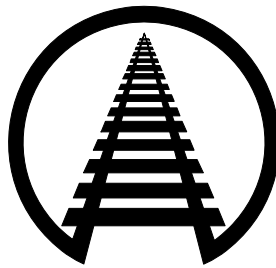


Rail Time Indicators

*A Review of Key Economic Trends
Shaping the Demand for Rail Transportation*



**Policy & Economics Department
Association of American Railroads
Washington, DC**

December 8, 2009

Rail Time Indicators is a non-technical summary of many of the key economic indicators potentially of interest to U.S. freight railroads. It is issued monthly by the Policy & Economics Department of the Association of American Railroads.

To get on the e-mail distribution list for Rail Time Indicators, send a request (including your name and business affiliation, if any) to Beth Eagney at beagney@aar.org. If you have questions or comments about the content of Rail Time Indicators, please contact Dan Keen (dkeen@aar.org) or Shannon Stare (ssstare@aar.org).

SUMMARY FOR DECEMBER 2009

Economic Indicator	Most Recent Data
U.S. Freight Rail Traffic (p. 2)	Carloads: In Nov. 2009, ↓ 8.2% from Nov. 2008 and ↓ 17.4% from Nov. 2007 . Intermodal: In Nov. 2009, ↓ 6.7% from Nov. 2008 and ↓ 14.1% from Nov. 2007.
Canadian Freight Rail Traffic (p. 3)	Carloads: In Nov. 2009, ↓ 2.8% from Nov. 2008 and ↓ 12.6% from Nov. 2007 . Intermodal: In Nov. 2009, ↓ 9.0% from Nov. 2008 and ↓ 16.0% from Nov. 2007.
Gross Domestic Product (p. 13)	↑ 2.8% in Q3 2009 (revised preliminary estimate).
Purchasing Managers Index (p. 14)	↓ to 53.6 in November 2009 from 55.7 in October 2009.
Manufacturing Inventories and Sales (p. 15)	From Sept. 2009 to Oct. 2009, manufacturing sales ↑ 0.8% , inventories ↑ 0.4% , and inventory-to-sales ratio ↓ 0.5% .
Industrial Production (p. 16)	↑ 0.1% in October 2009 from September 2009.
Capacity Utilization (p. 17)	↑ to 70.7% in October 2009 from 70.5% in September 2009.
Non-Farm Employment (p. 17)	↓ 11,000 in November 2009 from October 2009.
Unemployment Rate (p. 17)	↓ to 10.0% in November 2009 from 10.2% in October 2009.
Class I Railroad Employment (p. 19)	↓ to 149,020 in October 2009 from 149,428 in Sept. 2009.
Index of Consumer Confidence (p. 20)	↑ to 49.5 in November 2009 from 48.7 in October 2009.
Retail Sales (p. 20)	↑ 1.4% in October 2009 from September 2009.
Light Vehicle Sales (p. 22)	↑ 4.5% in November 2009 from October 2009.
Housing Starts (p. 23)	↓ 10.6% in October 2009 from September 2009.
Consumer Price Index (p. 23)	↑ 0.3% in October 2009 from September 2009.
Value of the U.S. Dollar (p. 24)	↓ 0.5% in November 2009 from October 2009.
Dow Jones Economic Sentiment Indicator (p. 25)	↑ to 38.3 in November 2009 from 36.9 in October 2009.
Rail Freight Cars in Storage (p. 25)	↓ to 451,096 on Dec. 1, 2009 from 451,112 on Nov. 1, 2009.

U.S. AND CANADIAN FREIGHT RAILROAD TRAFFIC

Who releases it and when?

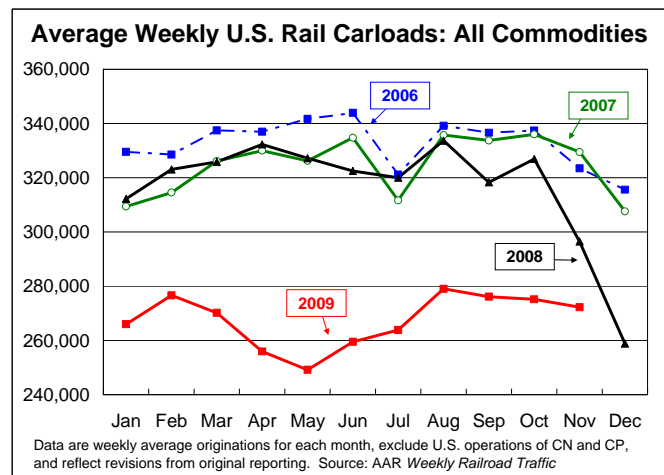
- The Association of American Railroads (AAR) releases its Weekly Railroad Traffic report every Thursday morning. The report contains rail traffic data for the previous week. Weekly data are aggregated into monthly figures in Rail Time Indicators.

What is it and why is it important?

- The AAR traffic report details rail carloadings for 19 different major commodity categories, as well as intermodal units (trailers and containers), by railroad. Railroads that report their data to the AAR collectively account for the vast majority of total U.S. and Canadian freight rail traffic.
- Freight railroading is a “**derived demand**” industry — demand for rail service occurs as a result of demand elsewhere in the economy for the products that railroads haul. Thus, rail traffic can be used to help gauge the health of the overall economy and certain sub-sectors.

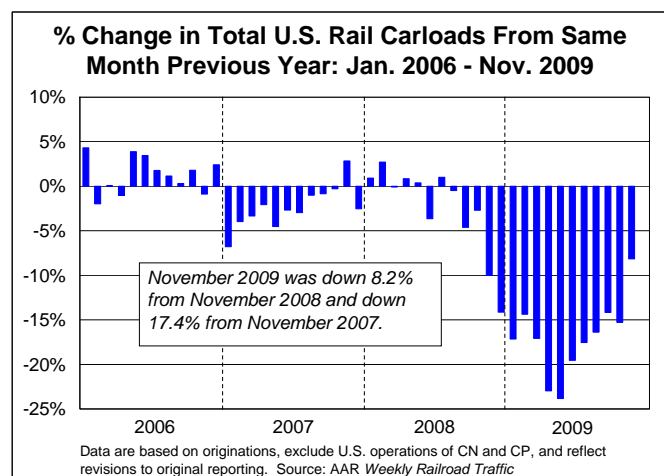
What are the latest numbers for U.S. railroads?

- In November 2009, U.S. freight railroads originated 1,089,077 carloads, an average of 272,269 carloads per week. That’s **down 8.2%, or 96,900 carloads**, from November 2008’s 1,185,977 carloads (when the weekly average was 296,494 carloads) and **down 17.4% from November 2007’s 1,318,023 total** (a weekly average of 329,506 carloads).



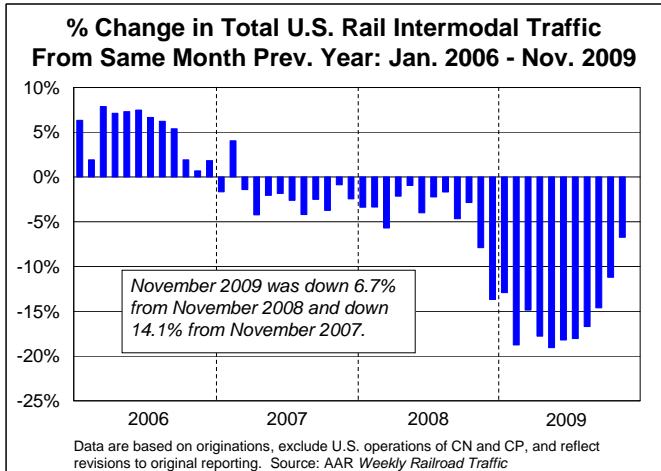
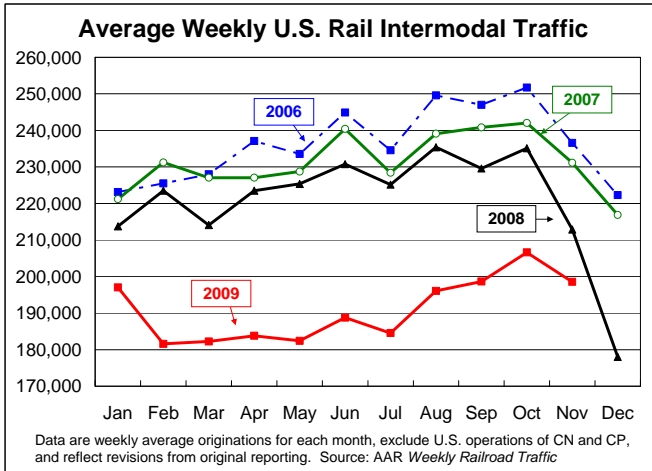
- Coal had 78,535 fewer carloads in November 2009 than November 2008, accounting for most of the 96,900 total carload decline for the month.

- U.S. intermodal traffic (which isn’t included in carload figures) totaled 794,184 trailers and containers in November 2009, an average of 198,546 per week. That’s **down 6.7% from November 2008** (when the weekly average was 212,879 units) and **down 14.1% from November 2007**, when the weekly average was 231,124.



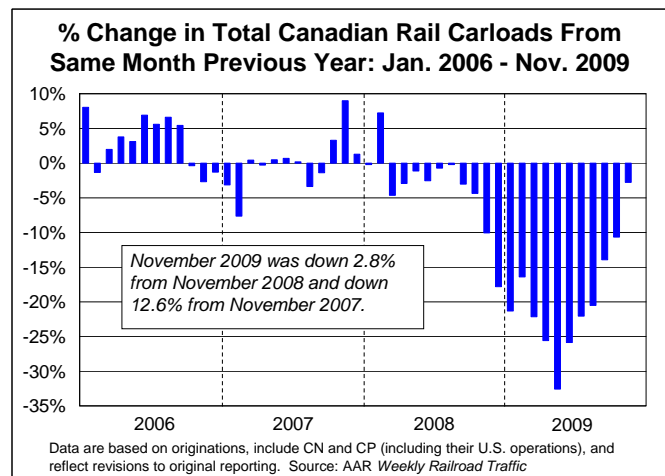
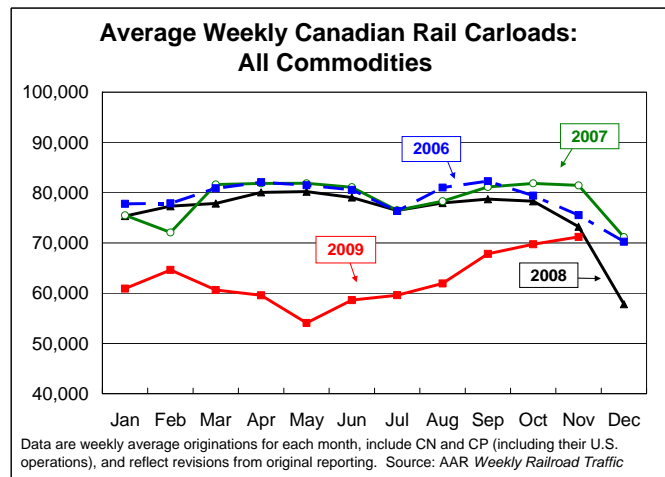
- Freight railroading is a 24/7/365-days a year business, but Thanksgiving week is always one of the lowest-volume weeks of the year and therefore holds down the November average.
- If Thanksgiving week were excluded, November would have been the highest volume month for U.S. railroads since November 2008 for both carload and intermodal traffic.

- For the first 11 months of 2009, U.S. rail **carloadings were down 17.1%** (2,596,616 fewer carloads), while **intermodal traffic was down 15.5%** (1,642,021 fewer trailers and containers).



What are the latest numbers for Canadian railroads?

- In November 2009, Canadian freight railroads (including their U.S. and Canadian operations) originated 284,757 carloads, for an average of 71,189 carloads per week. That's **down 2.8%** from the weekly average of 73,228 carloads in November 2008 and **down 12.6%** from November 2007's average of 81,428.
- Total rail carload traffic has risen for six straight months on Canadian railroads.
- Canadian intermodal traffic totaled 169,638 trailers and containers in November 2009, for an average of 42,410 per week. That's **down 9.0%** from November 2008 (46,580 per week average) and **down 16.0%** from November 2007 (when the weekly average was 50,480 units).
- For the first 11 months of 2009, Canadian rail carloadings were down 19.6% (718,590 fewer carloads YTD). Canadian intermodal traffic was down 15.2% (347,676 fewer trailers and containers YTD).



Where to go for more information:

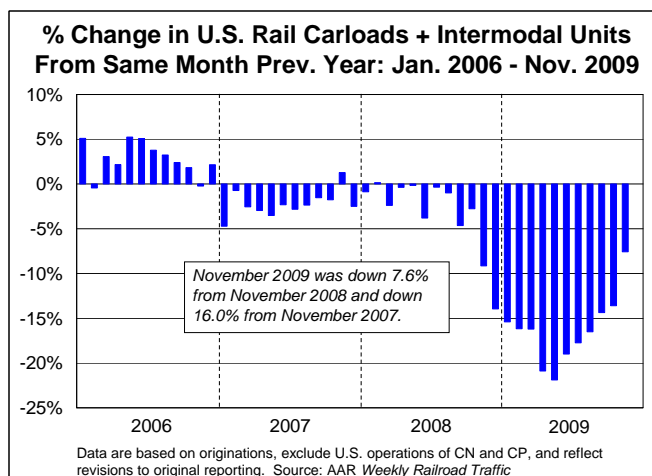
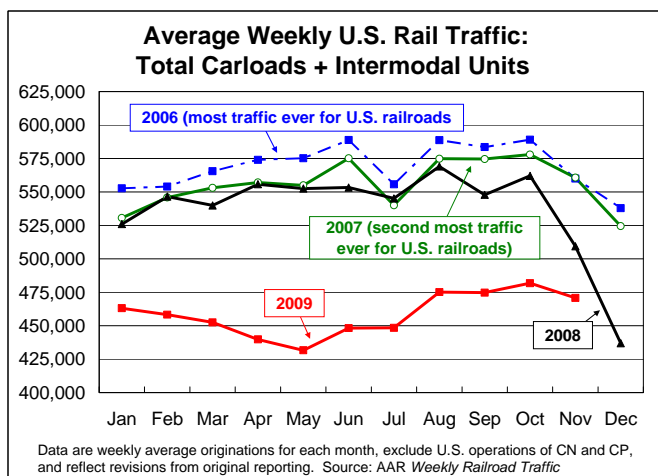
- Weekly AAR press releases on railroad traffic are available on the AAR web site [here](#). If you're interested in getting a sample copy of a complete AAR Weekly Railroad Traffic report, send an e-mail to Paul Posey at pposey@aar.org. Weekly Railroad Traffic is free to AAR members and available by subscription to others.

U.S. RAIL TRAFFIC*
(4 weeks ending November 28, 2009)

Commodity	Nov. 09	Nov. 08	Nov. 07	Difference		% Change	
				'09-'08	'09-'07	'09-'08	'09-'07
Agricultural & food products	167,656	154,142	179,958	13,514	-12,302	8.8%	-6.8%
Grain	98,107	86,505	103,417	11,602	-5,310	13.4%	-5.1%
Farm products excl. grain	3,706	3,713	4,423	-7	-717	-0.2%	-16.2%
Grain mill products (1)	34,407	32,679	36,606	1,728	-2,199	5.3%	-6.0%
Food products	31,436	31,245	35,512	191	-4,076	0.6%	-11.5%
Chemicals and petroleum	126,881	120,475	145,559	6,406	-18,678	5.3%	-12.8%
Chemicals	106,111	99,439	119,301	6,672	-13,190	6.7%	-11.1%
Petroleum products	20,770	21,036	26,258	-266	-5,488	-1.3%	-20.9%
Coal	511,025	589,560	577,423	-78,535	-66,398	-13.3%	-11.5%
Forest products	36,726	44,794	52,947	-8,068	-16,221	-18.0%	-30.6%
Primary forest products (2)	6,852	7,858	9,277	-1,006	-2,425	-12.8%	-26.1%
Lumber & wood products	8,301	10,596	15,112	-2,295	-6,811	-21.7%	-45.1%
Pulp & paper products	21,573	26,340	28,558	-4,767	-6,985	-18.1%	-24.5%
Metallic ores and metals	53,753	65,481	93,898	-11,728	-40,145	-17.9%	-42.8%
Metallic ores (3)	16,931	23,728	27,818	-6,797	-10,887	-28.6%	-39.1%
Coke	10,958	13,957	20,404	-2,999	-9,446	-21.5%	-46.3%
Primary metal products (4)	25,864	27,796	45,676	-1,932	-19,812	-7.0%	-43.4%
Motor vehicles & parts	53,434	53,492	79,434	-58	-26,000	-0.1%	-32.7%
Nonmetallic minerals & prod.	96,895	112,658	134,969	-15,763	-38,074	-14.0%	-28.2%
Crushed stone, gravel, sand	54,261	68,679	79,803	-14,418	-25,542	-21.0%	-32.0%
Nonmetallic minerals (5)	18,462	15,431	22,529	3,031	-4,067	19.6%	-18.1%
Stone, clay & glass prod. (6)	24,172	28,548	32,637	-4,376	-8,465	-15.3%	-25.9%
Other	42,707	45,375	53,835	-2,668	-11,128	-5.9%	-20.7%
Waste & scrap materials (7)	25,860	25,100	36,744	760	-10,884	3.0%	-29.6%
All other carloads	16,847	20,275	17,091	-3,428	-244	-16.9%	-1.4%
TOTAL ALL CARLOADS	1,089,077	1,185,977	1,318,023	-96,900	-228,946	-8.2%	-17.4%
Trailers	128,642	181,792	207,376	-53,150	-78,734	-29.2%	-38.0%
Containers	665,542	669,725	717,119	-4,183	-51,577	-0.6%	-7.2%
TOTAL ALL INTERMODAL	794,184	851,517	924,495	-57,333	-130,311	-6.7%	-14.1%

- (1) - flour, animal feed, corn syrup, corn starch, soybean meal, etc. (5) - phosphate rock, rock salt, crude sulphur, clay, etc.
 (2) - wood raw materials such as pulpwood and wood chips (6) - cement, ground earths or minerals, gypsum products, etc.
 (3) - overwhelmingly iron ore, but some aluminum ore, copper ore, etc. (7) - scrap metal and paper, construction debris, ashes, etc.
 (4) - primarily iron & steel products; some aluminum, copper, etc.

*Data are originations. Includes BNSF, CSX, KCS, NS, UP, Birmingham Southern, Florida East Coast, Lake Superior & Ishpeming, and Paducah & Louisville. Does not include CN's and CP's U.S. operations. Source: AAR Weekly Railroad Traffic

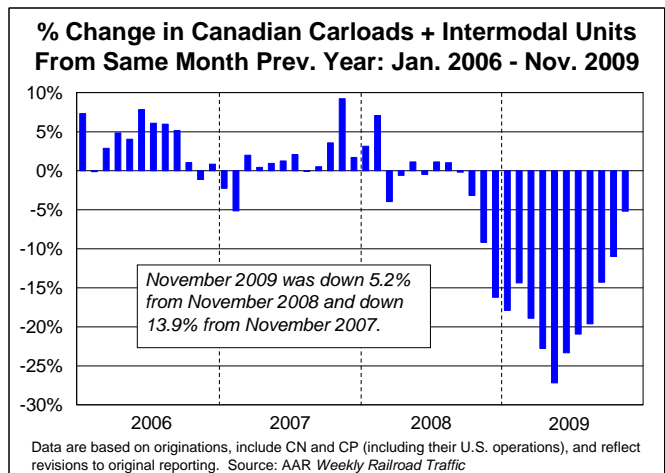
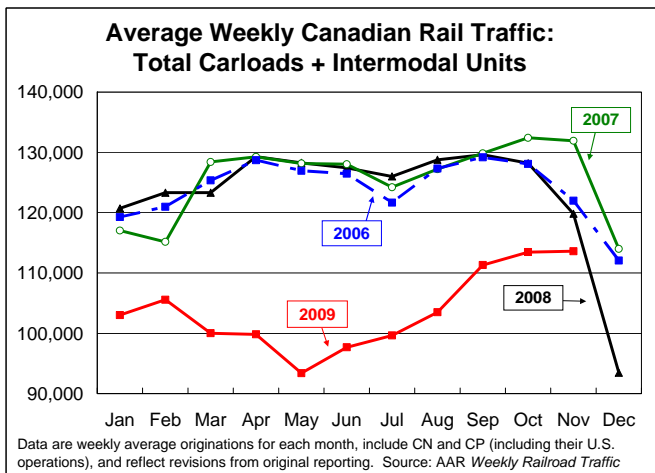


CANADIAN RAIL TRAFFIC*
(4 weeks ending November 28, 2009)

Commodity	Nov. 09	Nov. 08	Nov. 07	Difference		% Change	
				'09-'08	'09-'07	'09-'08	'09-'07
Agricultural & food products	68,784	67,632	66,637	1,152	2,147	1.7%	3.2%
Grain	40,385	43,118	42,338	-2,733	-1,953	-6.3%	-4.6%
Farm products excl. grain	13,797	10,828	11,271	2,969	2,526	27.4%	22.4%
Grain mill products (1)	5,756	5,580	4,951	176	805	3.2%	16.3%
Food products	8,846	8,106	8,077	740	769	9.1%	9.5%
Chemicals and petroleum	55,869	57,124	63,219	-1,255	-7,350	-2.2%	-11.6%
Chemicals	53,380	54,681	60,191	-1,301	-6,811	-2.4%	-11.3%
Petroleum products	2,489	2,443	3,028	46	-539	1.9%	-17.8%
Coal	29,616	32,535	32,338	-2,919	-2,722	-9.0%	-8.4%
Forest products	27,340	32,285	37,746	-4,945	-10,406	-15.3%	-27.6%
Primary forest products (2)	6,193	7,349	6,624	-1,156	-431	-15.7%	-6.5%
Lumber & wood products	7,639	9,878	12,232	-2,239	-4,593	-22.7%	-37.5%
Pulp & paper products	13,508	15,058	18,890	-1,550	-5,382	-10.3%	-28.5%
Metallic ores and metals	59,583	57,201	69,727	2,382	-10,144	4.2%	-14.5%
Metallic ores (3)	50,350	46,145	54,865	4,205	-4,515	9.1%	-8.2%
Coke	2,153	2,576	1,684	-423	469	-16.4%	27.9%
Primary metal products (4)	7,080	8,480	13,178	-1,400	-6,098	-16.5%	-46.3%
Motor vehicles & parts	18,022	17,601	28,235	421	-10,213	2.4%	-36.2%
Nonmetallic minerals & prod.	17,366	20,206	19,729	-2,840	-2,363	-14.1%	-12.0%
Crushed stone, gravel, sand	7,905	9,424	8,411	-1,519	-506	-16.1%	-6.0%
Nonmetallic minerals (5)	4,784	5,592	7,024	-808	-2,240	-14.4%	-31.9%
Stone, clay & glass prod. (6)	4,677	5,190	4,294	-513	383	-9.9%	8.9%
Other	8,177	8,327	8,082	-150	95	-1.8%	1.2%
Waste & scrap materials (7)	3,849	4,168	5,573	-319	-1,724	-7.7%	-30.9%
All other carloads	4,328	4,159	2,509	169	1,819	4.1%	72.5%
TOTAL ALL CARLOADS	284,757	292,911	325,713	-8,154	-40,956	-2.8%	-12.6%
Trailers	6,475	7,053	8,284	-578	-1,809	-8.2%	-21.8%
Containers	163,163	179,267	193,636	-16,104	-30,473	-9.0%	-15.7%
TOTAL ALL INTERMODAL	169,638	186,320	201,920	-16,682	-32,282	-9.0%	-16.0%

- (1) - flour, animal feed, corn syrup, corn starch, soybean meal, etc. (5) - phosphate rock, rock salt, crude sulphur, clay, etc.
 (2) - wood raw materials such as pulpwood and wood chips (6) - cement, ground earths or minerals, gypsum products, etc.
 (3) - overwhelmingly iron ore, but some aluminum ore, copper ore, etc. (7) - scrap metal and paper, construction debris, ashes, etc.
 (4) - primarily iron & steel products; some aluminum, copper, etc.

*CN and CP, including their U.S. operations. Data are originations. Source: AAR Weekly Railroad Traffic



COMBINED U.S. AND CANADIAN RAIL TRAFFIC

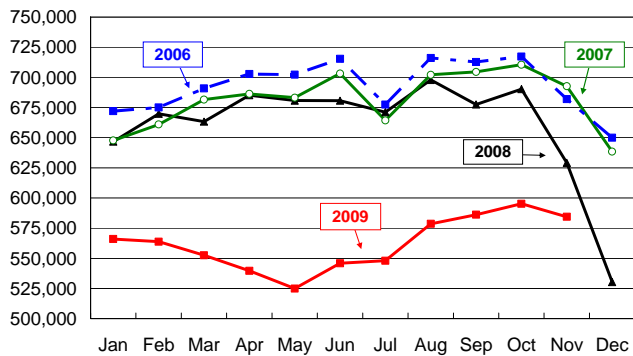
(4 weeks ending November 28, 2009)

Commodity	Nov. 09	Nov. 08	Nov. 07	Difference		% Change	
				'09-'08	'09-'07	'09-'08	'09-'07
Agricultural & food products	236,440	221,774	246,595	14,666	-10,155	6.6%	-4.1%
Grain	138,492	129,623	145,755	8,869	-7,263	6.8%	-5.0%
Farm products excl. grain	17,503	14,541	15,694	2,962	1,809	20.4%	11.5%
Grain mill products (1)	40,163	38,259	41,557	1,904	-1,394	5.0%	-3.4%
Food products	40,282	39,351	43,589	931	-3,307	2.4%	-7.6%
Chemicals and petroleum	182,750	177,599	208,778	5,151	-26,028	2.9%	-12.5%
Chemicals	159,491	154,120	179,492	5,371	-20,001	3.5%	-11.1%
Petroleum products	23,259	23,479	29,286	-220	-6,027	-0.9%	-20.6%
Coal	540,641	622,095	609,761	-81,454	-69,120	-13.1%	-11.3%
Forest products	64,066	77,079	90,693	-13,013	-26,627	-16.9%	-29.4%
Primary forest products (2)	13,045	15,207	15,901	-2,162	-2,856	-14.2%	-18.0%
Lumber & wood products	15,940	20,474	27,344	-4,534	-11,404	-22.1%	-41.7%
Pulp & paper products	35,081	41,398	47,448	-6,317	-12,367	-15.3%	-26.1%
Metallic ores and metals	113,336	122,682	163,625	-9,346	-50,289	-7.6%	-30.7%
Metallic ores (3)	67,281	69,873	82,683	-2,592	-15,402	-3.7%	-18.6%
Coke	13,111	16,533	22,088	-3,422	-8,977	-20.7%	-40.6%
Primary metal products (4)	32,944	36,276	58,854	-3,332	-25,910	-9.2%	-44.0%
Motor vehicles & parts	71,456	71,093	107,669	363	-36,213	0.5%	-33.6%
Nonmetallic minerals & prod.	114,261	132,864	154,698	-18,603	-40,437	-14.0%	-26.1%
Crushed stone, gravel, sand	62,166	78,103	88,214	-15,937	-26,048	-20.4%	-29.5%
Nonmetallic minerals (5)	23,246	21,023	29,553	2,223	-6,307	10.6%	-21.3%
Stone, clay & glass prod. (6)	28,849	33,738	36,931	-4,889	-8,082	-14.5%	-21.9%
Other	50,884	53,702	61,917	-2,818	-11,033	-5.2%	-17.8%
Waste & scrap materials (7)	29,709	29,268	42,317	441	-12,608	1.5%	-29.8%
All other carloads	21,175	24,434	19,600	-3,259	1,575	-13.3%	8.0%
TOTAL ALL CARLOADS	1,373,834	1,478,888	1,643,736	-105,054	-269,902	-7.1%	-16.4%
Trailers	135,117	188,845	215,660	-53,728	-80,543	-28.5%	-37.3%
Containers	828,705	848,992	910,755	-20,287	-82,050	-2.4%	-9.0%
TOTAL ALL INTERMODAL	963,822	1,037,837	1,126,415	-74,015	-162,593	-7.1%	-14.4%

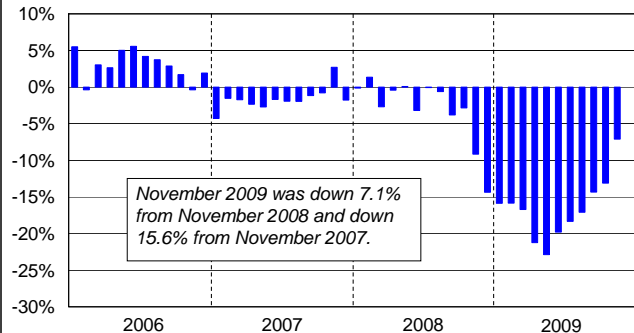
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*Data are originations. Source: AAR Weekly Railroad Traffic

**Average Weekly U.S. + Canadian Rail Traffic:
Total Carloads + Intermodal Units**

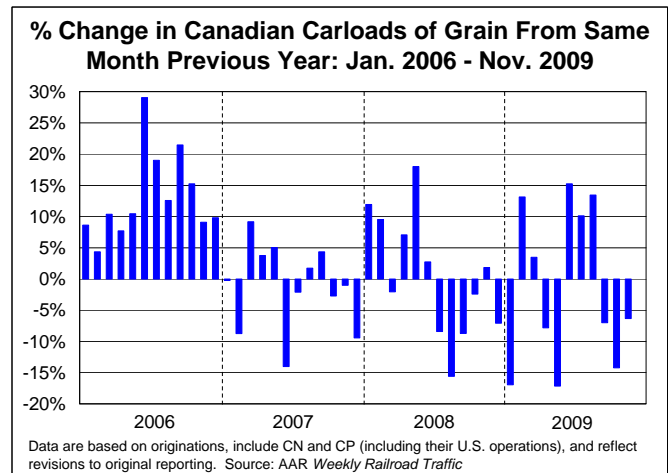
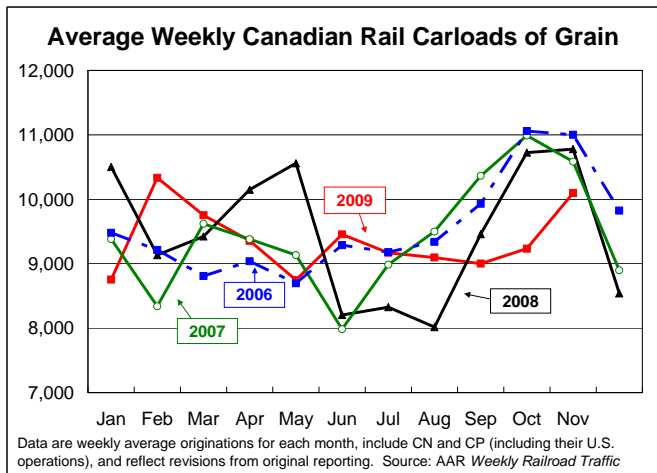
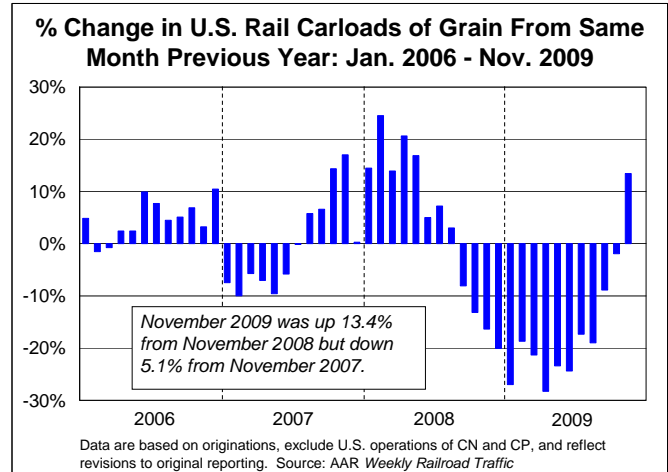
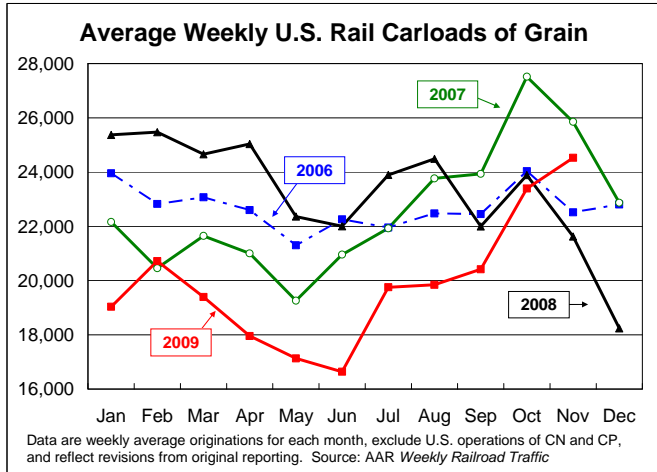


**% Change in Combined U.S. + Canadian Rail Carloads
+ Intermodal Units From Same Month Prev. Year:
Jan. 2006 - Nov. 2009**



Commodity Focus: Grain

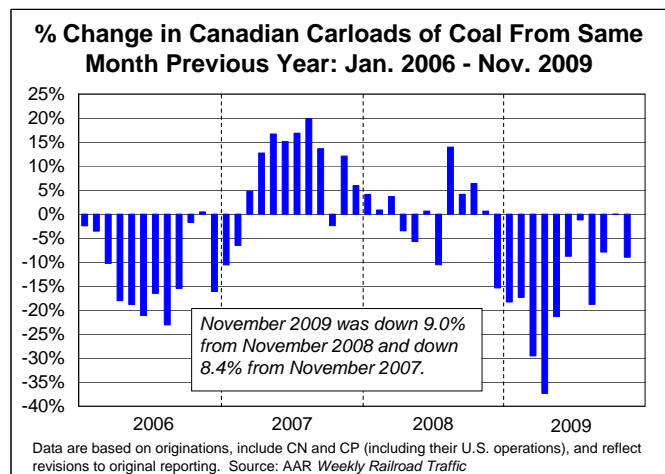
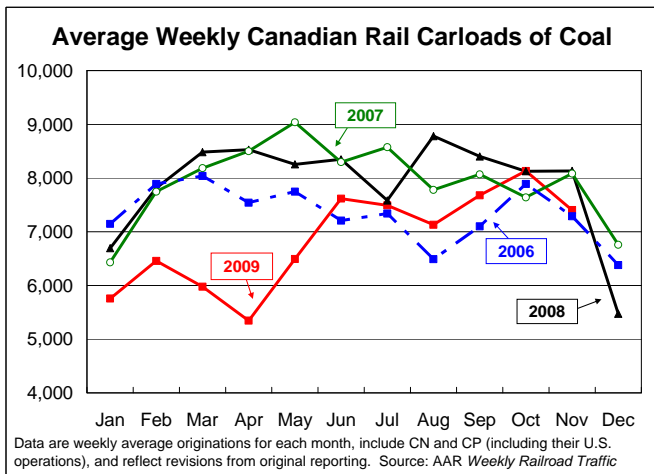
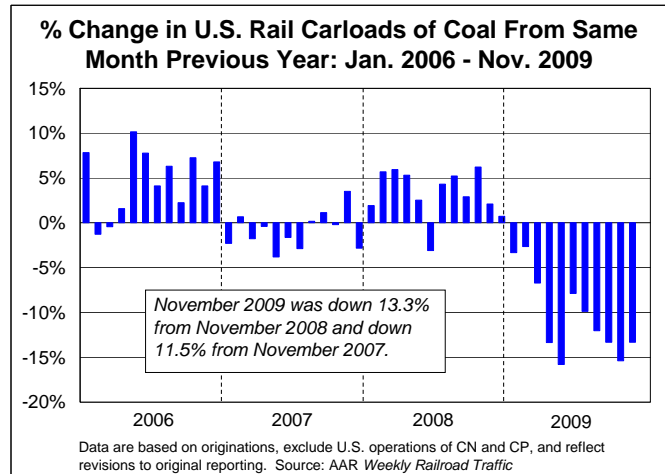
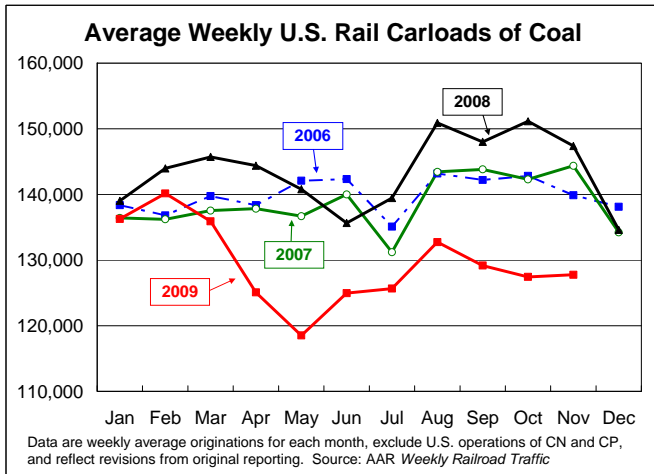
- U.S. rail carloads of grain averaged 24,527 per week in November 2009, **up 13.4%** from **November 2008** (21,626 carloads) and **down 5.1%** from November 2007 (25,854 carloads). U.S. grain carloadings have increased for five straight months — even with the Thanksgiving holiday, U.S. grain carloadings in November 2009 were up 4.8% from October 2009.



- From year to year, U.S. grain production can fluctuate widely in response to weather, government policies, crop prices, economic conditions, trends in markets overseas, and other factors. From 1999 to 2008, annual U.S. grain production averaged 478 million tons, but actual production ranged from 410 million to 537 million tons. Production fluctuates significantly in Canada as well.
- The amount of grain transported within a region or by an individual railroad can be highly cyclical and volatile from week to week. From January 1996 through November 2009, U.S. and Canadian railroads together averaged 30,700 carloads of grain per week, but the peak week was 61% higher than the lowest week.
- When demand for grain transport is particularly high (usually during or immediately after harvests), temporary “shortages” of rail grain cars can occur. Conversely, during periods of relatively low demand (like now), it’s common for thousands of grain cars to sit idle on rail sidings, sometimes for long periods. Owners of rail cars (both railroads and others) strive to find the right balance — not an easy thing to do.

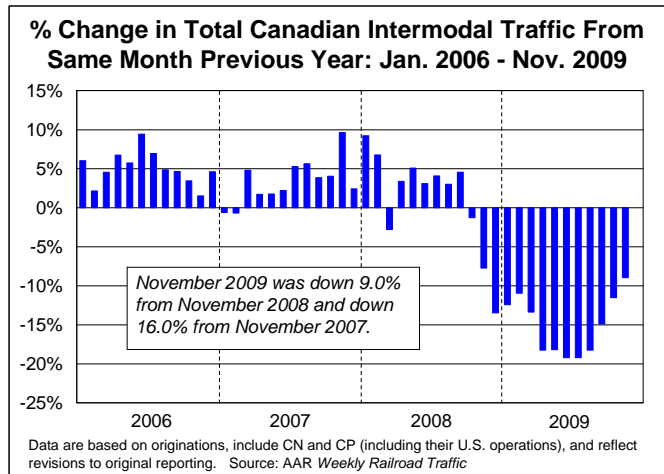
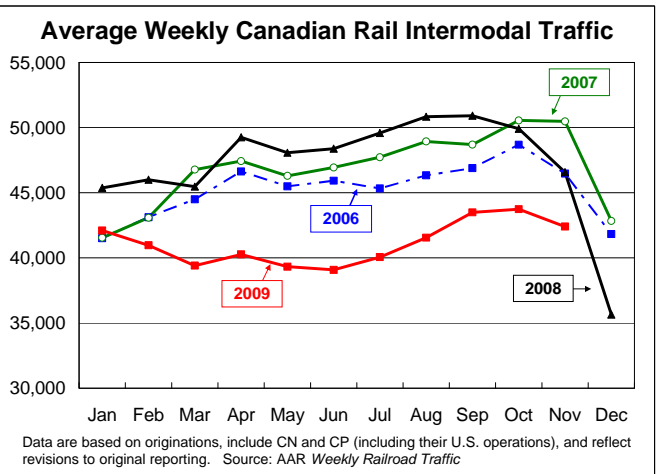
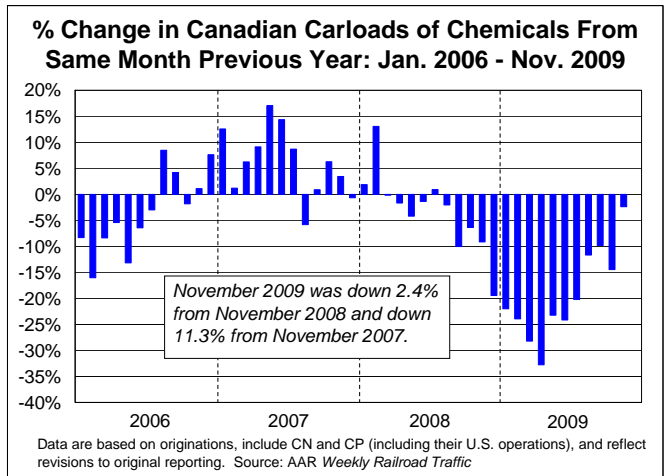
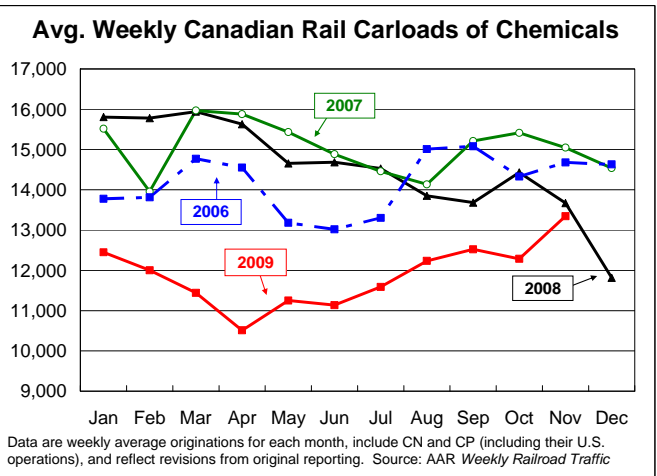
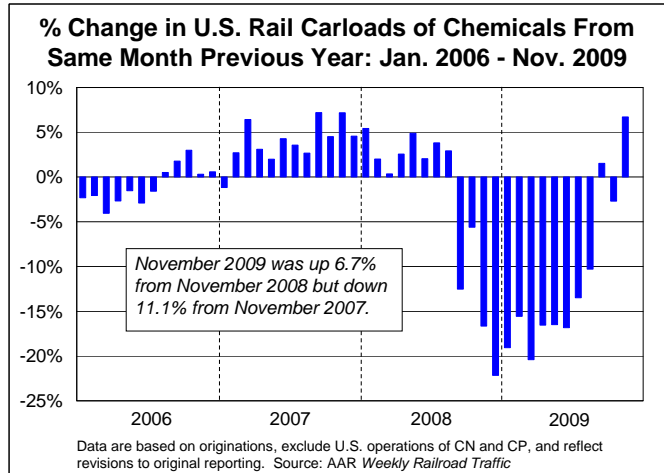
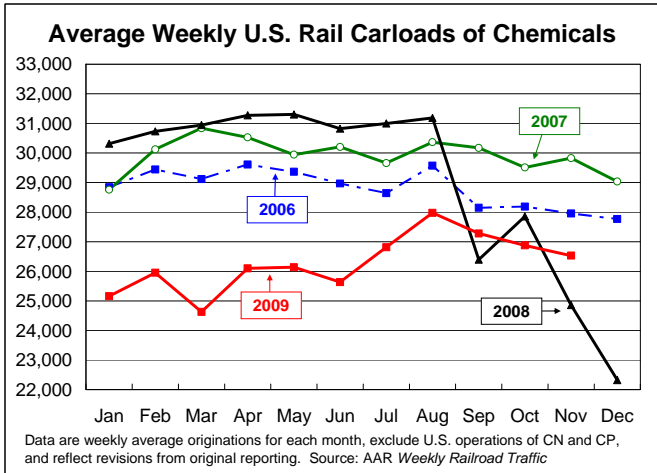
Coal

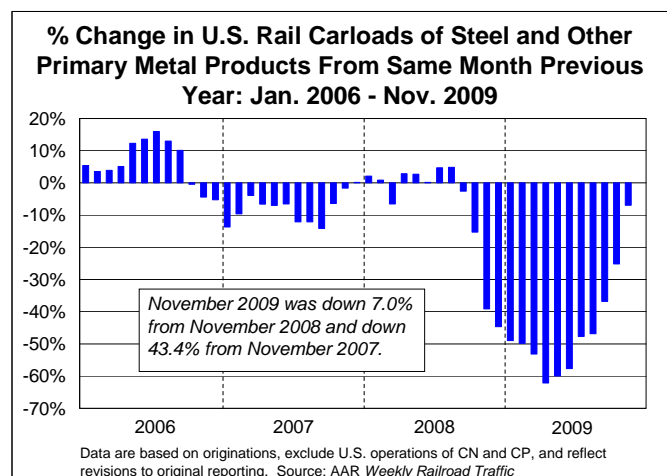
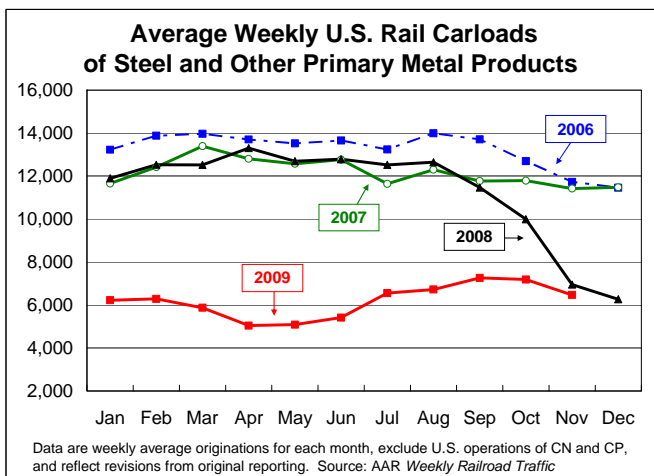
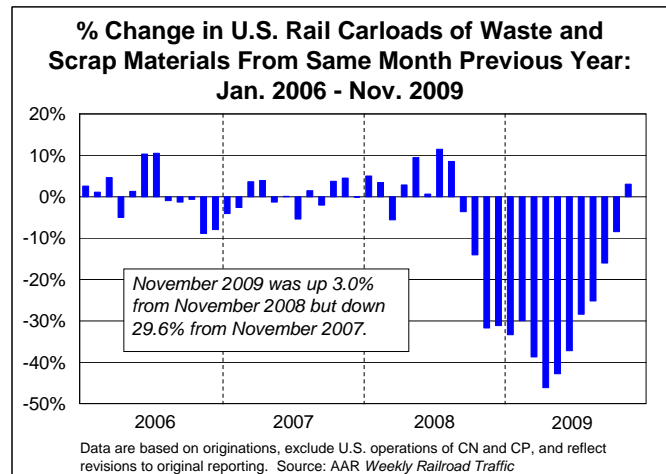
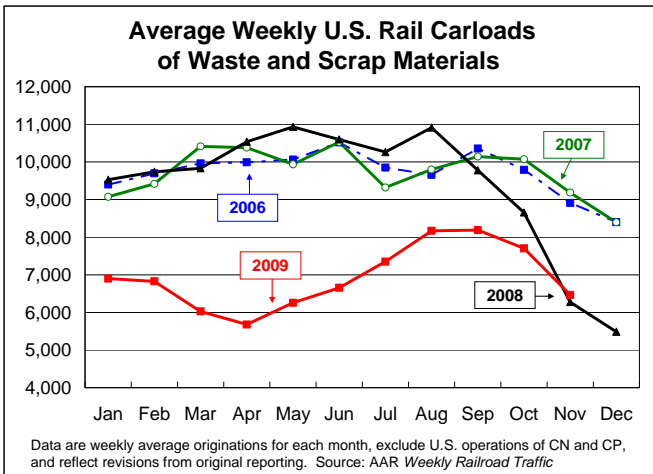
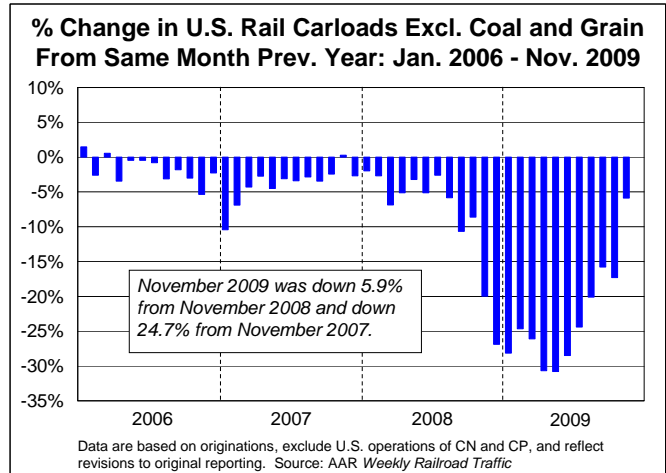
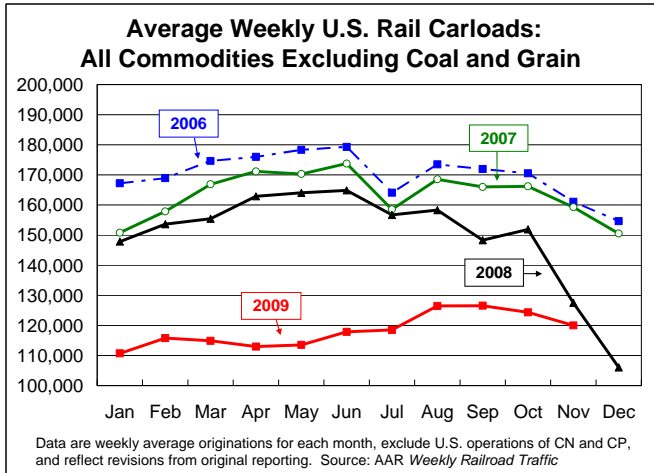
- In the United States, more than 70% of the coal delivered to coal-fired power plants is delivered by rail. In fact, railroads deliver enough coal to meet the electricity needs of every home in America. Today, Wyoming accounts for about 40% of U.S. coal production, followed by West Virginia (14%), Kentucky (10%), Pennsylvania (6%), and Montana (4%).
- U.S. rail carloads of coal averaged 127,756 per week in November 2009, down 13.3% from November 2008, down 11.5% from November 2007, and the sixth double-digit decline in the past eight months. (See October 2009's [Rail Time Indicators](#) here for more information on why coal carloadings are down in 2009.)

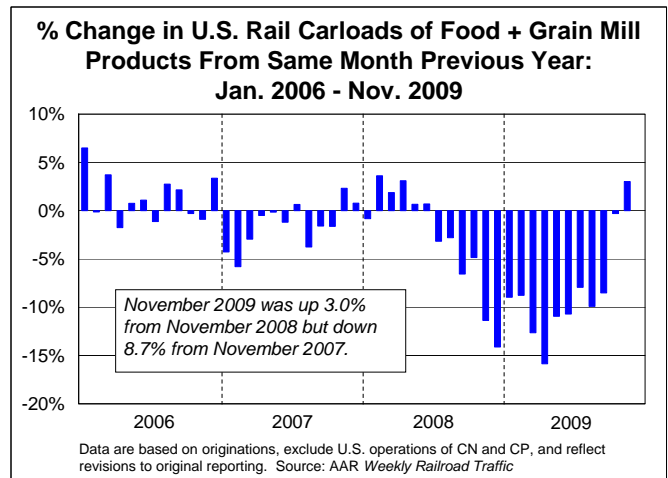
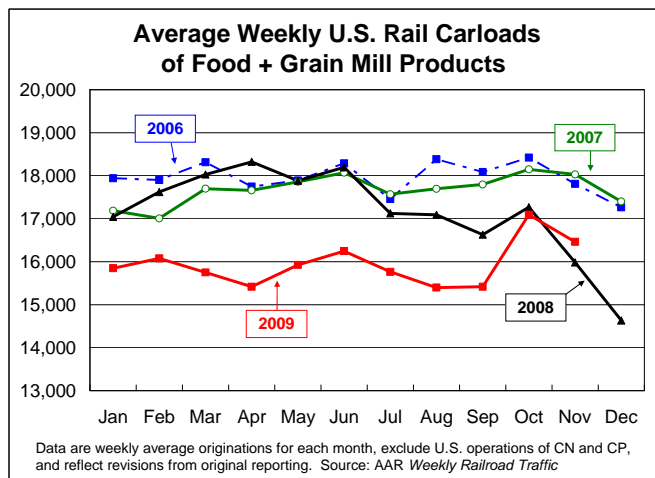
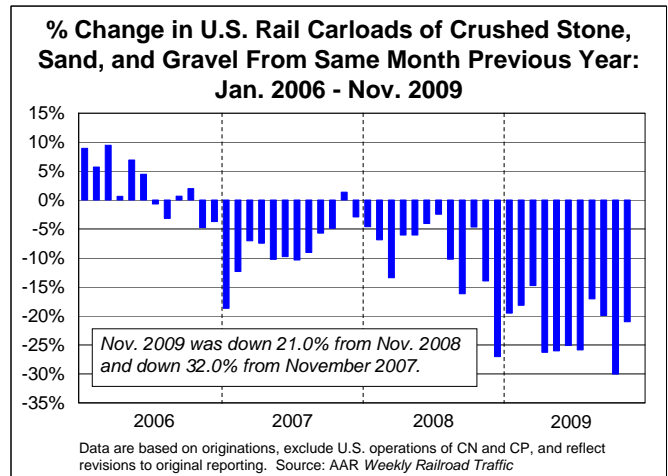
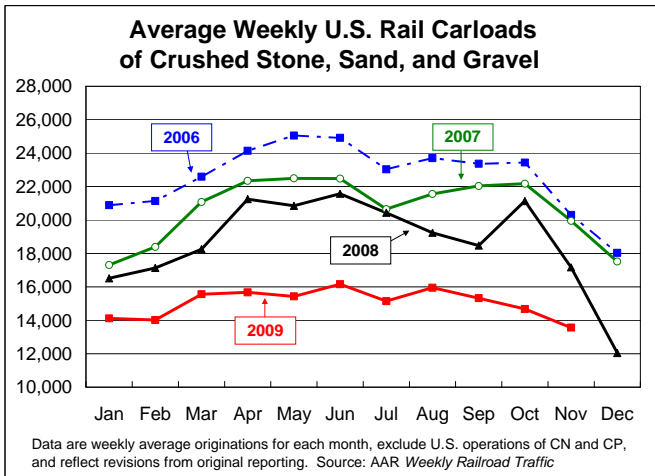


Chemicals

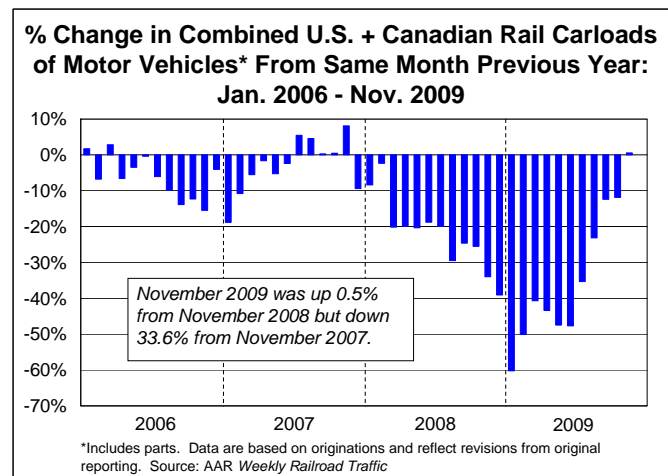
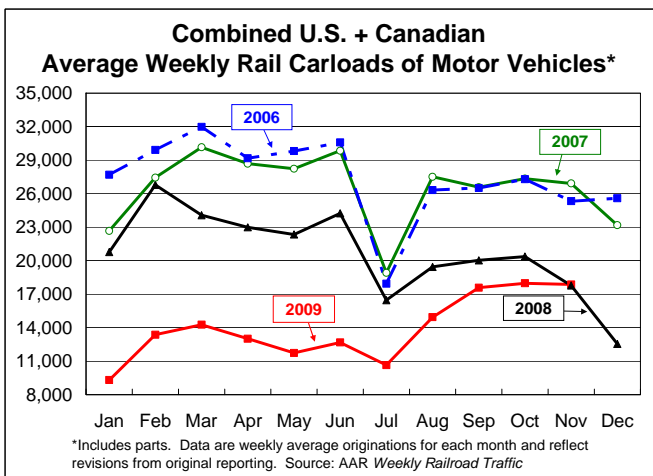
- U.S. rail **carloads of chemicals** averaged 26,528 per week in November 2009, **up 6.7%** from the 24,860 weekly average in November 2008 (when chemical carloads plunged due to the economic crisis) but **down 11.1%** from the 29,825 in November 2007 (see charts at top of next page). November 2009 marked the third straight monthly decline in rail chemical carloadings, though some (and maybe most) of the decline in November was due to the Thanksgiving holiday.
- According to American Chemistry Council data, railroads account for approximately 23% of chemical transportation tonnage and about 20% of chemical transportation costs. Trucks account for about half of chemical tonnage and two-thirds of chemical transportation costs.

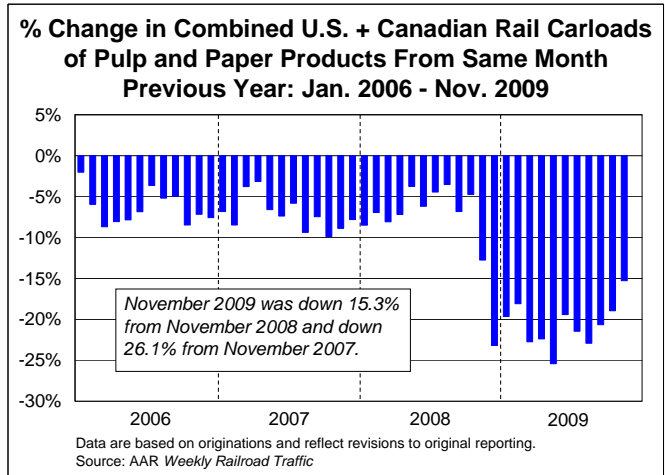
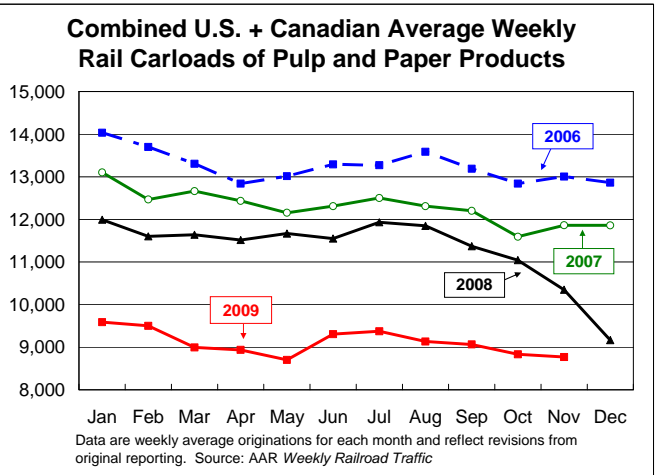
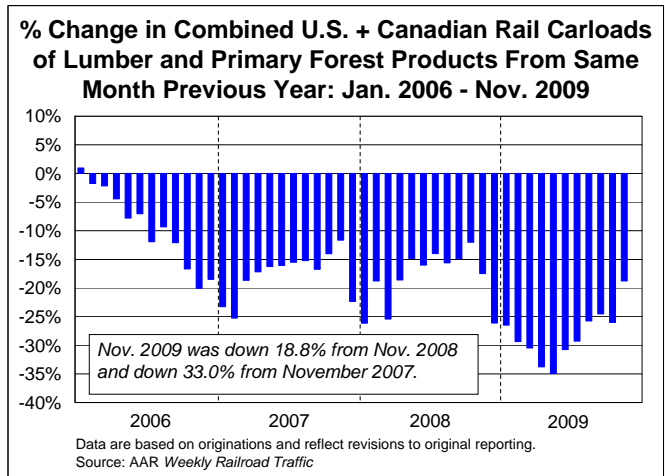
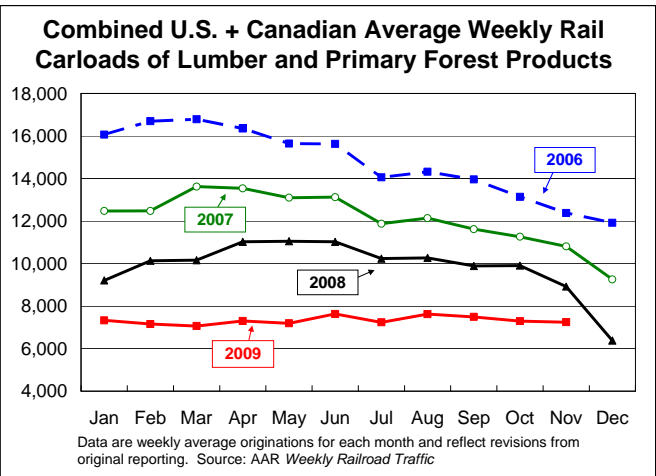
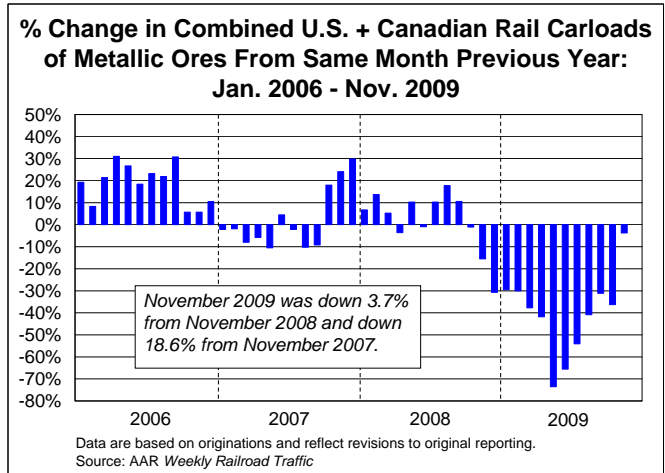
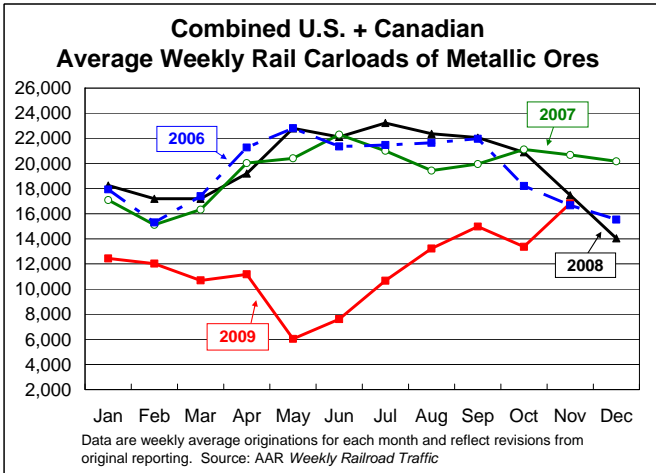






For some commodities, including those in the next four sets of charts, it makes most sense to combine U.S. and Canadian carloads into a single aggregate. The U.S. and Canadian auto industries, for example, are fully integrated. Likewise, much of the paper and lumber consumed in the United States is carried by Canadian railroads, either in Canada or in the United States.





GROSS DOMESTIC PRODUCT (GDP)

Who releases it and when?

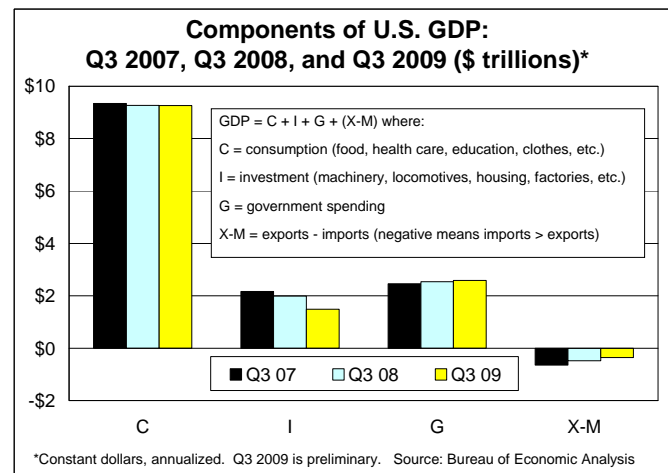
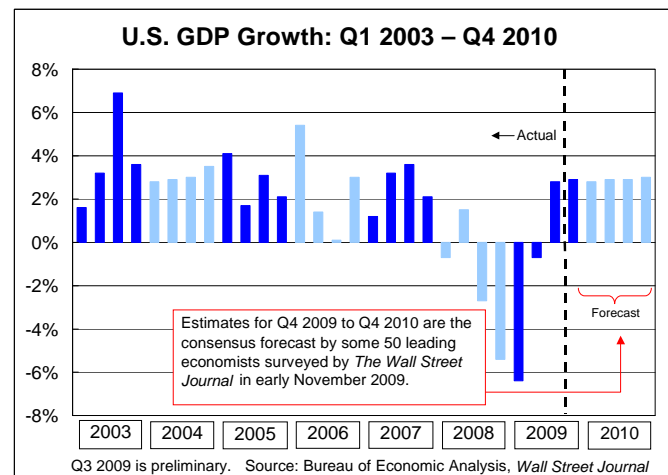
- U.S. Bureau of Economic Analysis (BEA), measured quarterly and revised as better data become available.

What is it and why is it important?

- GDP — the output of goods and services produced by labor and property located in a country — measures the size of an economy and how fast it's growing. It's probably the single most conclusive piece of information on the health of an economy. In the United States, GDP growth and freight railroad traffic are closely positively correlated.

What are the latest numbers?

- **U.S. GDP rose** at an annual rate of **2.8% in Q3 2009** compared with Q2 2009, according to revised BEA figures released on November 24. BEA's initial estimate, released on October 29 and greeted with great fanfare by many people desperate for positive economic news, was 3.5%. The 2.8% figure is itself subject to further revision.
- $GDP = C$ (personal consumption) + I (private investment) + G (government spending) + $(X-M)$ (exports – imports). The 0.7% downward revision in Q3 2009 GDP was due to lower consumption, lower investment, and higher imports than originally thought.
- The value of the "consumption" component of GDP in Q3 09 was 0.1% lower than in Q3 08 and 0.9% lower than in Q3 07 (see chart at right). The "investment" component in Q3 09 was down 25.3% from Q3 08 and down 31.4% from Q3 07. The government spending component was up 2.0% from Q3 08 and up 5.3% over Q3 07.
- Today, most economists think the recession is technically over. It will be months before this is confirmed.¹
- Each month, *The Wall Street Journal* surveys some 50 leading economists. In the most recent survey, released November 12, **the consensus was that GDP would grow around 3% in 2010.**
- What the WSJ said: "The forecast represents solid growth but remains at a level too low to add the number of jobs needed to make up for the eight million cuts recorded so far in this recession. ... More than half of the respondents see a U-shaped recovery with some slowness followed by solid growth, and 31% forecast a stronger, V-shaped recovery. Just 11% of economists expect



¹ The National Bureau of Economic Research (NBER) officially determines when a U.S. recession starts and ends. A recession begins just after the economy peaks and ends when it bottoms out. Because the peak and trough can only be determined after the fact — often months after the fact — it is often unclear when an economy begins a new growth cycle or ends one.

an L-shaped rebound where economic activity stabilizes at a low level, and only 7% see a double-dip recession ...as the most likely scenario.”

Where to go for more information:

- The most recent BEA news release on GDP, including links to detailed data tables, is [here](#). Click [here](#) for more on the latest WSJ survey of economists.

PURCHASING MANAGERS INDEX (PMI)

Who releases it and when?

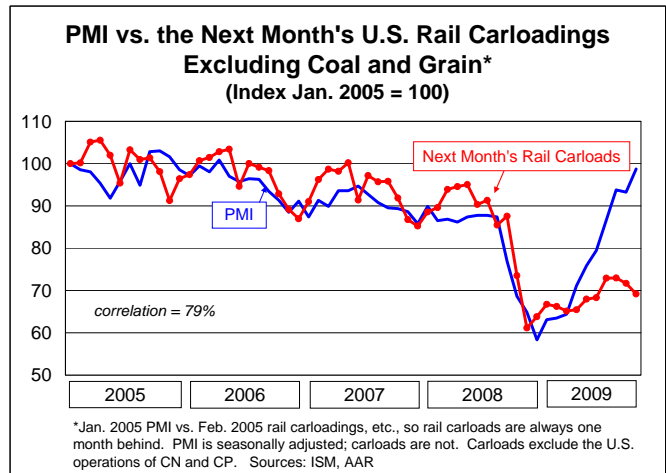
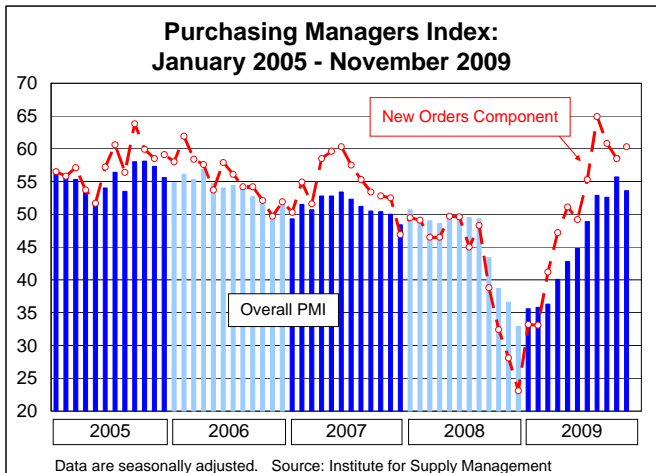
- Institute for Supply Management (ISM – formerly the National Association of Purchasing Managers), near the beginning of each month.

What is it and why is it important?

- The PMI combines data on new orders, inventory, production, supplier deliveries, and employment. It’s based on a survey of several hundred supply managers at manufacturers throughout the country. (Supply managers typically handle purchasing/procurement, inventory control and management, and physical distribution and warehousing.) The PMI is considered an indicator both of actual “on-the-ground” conditions as well as near- to medium-term sentiment.
- Manufacturing accounts for approximately 12% of U.S. GDP — not as much as it used to be, but the United States is still the world’s top manufacturer. In fact, by itself, U.S. manufacturing would still be around the eighth largest economy in the world.
- According to ISM, a **PMI > 50** indicates that overall **manufacturing is expanding**; a **PMI < 50** indicates that **manufacturing is contracting**. Also according to ISM, a PMI > 41.2, over a period of time, generally indicates overall economic expansion.

What are the latest numbers?

- The **PMI fell to 53.6 in November 2009** from 55.7 the month before — only the third time in the past 12 months it’s fallen (see chart below left). But because it exceeds 50, it is still thought to indicate that manufacturing is expanding. The “new orders” component of the PMI rose in November after two months of decline.
- What the ISM said regarding the November PMI: “The manufacturing sector grew for the fourth consecutive month in November. While the rate of growth slowed...compared to October, the signs are still encouraging for continuing growth as both new orders and production are still at very positive levels....Overall, the recovery in manufacturing is continuing...”



- Early in 2009, when [Rail Time Indicators](#) was being developed, we identified a very strong positive correlation between PMI and the next month's rail carloads excluding coal and grain. Since April 2009, though, growth in PMI has far exceeded growth in rail carloads — spoiling that correlation (see chart at bottom right of previous page). It just goes to show, as readers of RTI know, that past performance does not guarantee future performance.

Where to go for more information:

- The press release for the November PMI is [here](#) and includes much more detail than the summary above. The December PMI will be released on January 4, 2010.

MANUFACTURING INVENTORIES AND SALES

Who releases it and when?

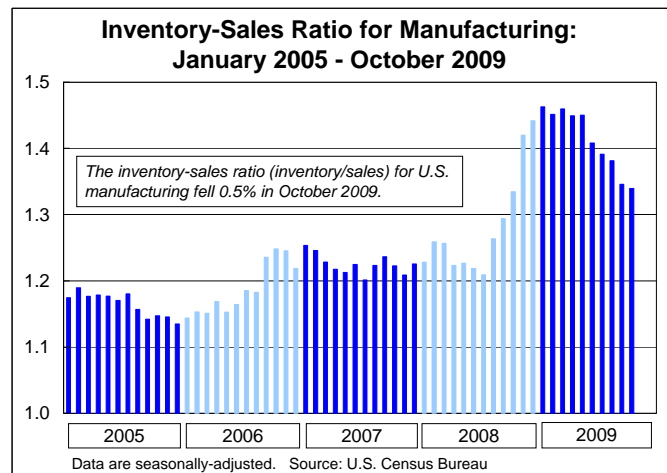
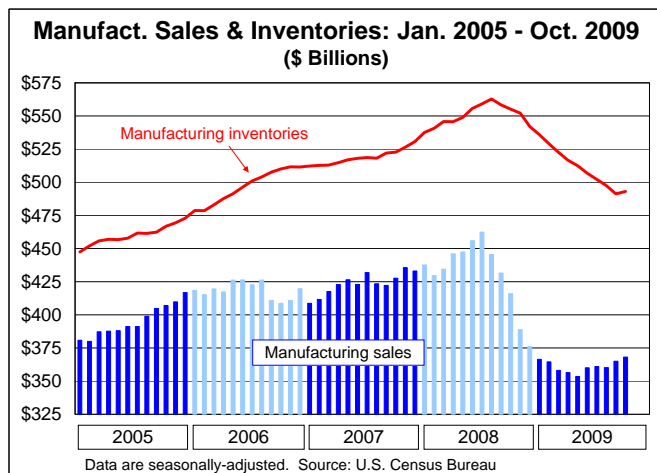
- The U.S. Census Bureau, near the beginning of each month, covering the month two months prior. (E.g., the report released in early December has data covering October.)

What is it and why is it important?

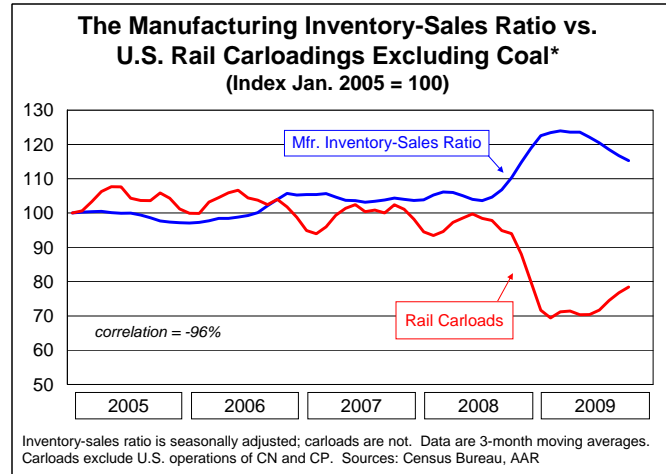
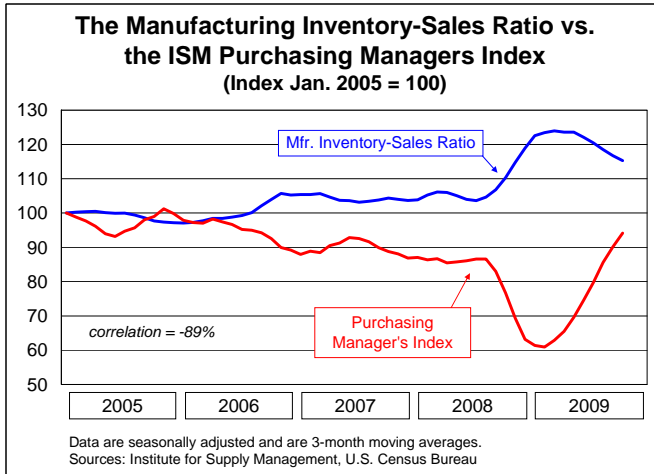
- The report is based on data reported from manufacturing establishments with \$500 million or more in annual shipments covering 89 industry categories. Figures are seasonally adjusted.
- Manufacturers **don't want to hold too much inventory** because it costs money to store it and it can become obsolete or spoil. Moreover, inventory earns no return on investment. But manufacturers **don't want too little inventory either**, or they could lose sales. Like Goldilocks, they want an inventory level that's "just right."
- When sales fall, inventories must rise if production is kept at the same pace. Eventually, when inventories are too high, "de-stocking" occurs via production cuts. This leads to job losses, fewer raw material purchases, and other negative economy-wide effects.
- When sales rise, either inventories must fall, production must increase, or both. Eventually, inventories becomes too low and "re-stocking" occurs via production increases. This means more employment, more raw material purchases, and other positive economy-wide effects.

What are the latest numbers?

- Seasonally-adjusted **manufacturing sales rose 0.8%** in October 2009 from September 2009, (see chart below left) while seasonally-adjusted manufacturing **inventories rose 0.4%**, their first increase since August 2008. Consequently, the September **inventory-sales ratio fell 0.5%** (see chart below right) to 1.34 — still very high compared with the past few years.



- The strong negative correlation between the inventory-sales ratio for manufacturing and PMI (see chart below left) continues to hold.
- In previous [Rail Time Indicators](#), we showed a chart showing the relationship between the inventory-sales ratio for manufacturing and rail carloads excluding coal and grain. It turns out that, since 2005, that correlation is actually a bit stronger if grain carloads are included. The chart below right shows the inventory-sales ratio vs. rail carloads excluding coal but including grain.



Where to go for more information:

- The Census Bureau's full report on manufacturing sales and inventories in October is [here](#). Figures for November will be released on January 5, 2010.

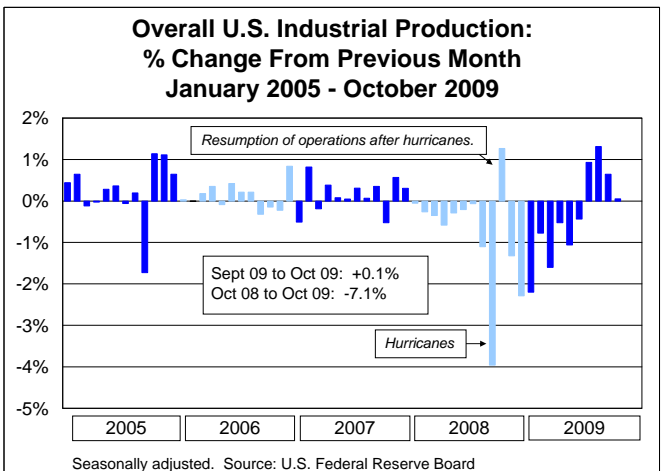
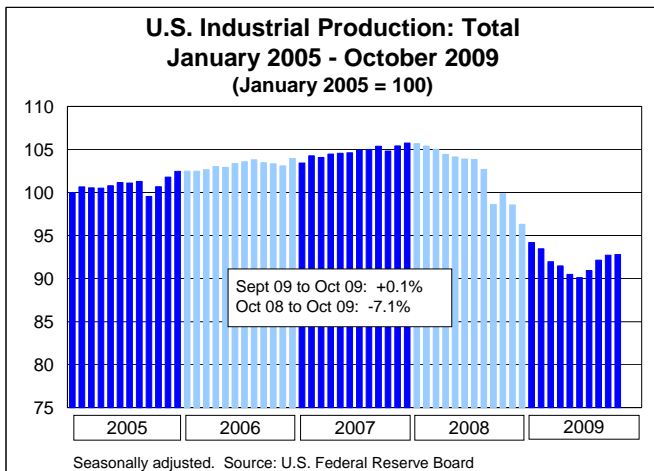
INDUSTRIAL PRODUCTION

Who releases it and when?

- The U.S. Federal Reserve Board, around the middle of each month.

What is it and why is it important?

- Industrial production figures are based on the monthly raw volume of goods produced by U.S. industrial firms such as factories, mines, and electric utilities. The industrial sector generally exhibits the most volatility in output during a business cycle.



What are the latest numbers?

- **Industrial production rose 0.1% in October 2009** from September 2009 (see charts at bottom of previous page). It's the fourth straight monthly increase, though November's increase was by far the smallest of the four months.

Where to go for more information:

- The Federal Reserve release on industrial production in October is [here](#). November data will be released on December 15, 2009.

% Change in U.S. Industrial Production October 2009 vs. October 2008	
Total industrial production	-7.1%
Manufacturing	-7.5%
Primary metals	-18.8%
Iron and steel products	-24.2%
Wood products	-15.0%
Motor vehicles and parts	-11.6%
Paper	-5.5%
Chemicals	-0.8%
Coal mining	-6.2%

Source: Federal Reserve Board

CAPACITY UTILIZATION

Who releases it and when?

- The U.S. Federal Reserve Board, around the middle of each month.

What is it and why is it important?

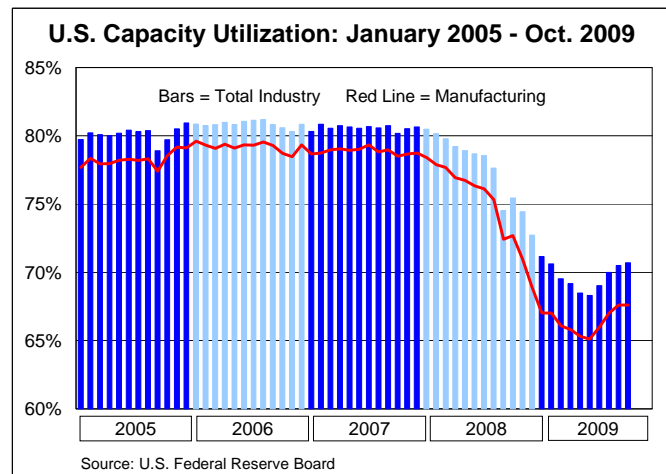
- Capacity utilization attempts to capture the concept of sustainable maximum output — *i.e.*, the highest output a plant can maintain assuming a realistic work schedule, normal downtime, and sufficient availability of inputs to operate the capital in place. The Fed provides capacity indexes for 87 industries (69 in manufacturing, 16 in mining, and 2 in utilities).
- In theory, a capacity utilization rate of, say, 70% means there is room to increase production up to 100% without having to build new plants or add equipment. In practice, capacity utilization rates (at least on an economy-wide basis) never come close to 100%. Utilization levels above 82%-85% are generally considered "tight" and forecast price increases or supply shortages in the near future. The farther below this level, the more slack there is in the economy.

What are the latest numbers?

- **Capacity utilization for total industry** (mining, manufacturing, and gas and electric utilities) **inched up in October 2009 to 70.7%** from 70.5% in September 2009. That's the **fourth straight monthly increase** and its highest point since January 2009.
- Capacity utilization for manufacturing was 67.6% in October 2009, equal to what it was in September 2009. It was 72.7% in October 2008 and 78.5% in October 2007.

Where to go for more information:

- The Federal Reserve release on capacity utilization in October is [here](#). November data will be released on December 15, 2009.



NUMBER OF EMPLOYED PERSONS AND UNEMPLOYMENT RATE

Who releases it and when?

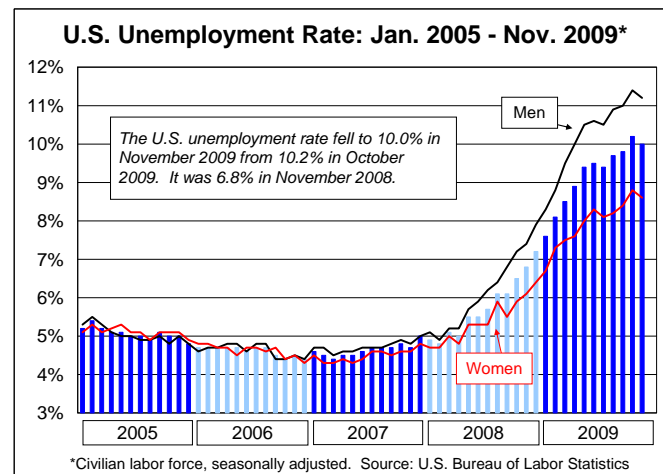
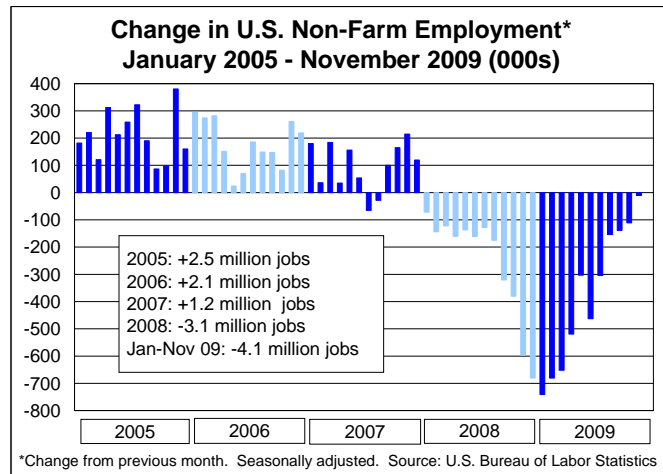
- U.S. Bureau of Labor Statistics (BLS) near the beginning of each month.

What is it and why is it important?

- The figures provide a snapshot of the strength of the U.S. labor market and are based on surveys of tens of thousands of households and businesses. In the United States, a gain of at least **150,000 or more jobs from one month to the next is generally considered solid job growth.**
- Employment is often considered a lagging indicator because employers often decide to wait until they're sure an economic recovery is here to stay before making new hires.
- Weak job numbers cause even the still-employed to become less confident of the future, and, therefore, less prone to spend money (see "Consumer Confidence" and "Retail Sales" below).

What are the latest numbers?

- That sound you hear is a loud sigh of relief from the White House and Congress. Net U.S. **non-farm employment fell by just 11,000 in November 2009** from October 2009, the fewest job losses since the recession began in December 2007. Moreover, job losses in October 2009 were revised downward to 111,000 from the original estimate of 190,000.
- The **unemployment rate in November 2009 fell to 10.0%**, down from 10.2% in October 2009.
- This is good news to be sure, but don't get carried away. In the United States, a gain of more than 100,000 jobs each month is necessary just to keep up with the average growth in new entrants to the labor force. The economy could still be a long way from that, much less able to start filling in the huge hole that's been created with the loss of 7.2 million jobs since the recession began.
- Moreover, the 7.2 million is really an understatement. In November 2009, there were 9.2 million people working part time for economic reasons (either because their hours had been cut back or because they could not find a full-time job), compared with 4.6 million in December 2007 when the recession began. In other words, there are twice as many of these "involuntary part time workers" today who want but don't have a full-time job — but they are counted as employed in the official BLS employment data.
- There were another 861,000 "discouraged" workers in November 2009, up from 608,000 in November 2008 and 349,000 in November 2007. These are persons who are not currently looking for work because they think no jobs are available for them. Because they have not searched for work in the past 4 weeks, they are not considered to be in the labor force and thus are not counted in the unemployment rate — even though they want work.
- If involuntary part-time workers and discouraged workers were included as "unemployed," the unemployment rate would be closer to 17% than 10%.



Where to go for more information:

- The BLS press release on the employment situation in November 2009 is [here](#). Data for December 2009 will be released on January 8, 2009.

CLASS I RAILROAD EMPLOYMENT

Who releases it and when?

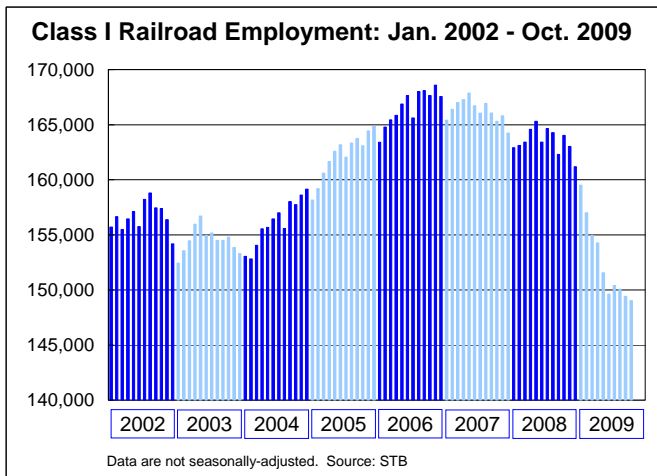
- Surface Transportation Board (STB), around the middle of the month.

What is it and why is it important?

- Report showing the average number of Class I employees at mid-month. As in other industries, employment in the rail industry is in large part a function of the level of business — *i.e.*, how much freight is being hauled.

What are the latest numbers?

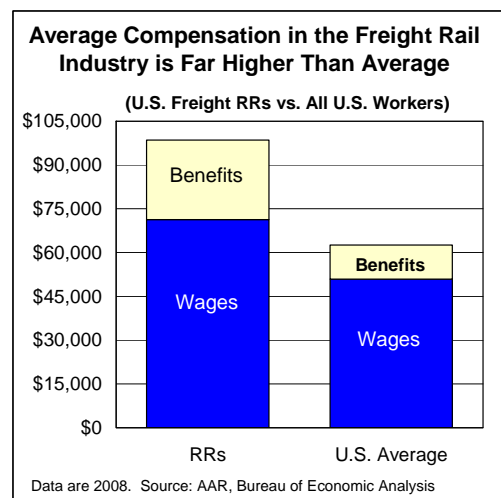
- Class I freight railroad employment **fell to 149,020 in October 2009, down approximately 400 employees** from September 2009 and down 19,600 from the recent peak of 168,582 in November 2006. However, the number of train and engine employees — mainly engineers and conductors, the ones who run the trains — rose by 600 (1.1%) in October to 57,198.



- Freight railroad employees are, on average, among the best-paid workers in American industry. In 2008, the average U.S. freight railroad employee earned wages of \$71,300 and fringe benefits of \$27,200, for total compensation of \$98,500.
- By contrast, the average wage per full-time equivalent employee in the United States in 2008 was \$50,900 (just 71% of the comparable rail figure) and average total compensation was \$62,600 (64% of the rail industry figure).

Where to go for more information:

- The STB web site for employment data is [here](#).



INDEX OF CONSUMER CONFIDENCE

Who releases it and when?

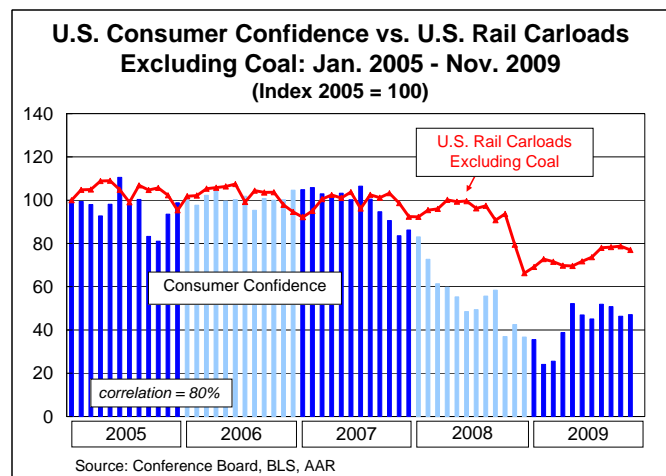
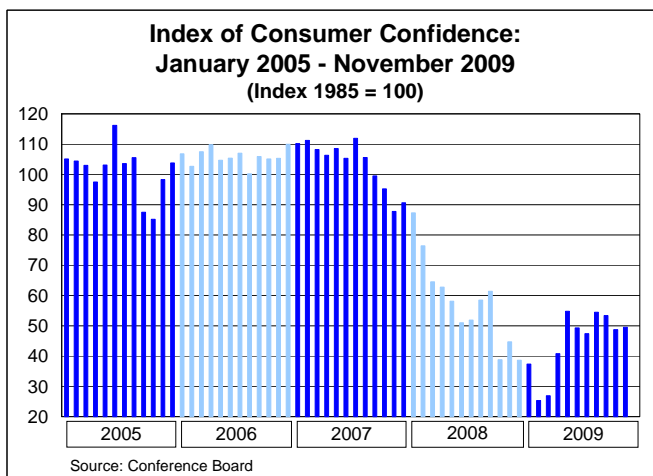
- The Conference Board, last Tuesday of the month.

What is it and why is it important?

- An index based on a monthly survey of 5,000 U.S. households designed to gauge the financial health, spending power, and confidence of the average consumer. Respondents are asked about current conditions and their expectations for the next six months.
- The index is designed to predict **future consumer spending**, on the theory that the more confident consumers are about their job prospects, income, etc. the more likely they are to make purchases, especially big-ticket items.

What are the latest numbers?

- The consumer confidence index **rose in November 2009 to 49.5**, up from a revised 48.7 in October 2009 (see chart below left).
- What the Conference Board said regarding the November figure: “The moderate improvement in the short-term outlook was the result of a decrease in the percent of consumers expecting business and labor market conditions to worsen, as opposed to an increase in the percent of consumers expecting conditions to improve. Income expectations remain very pessimistic and consumers are entering the holiday season in a very frugal mood.”
- Over the past few years, there's been a positive correlation (i.e., when one goes down, so does the other) between rail traffic and consumer confidence. But while rail traffic has fallen sharply during the recession, it hasn't fallen nearly as much as consumer confidence has (see chart below right).



Where to go for more information:

- The Conference Board's press release on the consumer confidence index in November is [here](#).

RETAIL SALES

Who releases it and when?

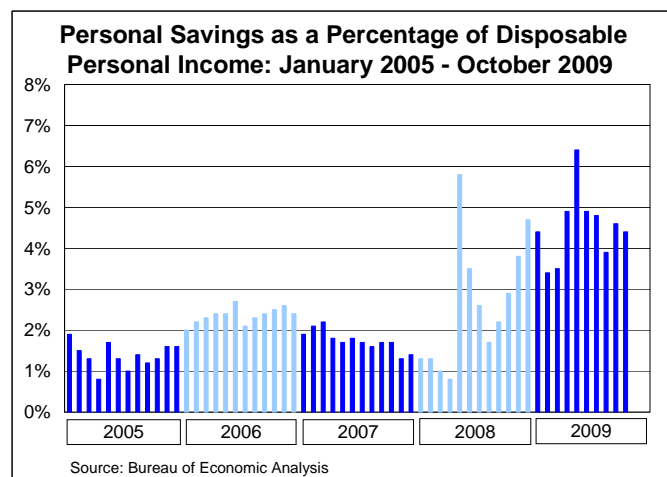
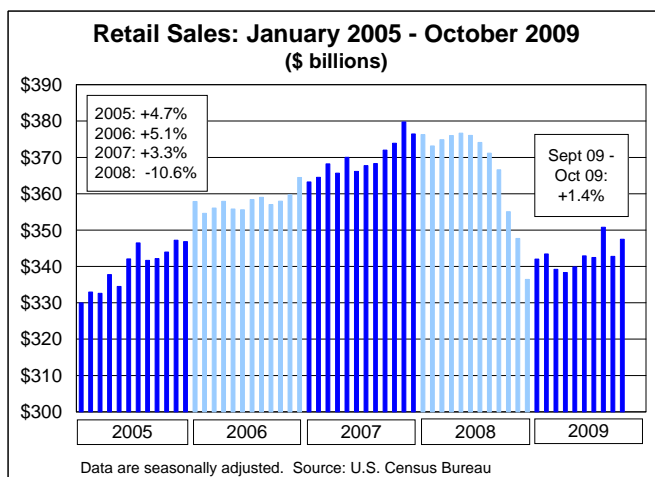
- The U.S. Census Bureau, around the ninth business day of each month.

What is it and why is it important?

- Uses a monthly survey of 5,000 retailers of all types to track the dollar value of physical merchandise sold. The data are adjusted for holiday differences and seasonal variations but are not adjusted for inflation. Revisions to prior data can be sizable.
- Personal consumption accounts for approximately 70% of U.S. GDP. Thus, the health of the economy depends largely on how much “stuff” people buy.
- It often takes time for consumers to recover from and respond to economic events. Thus, an increase in spending today may reflect the results of an economy that began to recover a few months earlier. A decrease in spending today may confirm an ongoing or worsening recession.

What are the latest numbers?

- Total **retail sales rose 1.4% (\$4.7 billion) in October 2009 from September 2009** (see chart below left). Excluding autos, retail sales rose just 0.2% in October 2009 from the previous month.
- Higher motor vehicle and parts sales accounted for \$4.0 billion of the \$4.7 billion gain in October; bars and restaurants (up \$455 million, or 1.2%) and general merchandise (up \$381 million, or 0.8%) accounted for most of the rest. Sales at building and gardening suppliers fell \$559 million, or 2.4%.
- October retail sales were certainly nothing spectacular and indicate that, by and large, consumers are still just tip-toeing back into the water. A key question for the economy is how quickly consumers throw down their towels and run, rather than tip-toe, back into the water.



- Government programs such as tax rebates and extended unemployment benefits have certainly helped elevate incomes, and therefore consumer spending, in recent periods. But these programs can't last forever and in any case aren't big enough to sustain consumer spending at a high level for the long term.
- In recent months, there's been a slight downward trend in **savings as a percentage of disposable income** (see chart above right). Since what's not saved is spent, if this trend continues it may presage a return to more free-spending days. The fact is, Americans like to shop — as Joe Queenan recently wrote in *The Wall Street Journal*, “[A]sking Americans to tighten their purse strings is like asking the French to lay off the *bouillabaisse*.”
- There is a strong positive correlation between consumer confidence and retail sales (see p. 22 of October 2009's *Rail Time Indicators* here). On the previous page, we showed that there is a strong positive correlation between consumer confidence and rail carloads excluding coal. It

follows, then, that there should also be a strong positive correlation between retail sales and rail carloads excluding coal. And in fact, there is, as the chart at right shows.

Where to go for more information:

- The Census Bureau’s press release on October retail sales is [here](#). November retail sales will be released on December 11, 2009.

LIGHT VEHICLE SALES

Who releases it and when?

- The U.S. Bureau of Economic Analysis.

What is it and why is it important?

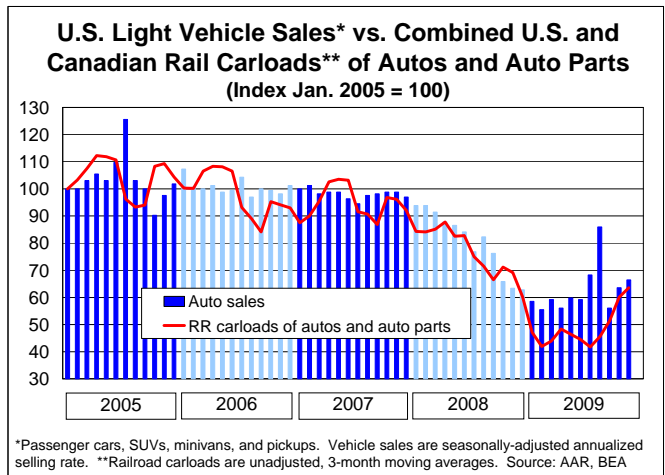
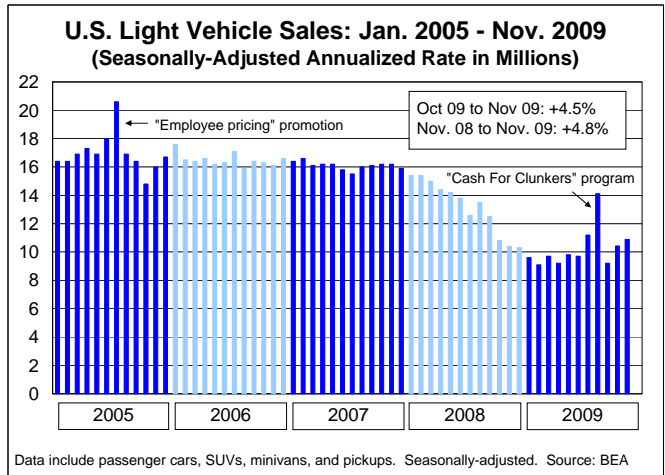
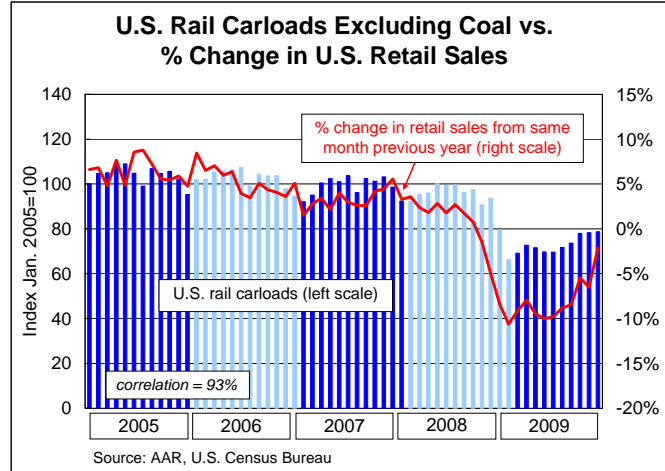
- Covers U.S. sales of cars and light trucks, including pickups and SUVs. Over the past 50 years, spending on motor vehicles has accounted, on average, for about 3.7% of U.S. GDP.
- In 2008, 6% of U.S. Class I railroad revenue came from hauling autos and auto parts.

What are the latest numbers?

- U.S. light vehicle sales **rose 4.5% in November 2009** from October 2009 to a seasonally-adjusted annualized selling rate (SAAR) of **10.9 million** (see chart at right). U.S. and Canadian rail carloads of motor vehicles and parts saw a corresponding uptick in November (see chart below right).
- Capacity continues to be a big problem for automakers. According to Federal Reserve data, capacity utilization for motor vehicle and parts manufacturing was just 51.5% in October 2009, after falling to as low as 37.5% in January 2009. Unless auto sales pick up substantially — something that can’t be considered likely at this point — it appears that the industry’s excess capacity problems won’t be going away any time soon.

Where to go for more information:

- BEA data on auto sales are [here](#).



HOUSING STARTS

Who releases it and when?

- Census Bureau, around the middle of each month.

What is it and why is it important?

- A housing start is beginning the foundation of a residential home.
- Housing directly accounts for around 5% of the overall economy and has large spillover effects on other sectors, such as retail sales and manufacturing, since people buying new homes tend to spend on other goods such as furniture, lawn and garden supplies, and appliances.
- Housing starts are generally considered to be a “leading indicator” because construction growth usually picks up at the beginning of a business cycle.

What are the latest numbers?

- On an annualized basis, seasonally-adjusted housing starts in October 2009 **were down 10.6% to 529,000** from a revised 592,000 in September 2009. Housing starts essentially bottomed out in January 2009 but haven’t done much since. Why? One big reason is that home vacancy is at it’s highest level since the Census Bureau started measuring it in the 1950s. Simply put, not much new housing is needed because existing inventory is so high.
- The bottom line: housing led the way into the recession and seems intent on being the last one segment of the economy out of it.

Where to go for more information:

- The Census Bureau’s press release on housings starts in October is [here](#). November’s housing starts will be released on December 16, 2009.

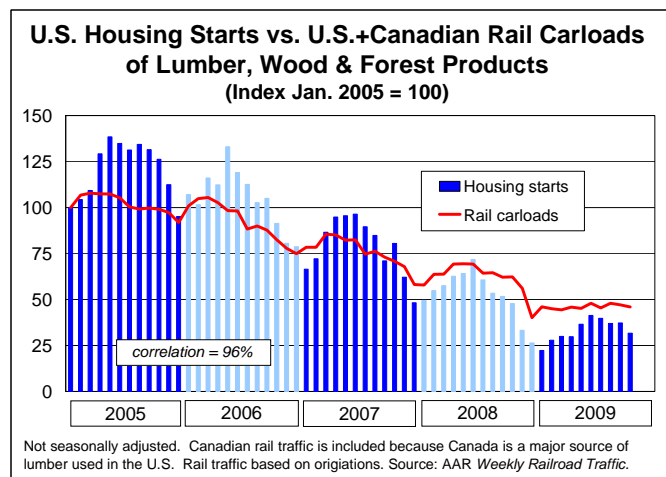
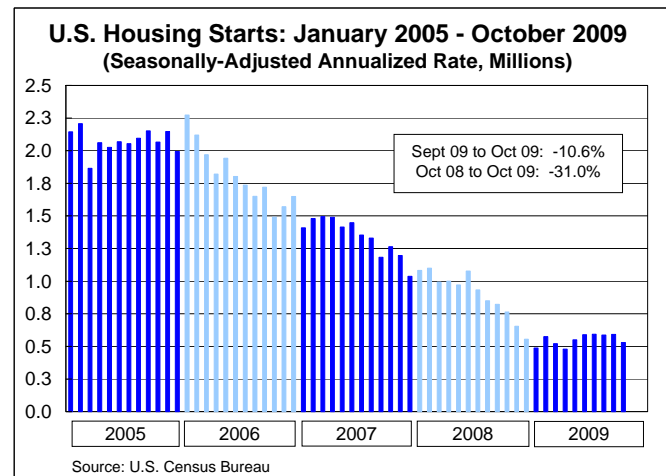
CONSUMER PRICE INDEX (CPI)

Who releases it and when?

- U.S. Bureau of Labor Statistics (BLS), mid-month.

What is it and why is it important?

- The CPI is the benchmark inflation guide for the U.S. economy. It measures the changes in the cost of a representative basket of consumer goods and services. The BLS collects prices from 23,000 retail and service establishments throughout the country.
- It’s hard not to have at least a little inflation when an economy is growing, but inflation can harm economies in many ways. Just one example: inflation confuses price signals – producers don’t



know if higher prices are simply part of an inflation-related adjustment or if they signal higher demand that warrants expanded production. Inflation also erodes the value of wages and savings, adds to uncertainty, and complicates business planning, among other things.

- The CPI is the basis for cost-of-living adjustments for Social Security, federal retirement payments, many private pensions, and food stamps.

What are the latest numbers?

- In October 2009, the **consumer price index** for all urban consumers (CPI-U) was up **0.3%** on a seasonally-adjusted basis over September 2009 and **down 0.2%** on a **year-over-year** basis. The “core” CPI was also up 0.2% in October. What’s this mean? For now, inflation is under control.

Where to go for more information:

- The BLS press release on the October CPI is [here](#). November’s CPI will be released on December 16.

U.S. DOLLAR EXCHANGE RATE

Who releases it and when?

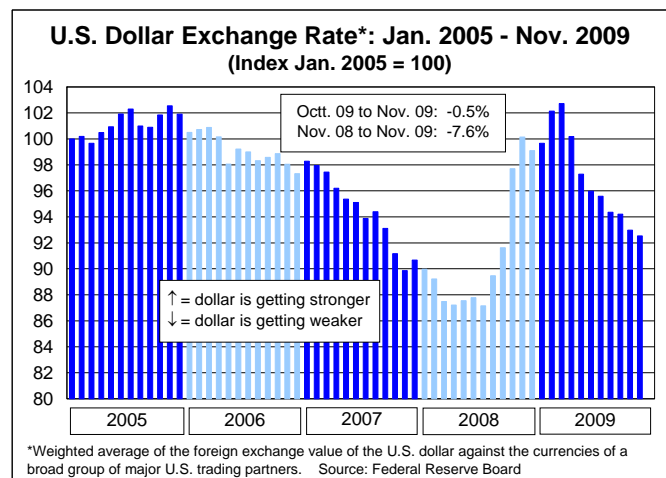
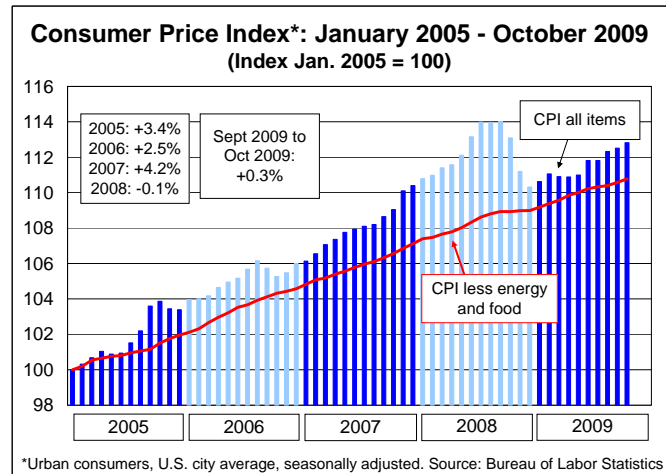
- The Federal Reserve Board, daily.

What is it and why is it important?

- An index comprised of a weighted average of the value of the U.S. dollar against the currencies of a group of major U.S. trading partners.
- An exchange rate is the **price of one currency against another**. A weaker U.S. dollar (“depreciation”) means that U.S. imports become relatively more expensive and U.S. exports become relatively less expensive abroad. All else equal, that means fewer U.S. imports and more U.S. exports.² Because the U.S. is such a huge market, prolonged weakness in the dollar’s value could harm the economies of export-driven countries around the world.
- Conversely, a stronger dollar (“appreciation”) means U.S. imports become relatively cheaper and U.S. exports become more expensive. All else equal, that means more U.S. imports and fewer U.S. exports.

What are the latest numbers?

- The U.S. dollar **fell another 0.5% in November 2009** and is now 7.6% below its November 2008 level. The dollar has now weakened for eight consecutive months.
- The dollar’s recent peak was March 2009, which followed a period in which



² For example, suppose a German company wants to export to the United States a ton of chemicals that costs 100 euros in Germany. At \$1.50 per euro, the chemicals cost \$150 (100 x 1.5) in the U.S. If the dollar gets stronger so that one euro falls to \$1.20, the cost of the chemicals to a U.S. customer falls to \$120 (100 x 1.2). If the dollar gets weaker so that one euro is, say, \$1.80, the cost of the chemicals in the U.S. rises to \$180 (100 x 1.8).

the dollar was widely seen as a “safe haven” amidst a global financial storm. Today, many believe the dollar isn’t nearly the haven it once was. For example, some ascribe much of the recent increase in the price of gold (to record highs) to a lack of confidence in the dollar.

Where to go for more information:

- Exchange rate data from the Federal Reserve is [here](#).

DOW JONES ECONOMIC SENTIMENT INDICATOR (ESI)

Who releases it and when?

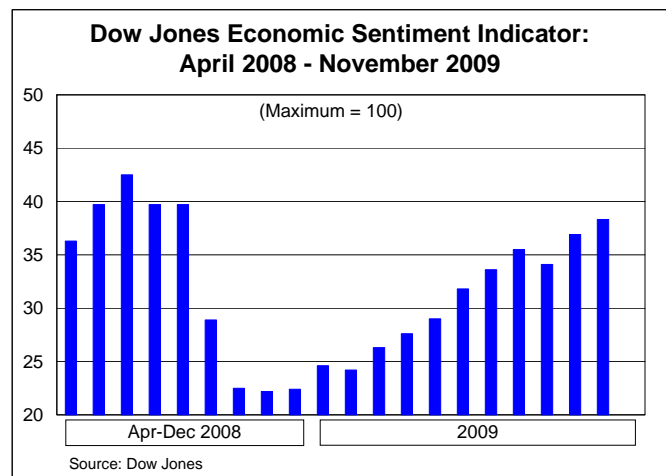
- Dow Jones, on the last business day of the month.

What is it and why is it important?

- The ESI was unveiled on April 30, 2009, and with such a short history it’s not clear it’s important at all. That said, according to Dow Jones, the ESI “aims to predict the health of the U.S. economy by analyzing the coverage of 15 major daily newspapers in the U.S. It uses a numerical scale from 0 to 100 to express the balance of sentiment in articles about the economy. ...The ESI’s back-testing to 1990 ...suggests the indicator can help predict economic turning points as much as seven months in advance of other indicators.”

What are the latest numbers?

- **The ESI for November 2009 was 38.3**, up from 36.9 in October and the highest level since August 2008.
- According to Dow Jones, the gain in the ESI in November suggests that “the U.S. economic recovery is entrenched” and resulted from “increasingly positive media coverage of consumer spending.”
- According to Dow Jones, “In November 2008 gloomy shopping-related articles outweighed positive ones by three to one, helping drive the ESI down to its lowest ever level of 22.2. This



November the balance is much more equal, indicating a healthier economic outlook and pushing the indicator back to levels not seen since the collapse of Lehman Brothers – although retail-related articles with negative sentiment still remain in the majority.”

Where to go for more information:

- Information on the Dow Jones ESI is [here](#).

RAIL FREIGHT CARS IN STORAGE

Who releases it and when?

- The Association of American Railroads, each month in [Rail Time Indicators](#).

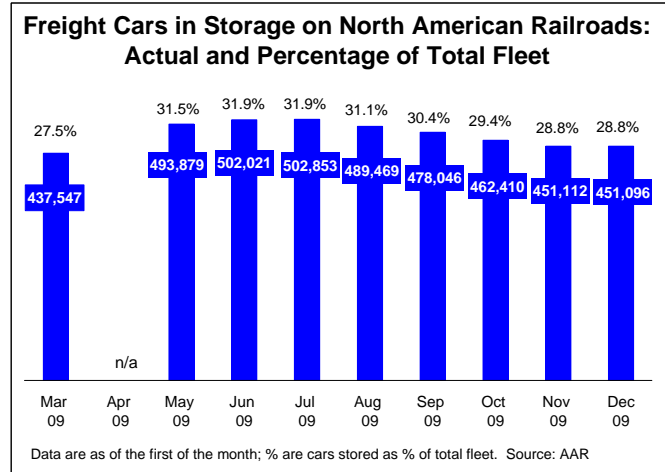
What is it and why is it important?

- The AAR began measuring this in March 2009. (Data for previous periods are not available.) A freight car is deemed to be “in storage” if it has not had a loaded revenue move in more than 60

days. Rail cars are stored when they are not needed; they come out of storage when they are. Figures are for the entire North American rail freight car fleet.

What are the latest numbers?

- As of December 1, there were 451,096 freight cars in storage — virtually unchanged from the month earlier and equal to 28.8% of the rail car fleet.
- During November, slightly more than 2,000 covered hoppers and nearly 1,300 flat cars were removed from storage, while about 1,600 tank cars and 1,400 open hoppers went past the 60-day threshold without a loaded move and thus moved into the “stored” category. Changes in other car types were smaller.



Where to go for more information:

- Contact Frank Hardesty of the AAR’s Policy and Economics Department at 202-639-2321 or fhardesty@aar.org.

To get on the e-mail distribution list for Rail Time Indicators, send a request (including your name and business affiliation, if any) to Beth Eagney at beagney@aar.org.

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