positive sign given the weather problems throughout most of the nation. The real question is how we can remain at such a low level of starts and still accommodate a “normal” level of household formations (about 1 million annually).

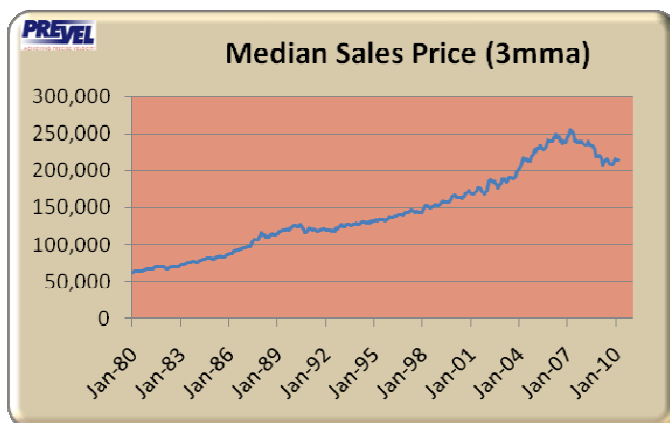
We’re beginning to suspect that some

of the estimating factors used by the Census Bureau are out of line with current reality. Since vacancy rates for existing units have not moved enough to explain the anomaly, the household formation data must be wrong. Are kids are just living at home longer?



The Inventory of Unsold New Homes

has stabilized after a three year decline. There is no longer any downward pressure on construction from excess inventory. But there is still no indication of a return to normal. The high unemployment rate is a factor in keeping many buyers on the sideline.



Median Sales Price remained stable in February. The pricing bubble has been worked out of the market with a few localized exceptions. Most regional markets are in equilibrium with time-to-sale at reasonable levels.

Health Care is now the law of the land. The best analysis is that it has not addressed any of the critical issues of interest to manufacturers. Pre existing conditions have been addressed by fiat, rather than with any structural reform. The reverse incentives blocking true cost reduction have been expanded. Tort reform is not included. Price controls will be expanded. Panels of bureaucrats will decide appropriate treatment. All the worst elements of the current system have been expanded with no means of introducing competition and innovation. This will not end well. The effects price controls and regulation will always be reduced quality, availability and increased price. But there are now calls from Congress to regulate the size of insurance premium increases. This will result in the insurance companies exiting the market.

The rush by manufacturing companies to determine the financial impact is more than an annoyance, it's the law. The first visible result is the write offs announced due to the changes in the drug programs. A total of about \$10 billion has been announced in accordance with GAAP accounting practices so far. Caterpillar was the first to announce a \$100 million special charge to first quarter earnings. Congress seemed to be shocked at this "inappropriate" behavior and immediately summoned the CEOs of a half dozen companies to explain themselves under oath. Is it possible that the House Finance Committee didn't actually read the bill? Oh, wait. Never mind. Silly question.

The effect of this legislation on the economy is instructive. The \$100 million charge to CAT earnings will result in the elimination of jobs or the elimination of benefits or both. There is no option to "take it from profits" without failing their fiduciary responsibilities to employees and shareholders. In the private sector you risk jail for that. Let's assume they choose to reduce jobs (Congress may block any attempt to cut benefits in order to "look out for the little guy"). There will be about 1,500 jobs eliminated at CAT, either through automation (higher cost employees make automation easier to justify) or through price increases that reduce demand. The direct CAT jobs are only a part of the story. The total impact in the supplier base combined with the impact on secondary spending in local communities will result in a total of about 12,000 jobs lost or not created. Expand this across the economy and we're watching the destruction of 500,000 to 1,000,000 jobs. We'll never know the exact number, since they are diffused throughout the economy and can't be isolated. But this is only the start.

This raises an interesting ethical question. At what point does a person become personally responsible for "unintended consequences"? The estimates of the total cost of health insurance legislation range from \$1 to \$6 trillion, with the \$2.5 trillion per decade number from the CATO Institute being the best documented and most credible. The economic impact of this bill was easily predicted. The claims of cost and deficit reduction were clearly political spin. Did congress really believe the spin? What happened to the legal principle of the "prudent man." A person is responsible when they knew, or when a prudent man in the exercise of due diligence should have known,

the probable outcome of their actions. Needless to say, Congress holds itself immune to the results of their actions.

Energy: The president announced last week the lifting of the ban on offshore drilling in some selected East Coast and Gulf locations. Bravo! But why not lift the ban for the West Coast or Alaska? Why not Utah or Colorado? Why not any of the other “federally protected” areas? The answer is clearly political and sadly irrational.

The Atlantic coastal waters will produce and deliver oil in about 5 years. The capped wells in the Santa Barbara Channel could produce oil in less than 9 months. Since those wells were capped, the pressure in the field has increased to the point that natural seepage now exceeds the worst condition in operation by an order of magnitude. So it can't be the environment that is the motivation.

As we discussed in more detail last month, the US has the greatest reserves of energy of any nation. We have seen decades of ill advised legislation, alternative energy initiatives (ethanol comes to mind), environmental lawsuits, and regulatory intervention block energy industry development of these critical resources. A fair (but impractical) approach would be to prevent interstate transfer of energy to states that refuse to develop their own resources. The only real (but also impractical) alternative is to get the government out of the energy business entirely. Free markets could solve this problem in months. And those who dislike the effects of exploiting these resources are free to boycott their use.

Natural gas is the only energy source that seems to be responding to market forces. Prices are declining in response to increased supply. Let's hope the Feds don't find out and tax it backwards.

If you plan to build or relocate a plant, energy supply must be at the top of the issues list. Find out the details of the state level energy policy. If it's based on the investment in and development of “alternative” or “green” energy, you should seriously consider other locations. The local officials may also believe in unicorns.

Cap and Trade and the Environment: There is a general impression that cap and trade legislation is dead. That view is too optimistic. The presumption is based on the exposure of the “climate crisis” as a false and probably fraudulent hoax. In recent discussions about the coming debt crisis, Paul Volker talked about the need to raise taxes through either a value added tax (VAT) or a carbon tax. These tax sources allow control of a stream of revenue to conceal a large and broad based tax increase. A carbon tax is absolutely universal. At least the real agenda is now on the table. Cap and trade was never really about the environment.

Those who favor these modes of taxation argue for the fairness of taxes that are imbedded in the fabric of all economic activity. The argument would be more convincing if it replaced another tax. The Volker proposals would be additive. Unfortunately the economy can't tell that the additional tax was fair, or that you only taxed the rich. The economy only knows that money has been removed from the productive economy and delivered to government which is inherently unproductive and usually counterproductive. The government creates neither wealth nor jobs. It often is directly responsible for the destruction of wealth and jobs. The trouble with the current recovery is that the combination of debt and tax burden on the US economy is far too high. And we are now faced with politicians and bureaucrats intent on increasing it. Forget about the debate on how to raise the money. The level of government spending, debt, and unfunded liabilities is too high regardless of how you raise the revenue to pay for it.

The unfortunate fact is that the environmental movement has as its primary goal, infrequently admitted, the elimination of industrial society and the return of man to a more pristine state. I suppose a return to a 40 year lifespan is also viewed as positive. The curiosity is that the movement is funded by some very wealthy individuals that you would think must be smarter. George Soros is a prime example. His one dimensional arguments favor the central planning and control that he escaped as a child in Eastern Europe. Unfortunately the reality of the world is more complex. More proof that financial success is as much luck as skill.

About Prevel and The Durable Goods Report

Prevel Technology delivers business process transformation, measurement strategies, and information tools in support of high performance organizations. Our focus is on manufacturing and telecom, and through our business partners we support health care and other demanding business environments.

The goal of the Prevel 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 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 CEO 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. 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.

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.



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