The Durable Goods Report

October 2011

Executive Summary of the US Economy



Manufacturing Data Release of 10/4/2011 (August Preliminary)

Employment Data Release of 10/7/2011 (September Preliminary)

Retail Data Release of 9/14/2011 (August Advanced)

Industrial Production Data Release of 9/15/2011 (August Advanced)

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

John E. Layden

Durable Good	ls Key Measur	es	
	Current Mo	Prior Mo	Prior Yr
New Orders-Durable	201,878	202,079	193,199
12 month moving average	196,926		186,825
% Change from Prior Year	5.4%		
Growth Index - Durable New Ord	1.012	1.006	1.035
Unshimped Anders Durchle	878,755	871,117	805,524
Unshipped Orders - Durable % Change from Prior Year	9.1%	0/1,117	000,024
	0.170		
Value of Shipments - Durable	201,082	201,376	198,420
12 month moving average	197,866		192,938
% Change from Prior Year	2.6%		
Growth Index - Durable Shipmts	1.010	1.001	1.029
	005 057	000.100	010 107
Inventory - Durables	365,357	362,100	313,187
% Change from Prior Year Inv to shipments ratio - Durable	16.7% 1.82	1.80	1.58
	Key Measure		1.50
	This period	Last period	Change
GDP Q2	14,996.8	14,867.8	0.9%
Industrial Production August Data	2,543.6	2,527.4	0.5%
Capacity Utilization % August Data	77.4	77.3	0.078
Manufacturing %	77.4	75.3	
5			0.3
Durable Goods %	74.0	73.5	0.5
Primary Metals %	73.9	72.9	1.0
Autos and Parts %	65.0	64.0	1.0
Machinery %	79.1	79.9	-0.8
Durable Goods (\$Mil SA) August Data			
New orders	201,878	202,079	-0.1%
Shipments	201,082	201,376	-0.1%
Inventory	365,357	362,100	0.9%
Unshipped Orders	878,755	871,117	0.9%
Retail ex Food Srv (\$Mil SA) Aug Data	348,828	348,556	0.1%
Autos and Parts	66,383	66,565	-0.3%
Gasoline	44,859	44,704	0.3%
Core retail (ex auto, gas)	237,586	237,287	0.1%
Groceries	98,359	97,973	0.4%
Employment (000's SA) Aug Data			
Civilian employed (Household Survey)	140,025	139,627	398
Civilian not employed (HS)	100,046	100,244	-198
Non-Farm (Establishment Survey)	131,334	131,231	103
Private (ES)	109,349	109,212	137
Government (fed, state, local) (ES)	21,985	22,019	-34
Goods Producing (ES)	18,097	18,079	18
Manufacturing (ES)	11,741	11,757	-16
Construction (ES)	5,551	5,524	27
Durable Goods Mfg (ES)	7,297	7,312	-15
Housing (000s of Units SA) August Data	.,_0,	.,	-10
Total housing starts	571	601	-5.0%
Single family starts	417	423	-1.4%
Single family sales (new)	295	302	-2.3%
Single family for sale (new)	162	165	-2.3%

By the Numbers

US Economy:

Industrial Production

Industrial production increased 0.6% in August and is now 3.2% above the same period last year. Industrial production remains about \$100 billion below the peak of September 2007.

Retail:

Retail sales increased 0.1% in August to a record \$349 billion. Despite some debate over the size of the inflation component, the retail sector has fully recovered. Current levels of retail sales are at record levels. This is not a demand recession.

Employment:

The survey of employers showed an increase of 103,000 jobs in September. The household survey showed stronger results for a second month. Total employed increased by 398,000 in the month while total not employed declined by 198,000.

For the second month durable goods employment declined, this time by 15,000.

Durable Goods:

Durable goods new orders decreased by 0.1% in August. Inventory positions have started to rise again relative to shipments. During this recession new orders dropped to 65% from the peak (3/2009 vs. 12/2007). The recovery to date stands at 81% of that peak. Durable goods is less than half way back to the peak.

Housing

Housing construction remains the worst segment of the US economy as the home ownership rate adjusts to objective reality. Single family starts continued to decline by another 1.4%.

The housing market continues to adapt to the lower home ownership rate, now at about 65%.

Random Thoughts:

- Chris Christie decides No. Again (or still). We'll spend the next month researching alternate spellings for "No." Just in case you believe you detect ambiguity in the answer.
- Chris Christie -- Clueless on Energy: "There will be no new coal permitted in NJ. We will no longer accept coal as a new source of power. We're going to make NJ number one in offshore wind production"
- Things that make you go Hmmm?
 - Protests against greed popping up across the country seem to want the government to take money from rich people and corporations and give it to them. Wouldn't that qualify as greed?
 - Protester discussion with a journalist:
 - Reporter: "What are you demanding?"
 - Protestor: "A Job!"
 - R: "Would you accept a corporate job?"
 - P: "Never! They're greedy bastards!"
 - Protesters using their iphone and Twitter to protest capitalism.
- (Wall Street Journal) More than half of \$4 billion in federal funds disbursed this year to spur small business lending by community banks was used to repay bailout funds that the banks received under the government's Troubled Asset Relief Program (TARP), the Wall Street Journal reported.

Hmmm. Unexpected?

- The 40 year decline in US oil production has reversed. So much for the theory of "Peak Oil."
 - Net imports of oil by the US dropped from almost 70% to 48% of consumption between 2005 and 2010. Some have claimed it's because of the recession. But energy consumption per \$ of GDP is dropping rapidly in the US, just as it did in the 70s. The US is the most energy efficient industrial economy on the planet.
- Dr. R. A. Bartlett of the University of Colorado has a series of 10 minute videos showing the power of exponential mathematics. His point is that to project a growth rate of x% is ultimately folly. Energy consumption and population growth are his primary targets. The videos were recorded in a classroom of impressionable college students. He exposes his abject ignorance of how the economy really works. And he makes the sophomoric error of conflating growth in wealth with growth in population and resource consumption. There is no required connection between them. The way it works was spelled out in 1776 by Adam Smith in his second book (Wealth of Nations). Population growth <u>rate</u> peaked in the 1960s and has been

declining since. He freely quotes Hubert on "Peak Oil" theory, but fails to take market forces into account. Malthus made the same mistake in the 18th century. You'd think anyone with a PhD in anything would know the trap.

- WSJ 9/15/2011: Obama/EPA put plans to regulate CO2 on hold. Don't count on this as a permanent situation. They'll be back.
- Other regulations being imposed on power plants will result in 28 gigawatts of generating capacity being shut down. Effects could be as soon as next summer. Rolling power outages will be the result.
- Government is never a net producer of jobs. Every job created by the government using tax money reduces private employment by 2 to 4 jobs. If the government "investment" is at the expense of durable goods manufacturing, the ratio is more like 8 jobs destroyed for each government funded job.
- Once there was an anti-poverty industry in place, it became a requirement to have a supply of "customers." So we are now asked to defined poverty as the lowest 15% of the account at there.

the economic strata so there would always be a poverty crisis. (see chart below)

- For at least four years the DGR has reported that the Chinese economy was one colossal bubble. There is more evidence.
- Chinese government debt is now at 200% of GDP.
- Forbes reports that 87% of Chinese growth is a result of

Poverty Rate Was Falling ... Until the War on Poverty Began 35 Share of Population in Poverty 30 25 War on Pove 20 Begins 15 10 5 956 959 962 1965 1968 974 950 953 980 1986 989 1992 995 1998 1977 1983 1971 00 000

Chinese growth is a result of government investment in infrastructure. It's likely that the current leadership is re-centralizing the economy.

- The Chinese manufacturing sector is in decline. Any idea where they're shipping those jobs?
- Telegraph (UK) 10/12/2011: China's debt spree returns to haunt: Bail-outs are coming thick and fast in China. In less than a week the authorities have had to step in to prop up the banks, rescue the insolvent railway system and save the near bankrupt city of Wenzhou from a spectacular debt crash.

Read the whole article. It increasingly looks like a soft landing for China's economy isn't in the cards.

http://www.telegraph.co.uk/finance/china-business/8821094/Chinas-debt-spreereturns-to-haunt.html

- Government investment in the private sector is always mal-investment by definition. It is an investment that the private sector would not make on its own. The private sector requires at least a hint of a future return on the investment.
- It is not possible to eliminate, prevent or soften the business cycle. Business cycles (recessions) are the natural way of forcing mal-investment out of the marketplace. Since no ever makes a bad investment on purpose, it must be true that it is impossible to know in advance which investments are good or bad. Therefore we need recessions periodically to sort out the winners and losers. This frees capital to try again. Any attempt to eliminate, delay or soften the effects will put the economy into stagnation and eventually a downward spiral.
- Megan McArdle on Solyndra scandle: "When banks engage in this sort of behavior, we call it a bubble, and try to figure out how to fix things so they won't do it again. When government agencies do this, we call it a weekday."
- Why was Solyndra presented as a new technology? The solar panel was first developed in the 80s. The 1880s, that is. No one has made it 1) a net producer of energy and 2) economically feasible. Until someone shows how to do 1), discussion of number 2) is a waste of time.
- The president has made the case that he doesn't want the Chinese to own the future green energy economy. Given the above, why would we not encourage them to invest heavily?
- The reason solar energy is so beguiling is that it looks unlimited and free.
 Unfortunately it's also very diffuse (only about 350 watts per square meter at noon) and highly variable (zero at midnight). You can't change those fatal flaws with more efficient panel designs.
- Dr. Thomas Sowell discusses why it's impossible to "tax the rich." They can move their money to tax exempt bonds if the rates look good. Next choice is to invest outside the country. Only the workers who don't get hired and small businesses that can't flee are damaged. The rich are gone. The projected increase in government revenue never happens, and the small business people that create most of the jobs are forced to cut back. Read the whole thing:

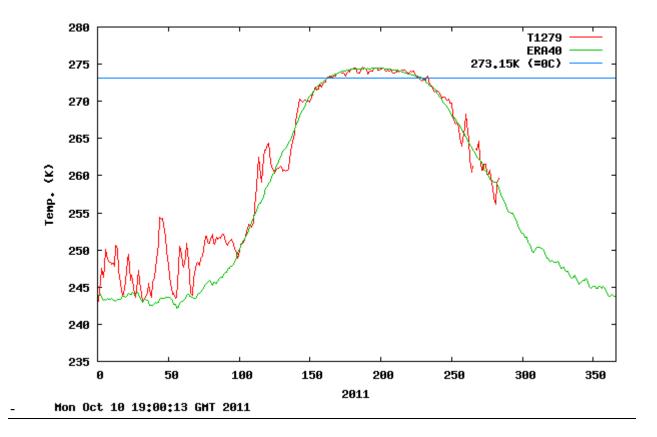
http://www.nationalreview.com/articles/277249/you-can-t-tax-rich-thomas-sowell

 It's a complete myth that the rich pay lower taxes than the poor or middle class. The top rate on ordinary income is 35%. The rich pay higher rates than anyone else on ordinary income. The rate for capital gains is 15% and everyone pays the same rate. If you had the choice, would you work for a paycheck or invest for capital gains? The rich tend to get more income from capital gains – they aren't stupid. The blended rate looks lower. To equalize blended rates, you might raise the capital gains rate to match the ordinary income rate. Here's what would happen:

- The bulk of investment is in the hands of small investors (think 401k), so the middle class gets penalized along with the rich.
- The rich move investment to tax free municipal bonds or to offshore investments. The middle class lose jobs as a result.
- The economy shrinks. Markets decline.
- Repeat.
- All attempts to equalize the tax rates causes economic damage to the middle class.
- When asked what his country's capital gains tax rate was, the president of the Czech Republic replied "We're not stupid. It's zero."
- Nobel Prize-winning scientist Ivar Giaever resigned as a Fellow from the American Physical Society on 9/13 in protest of the APS's climate change position. They claimed that the science of human caused global warming was "incontrovertible." This is notable in part because Giaever was among 70 Nobel laureates who endorsed Obama for president in 2008, so he's no member of the vast right-wing conspiracy. Via Steven Hayward at powerlineblog.com 9/15/2011.
- Geologist Dr. Bob Carter: "Since 1988, when UN formed the IPCC, we have now spent more than \$100 billion & we cannot find any evidence for a measurable human effect on climate globally"
- Andrew Breitbart asks some embarrassing questions of the machinists union regarding their NLRB case against Boeing:
 - Would you have filed the same charges against Boeing if the employees in South Carolina were still members of the Machinists' union?
 - If the answer is "yes," then you are admitting that your representation of South Carolina workers includes filing a charge that may ultimately cause their jobs to be eliminated?
 - If the answer is "no," then you are admitting that the foundation of the charge filed against Boeing is in retaliation for the workers in South Carolina having voted the union out?
 - Are the reports true that union organizers continue to try to convince South Carolina employees to re-unionize by directly stating or inferring that the Machinists will drop its suit against Boeing?

Read the whole thing: http://biggovernment.com/laborunionreport/2011/09/25/is-themachinists-smoking-gun-theory-merely-a-smoke-screen-to-cover-its-own-actions/#more-338052

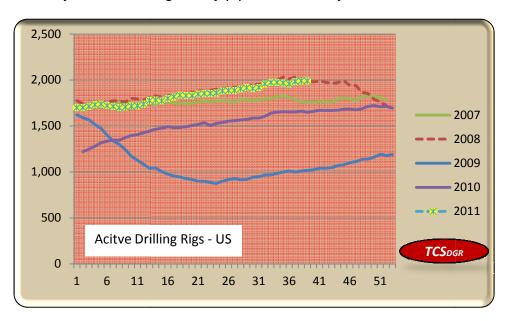
- (AP) Richmond, Va.-based Dominion Resources Inc. announced last week that it has applied to the Department of Energy to allow 1 billion cubic feet per day [of liquefied natural gas] to be exported through a terminal it owns in Maryland. The company reports that US supply exceeds US demand.
- The Arctic has gained one Manhattan of ice every 30 seconds for the last 30 days. The rapid cooling of the Arctic fall is tracking with the average of 1958-2002.



Energy:

Drilling activity in the US continues to match the record pace of 2008.

The government is still slow-walking permits. Shell has received a permit to drill in Alaska after four years in the regulatory pipeline. Activity in the Gulf remains stalled.



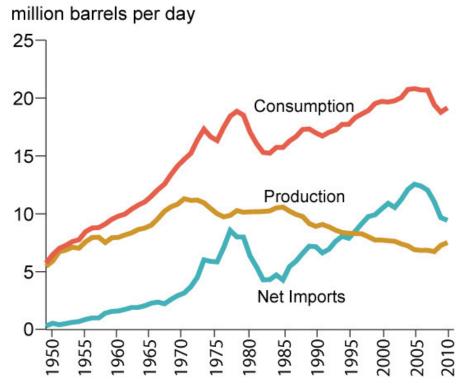
The 40 year decline in US oil production has reversed (chart below). Advocates of the "Peak Oil" theory have used the decline to prove that oil is finite and that we're running out. It has never been true, but they remain steadfast in their belief. The past decade saw and explosion of mega-field discoveries almost everywhere on Earth. The cost is higher, but there is unlikely to be a shortage. More likely the new technologies will drive oil prices down.

Past patterns in production have been driven by market forces, not shortage of supply. When imported oil is cheaper, we import oil. When the price goes up globally, we produce oil. None of the "Peak Oil" proponents ever include global supply and demand in their models.

This reversal may be different from past cycles. In addition to the global economic drivers, we also have major breakthroughs in technology. The introduction of horizontal drilling and fracking have caused an explosion in recoverable reserves and driven down the well-head delivery cost of US and Canadian sourced oil. Major process improvements in tar sand oil extraction have done the same.

Unfortunately the current administration and a majority of both Democrats and Republicans are ignorant of the reality of the energy industry.

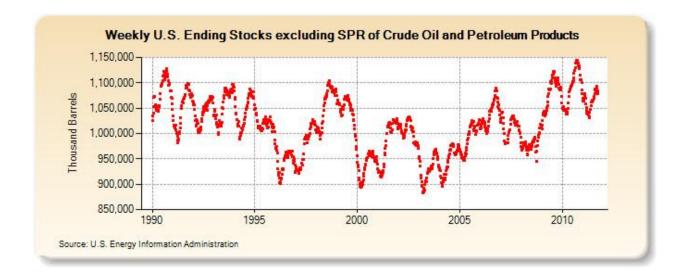
Petroleum Consumption, Production, and Import Trends (1949-2010)



Note: Production includes crude oil and natural gas plant liquids only.

Source: U.S. Energy Information Administration, *Monthly Energy Review* (May 2011), preliminary data, and *Annual Energy Review 2009*, Table 5.1 (August 2010).

The stocks of crude, excluding the strategic petroleum reserve, are at "high normal" levels. The last time stocks were this high (late 1990s) the price of gas dropped to \$0.899 per gallon.



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 Establishment Survey reports a gain of 103,000 jobs in September. This included an increase of 27,000 in construction. Durable goods employment declined by 15,000. Government employment declined by 34,000 after a revised increase of 15,000 in August.

The Household Survey showed more positive news. This is the second month in a row that the two surveys have sent conflicting signals. The number employed increased by 398,000 against the increase in the employable population of 200,000. This resulted in a decrease in those not employed of 198,000.

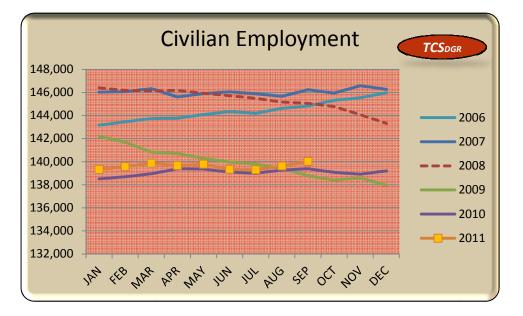
All of the employment numbers were influenced by the end of the telecom strike.

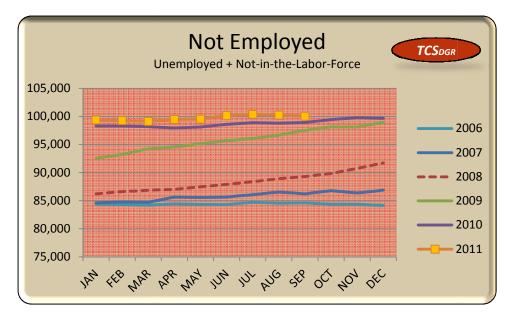
Government employment declined by 34,000. Of this total 24,000 came from the ranks of teachers. In the past six months total government employment has declined by 190,000. Since 90% of government employment is state and local, the bulk of the layoffs come from those categories. This pattern is caused by the stimulus funds provided to artificially support teacher employment.

In the last three months the "not employed" count has declined by 109,000. This is a minor dent in the 1.1 million increase over the past 12 months. But at least it's in the right direction. We now have two consecutive months where the "civilian employment" has increased and "not employed" has decreased.

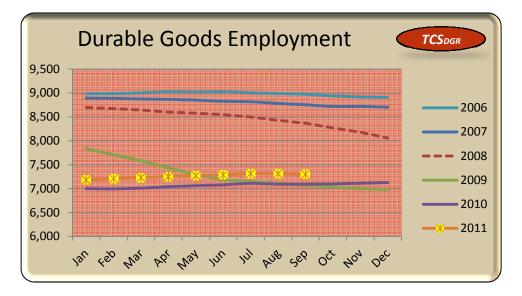
Change in	vs. Prior	Last 3	Last 12 months	
Number	month	months		
Employed	398	691	647	
Not Employed	(198)	(109)	1,102	

Sept	Number (000s)	%		
Employed	140,025	58.3%		
Not Employed 100,046 41.79				
Total	240,071	100.0%		
Total non-institutional population over 16				





These charts offer a sober perspective on how far the economy needs to go to get back in synch. The "not employed" count remains at 100 million, far from the 85 million that would be viewed as normal.



Unlike the general trend in employment, durable employment has dropped for two consecutive months.

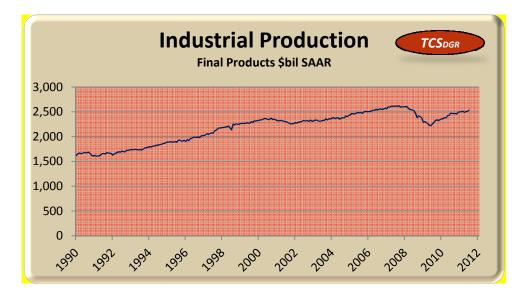
Sector Detail

	Gross Domestic Product					
Year (Qtr	GDP \$b	Chg from	Chg from		
	Gu	(SAAR)	Prior Pd	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	14,996.8	0.9%	3.7%		

GDP: US GDP 2011Q2 growth rate was revised downward to 1.0% SAAR (0.9% Q/Q; 3.7% Y/Y). Q1 growth was revised downward to 0.4% from 1.9%.

Industrial Production (excluding industrial supplies like energy) increased by 0.6% in August. We are now 3.2% above the same period last year.

Industrial Production - final products \$b SAAR				
Year	Мо	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	2486.9	-1.0%	4.7%
2011	5	2508.4	0.9%	3.5%
2011	6	2510.9	0.1%	3.4%
2011	7	2527.4	0.7%	2.3%
2011	8	2543.6	0.6%	3.2%



Capacity Utilization (August data): Capacity utilization for industrial production increased 0.1% in August to 77.4%.

Durable manufacturing was up 0.5. Primary metals increased 1.0, and Autos increased 1.0. Machinery declined 0.4.

	Capacity Utilization %						
Year	Мо	Ind Prod	Mfa	Durable	Primary		Mach-
rear	IVIO	ina Prod	Mfg	Durable	Metals	Auto	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	74.9	72.6	73.0	62.5	77.5
2011	5	76.7	74.9	72.9	72.4	62.1	78.7
2011	6	76.7	74.9	73.0	72.4	61.4	79.9
2011	7	77.3	75.3	73.5	72.9	64.0	79.5
2011	8	77.4	75.5	74.0	73.9	65.0	79.1

The Durable Goods Sector (August Preliminary Data):

New Orders: Durable new orders decreased by 0.1% to \$201.9 billion. The new order growth index continued to improve at 1.012.



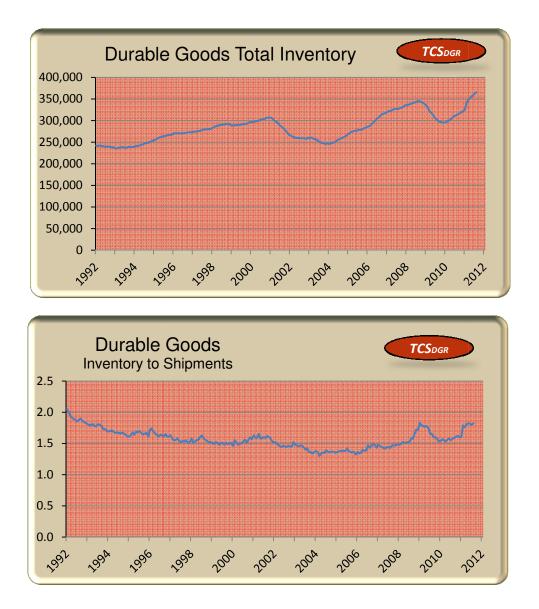


Shipments decreased 0.1% to \$201.1 billion. Book to bill ratio remains at 1.00.

Unfilled Orders increased by 0.9% to \$878.8 billion and continue at relatively high levels. This represents 6.1 months average lead time.

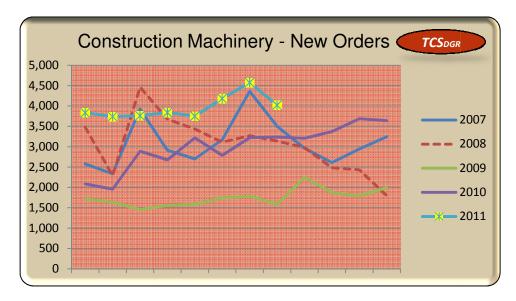


Inventory positions are again losing ground. Total inventory is showing red flags again with a climb of 0.9% to \$365.4 billion. Inventory to shipments ratios climbed to 1.82. Inventory will soon prove a drag on durable goods performance.

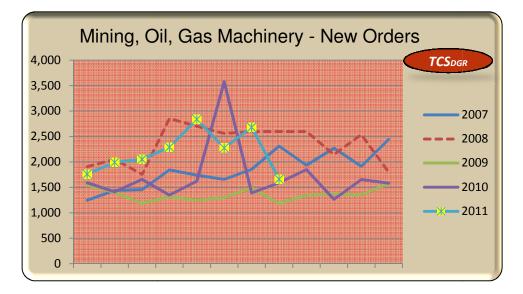


Key durable goods sub sectors:

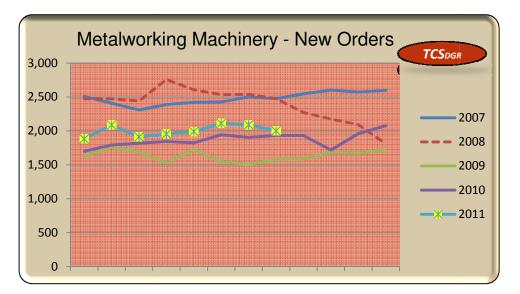
Construction machinery new orders decreased 12.1% to \$4.0 billion. Book to Bill ratio decreased to 0.93 (long term average 1.02). Export markets show signs of weakening, especially in China.



Mining, oil and gas machinery new orders decreased by 38% to \$1.7 billion. Book to bill ratio decreased to 0.90 (long term average = 1.03). Unfilled orders decreased 1.5% to just under \$13 billion. This may be a serious signal of overall economic weakness.



Metalworking machinery orders decreased by 4.3% to \$2 billion. Book to bill ratio is positive at 1.03 (long term average = 1.00).

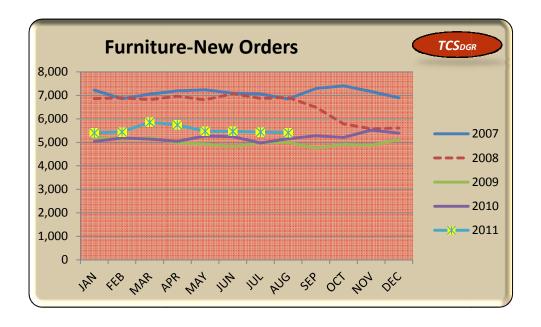


Fabricated metal new orders decreased 0.5% to \$25.5 billion. Book to bill ratio is slightly positive at 1.02 (long term average = 1.00).



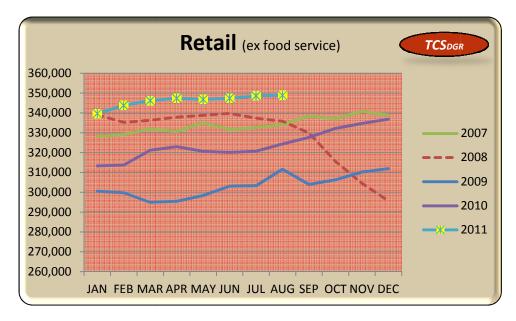
Capital goods increased by 4% to \$85.6 billion. Book to bill ratio is strongly positive at 1.09 (long term average = 1.01). Manufacturers continue to invest in productivity improvement.



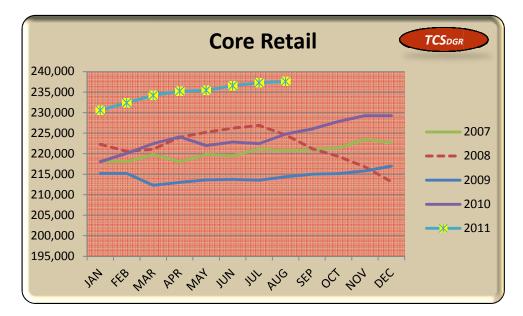


Retail Data (August Advanced Release)

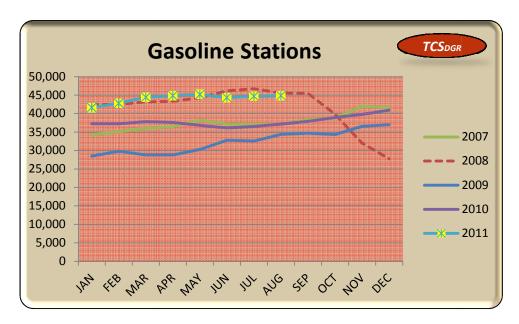
Retail Sales (excluding food service) increased 0.1% in August and stand 7.5% above the same month last year. There remains a strong but undefined inflation component to retail growth. But by any measure retail sales have recovered. We are not in a recession of retail consumption. Every month now sets a new record in total retail.



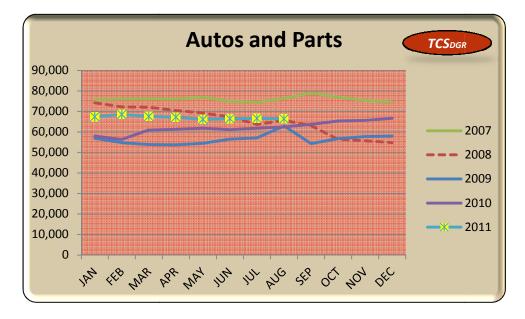
Core retail (excludes food service, gasoline, autos and parts) increased 0.1% to \$237.6 billion. Compared to last year core retail is up 5.7%. Core retail is also setting records, but with slowing growth.



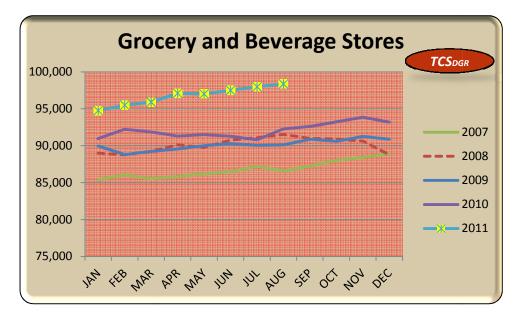
Gasoline sales increased 0.3% in August to \$44.9 billion and now stand 20.7% above the same period last year. The cost of gasoline remains a drag on retail spending. In the past year about \$7.7 billion of increased gasoline spending has come out of some other retail category.



Auto sales decreased of 0.3% to \$66.4 billion in August and now stand 6.4% above last year.



Grocery and Beverage stores sales increased 0.4% in July to \$98.4 billion (6.6% above August of last year).



Housing (August Data):

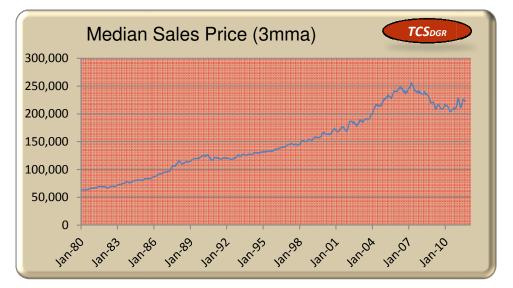
Housing remains weak. Single family starts decreased 1.4% to 417,000. New single family sales dropped again by 2.3% to 295,000 units. Inventory of unsold new single family homes set a new record low of 162,000.

The median sale price (3mma) declined slightly to \$222,100.









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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