

**Selected
US Industrial Activity
JAN 07- MAY 09**

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About Sensorlytics LLC

Sensorlytics LLC is a consultancy established by technologist and author Ed Ramsden to serve the sensors and related technology industries. Sensorlytics offers the following services and products:

- Market Research
- Product Definition
- Technical Communications
- Data Analysis
- Technical Publications & Software

Visit us on the web at

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1. Commentary

Welcome and Introduction

Welcome to the second issue of Sensorlytics LLC's US Industrial Activity Bulletin. This bulletin is intended to provide a quantitative high-level view of recent economic activity in US industries that buy sensors, transducers, and related products.

We live in a world of 30-second sound bites and isolated statistics on a continuous feed from the media. While 'talking heads' and 'factoids' can be entertaining, they do not form a sound basis for decision-making - this requires well-organized, coherent data from which market characteristics and trends can be deduced.

As part of our ongoing market research, we try to keep up with overall trends - a 37,000 foot view of the US economy with a focus on manufacturing. We are publishing some of the results of some of our basic data collection activities as a service to the sensors community. While this bulletin is not comprehensive, it describes approximately one trillion dollars of annual US economic activity - a sizable part of the total manufacturing sector. Since this is primarily an informational bulletin, we will be keeping commentary and speculation to a minimum, and just try to point out trends in the data as we see them.

This bulletin is divided into sections that each cover an industry or related group of industries. Each section provides historical data on sales, and where possible, orders. As tables of numbers can be difficult to understand, we have also provided plots of this information over time, helping you to understand both the long and short-term trends for each of these industries.

Sensorlytics intends to issue follow-on updates to this bulletin on an ongoing basis. If you would like to receive these updates, as well as other bulletins we may publish, please visit our website (www.sensorlytics.com) and sign up for our newsletter. We would also like to hear your comments on whether this report was useful to you and feedback on what might make it more useful to the sensors community in general.

In addition to this report, Sensorlytics also offers market research and other consulting services. If you have a need for the types of services we provide, please contact us..

Commentary, continued.

Commentary....

The U.S. Manufacturing sector has become even more of a grim place since our last Bulletin in March. There have been very few encouraging spots. Most of the sectors we report on seem to be divisible into one of three categories: (1) those that appear to be continuing to decline, (2) those that seem to have hit a bottom and show slight signs of recovery, and (3) those that seem to have hit bottom and stabilizing there. Because of measurement error and the intrinsic month-to-month variation in sector output and new orders, this categorization may change dramatically by the next issue of this bulletin.

Continued Decline	Hit Bottom, Possibly Recovering	Hit Bottom, Possibly Stabilizing
Construction Equipment Semiconductors Computers Auto Manufacturing Light Truck Manufacturing Heavy Truck Manufacturing	Instrument & Control Industrial Equipment Material Handling HVAC & Refrigeration	Farm Machinery Extraction Equipment Appliance Manufacturing Boat & Ship Building

One bright sector has been military aircraft, with continued increasing shipments and stable orders. In contrast, shipments and orders for civil aircraft seem to be down, but this sector shows such enormous month-month variability that it is difficult to establish a short-term base trendline.

US auto and truck manufacturing continued to decline, although surprisingly auto and light truck sales saw a bit of an uptick in the past few months. This could mean that consumers are finally deciding to spend money on cars again, but are too spooked by recent events at US automakers to want to risk buying an American-made car.

Finally, orders for power generation equipment experienced a dramatic decline in the past few months. If one looks at the 10-year trend for this industry, however, high variability in monthly orders seems to be common, so this recent drop may not be completely driven by general economic conditions.

2 - Farm, Construction, and Extraction Machinery

US Manufacturer shipments and orders for heavy machinery used for farming, construction, or extractive industries (mining, oil, gas).

Data Source: US Dept. Of Commerce

Table 2.1 - Monthly Shipments, \$million, seasonally adjusted, last 2 years

	Farm Machinery	Construction Machinery	Extraction Machinery
Jun-07	1847	2195	1421
Jul-07	1858	2324	1410
Aug-07	1936	2359	1476
Sep-07	2068	2375	1435
Oct-07	2146	2366	1498
Nov-07	2104	2353	1496
Dec-07	2129	2374	1459
Jan-08	2158	2318	1475
Feb-08	2030	2362	1517
Mar-08	2137	2264	1431
Apr-08	2221	2355	1502
May-08	2278	2277	1528
Jun-08	2244	2387	1594
Jul-08	2501	2445	1616
Aug-08	2721	2443	1617
Sep-08	3006	2499	1674
Oct-08	2646	2562	1824
Nov-08	2563	2521	1759
Dec-08	2531	2226	1829
Jan-09	2679	2007	1673
Feb-09	2549	1815	1565
Mar-09	2459	1632	1449
Apr-09	2275	1506	1403
May-09	2283	1461	1419

Farm, Construction, and Extraction Machinery, continued.

Table 2.2 - Monthly Orders, \$million, seasonally adjusted, last 2 years

	Farm Machinery	Construction Machinery	Extraction Machinery
Jun-07		2169	1335
Jul-07		3777	1471
Aug-07		2454	1770
Sep-07		2235	1414
Oct-07		1509	1842
Nov-07		1864	1450
Dec-07		2229	1922
Jan-08	Data	2740	1613
Feb-08	Unavailable	1907	1566
Mar-08		3832	1456
Apr-08		2896	2170
May-08		2951	1971
Jun-08		2645	1990
Jul-08		3153	1970
Aug-08		2780	1861
Sep-08		2919	1938
Oct-08		1875	1805
Nov-08		1711	1794
Dec-08		1124	1629
Jan-09		771	1243
Feb-09		1198	1294
Mar-09		374	1175
Apr-09		919	1194
May-09		1025	1102

Farm, Construction, and Extraction Machinery, continued.

Trend Overview

Figure 2.1 - Monthly Shipments, \$million, seasonally adjusted, past 2 years

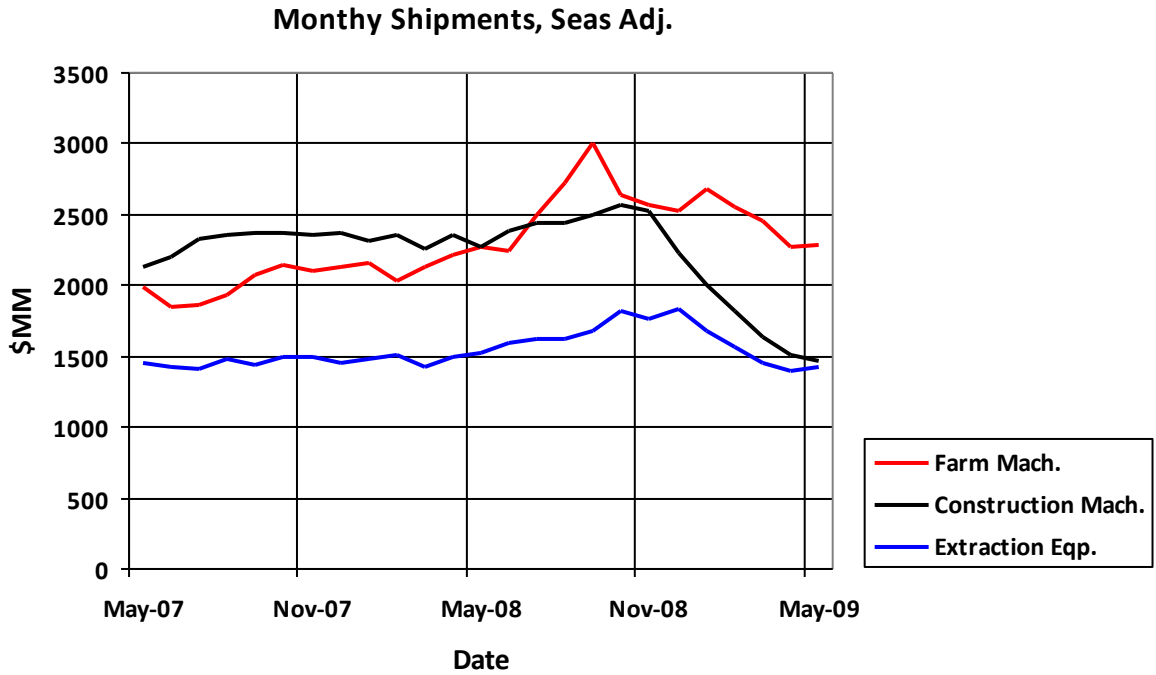
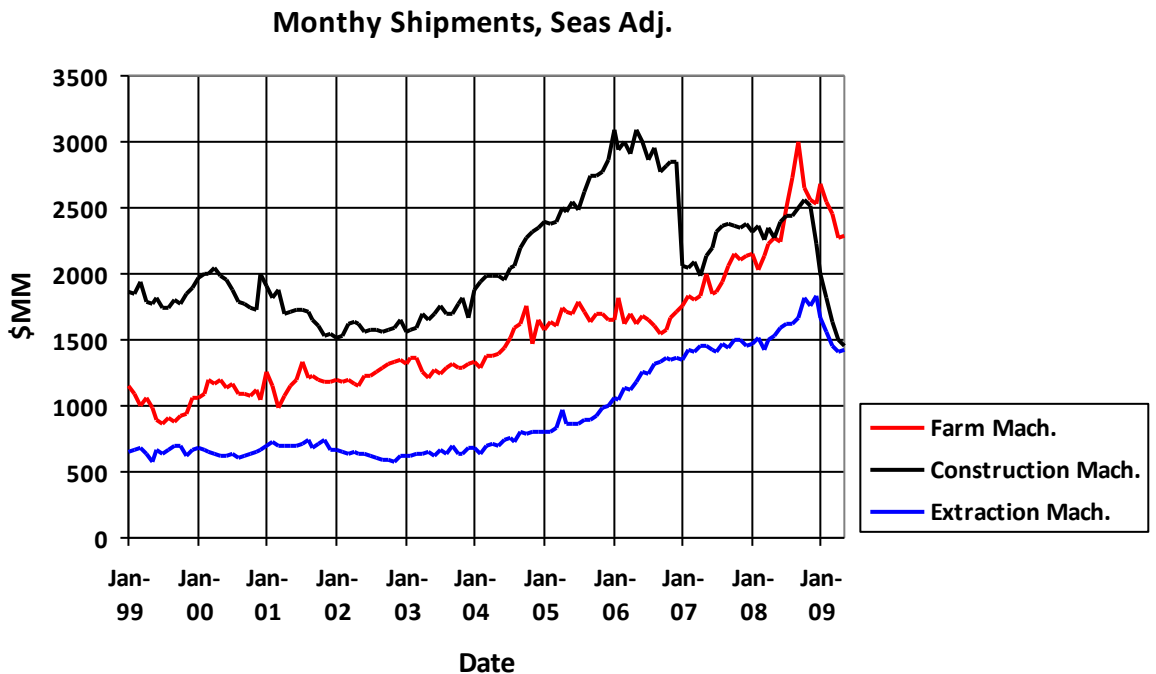


Figure 2.2 - Monthly Shipments, \$million, seasonally adjusted, past 10 years



Farm, Construction, and Extraction Machinery, continued.

Figure 2.3 - Monthly Orders, \$million, seasonally adjusted, past 2 years

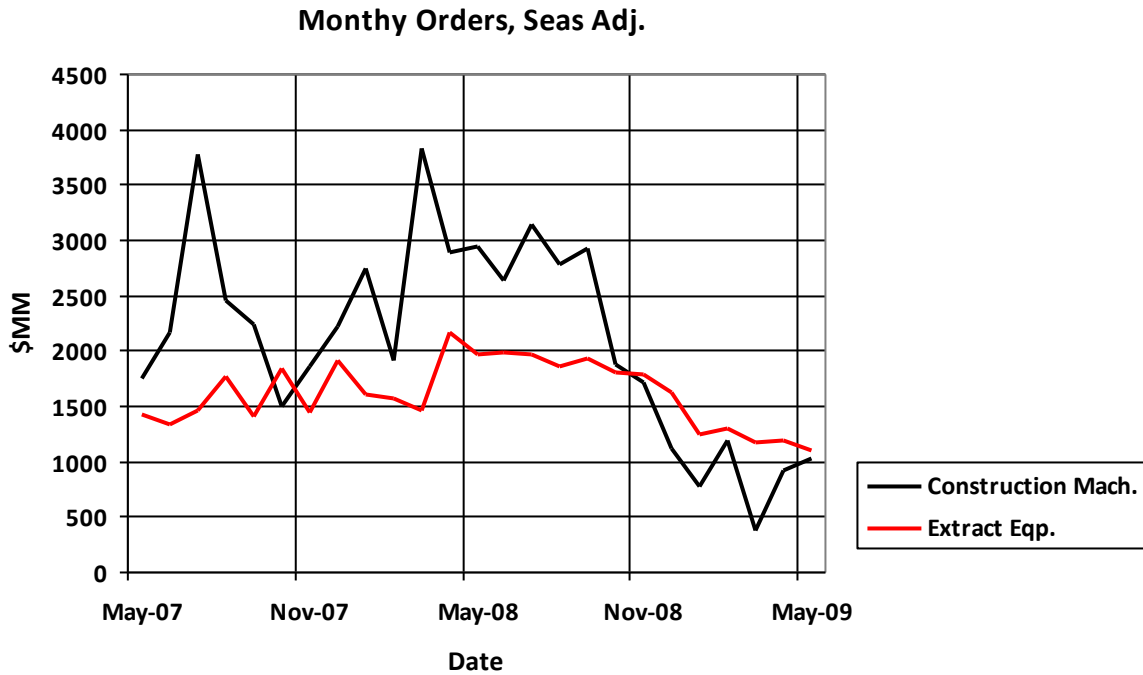
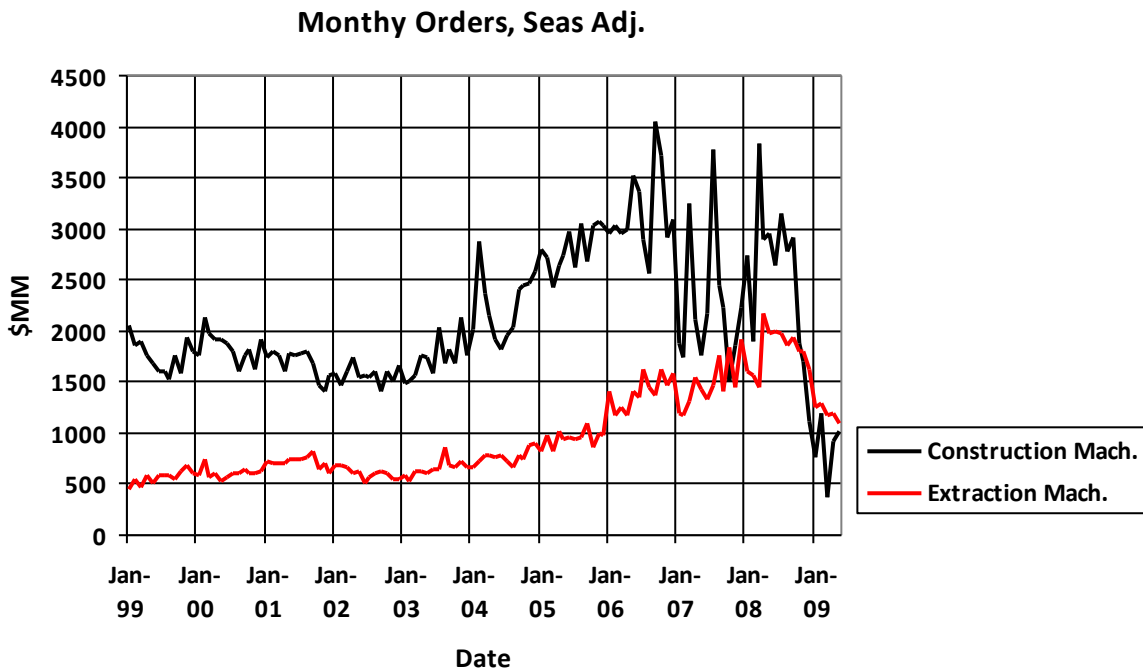


Figure 2.4 - Monthly Orders, \$million, seasonally adjusted, past 10 years



3 - Industrial, Metalworking, Material Handling Machinery

US Manufacturer shipments and orders for heavy machinery used for manufacturing and handling materials

Data Source: US Dept. Of Commerce

Table 3.1 - Monthly Shipments, \$million, seasonally adjusted, last 2 years

	Industrial Machinery	Metalworking Machinery	Material Handling Machinery
Jun-07	3332	2272	2339
Jul-07	3282	2379	2333
Aug-07	3369	2361	2448
Sep-07	3194	2195	2353
Oct-07	3101	2339	2334
Nov-07	3142	2411	2428
Dec-07	3102	2387	2466
Jan-08	3233	2475	2361
Feb-08	2994	2389	2671
Mar-08	3128	2337	2901
Apr-08	3071	2516	2494
May-08	3094	2453	2507
Jun-08	2892	2368	2457
Jul-08	2762	2578	2463
Aug-08	2772	2380	2372
Sep-08	2785	2407	2357
Oct-08	2682	2344	2349
Nov-08	2741	2294	2325
Dec-08	2638	2176	2179
Jan-09	2478	1937	1688
Feb-09	2233	1985	1626
Mar-09	2154	1810	1533
Apr-09	2326	1777	1609
May-09	2365	1630	1572

Industrial, Metalworking, Material Handling Machinery, continued.

Table 3.2 - New Orders, \$million, seasonally adjusted, last 2 years

	Industrial Machinery	Metalworking Machinery	Material Handling Machinery
Jun-07	3216	2282	2794
Jul-07	3385	2385	2533
Aug-07	3326	2407	2670
Sep-07	2889	2625	2336
Oct-07	3570	2565	2523
Nov-07	3293	2565	2491
Dec-07	3488	2634	2402
Jan-08	3527	2435	2684
Feb-08	3128	2355	2687
Mar-08	3144	2413	2775
Apr-08	3339	2854	2445
May-08	3061	2615	2300
Jun-08	2841	2531	2370
Jul-08	3395	2572	2602
Aug-08	2826	2536	2675
Sep-08	2683	2411	2285
Oct-08	2282	2163	2069
Nov-08	2083	2071	2045
Dec-08	1918	1906	1724
Jan-09	1307	1596	1281
Feb-09	1906	1602	1199
Mar-09	1169	1555	1361
Apr-09	1303	1459	1516
May-09	2232	1680	1664

Industrial, Metalworking, Material Handling Machinery, continued.

Trend Overview

Figure 3.1 - Monthly Shipments, \$million, seasonally adjusted, past 2 years

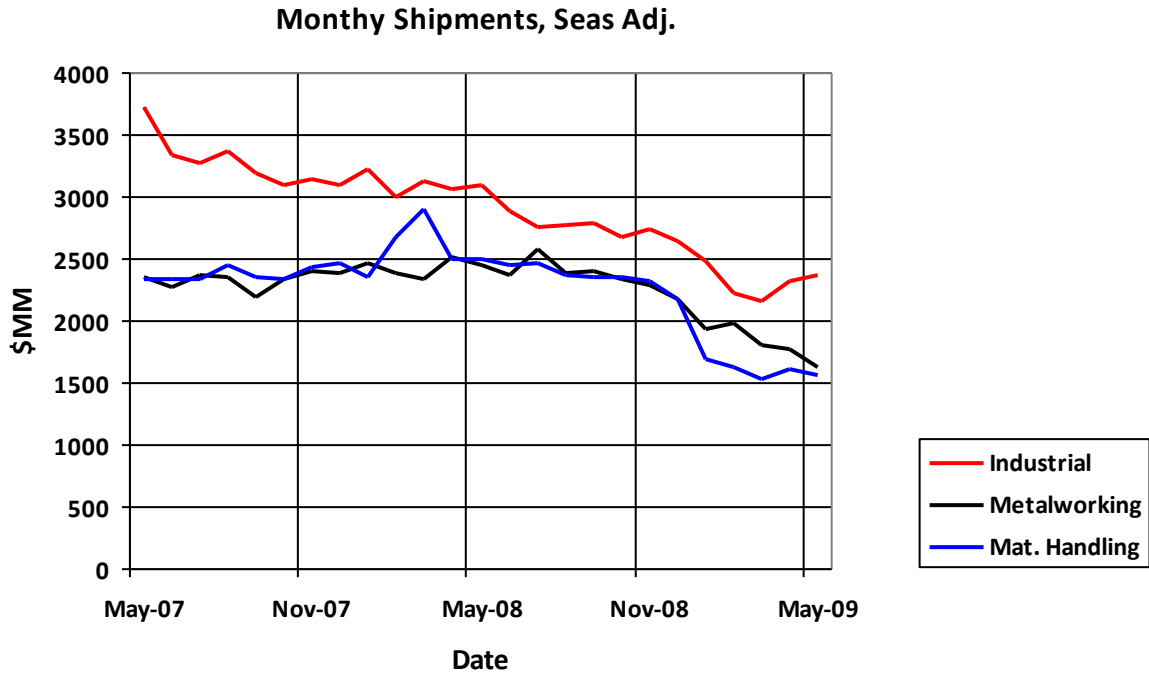
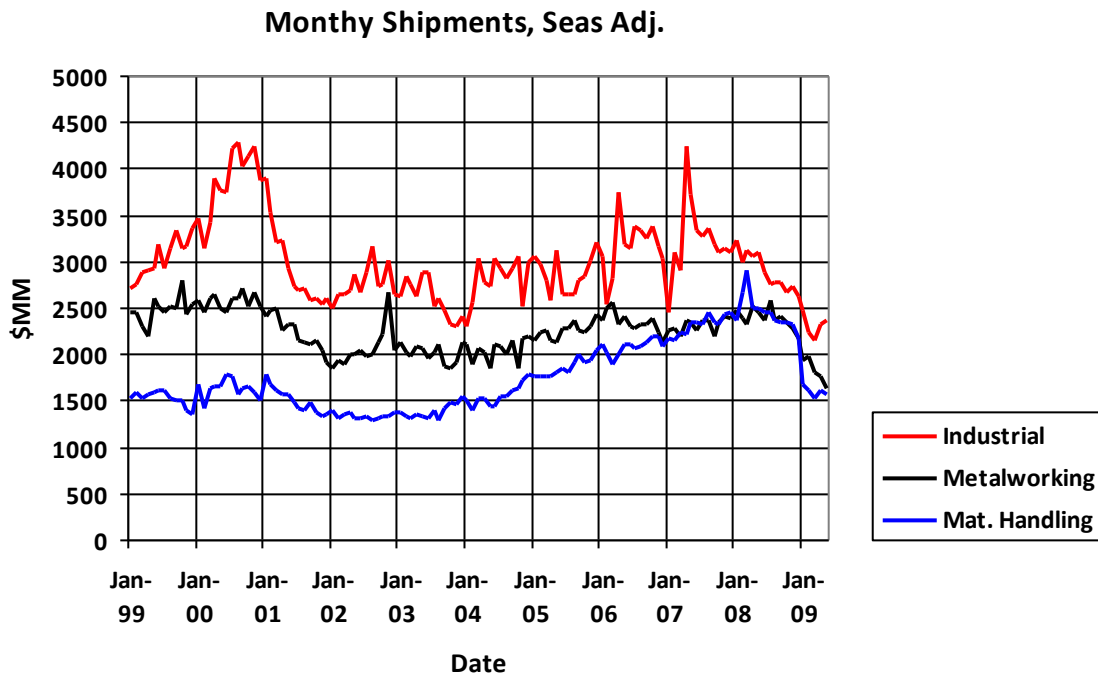


Figure 3.2 - Monthly Shipments, \$million, seasonally adjusted, past 10 years



Industrial, Metalworking, Material Handling Machinery, continued.

Figure 3.3 - Monthly Orders, \$million, seasonally adjusted, past 2 years

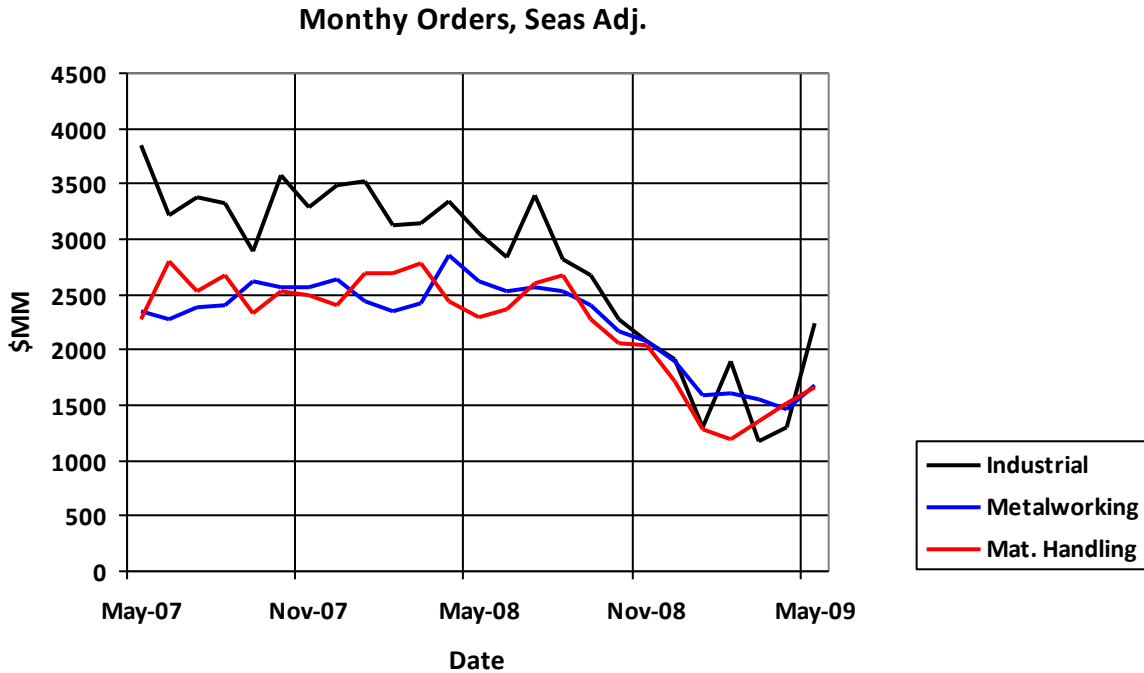
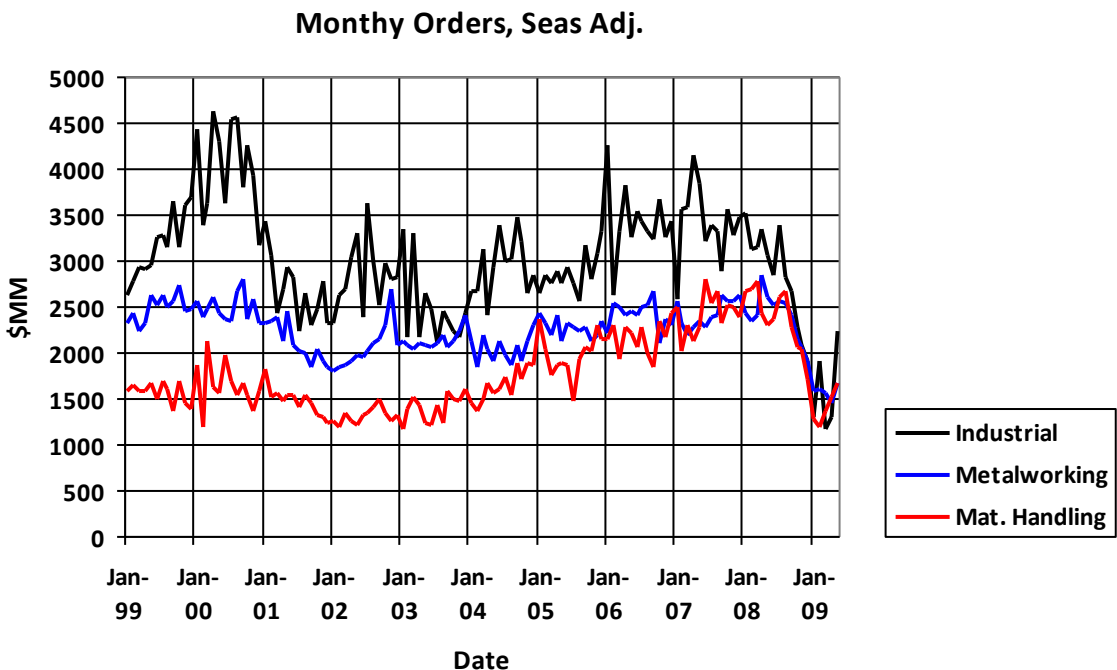


Figure 3.4 - Monthly Orders, \$million, seasonally adjusted, past 10 years



4- HVAC & Refrigeration Equipment

US Manufacturer shipments and orders for Ventilation, Heating, Air-conditioning, and Refrigeration Equipment

Data Source: US Dept. Of Commerce

Table 4.1 - Monthly Shipments and New Orders \$million, seasonally adjusted, last 2 years

	Shipments	New Orders
Jun-07	3640	3892
Jul-07	3898	4271
Aug-07	3488	3952
Sep-07	3605	4654
Oct-07	3625	4006
Nov-07	3669	4167
Dec-07	3553	4206
Jan-08	3693	4452
Feb-08	4812	3900
Mar-08	4272	3661
Apr-08	3890	4991
May-08	3846	4468
Jun-08	4003	5026
Jul-08	4013	5286
Aug-08	3888	4375
Sep-08	3758	3586
Oct-08	3582	3846
Nov-08	3373	3193
Dec-08	3446	2574
Jan-09	3149	3156
Feb-09	3280	3980
Mar-09	3225	3645
Apr-09	3378	3964
May-09	3526	3813

HVAC & Refrigeration Equipment, continued.

Trend Overview

Figure 4.1 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 2
Monthly Orders, Seas Adj.

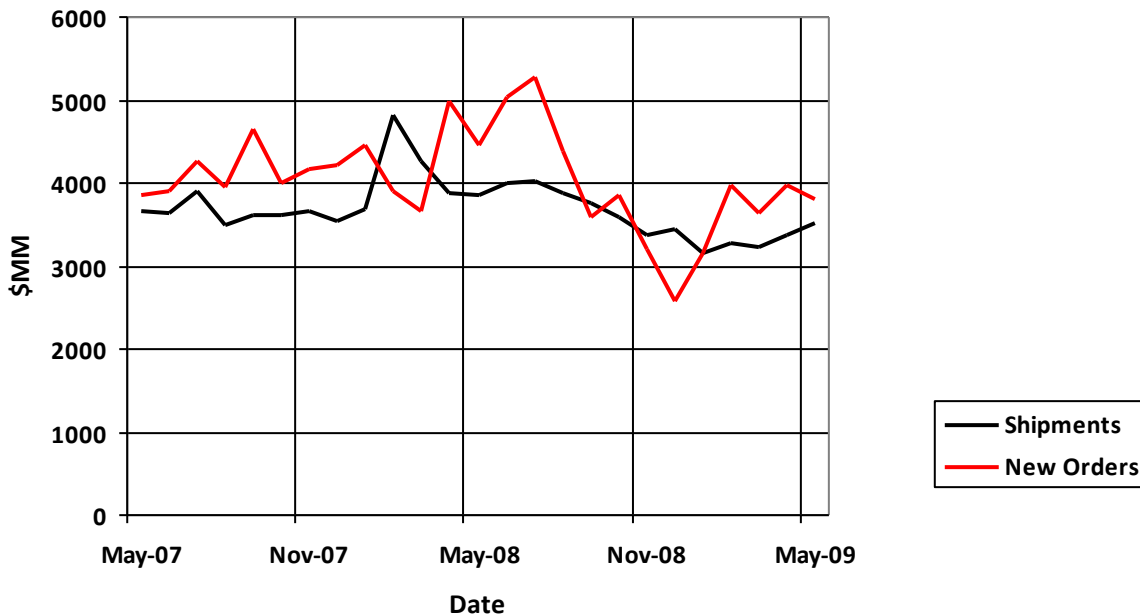
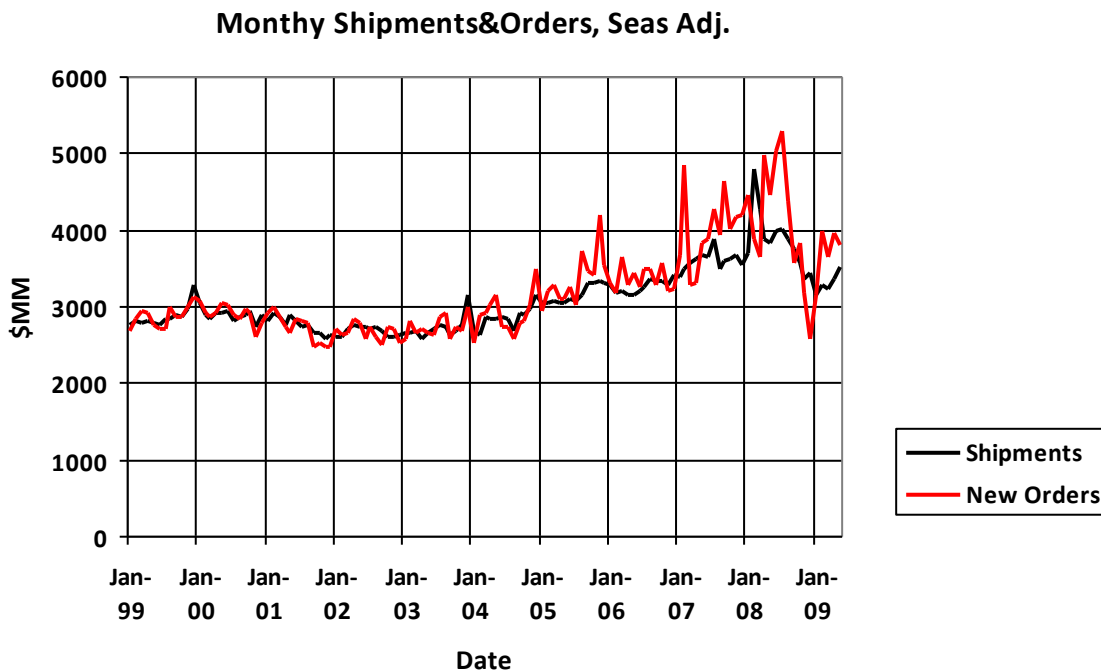


Figure 4.2 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 10 years
Monthly Shipments&Orders, Seas Adj.



5 - Power Generation & Transmission Equipment

US Manufacturer shipments and orders for Turbines, Generators and other Power-transmission Equipment

Data Source: US Dept. Of Commerce

Table 5.1 - Monthly Shipments and New Orders \$million, seasonally adjusted, last 2 years

	Shipments	New Orders
Jun-07	3690	3528
Jul-07	3605	3537
Aug-07	3353	3373
Sep-07	4158	4093
Oct-07	3288	4112
Nov-07	3713	3679
Dec-07	4418	4616
Jan-08	3320	3395
Feb-08	3481	3711
Mar-08	3585	4178
Apr-08	3715	3714
May-08	3901	3932
Jun-08	4451	4491
Jul-08	3521	3601
Aug-08	3567	3465
Sep-08	4401	4384
Oct-08	3461	3826
Nov-08	3920	4584
Dec-08	4925	4170
Jan-09	3088	2902
Feb-09	3136	2749
Mar-09	3253	3144
Apr-09	2611	2429
May-09	2852	2589

Power Generation & Transmission Equipment, continued.

Trend Overview

Figure 5.1 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 2 years

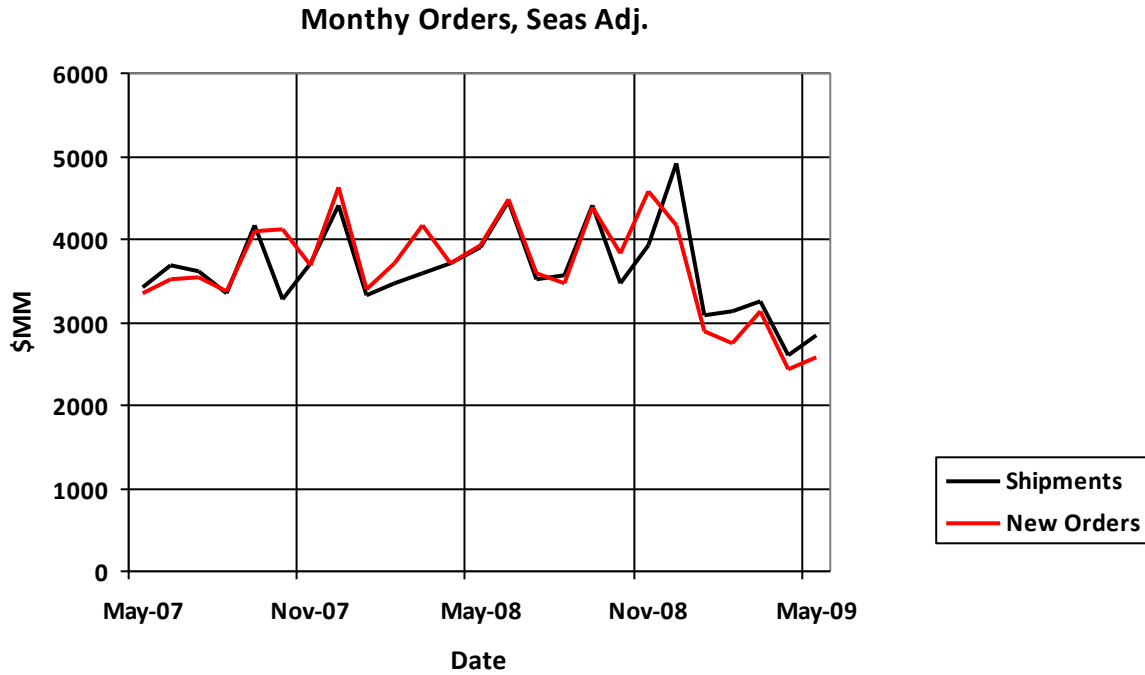
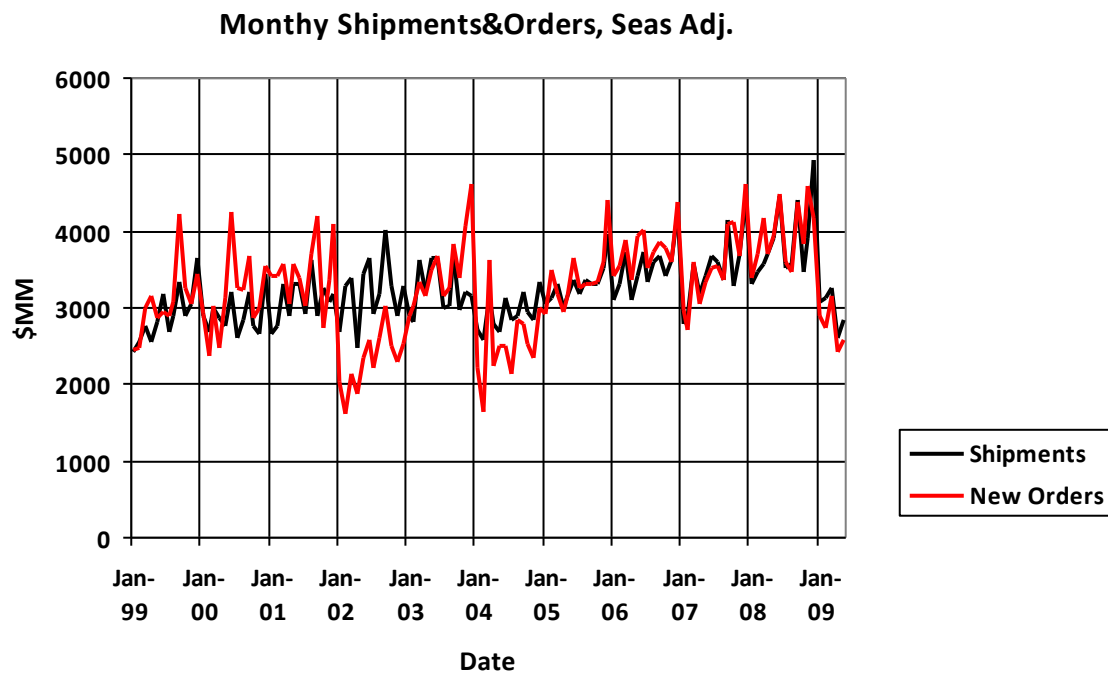


Figure 5.2 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 10 years



6 - Computers, Semiconductors, Instrumentation & Control

US Manufacturer shipments and orders for computers, semiconductors, and various instrumentation & control devices

Data Source: US Dept. of Commerce.

Table 6.1 - Monthly Shipments, \$million, seasonally adjusted, last 2 years

	Computers	Semiconductors	I&C
Jun-07	3526	4742	6806
Jul-07	2486	5579	6707
Aug-07	3309	5079	6710
Sep-07	3605	4471	6846
Oct-07	3546	5139	7108
Nov-07	3541	5155	6959
Dec-07	3503	4731	6716
Jan-08	3509	6790	7425
Feb-08	3449	4672	7022
Mar-08	3304	4416	6912
Apr-08	2975	5974	7563
May-08	3204	4699	7380
Jun-08	3097	4027	6985
Jul-08	3020	5595	7919
Aug-08	2873	4552	7827
Sep-08	2701	3902	7601
Oct-08	2760	5032	7567
Nov-08	2344	3932	7403
Dec-08	2495	4650	7317
Jan-09	2747	3841	7510
Feb-09	2718	3003	7618
Mar-09	2471	2891	7616
Apr-09	2553	4059	7555
May-09	2507	3692	7606

Computers, Semiconductors, Instrumentation & Control, continued.

Table 6.2 - Monthly Orders, \$million, seasonally adjusted, last 2 years

	Computers	Semiconductors	I&C
Jun-07	3630		7000
Jul-07	2766		6965
Aug-07	3543		6871
Sep-07	3703		7210
Oct-07	2955		7160
Nov-07	3609		7142
Dec-07	3657	Data	7004
Jan-08	2933	Not Available	7234
Feb-08	3603		7235
Mar-08	3533		7420
Apr-08	2857		7342
May-08	3409		7274
Jun-08	3443		7385
Jul-08	2886		7890
Aug-08	2954		7587
Sep-08	2721		7828
Oct-08	2426		7459
Nov-08	2891		7041
Dec-08	2448		7582
Jan-09	2343		6942
Feb-09	2721		7556
Mar-09	2392		7819
Apr-09	2176		7236
May-09	2781		7300

Computers, Semiconductors, Instrumentation & Control, continued.

Trend Overview

Figure 6.1 - Monthly Shipments, \$million, seasonally adjusted, past 2 years

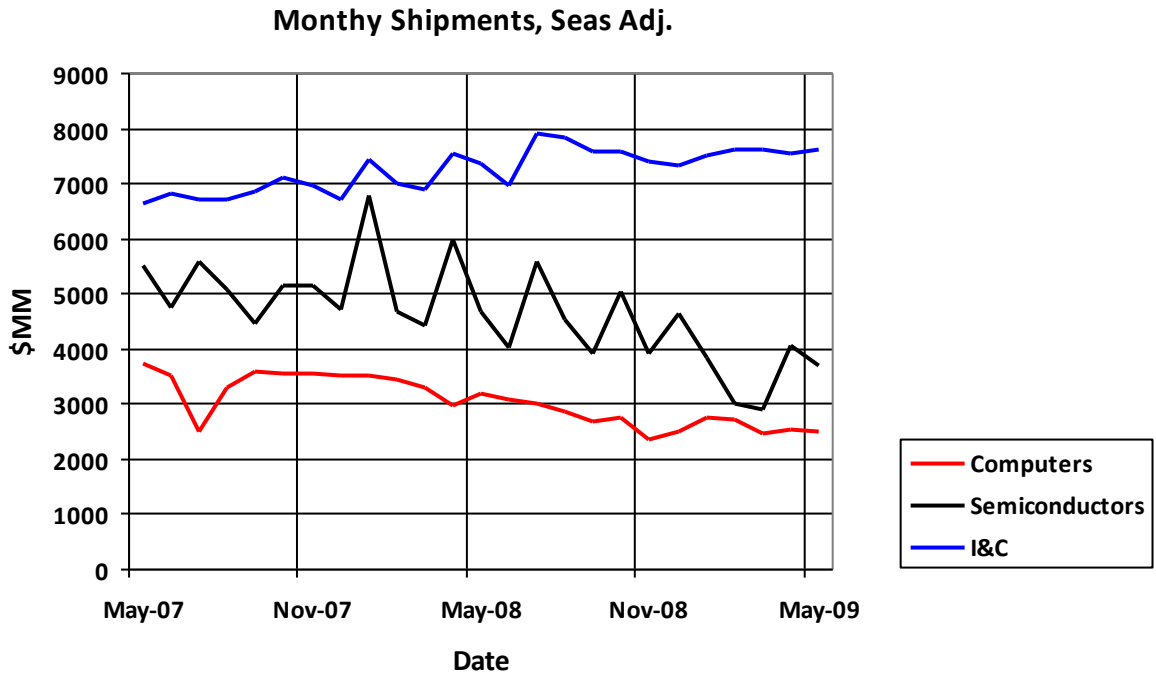
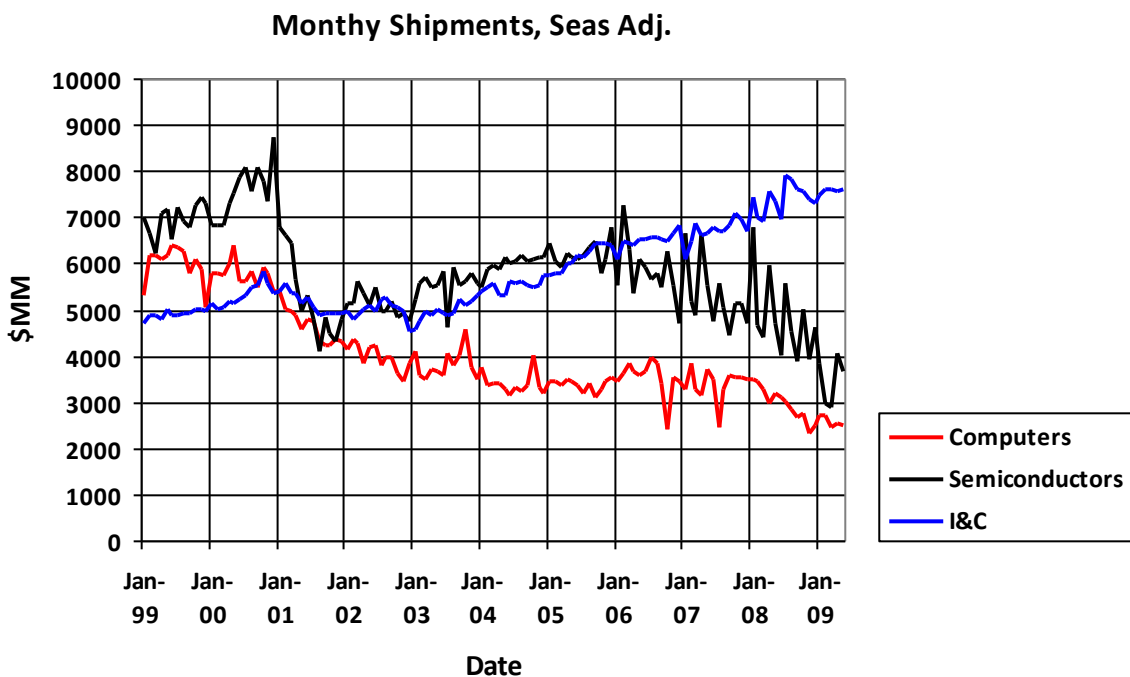


Figure 6.2 - Monthly Shipments, \$million, seasonally adjusted, past 5 years



Computers, Semiconductors, Instrumentation & Control, continued.

Figure 6.3 - Monthly Orders, \$million, seasonally adjusted, past 2 years

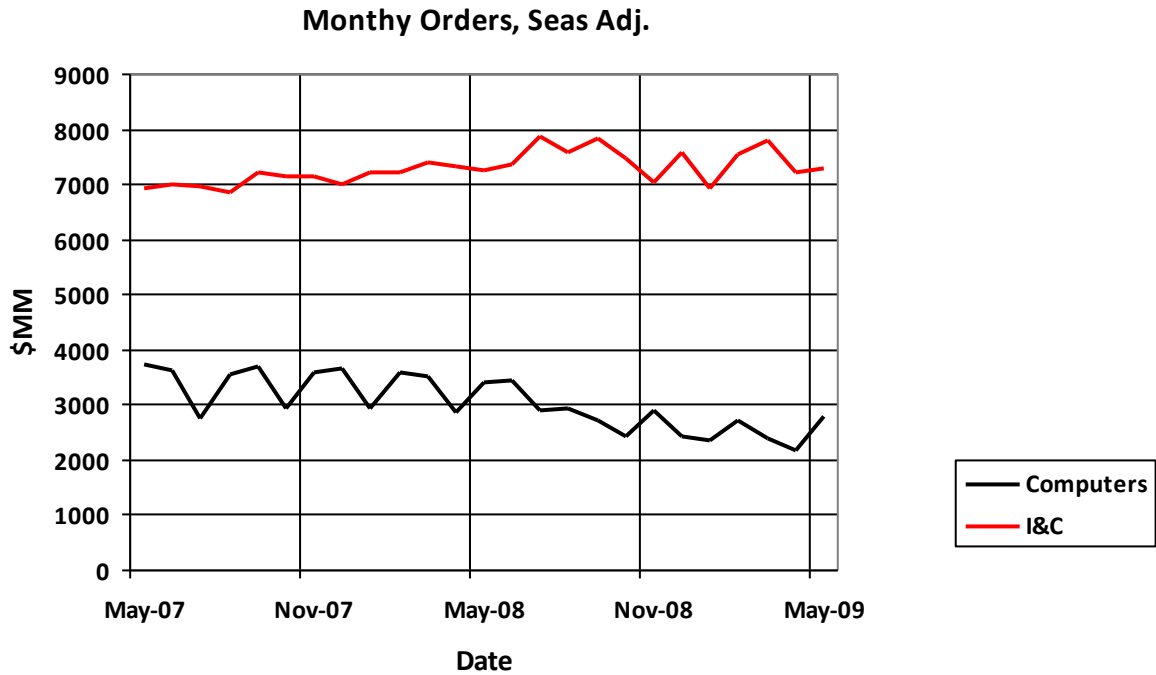
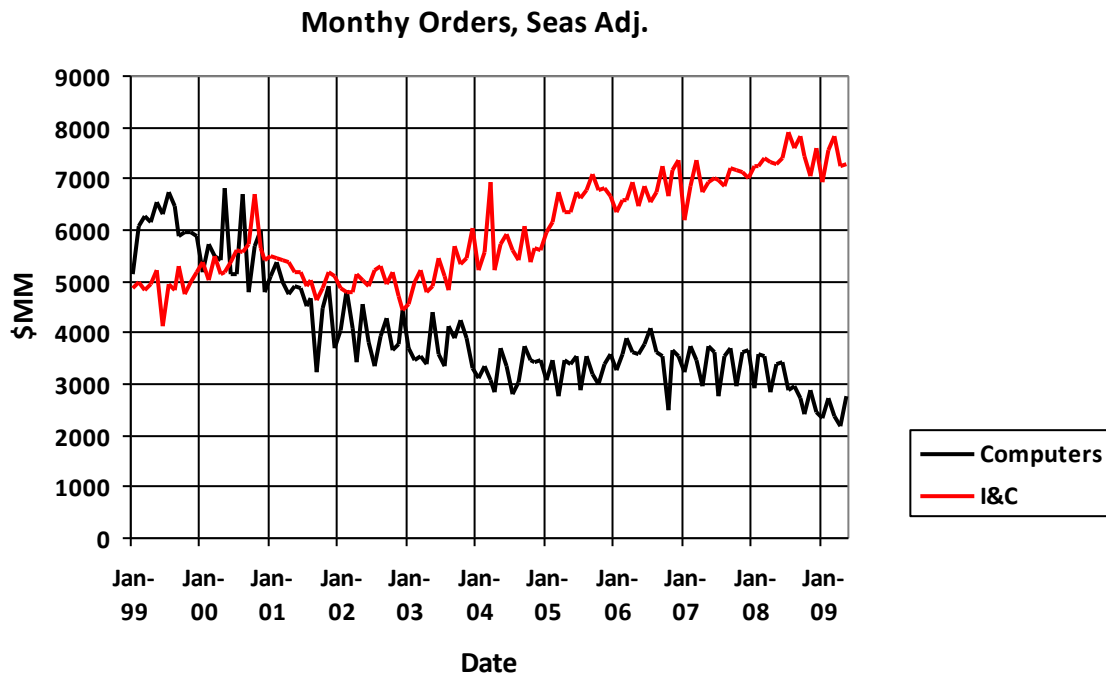


Figure 6.4 - Monthly Orders, \$million, seasonally adjusted, past 10 years



7 - Household Appliances

US Manufacturer shipments and orders for Household Appliances

Data Source: US Dept. of Commerce

Table 7.1 - Monthly Shipments and New Orders \$million, seasonally adjusted, last 2 years

	Shipments	New Orders
Jun-07	1944	1761
Jul-07	1985	2124
Aug-07	1961	1952
Sep-07	2040	2007
Oct-07	2002	1979
Nov-07	1950	1829
Dec-07	1806	1820
Jan-08	2033	1919
Feb-08	1951	1976
Mar-08	1949	2054
Apr-08	1970	2030
May-08	1960	1918
Jun-08	1906	1942
Jul-08	1994	1892
Aug-08	1845	1833
Sep-08	1843	1872
Oct-08	1899	1673
Nov-08	1724	1675
Dec-08	1632	1633
Jan-09	1745	1740
Feb-09	1720	1719
Mar-09	1746	1766
Apr-09	1778	1817
May-09	1736	1710

Household Appliances, continued.

Trend Overview

Figure 7.1 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 2 years

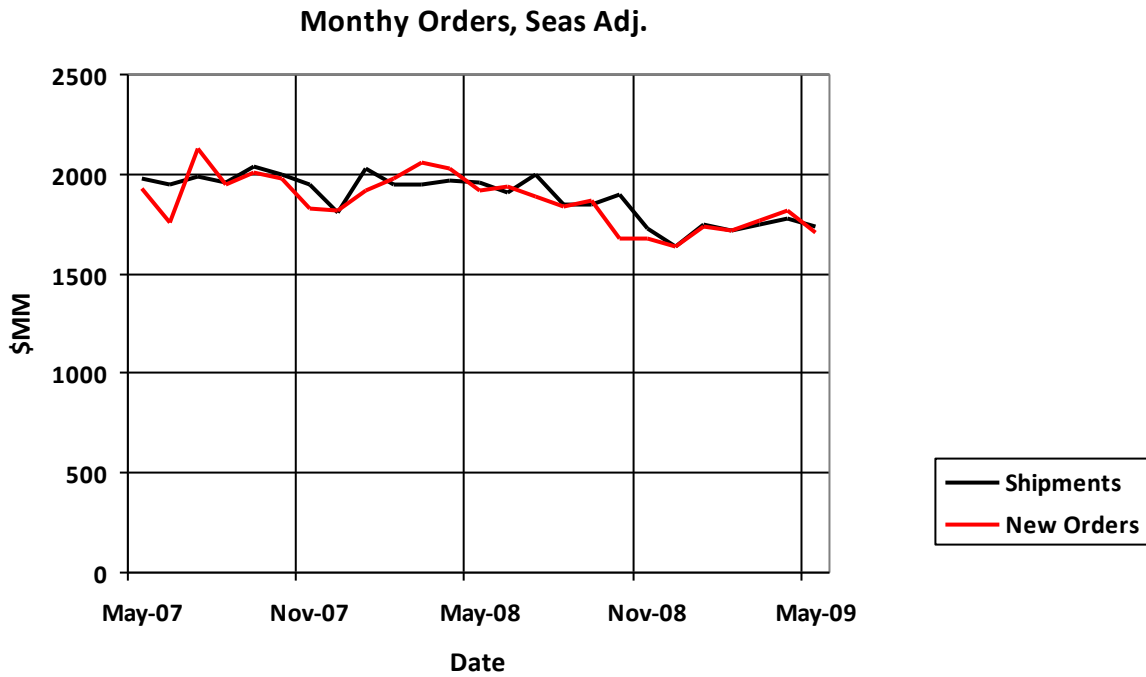
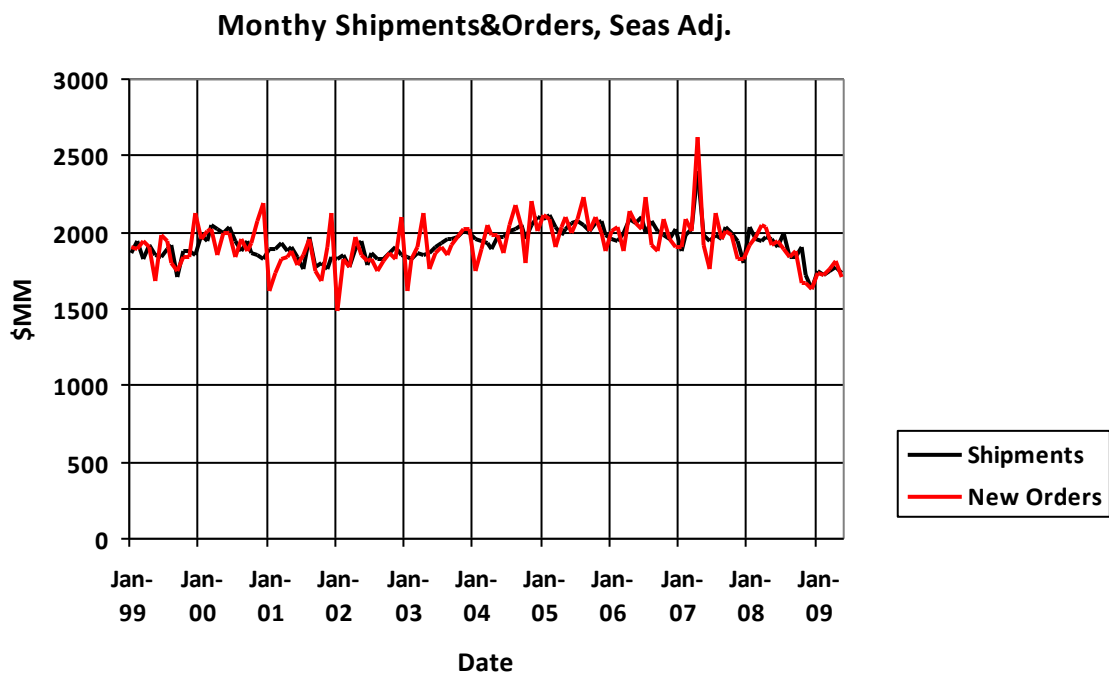


Figure 7.2 - Monthly Shipments & Orders, \$million, seasonally adjusted, past 10 years



8 - Aircraft, Boats and Ships

US Manufacturer shipments and orders for ship and boat building and civilian and military aircraft

Data Source: US Dept. of Commerce

Table 8.1 - Monthly Shipments, \$million, seasonally adjusted, last 2 years

	Ships	Civ. Aircraft	Mil. Aircraft
Jun-07	2230	8453	3142
Jul-07	2205	8860	3657
Aug-07	2194	9231	3340
Sep-07	2226	8382	3183
Oct-07	2288	8882	3473
Nov-07	2259	8686	3344
Dec-07	2331	8726	3193
Jan-08	2440	9937	3496
Feb-08	2386	8209	4593
Mar-08	2321	7908	4500
Apr-08	2317	8647	4628
May-08	2361	8208	4505
Jun-08	2454	8456	4647
Jul-08	2284	9183	5053
Aug-08	2237	8130	4707
Sep-08	2060	7695	5201
Oct-08	2227	6861	4757
Nov-08	2156	6134	4539
Dec-08	2063	8083	4853
Jan-09	2021	9379	4507
Feb-09	2119	7930	5162
Mar-09	1763	7963	5527
Apr-09	2120	7764	5302
May-09	1935	7234	5619

Aircraft, Boats and Ships, continued.

Table 8.2 - Monthly Orders, \$million, seasonally adjusted, last 2 years

	Ships	Civ. Aircraft	Mil. Aircraft
Jun-07	2063	17485	3078
Jul-07	2171	20502	3403
Aug-07	2908	11043	5866
Sep-07	1852	15072	3705
Oct-07	2055	14357	3517
Nov-07	1738	17374	2694
Dec-07	2000	18361	6376
Jan-08	1710	13099	3888
Feb-08	3296	14721	4344
Mar-08	2565	16000	4638
Apr-08	2117	12058	4510
May-08	1913	12783	5174
Jun-08	2871	10055	4723
Jul-08	2028	12294	5881
Aug-08	1955	7658	5189
Sep-08	3790	9866	5839
Oct-08	1346	9003	5356
Nov-08	1705	4840	4982
Dec-08	4882	2058	5763
Jan-09	712	5473	3848
Feb-09	1444	3751	5024
Mar-09	1139	4034	5355
Apr-09	1861	3980	5417
May-09	1667	6716	5295

Aircraft, Boats and Ships, continued.

Trend Overview

Figure 8.1 - Monthly Shipments, \$million, seasonally adjusted, past 2 years

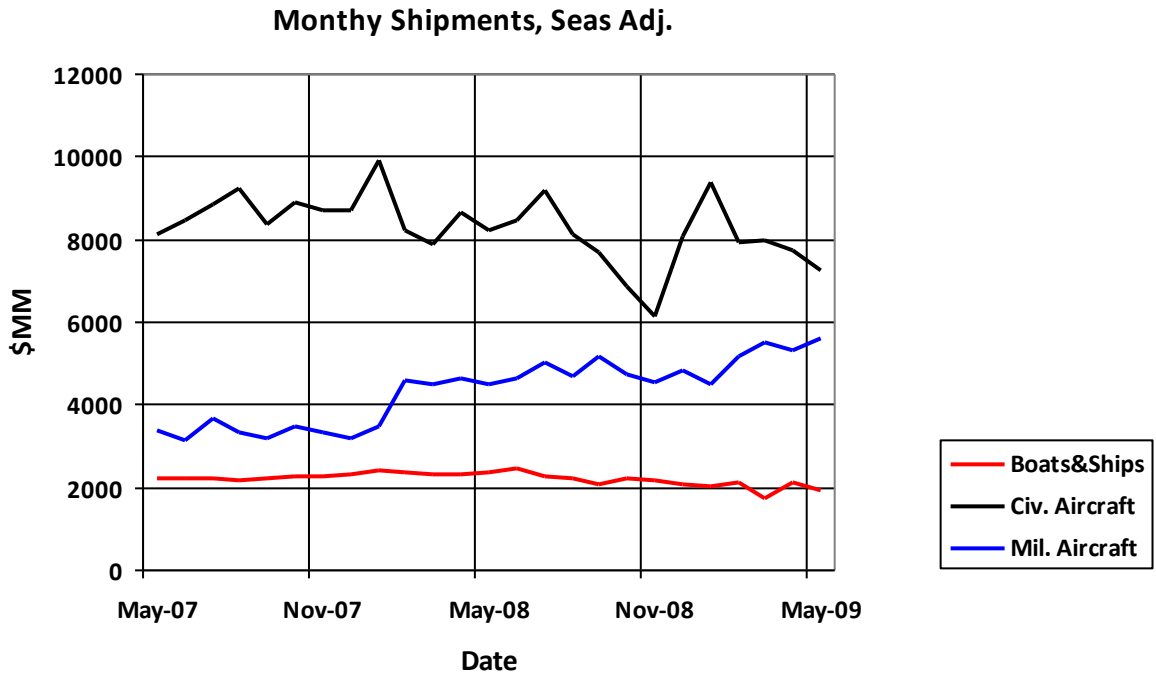
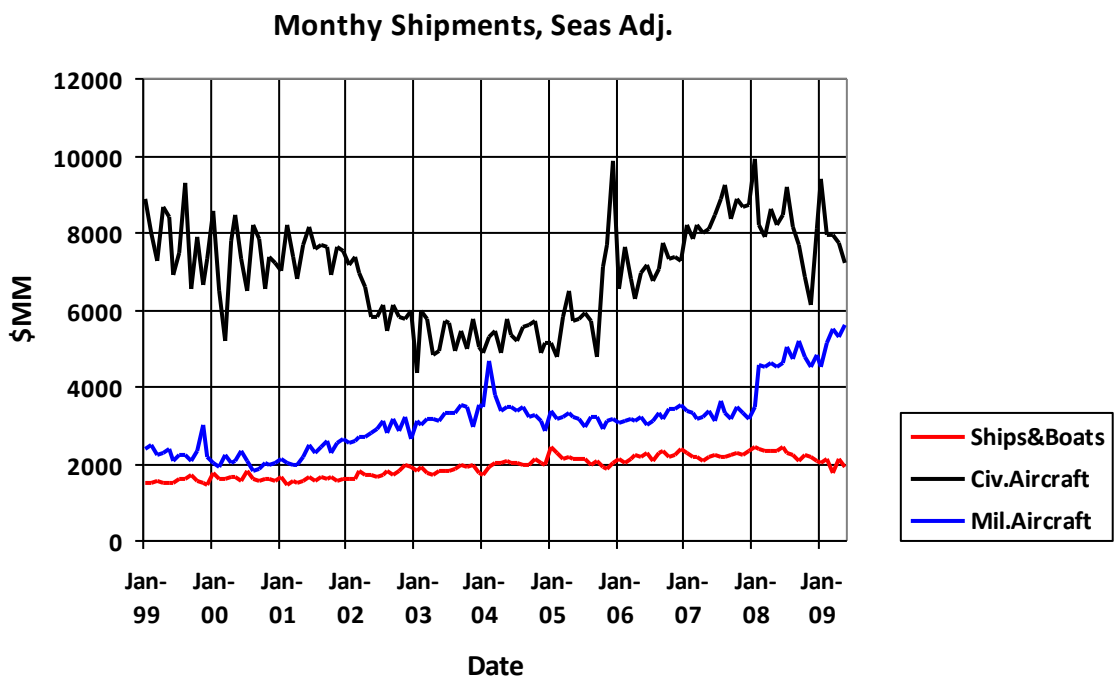


Figure 8.1 - Monthly Shipments, \$million, seasonally adjusted, past 10 years



Aircraft, Boats and Ships, continued.

Figure 8.3 - Monthly Orders, \$million, seasonally adjusted, past 2 years

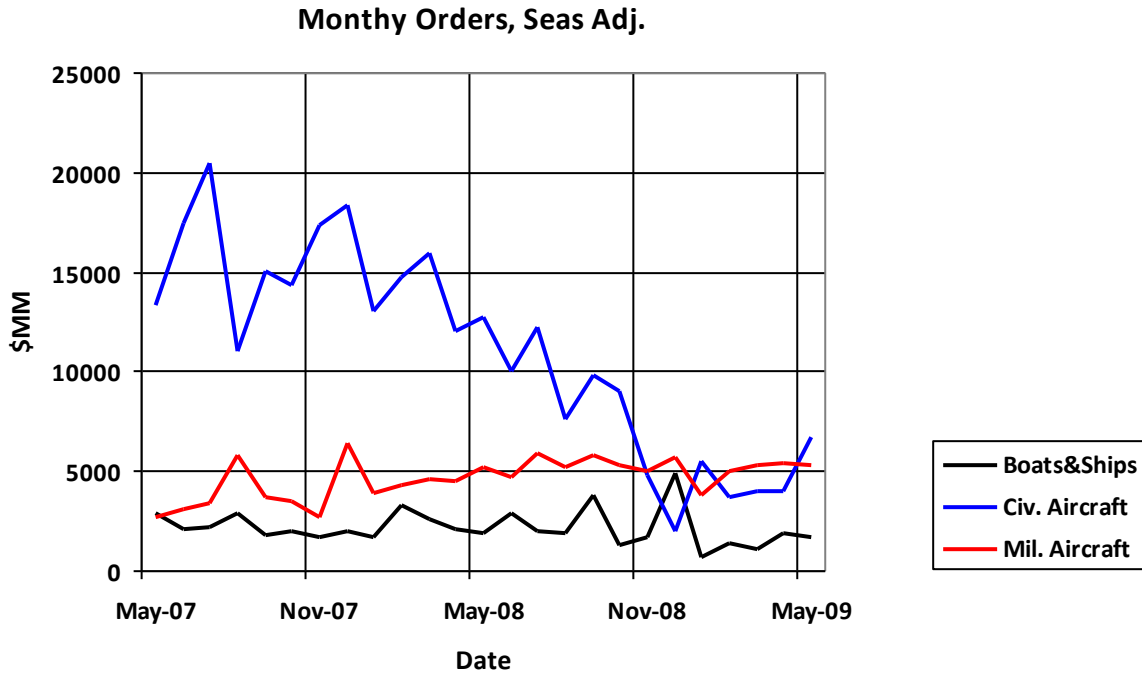
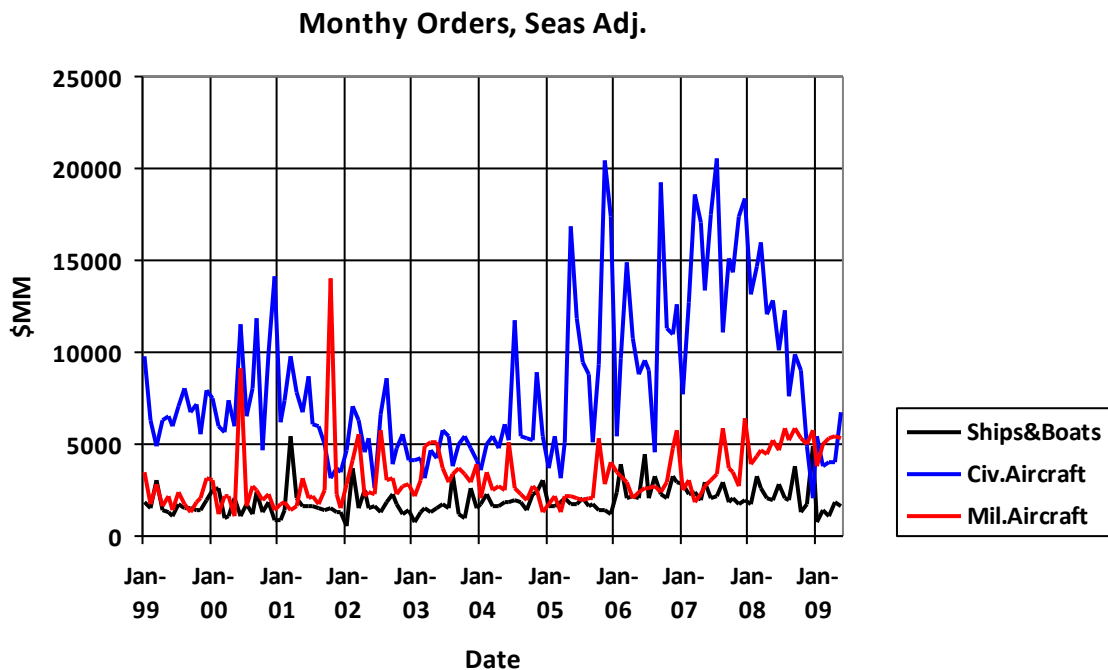


Figure 8.4 - Monthly Orders, \$million, seasonally adjusted, past 10 years



9 - Cars & Trucks: US Manufacturer Shipments (\$)

US Manufacturer shipments for Automobiles, Light Trucks, and Heavy Trucks

Data Source: US Dept. of Commerce

Table 9.1 - Monthly Shipments, \$million, seasonally adjusted, last 2 years

	Autos	Light Truck	Heavy Truck
Jun-07	8122	11943	1324
Jul-07	9001	12157	1365
Aug-07	8201	11865	1532
Sep-07	7974	11345	1418
Oct-07	7965	11237	1324
Nov-07	8027	11297	1393
Dec-07	7805	10937	1406
Jan-08	7939	10776	1433
Feb-08	7641	10662	1346
Mar-08	6849	9247	1505
Apr-08	6706	8835	1609
May-08	6621	8194	1433
Jun-08	6783	8281	1348
Jul-08	7327	7862	1318
Aug-08	6719	7480	1265
Sep-08	6855	7682	1386
Oct-08	6427	7232	1263
Nov-08	6158	7083	1343
Dec-08	5544	6592	1396
Jan-09	4653	6062	1135
Feb-09	4627	5763	1157
Mar-09	4475	5836	1116
Apr-09	4863	5728	1023
May-09	4152	5128	951

Cars & Trucks: US Manufacturer Shipments (\$) , continued.

Trend Overview

Figure 9.1 - Monthly Shipments, \$million, seasonally adjusted, past 2 years

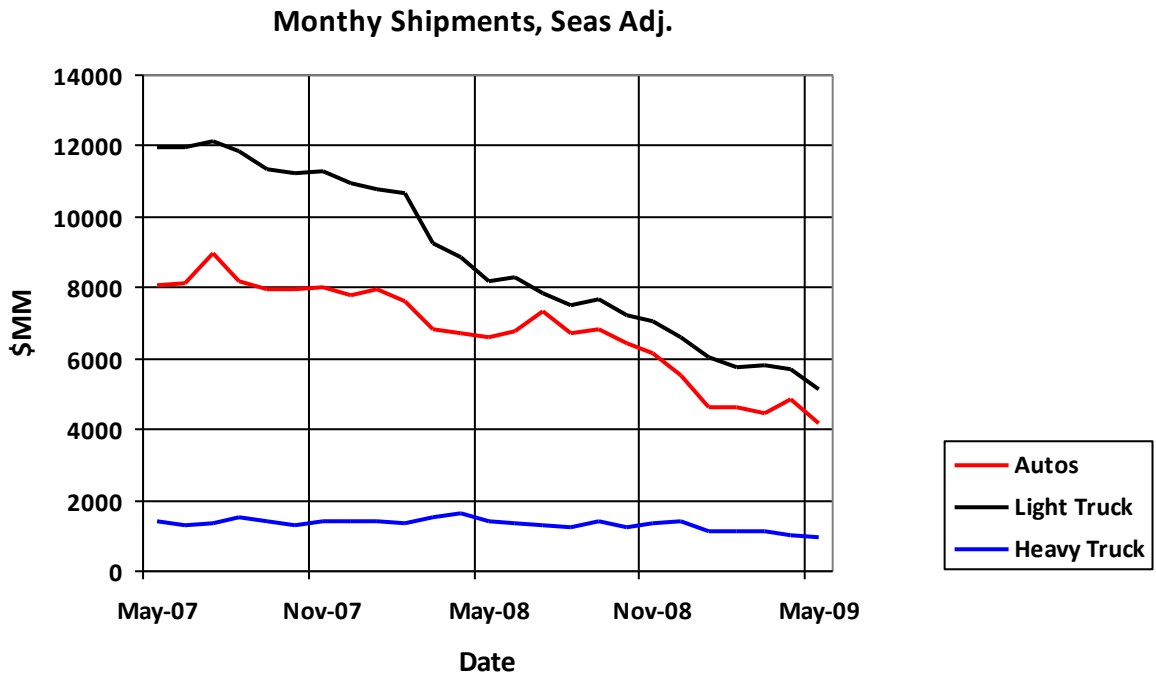
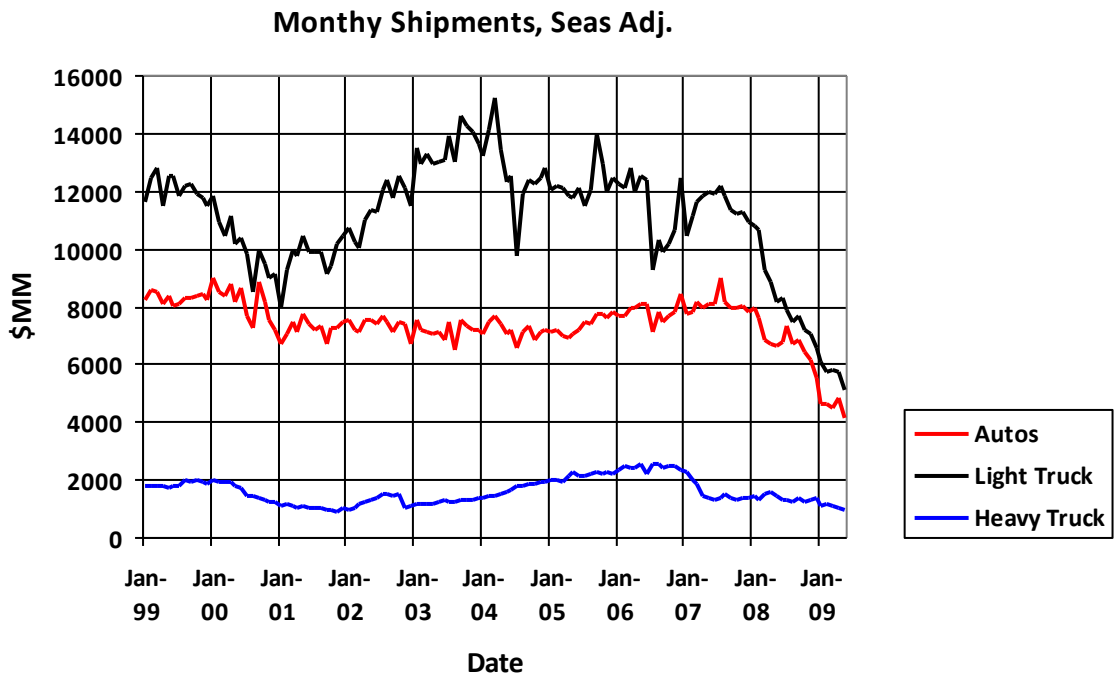


Figure 9.2 - Monthly Shipments, \$million, seasonally adjusted, past 10 years



10 - Cars & Trucks: US Total Sales (units)

US sales for Automobiles, Light Trucks, and Heavy Trucks

Data Source: US Bureau of Economic Analysis.

Table 10.1 - Monthly Sales, thousands of units last 2 years - *not seasonally adjusted*

	Autos	Light Truck	Heavy Truck
Jun-07	719.3	730.9	31.1
Jul-07	620.1	684.2	26.8
Aug-07	682.4	788.9	29.2
Sep-07	612.7	697.7	25.4
Oct-07	561.2	665.4	29.9
Nov-07	566.4	609.0	25.1
Dec-07	632.4	752.1	29.7
Jan-08	496.9	542.2	24.3
Feb-08	557.4	614.2	24.8
Mar-08	682.6	668.9	27.1
Apr-08	660.5	583.0	29.5
May-08	798.7	594.2	27.7
Jun-08	664.2	521.1	27.3
Jul-08	622.2	510.0	23.7
Aug-08	631.0	615.8	22.3
Sep-08	480.9	481.3	22.3
Oct-08	429.4	405.2	24.4
Nov-08	359.7	383.9	20.3
Dec-08	422.7	468.6	24.8
Jan-09	315.2	339.7	15.6
Feb-09	340.8	346.3	14.5
Mar-09	445.6	409.6	17.7
Apr-09	429.7	387.6	15.3
May-09	484.0	439.3	15.9

Cars & Trucks : US Total Sales (units), continued.

Trend Overview

Figure 10.1 - Car and Light Truck Monthly Sales, 1000's units, not seasonally adjusted, past 2 years

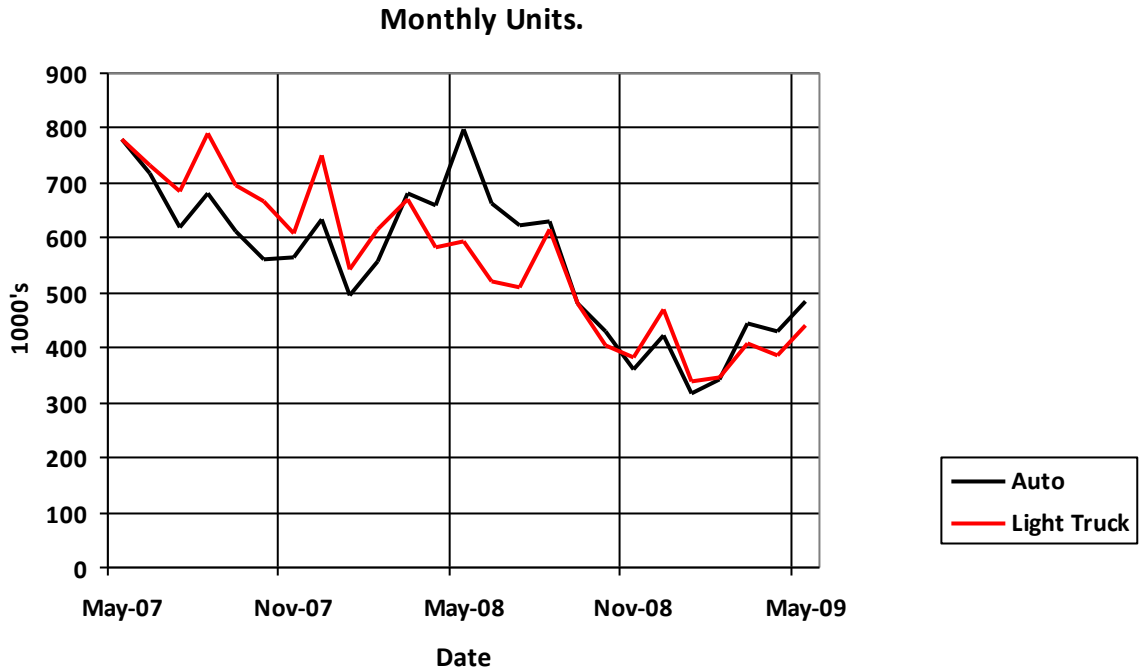
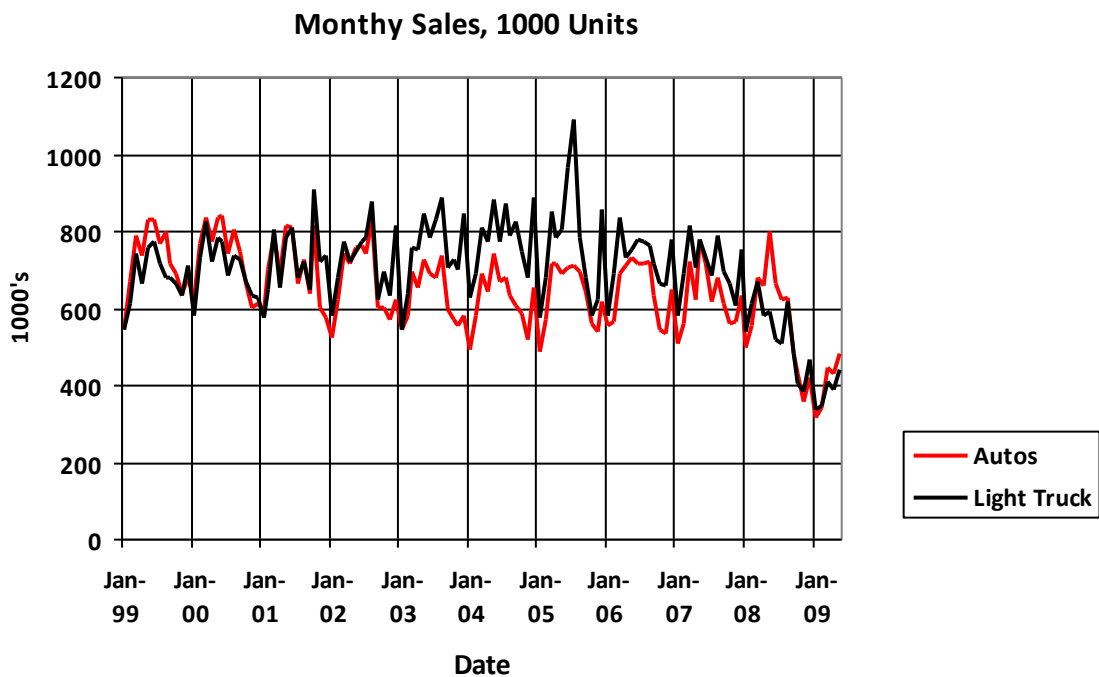


Figure 10.2 - Car and Light Truck Monthly Sales, 1000's units, not seasonally adjusted, past 10 years



Cars & Trucks :US Total Sales (units), continued.

Figure 10.3 - Monthly Heavy Truck Sales, 1000's units, not seasonally adjusted, past 2 years

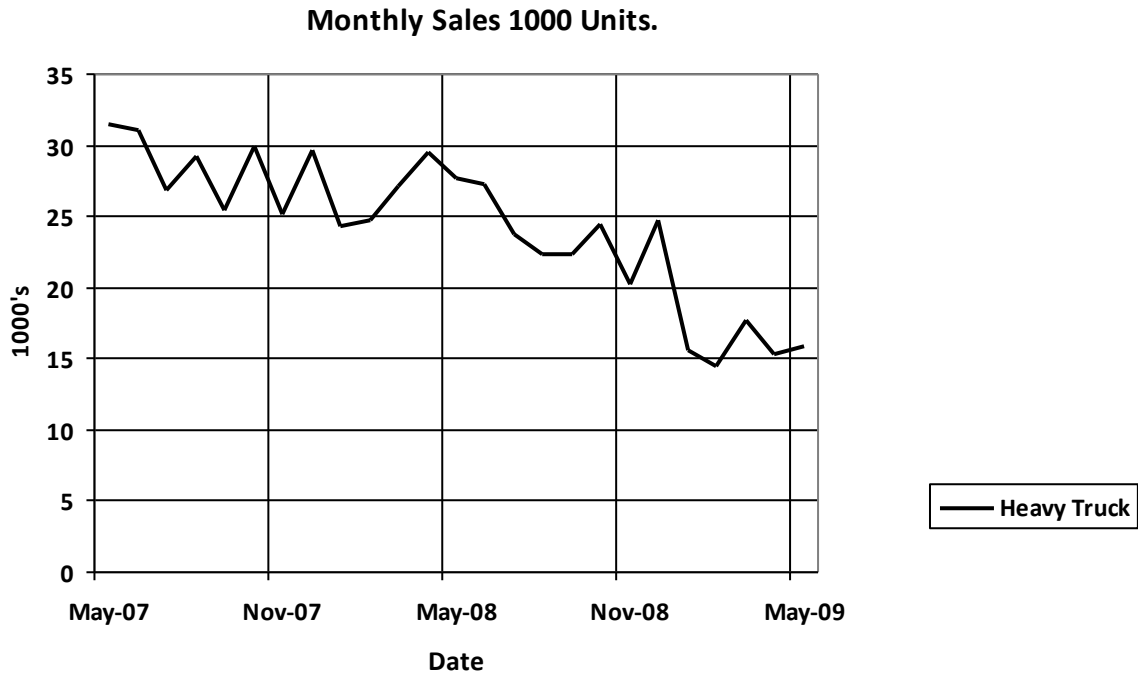
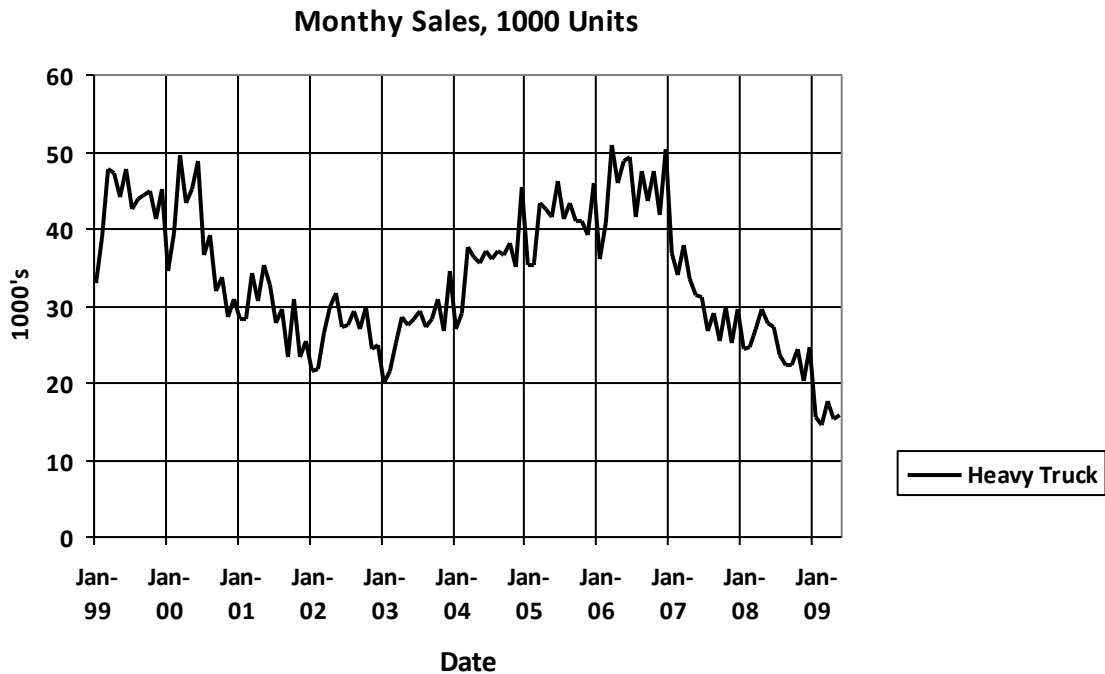


Figure 10.4 - Monthly Heavy Truck Sales, 1000's units, not seasonally adjusted, past 10 years



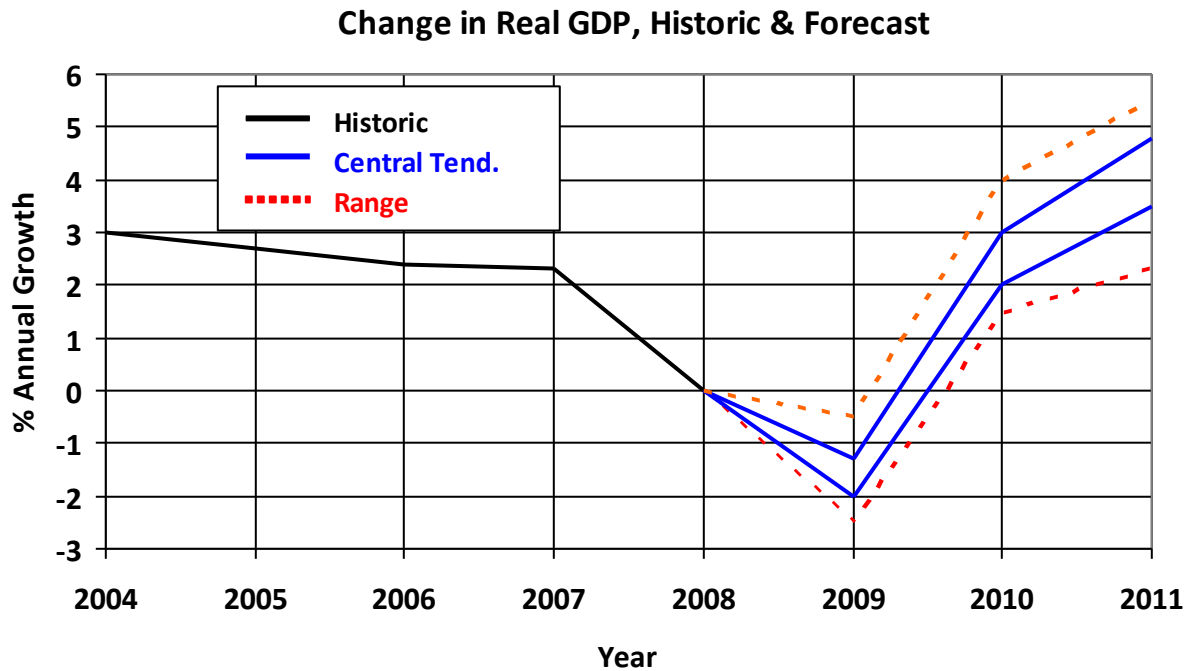
11 - Economic Indicators & Forecasts

This section contains forecasts of fundamental economic indicators published by the US Federal Reserve Open Market Committee (FOMC). Gross domestic Product (GDP), Unemployment, and PCE (Personal Consumption Expenditures - including food and fuel) Inflation are presented here. These metrics give an overview of the overall state of the economy.

The forecasts are for the years 2009, 2010, and 2011. Each forecast is given as a set of upper/lower limits. The first is the *RANGE*, which represents the total range of individual estimates put forth by FOMC participants. The second is the *CENTRAL TENDENCY*, which consists of the *RANGE* estimates, with the three highest and lowest estimates removed.

Data source: Minutes of the Federal Open Market Committee, Apr. 28-29, 2009

Figure 11.1 - FOMC GDP Forecasts



11 - Economic Indicators & Forecasts, continued.

Figure 11.2 - FOMC Unemployment Forecasts

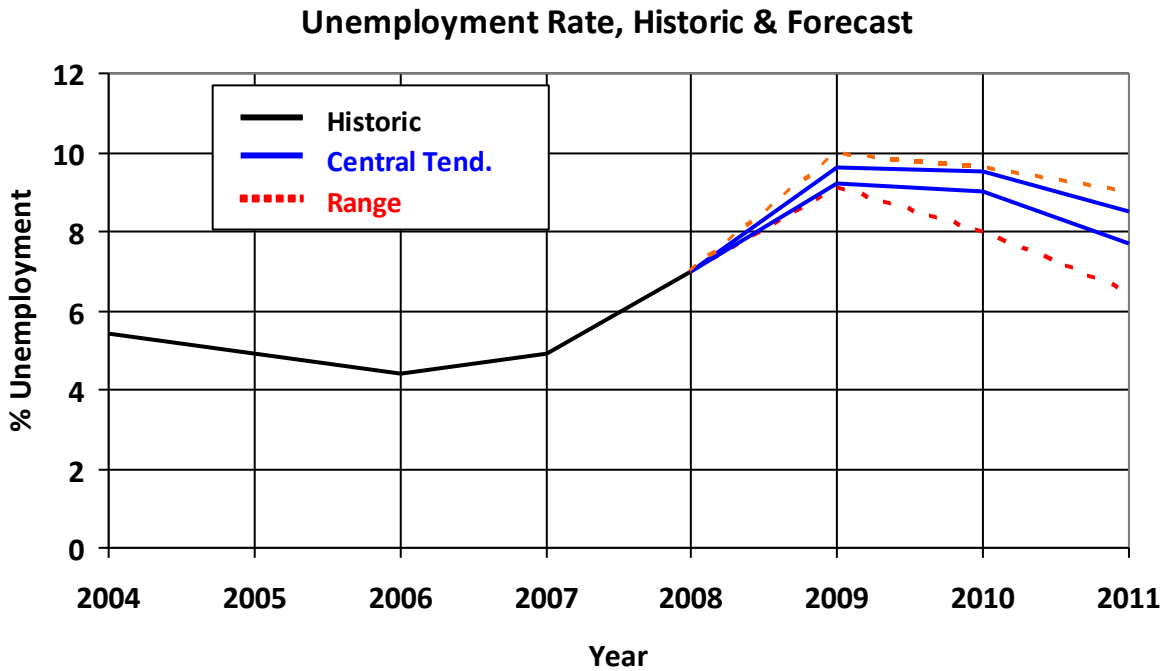
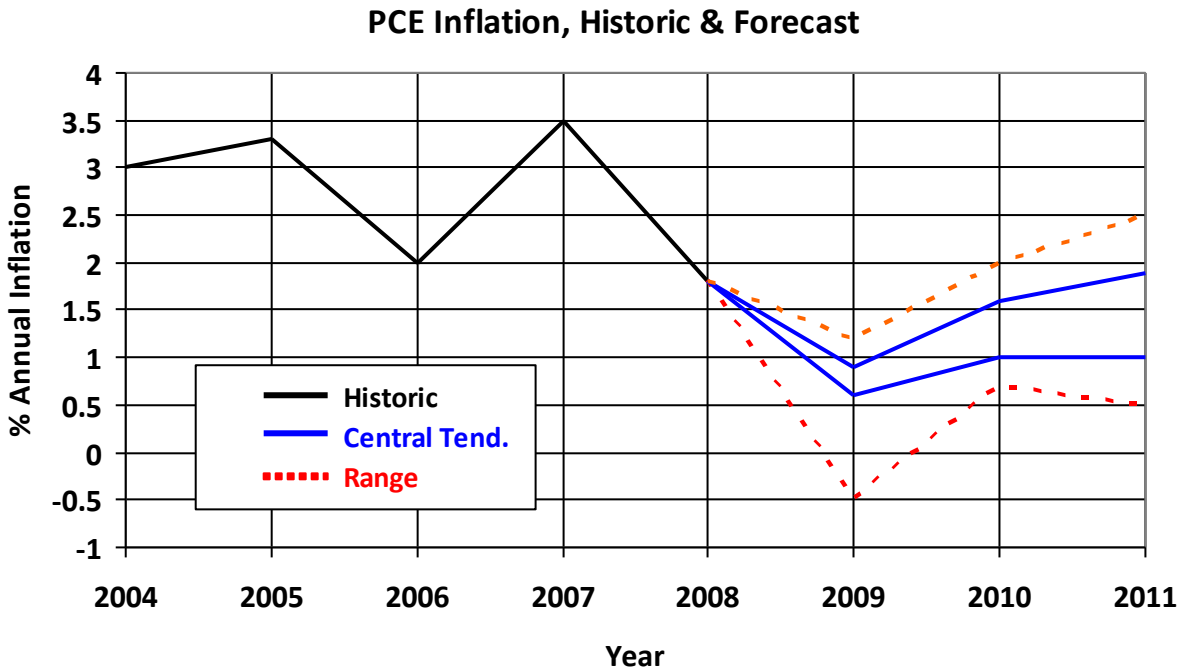


Figure 11.3 - FOMC PCE Inflation Forecasts



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