The Durable Goods Report

December 2011

Executive Summary of the US Economy

Manufacturing Data Release of 12/5/2011 (October Preliminary)

Employment Data Release of 12/2/2011 (November Preliminary)

Retail Data Release of 11/14/2011 (October Advanced)

Industrial Production Data Release of 11/15/2011 (October Advanced)

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

John E. Layden

By the Numbers

Durable Goods Key Measures			
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	198,540	199,462	196,225
12 month moving average	196,887		190,477
% Change from Prior Year	3.4%		
Growth Index - Durable New Ord	1.016	1.023	1.036
Unshipped Orders - Durable	885,934	884,132	822,064
% Change from Prior Year	7.8%		
Value of Shipments - Durable	203,949	200,700	196,626
12 month moving average	198,701		194,875
% Change from Prior Year	2.0%		
Growth Index - Durable Shipmts	1.017	1.016	1.015
Inventory - Durables	366,935	365,314	317,215
% Change from Prior Year	15.7%		
Inv to shipments ratio - Durable	1.80	1.82	1.61
US Economy Key Measures			
	This period	Last period	Change
GDP Q3	15,180.9	15,012.8	1.1%
Industrial Production Oct Data	2,573.7	2,562.5	0.4%
Capacity Utilization % Sept Data	77.8	77.3	0.5
Manufacturing %	75.9	75.6	0.3
Durable Goods %	74.6	74.2	0.4
Primary Metals %	73.5	73.3	0.2
Autos and Parts %	66.8	65.0	1.9
Machinery %	79.3	79.9	(0.6)
Durable Goods ($Mil SA) Oct Data			
New orders	198,540	199,462	-0.5%
Shipments	203,949	200,700	1.6%
Inventory	366,935	365,314	0.4%
Unshipped Orders	885,934	884,132	0.2%
Retail ex Food Srv ($Mil SA) Oct Data	355,840	353,863	0.6%
Autos and Parts	69,397	69,135	0.4%
Gasoline	45,105	45,288	-0.4%
Core retail (ex auto, gas)	241,338	239,440	0.8%
Groceries	99,107	98,033	1.1%
Employment (000's SA) Nov Data			
Civilian employed (Household Survey)	140,580	140,302	278
Civilian not employed (HS)	99,861	99,967	-106
Non-Farm (Establishment Survey)	131,708	131,588	120
Private (ES)	109,719	109,579	140
Government (fed, state, local) (ES)	21,989	22,009	-20
Goods Producing (ES)	18,101	18,107	-6
Manufacturing (ES)	11,764	11,762	2
Construction (ES)	5,522	5,534	-12
Durable Goods Mfg (ES)	7,337	7,327	10
Housing (000s of Units SA) Oct Data			
Total housing starts	628	630	-0.3%
Single family starts	430	414	3.9%
Single family sales (new)	307	303	1.3%
Single family for sale (new)	162	163	-0.6%

US Economy:

GDP

Q3 GDP growth was revised downward. Revised value of $15.18 billion is 1.1% above revised Q2 and 3.9% above the prior year.

Industrial Production

Industrial production increased 0.4% in October and is now 4.5% above the same period last year.

Retail:

Retail sales increased 0.6% in October to a record $355.8 billion.

Employment:

The survey of employers showed an increase of 120,000 jobs in November. The household survey showed stronger results for a fourth month, with total employed increasing by 278,000 in the month and total not employed declined by 106,000.

Durable goods employment increased by 11,000 to 7.34 million, still well below the peak of 9 million in April of 2006.

Durable Goods:

Durable goods new orders decreased by 0.5% to 198.5 billion in October. Inventory positions have stabilized, but at high levels relative to sales.

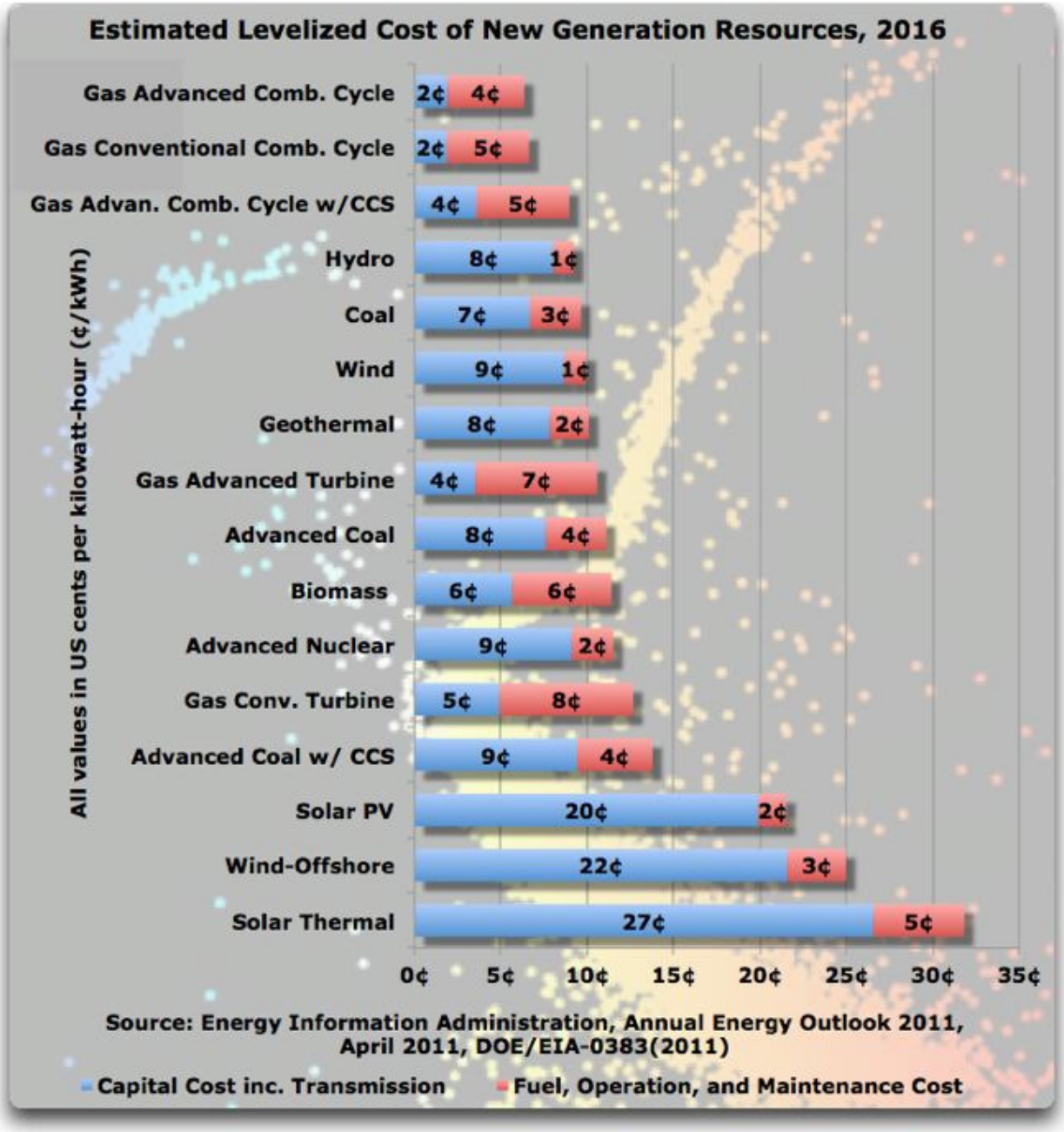
Housing

No relief for new housing construction. Single family starts increased by 3.9% 430,000 and sales increased 1.3% 307,000 in October. Inventories remain at record lows. Overall the housing industry remains at half throttle.

Random Thoughts:

- Esquire explains economic collapse and doesn't include all that confusing math: "Free money makes you stupid." http://www.esquire.com/features/green/features-why-is-our-economy-in-a-recession-1208
- CNBC: Chinese factories battled with their weakest activity in 32 months in November, according to the preliminary purchasing managers' survey, reviving worries that China may be skidding toward an economic hard landing and compounding global recession fears.
- It's been four years since we first questioned the structure of Chinese growth. The challenge has been to understand how national wealth can be generated by investing in infrastructure that is already over-built. The red flags include housing and entire cities with no people, and rail capacity without passengers. Most dramatic has been the measure of consumer demand at 30% of the total GDP, the lowest of any industrial nation. Now it appears the answer is dawning on the Chinese leadership. They've begun to raise interest rates and even to question the wisdom of their heavy investment in electric cars and solar energy. Maybe free money doesn't make you permanently stupid.
- Could it be that the czars in the administration were really trying to head-fake the Chinese into investing in wind, solar and electric cars to drag their economy down? Hmmmm. Nah. They really believe the green energy tripe.
- Something we've reported since the first issue of the DGR is now echoed by the Bulletin of Atomic Scientists: "None of our current energy technologies are truly renewable, at least not in the way they are currently being deployed. We haven't discovered *any* form of energy that is completely clean and recyclable, and the notion that such an energy source can ever be found is a mirage." I blame the well-documented shortage of unicorn poop.
- Reuters: Google drops projects to develop green renewable energy. (Maybe they googled a few engineering terms and discovered that 1) there is no such thing, and 2) there is no need for it).
- This timeline on the federal spending crisis shows the deeply rooted reluctance to cut government spending by just about everyone. http://www.powerlineblog.com/archives/2011/11/the-supercommittees-failure-what-really-happened.php
- The following chart shows the futile economic (capital cost / operating cost) position of solar energy. Keep in mind that the majority of possible efficiency improvements are already in place. The chart would seem to hold out hope for wind power (at least land based). But these numbers are wrong. Both land and offshore wind sources assume 34% nameplate capacity utilization. A realistic number might be 20%, but some EU projects are delivering as low as 4%.

Furthermore the capital cost does not consider the need for backup conventional capacity since the wind doesn't blow on the hottest and coldest days (peak electrical demand). The $0.09 capital component for wind (blue) is probably in the range of $0.20 to $0.40. Higher for offshore.



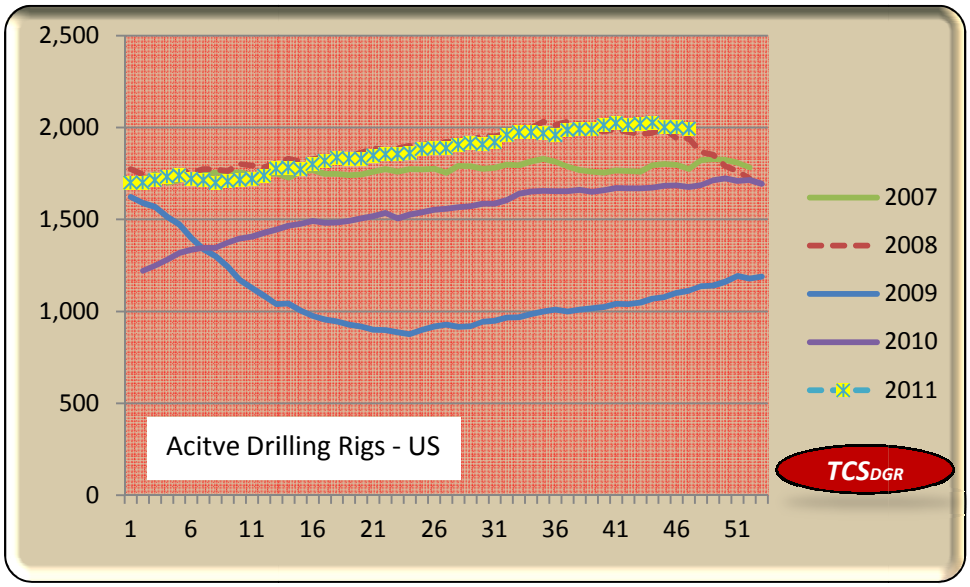
- Climate Gate II: Another 5,000 emails from the Climate Research Unit at East Anglia University have been delivered. They offer more proof of the corruption of the scientific process. It includes destruction of records to avoid public disclosure, cover-up of the fact that the hockey stick temperature graph was

known from the beginning to be false, attempts to get counter arguments buried, and even get skeptics fired. The entire history is an embarrassment to all of science and to climate science in particular. It is so profound that it should be an embarrassment to all academia. It remains to be seen if it will have any impact.

- The US has become a net exporter of gasoline and other liquid petroleum products for the first time in 62 years. Unfortunately the feed stock to US refineries is still the OPEC-manipulated crude oil at $100 per barrel.
- The efficiency of US refineries is responsible for the surge in exports. Many countries are contracting refinery operations to the US.

Energy:

Drilling activity in the US continues to match the record pace of 2008, despite recent slight declines. The US progress in developing domestic energy resources has been impressive. But the overall picture is less bright.



Defenders of the delayed decision on the Keystone pipeline claim that the competing project to Canada's West Coast (Chinese customer) would take longer to build, so there is no real threat. That's position doesn't hold water. The issue is the contract, not the means of transport. The Canadian Pacific Railroad can provide transport immediately on signing a deal with the Chinese. The pipeline can follow. That's what's currently happening with the Baaken oil going to the Gulf state refineries. It's being delivered by rail. BTW: the key beneficiary of the decision delay is Warren Buffett, owner of the Burlington Northern Railroad and key Obama supporter.

Employment:

Note: The Bureau of Labor Statistics conducts two surveys on employment. The first is the Establishment Survey of Payroll Employment. The second is the Household Survey or Population Survey. The Payroll survey collects data from large employers and is the basis of the job growth press release. The Household survey is a very large sample of the entire population and is the basis for the unemployment rate press release. The Durable Goods Report places primary emphasis on the Household Survey as the most accurate picture. Industry employment breakdowns come from the Establishment Survey.

The unemployment rate is now officially irrelevant. In November it dropped from 9.0 to 8.6%. But 80% of the decline was accounted for by 315,000 people dropping out of the workforce.

The Establishment Survey reports a gain of 120,000 jobs in October. Durable goods employment increased by 11,000. Government employment declined by 24,000.

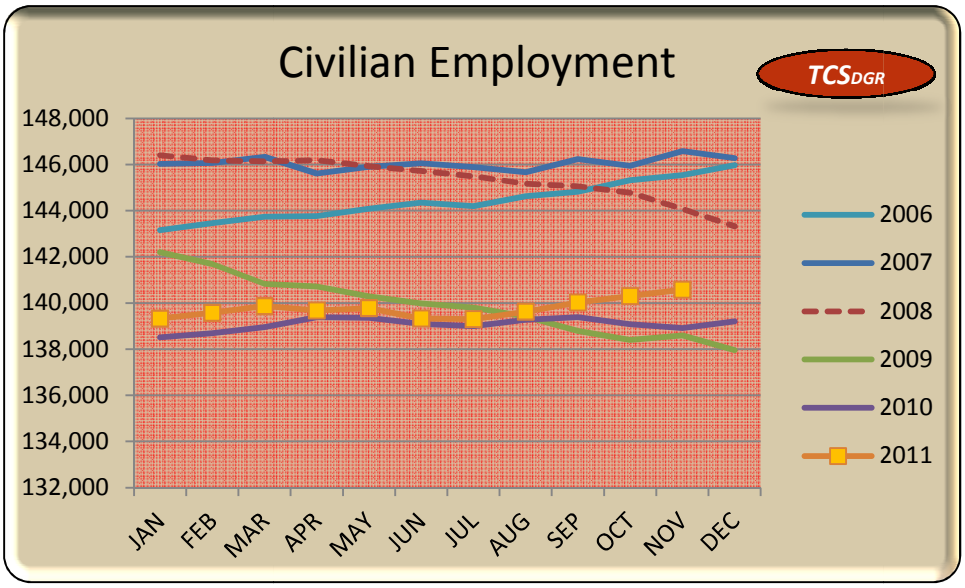
For the fourth month the household survey has shown more positive news than the employer survey (quoted in most published reports). The number employed increased by 278,000 against the increase in the employable population of 172,000. This resulted in a decrease in those not employed of 106,000. (second table below).

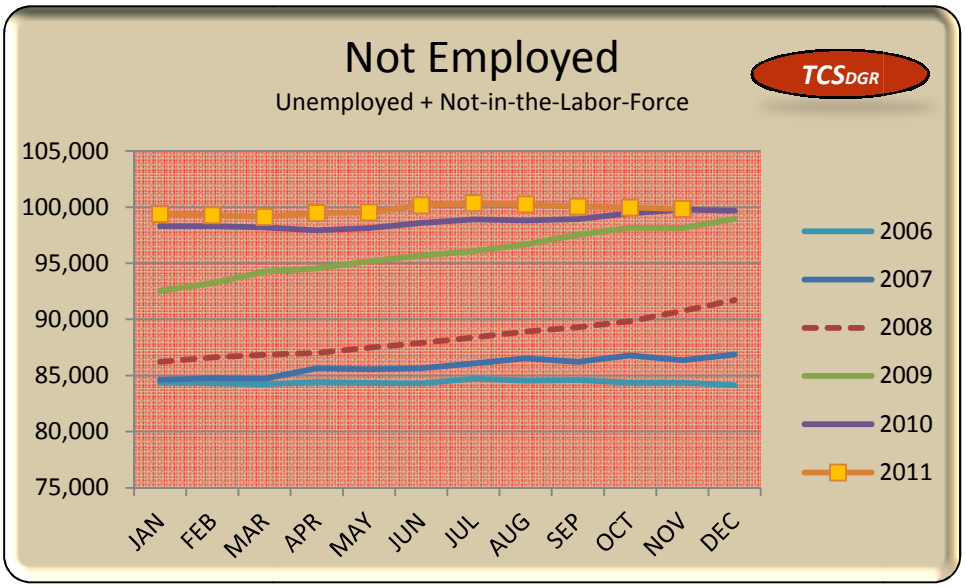
The important measure is the number not employed. We currently need to find work for 15 million people to get back to 2007 levels. Last month we had a net improvement of 106,000 and at this rate it will take more than 11 years to get there. If measured in terms of % of population, the 0.1% improvement in November signals 60 months to get back to 2007 levels. We can't afford to wait that long. The stark reality of the employment situation is shown in the "Not Employed" chart below.

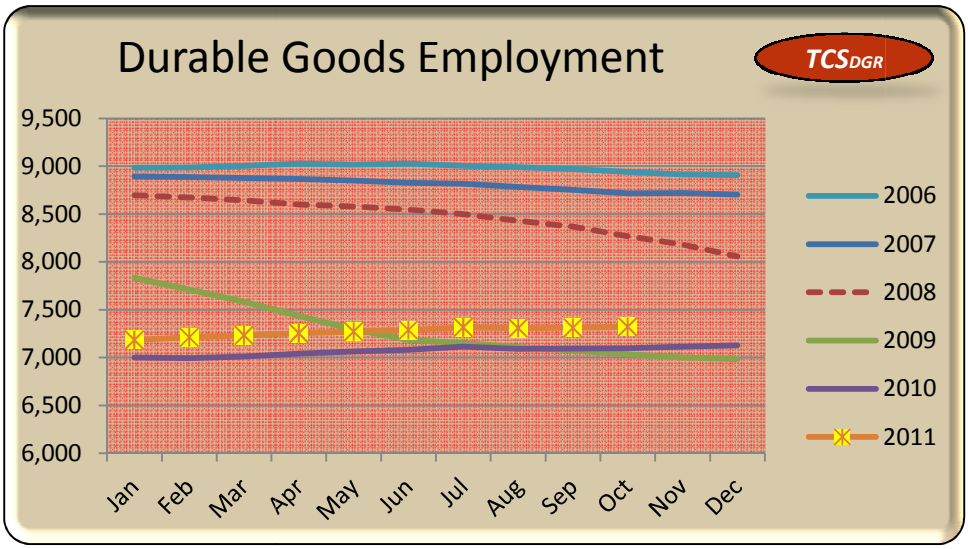
November (000's)	This Month	3 Months Ago	12 Months ago	Jan-07
Employed	140,580	139,627	138,909	146,066
Not Employed	99,861	100,244	99,806	84,768
Total Pop	240,441	239,871	238,715	238,851
Total non-institutional population over 16				

Change in Number (000's)	vs. Prior month	From 3 Months Ago	From 12 Months Ago	From 1/1/2007
Employed	278	953	1,671	(5,486)
Not Employed	(106)	(383)	55	15,093
Total Pop	172	570	1,726	1,590

% of Population	This Month	3 Months Ago	12 Months ago	Jan-07
Employed	58.5%	58.2%	58.2%	61.2%
Not Employed	41.5%	41.8%	41.8%	35.5%







Durable goods employment increased 11,000 and is barely positive for the year. The total employment of 7.3 million is 1.7 million below the peak in late 2006 (shortly after the election of that year which handed control of House Ways and Means Committee to Charley Rangel).

Sector Detail

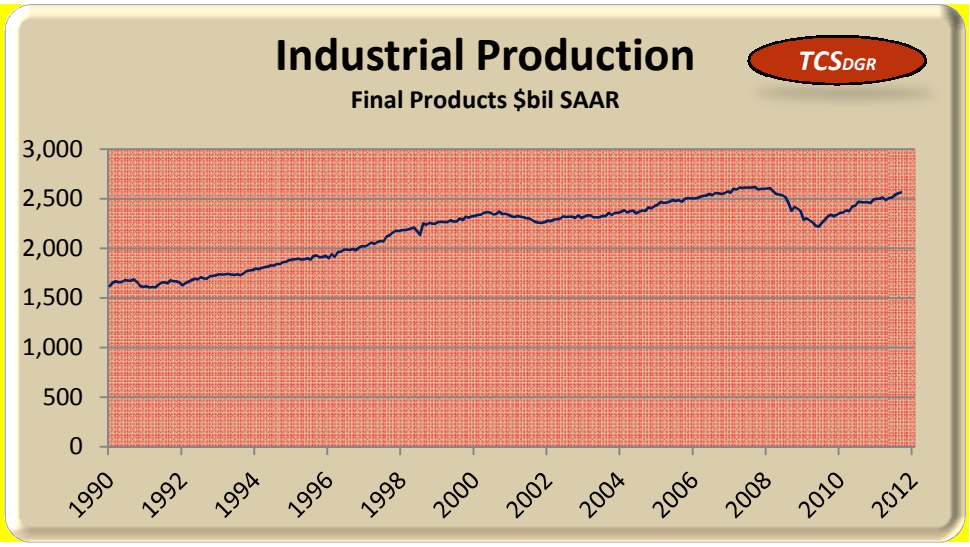
GDP: US GDP 2011Q3 growth rate was reported at 2.0% SAAR (1.1% Q/Q, 3.9% Y/Y). This compares to 1% SAAR for Q2 and 0.4% SAAR for Q1.

Gross Domestic Product				
Year	Qtr	GDP $b (SAAR)	Chg from Prior Pd	Chg from Prior Year
2008	1	14,273.9	-0.1%	3.5%
2008	2	14,415.5	1.0%	2.9%
2008	3	14,395.1	-0.1%	1.7%
2008	4	14,081.7	-2.2%	-1.5%
2009	1	13,893.7	-1.3%	-2.7%
2009	2	13,854.1	-0.3%	-3.9%
2009	3	13,920.5	0.5%	-3.3%
2009	4	14,087.4	1.2%	0.0%
2010	1	14,277.9	1.4%	2.8%
2010	2	14,467.8	1.3%	4.4%
2010	3	14,605.5	1.0%	4.9%
2010	4	14,755.0	1.0%	4.7%
2011	1	14,867.8	0.8%	4.1%
2011	2	15,012.8	1.0%	3.8%
2011	3	15,180.9	1.1%	3.9%

The modest growth, partly generated by inflation, leaves the economy vulnerable to an upset in Europe or China. It seems clear that one or both of these events is going to occur.

Industrial Production (excluding industrial supplies like energy) increased by 0.4% in October. We are now 4.5% above the same period last year.

Industrial Production - final products $b SAAR				
Year	Mo	Ind Prod - Value of Prod	Chg from Prior Pd	Chg from Prior Year
2010	1	2359.3	0.8%	3.2%
2010	2	2361.5	0.1%	2.5%
2010	3	2383.6	0.9%	4.5%
2010	4	2374.4	-0.4%	4.9%
2010	5	2422.8	2.0%	8.8%
2010	6	2428.2	0.2%	9.4%
2010	7	2470.9	1.8%	9.4%
2010	8	2464.9	-0.2%	7.8%
2010	9	2465.2	0.0%	6.0%
2010	10	2463.7	-0.1%	5.4%
2010	11	2459.5	-0.2%	5.8%
2010	12	2493.1	1.4%	6.6%
2011	1	2499.7	0.3%	5.9%
2011	2	2501.2	0.1%	5.9%
2011	3	2512.6	0.5%	5.4%
2011	4	2486.6	-1.0%	4.7%
2011	5	2508.6	0.9%	3.5%
2011	6	2515.4	0.3%	3.6%
2011	7	2542.5	1.1%	2.9%
2011	8	2559.4	0.7%	3.8%
2011	9	2562.5	0.1%	3.9%
2011	10	2573.7	0.4%	4.5%



Despite two years of recovery this important measure remains well below the late 2006 peak.

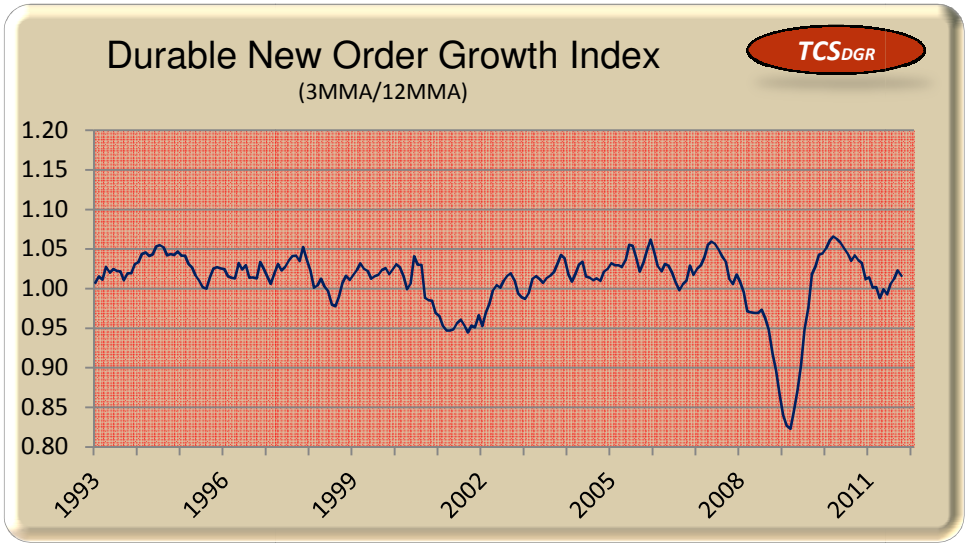
Capacity Utilization (October data): Capacity utilization for industrial production increased 0.5% in October to 77.8%. The strongest sector was autos, up 1.8%. A significant part of the improvement has come from the GM "channel stuffing" that puts cars on dealer lots regardless of demand. This takes us back to the 2000 and 2006 positions just ahead of a major downturn.

Machinery has begun the anticipated fade as the approaching year end brings the investment tax credit program to a close.

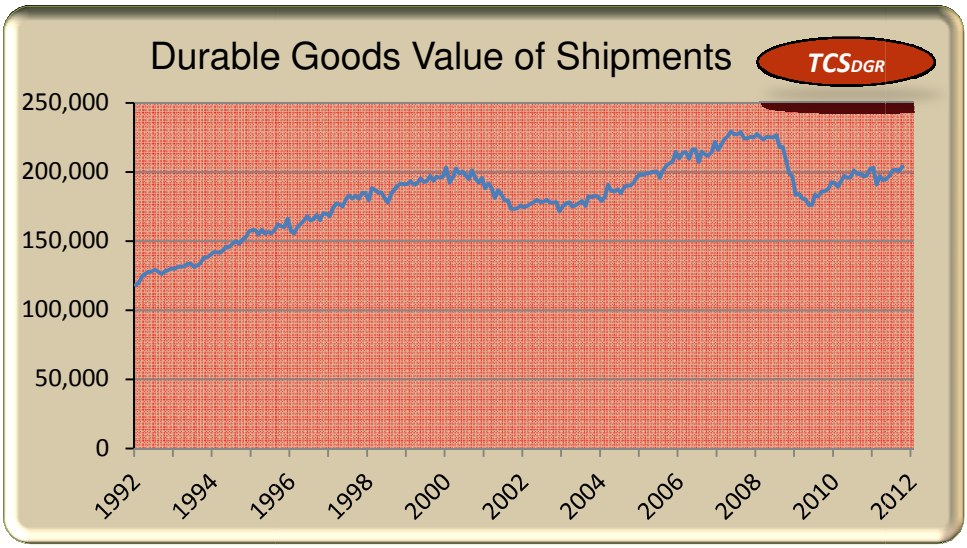
Capacity Utilization %							
Year	Month	Ind Prod	Mfg	Durable	Primary Metals	Auto	Mach-inery
2009	1	71.3	67.0	64.4	53.3	35.8	71.3
2009	2	70.7	67.0	63.9	50.1	40.3	69.8
2009	3	69.6	66.0	62.6	48.0	41.3	66.1
2009	4	69.0	65.7	62.2	47.5	41.8	64.4
2009	5	68.3	65.3	61.2	46.8	37.9	62.7
2009	6	68.2	65.2	61.0	48.3	36.7	61.1
2009	7	69.1	66.5	63.2	53.3	46.6	61.2
2009	8	70.0	67.5	64.3	56.6	49.3	62.4
2009	9	70.5	68.1	65.1	58.7	54.0	61.4
2009	10	70.7	68.2	65.1	59.4	53.6	63.0
2009	11	71.1	68.9	65.8	62.9	55.3	62.3
2009	12	71.6	69.1	65.9	65.5	55.8	65.0
2010	1	71.9	69.0	64.7	65.0	57.1	64.8
2010	2	72.2	69.3	64.9	66.5	55.9	65.3
2010	3	72.8	70.1	66.0	68.8	57.7	65.6
2010	4	73.2	70.9	67.0	68.2	57.2	68.1
2010	5	74.3	71.8	68.3	68.8	60.7	69.8
2010	6	74.5	71.9	68.4	68.7	60.1	70.9
2010	7	75.3	72.6	69.6	66.3	65.7	71.0
2010	8	75.5	72.8	69.4	66.4	61.6	71.1
2010	9	75.7	73.0	69.7	66.9	62.3	71.5
2010	10	75.7	73.3	70.2	66.5	62.8	72.7
2010	11	75.8	73.4	70.5	68.4	60.5	73.8
2010	12	76.8	74.2	71.1	71.2	60.7	76.1
2011	1	76.9	74.7	72.3	72.3	63.0	79.0
2011	2	76.5	74.8	72.8	71.5	65.2	78.8
2011	3	77.0	75.3	73.3	73.4	67.1	78.0
2011	4	76.6	74.8	72.6	73.0	62.5	77.5
2011	5	76.7	74.9	73.0	72.4	62.1	78.7
2011	6	76.7	74.9	72.9	71.2	61.4	79.9
2011	7	77.5	75.4	73.6	72.3	64.0	79.9
2011	8	77.4	75.5	74.0	73.4	64.8	79.4
2011	9	77.3	75.6	74.2	73.3	65.0	79.8
2011	10	77.8	75.9	74.6	73.5	66.8	79.3

The Durable Goods Sector (Oct Data):

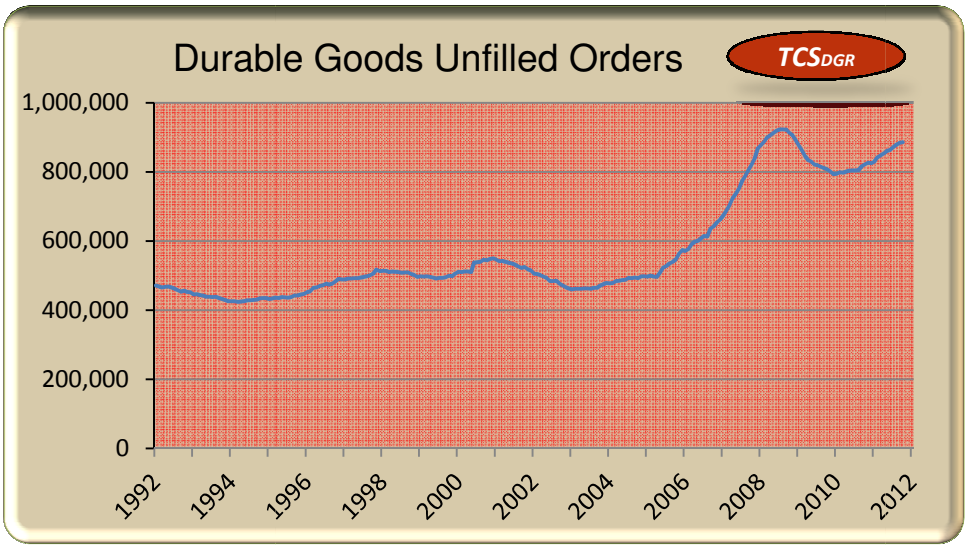
New Orders: Durable new orders decreased by 0.5% to $198.5 billion. The new order growth index slipped to 1.016. Prior month revisions now show a stalled growth pattern.



Shipments increased 1.6% to $203.9 billion. Book to bill ratio slipped to 0.97.



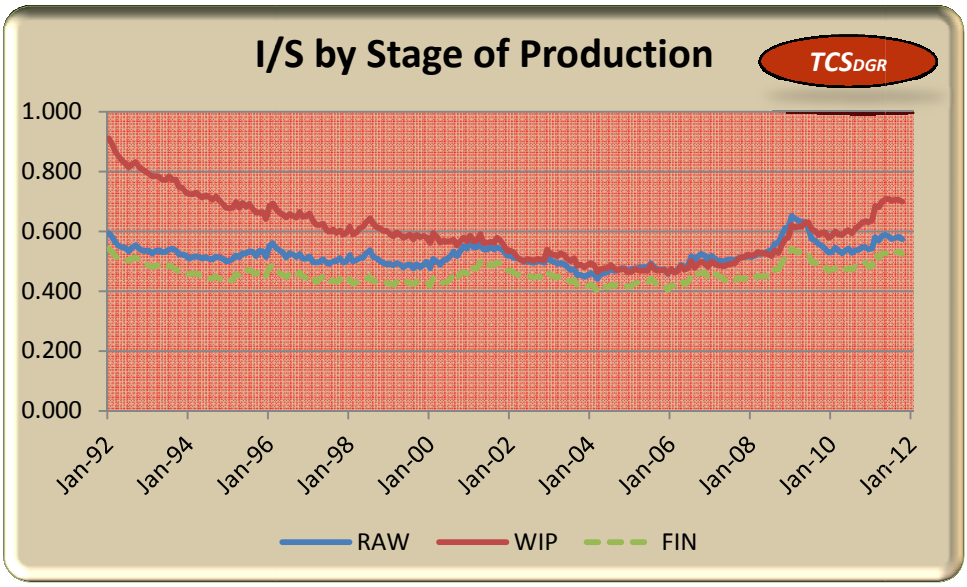
Unfilled Orders increased by 0.2% to $885.9 billion and continue at relatively high levels. This represents 6.1 months average lead time.



Inventory positions stabilized, but at high levels relative to shipmenst. Total inventory increased by 0.4% to $366.9 billion. Inventory to shipments ratios declined slightly to 1.80. This level approximately matches the position at the height of the collapse into recession in 2009.

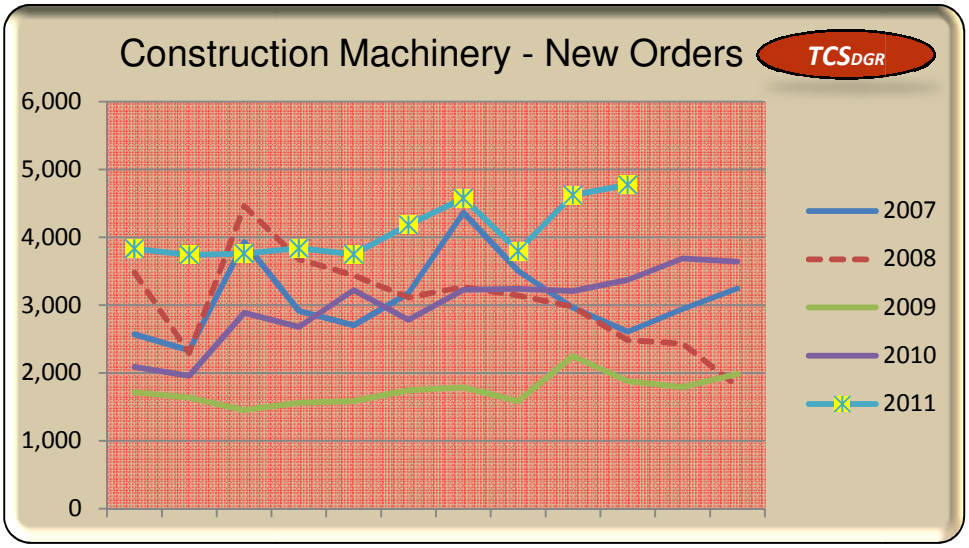
The biggest surge is in WIP inventory suggesting a broad based loss of factory velocity. Supply chains remained relatively stable in October which leaves a possible shift in mix

from high velocity products (vacuum cleaners) to low velocity products (aircraft) as a possible explanation. The feared upset from floods in Thailand seem to be modest.

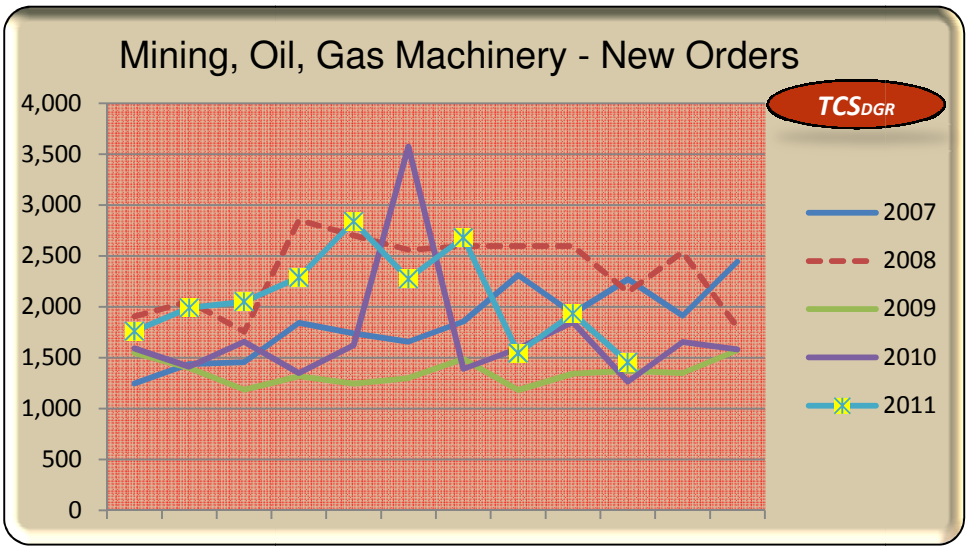


Key durable goods sub sectors:

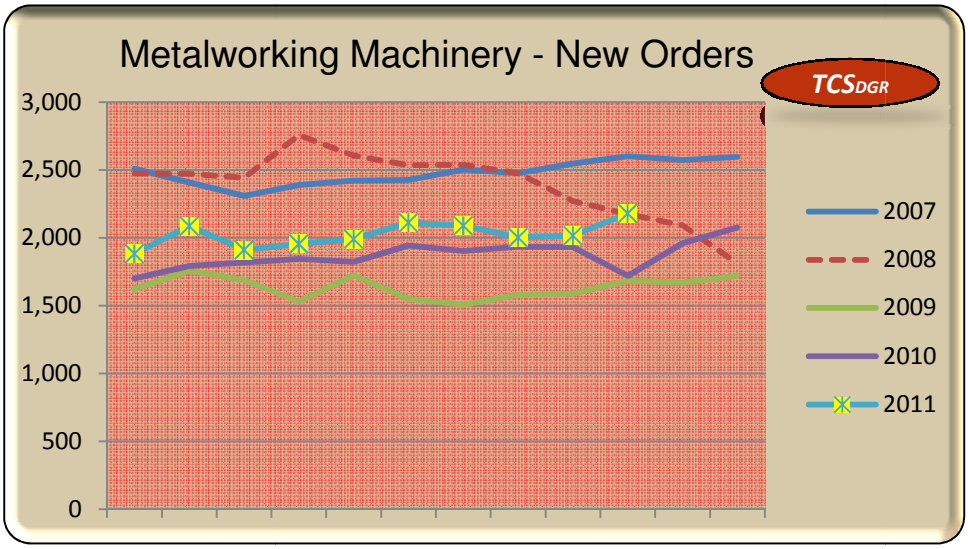
Construction machinery new orders increased 3.2% to a record $4.8 billion. Book to Bill ratio jumped to a strong 1.13 (long term average 1.02). Unfilled orders increased 5.4% to $10.7 billion.



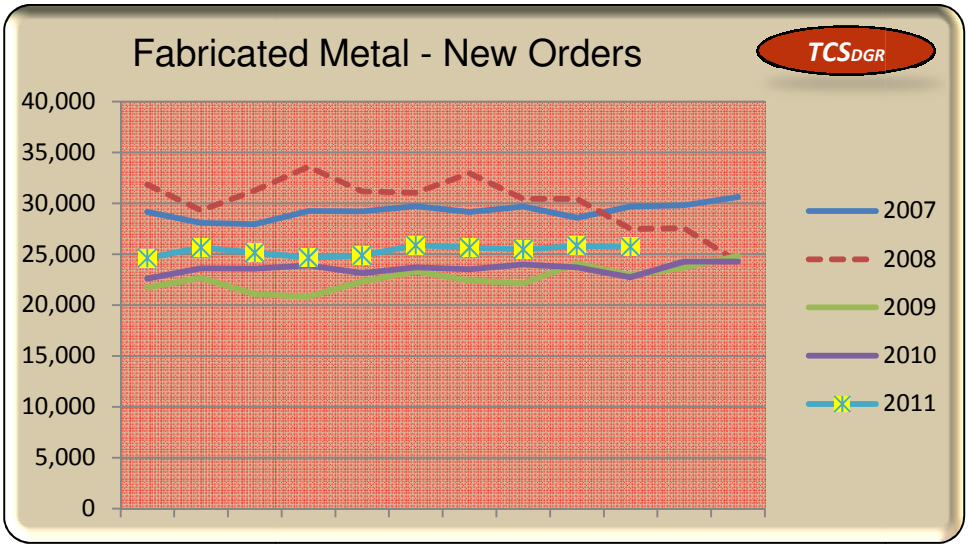
Mining, oil and gas machinery new orders faded 25% to $1.46 billion. Book to bill ratio decreased to 0.9 (long term average = 1.03). Unfilled orders decreased 1.2% to $13.0 billion.



Metalworking machinery orders increased by 8% to $2.2 billion. Book to bill ratio increased to 1.05 (long term average = 1.00).

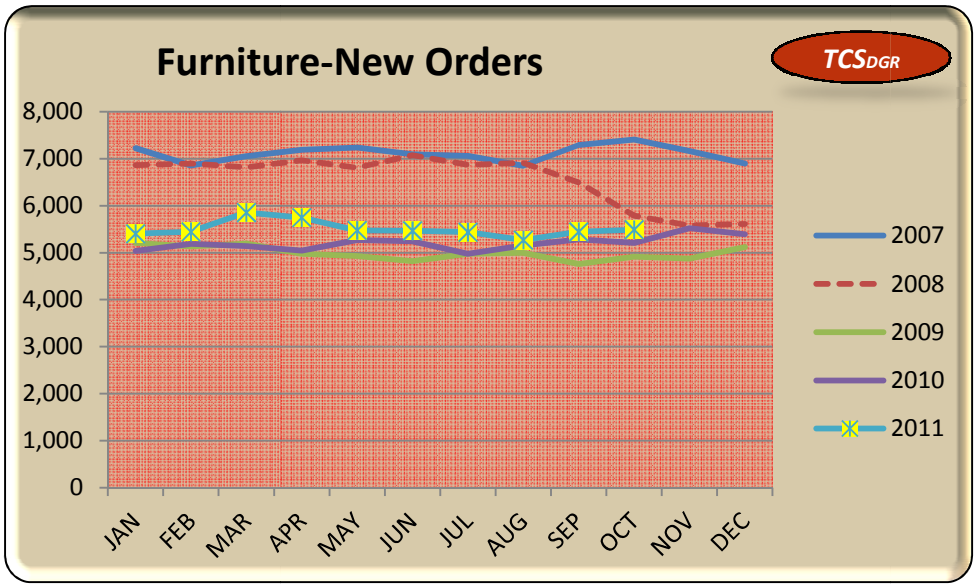


Fabricated metal new orders decreased 1.4% to $25.7 billion. Book to bill ratio is slightly positive at 1.02 (long term average = 1.00).



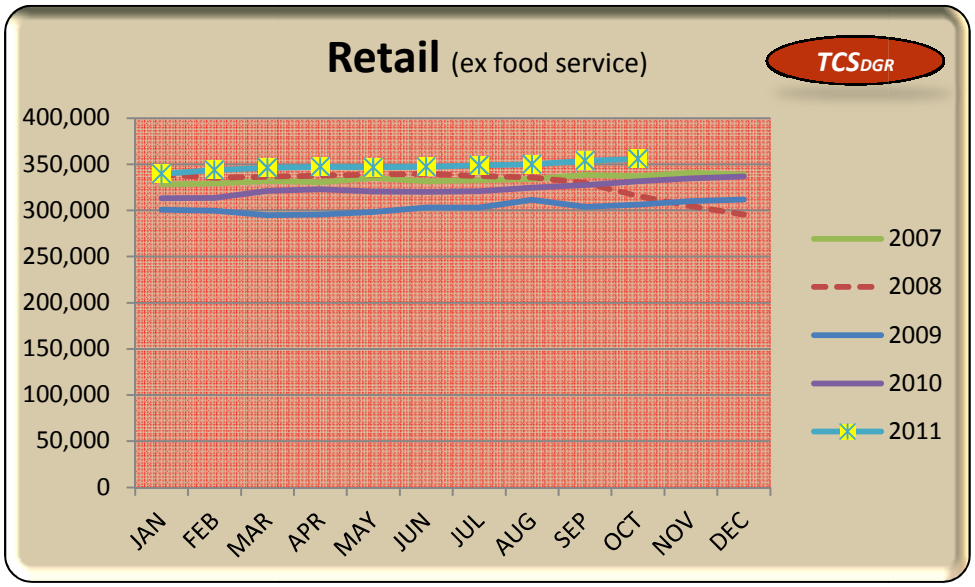
Capital goods decreased by 5.5% to $79.2 billion. Book to bill ratio is neutral at 1.09 (long term average = 1.01). The pending end of the investment tax credit is showing in a decline of new orders.

Furniture: New orders increased 0.8% to $5.5 billion. The Growth index remained at 0.98 and suggests weak near term performance.

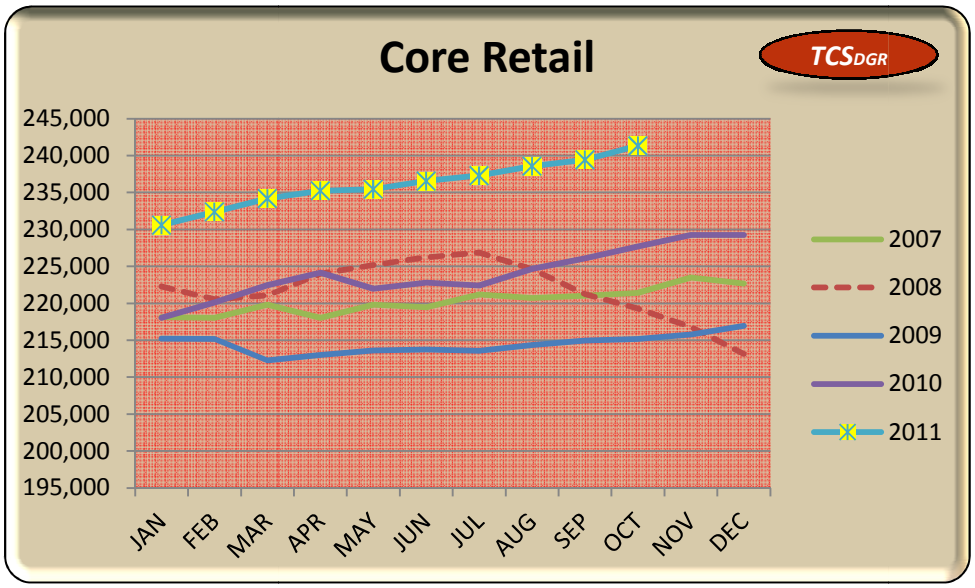


Retail Data (Oct Advanced Release)

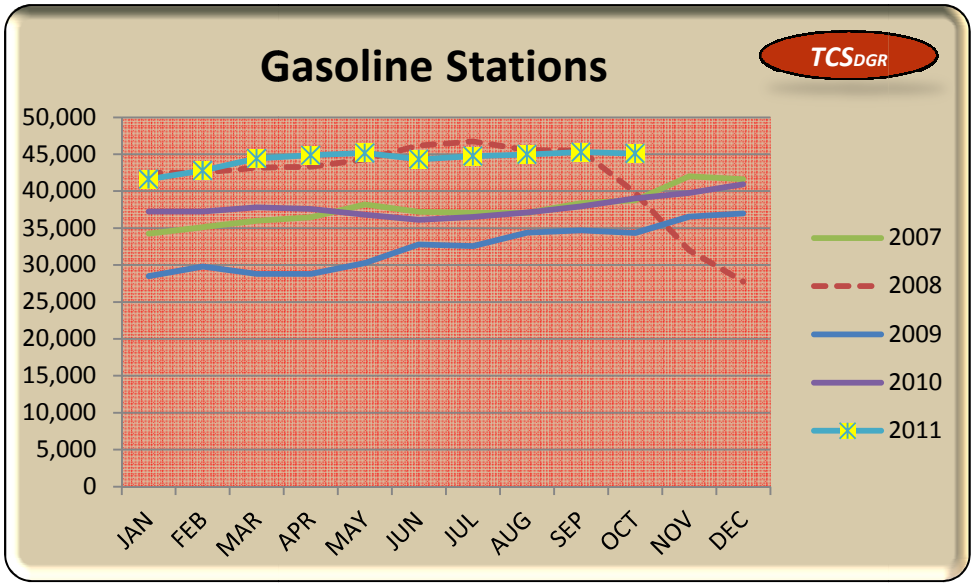
Retail Sales (excluding food service) increased 1.1% to $355.8 billion in October, another new record. Retail sales remain strong by any measure, even after an inflation adjustment.



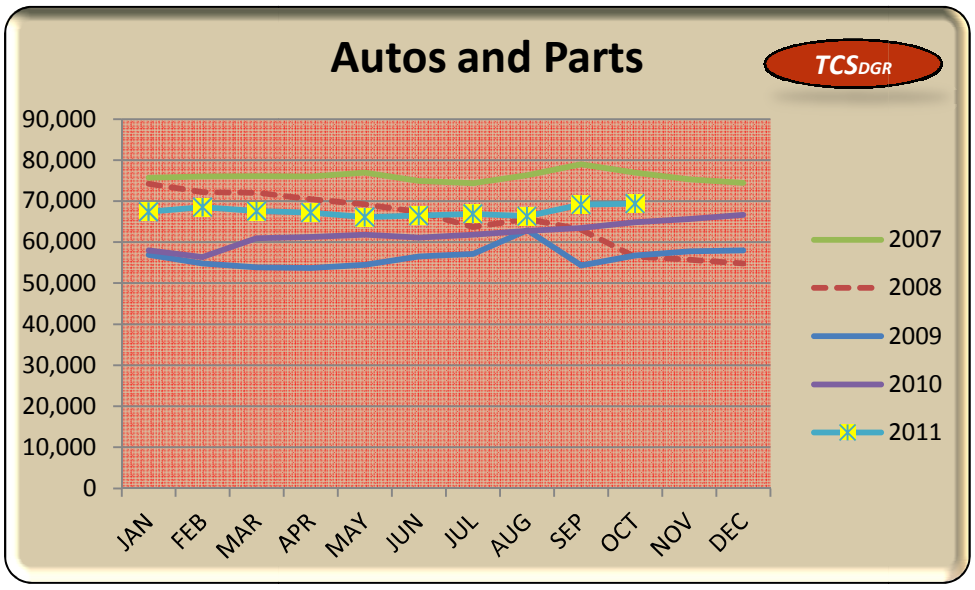
Core retail (excludes food service, gasoline, autos and parts) increased 0.4% to $241.3 billion. The series of records in this measure is tempered by the resurgence of a major inflation component. See Groceries chart for a better reading of this element.



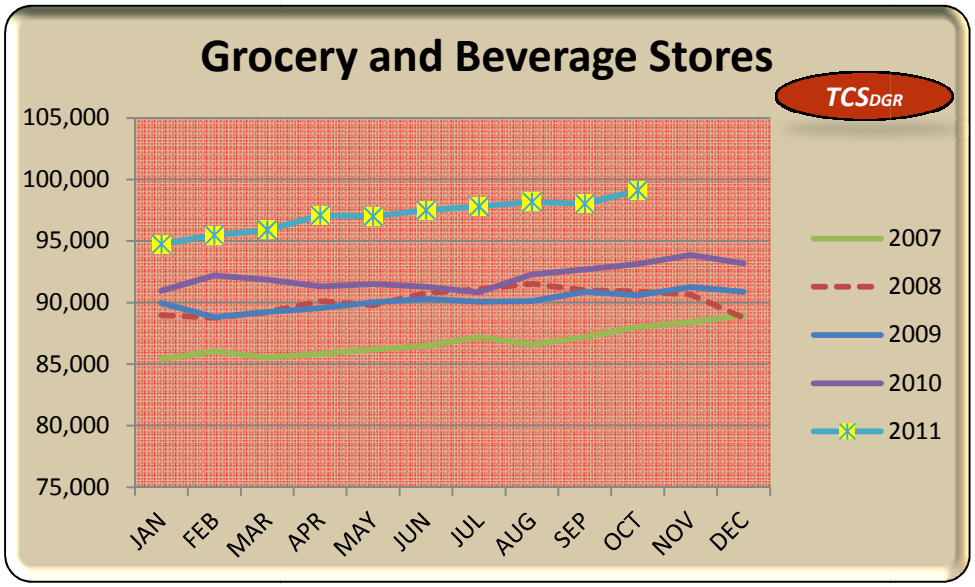
Gasoline sales increased 0.7% in October to $45.1 billion. Stable or declining prices mean this is almost all related to increased unit volume. Retail (and the entire economy) would clearly benefit from less diversion of money to gas, but at least it isn't dragging the sector further down.



Auto sales increased of 0.4% to $69.4 billion in October and now stand 7% above last year. While auto capacity utilization shows impressive improvement, sales growth is modest. This is further evidence of the channel stuffing strategy of GM.



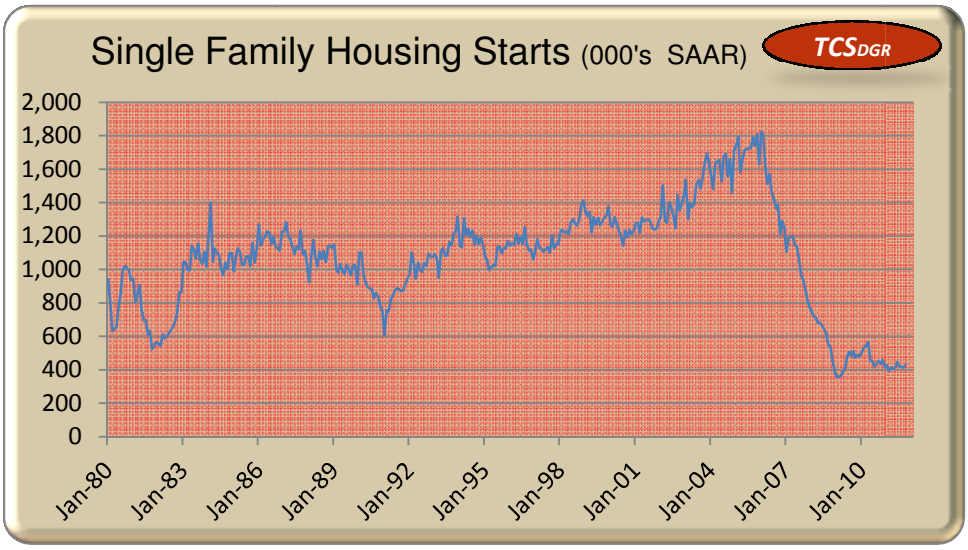
Grocery and Beverage stores sales increased 1.1% in July to $99.1 billion (6.4% above October of last year). Inflation is again showing up in this measure. If population growth is below 2% it puts staple inflation at about 4.5%.

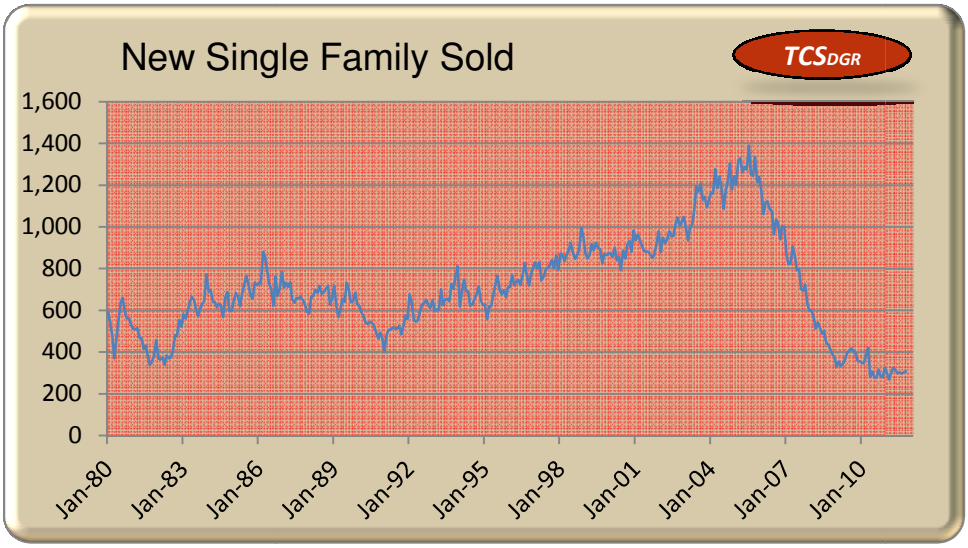


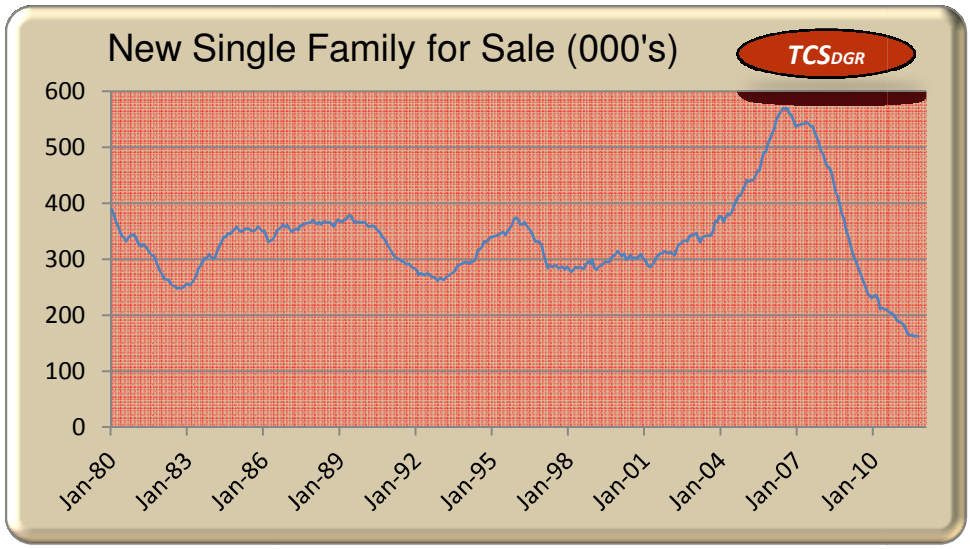
Housing (October Data):

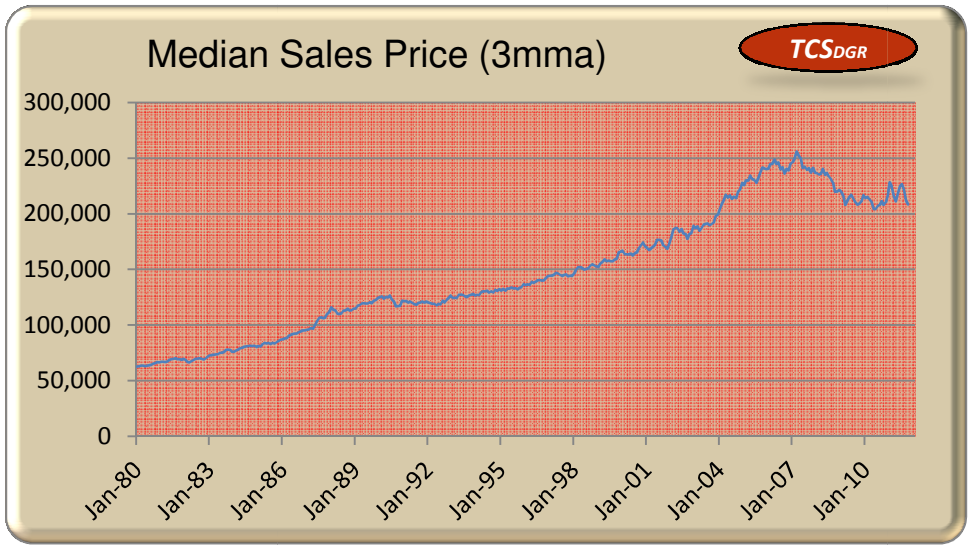
Housing sector remained weak. Single family starts increased 3.9% to 430,000. New single family sales increased by 1.3% to 307,000 units. Inventory of unsold new single family homes remained at record low of 162,000.

The median sale price (3mma) declined slightly to $208,600.









About Time Compression Strategies and the Durable Goods Report

TCS provides business consulting and information technology support to high performance organizations. Our focus is on manufacturing and telecom. Through our business partners we support health care, energy and other rapid-response business sectors.

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 sector serves as 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. Wherever the advanced release is used it is noted. Tracking reports are available for several durable goods sub sub-sectors. Contact TCS for details about this subscription based service.

Technical Note: The "TCS 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 (TCS), 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 patented Ancelus high performance database. TCS has developed a suite of high-performance real-time applications systems in support of their client industries.

Prior to launching TCS, 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 TCS 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

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