Economic Outlook

Robert C. Fry, Jr., Ph.D.
DuPont Economist's Office

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- The worst global recession since the 1930s continued through the first quarter of 2009. Only a few countries (China, India, Indonesia) have avoided declines in real GDP. Monthly data on industrial production indicates that growth has resumed in China, Korea, Taiwan, and Brazil, and leading indicators are starting to point to growth in the United States and in Europe. However, the upturn will not be soon enough or strong enough to prevent global GDP from declining 2.8% in 2009, the first annual decline since the Great Depression and a significantly weaker forecast than the one published in March.

- U.S. real GDP fell at a 5.7% annual rate in the first quarter, after falling at a 6.3% rate in the fourth quarter of 2008. It was the worst two-quarter decline in 51 years. Available monthly data suggest a much smaller decline in GDP in the second quarter. Another small decline is expected in the third quarter, with growth resuming in the fourth. Annual GDP is expected to decline by 2.9% in 2009 after growing just 1.1% in 2008.

- The European economy suffered its worst contraction since World War 2 in the first quarter of 2009. Real GDP for the European Union (27 countries comprising most of Western and Central Europe) fell 2.5% quarter-to-quarter (-9.6% annualized rate) in the first quarter, after falling 1.5% in the fourth quarter of 2008. The year-over-year growth rate slid from -1.4% to -4.4%. Industrial production in EU manufacturing fell 8.3% quarter-to-quarter in the first quarter, leaving it down 18.9% from year-earlier levels. Economic activity in Central and Eastern Europe has dropped sharply over the last year, but is showing signs of stabilizing. The worst-case scenario of sovereign defaults has not occurred.

- Real GDP fell in Japan at a 15.2% annual rate in the first quarter after falling at a 14.4% annual rate in the fourth quarter of 2008. Industrial production in Japan rose in March and April after hitting a 26-year low in February. Japan's leading diffusion index has not been above the neutral level of 50 since June 2007, but has risen for four straight months.

- Industrial production rebounded in Korea and Taiwan in the first quarter after plummeting in the fourth quarter of 2008. Production rebounded in China as well after a much smaller decline in the second half of 2008. Real GDP is expected to grow by 6.6% in China in 2009, down from 13% in 2007.

- Industrial production in Brazilian manufacturing rose in each of the first four months of 2009, but was still down 15.1% from its September 2008 peak (and down 12.3% year-over-year) in April. Industrial production in Argentina rose in March and April, but was still down 11% year-over-year in April. Industrial production in Mexican manufacturing continued to decline through March. Production was down 13.8% year-over-year in the first quarter.

- The recovery from the current global recession is likely to be weak by historical standards – due to ongoing deleveraging and rising oil prices – but might still be stronger than many forecasters expect, especially if the massive global fiscal and monetary stimulus is effective.

- The bankruptcies of Chrysler and General Motors are unlikely to have a large macroeconomic impact; these companies have already shrunk to the point that an orderly bankruptcy is not a major macroeconomic shock.

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Global GDP Growth

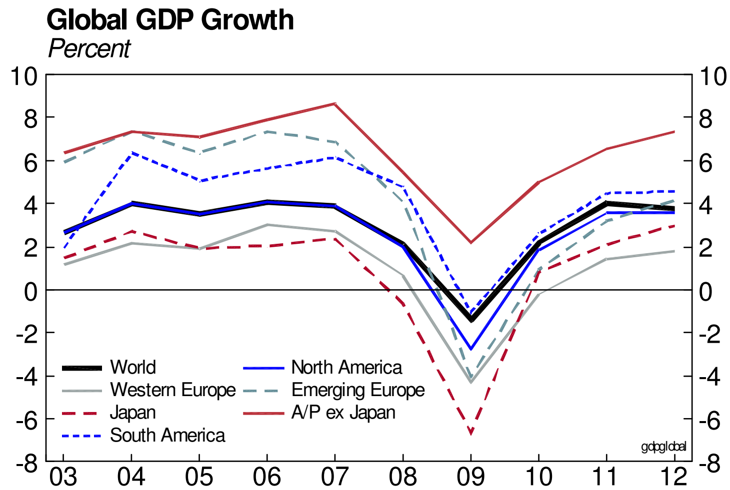
	2006	2007	2008	2009	2010	2011	2012	2013	2013 -2018
				Forecast					
North America	**2.9**	**2.2**	**1.1**	**-3.1**	**2.4**	**4.1**	**2.6**	**2.6**	**2.6**
United States	2.8	2.0	1.1	-2.9	2.4	4.2	2.5	2.5	2.6
Canada	3.1	2.7	0.5	-2.8	1.9	3.6	3.4	3.1	2.5
Mexico	5.1	3.3	1.4	-5.8	2.4	3.0	3.4	3.3	2.8
Western Europe	**3.0**	**2.7**	**0.6**	**-4.3**	**-0.2**	**1.4**	**1.8**	**2.0**	**1.9**
France	2.4	2.1	0.7	-3.2	0.2	1.2	1.6	2.3	2.1
Germany	3.2	2.6	1.0	-6.0	0.0	1.9	1.8	1.5	1.5
Italy	2.1	1.5	-1.0	-4.6	-0.6	1.0	1.4	1.5	1.3
Spain	3.9	3.7	1.2	-4.4	-1.5	0.8	1.4	1.6	2.0
U.K.	2.8	3.0	0.7	-4.2	-0.2	1.7	2.4	2.7	2.5
Central Europe	6.6	5.7	3.0	-3.7	0.5	3.0	3.8	4.0	4.1
Russia	7.7	8.1	5.6	-4.7	1.5	3.2	4.6	3.4	3.5
Asia/Pacific	**5.5**	**6.1**	**3.1**	**-1.1**	**3.5**	**5.0**	**5.9**	**5.9**	**5.0**
Japan	2.1	2.4	-0.7	-6.6	0.8	2.1	3.0	3.3	1.5
ex Japan	7.9	8.6	5.5	2.2	5.0	6.5	7.4	7.2	6.5
Australia	2.8	4.0	2.1	-1.3	0.9	3.2	4.4	4.0	3.3
China	11.6	13.0	9.0	6.6	8.1	9.0	9.6	9.4	8.3
India	9.7	9.1	5.6	4.3	5.8	6.9	7.8	7.5	7.1
Indonesia	5.5	6.3	6.1	2.7	3.4	4.6	5.5	5.3	5.0
Korea (South)	5.2	5.1	2.2	-3.5	0.9	3.5	5.8	5.2	4.1
Malaysia	5.8	6.3	4.6	-1.8	2.8	3.4	4.5	5.2	4.9
Singapore	8.2	7.7	1.2	-8.0	2.8	4.4	4.2	4.2	3.9
Taiwan	4.8	5.7	0.1	-4.5	3.0	5.7	5.3	4.8	4.0
Thailand	5.2	4.9	2.6	-2.9	2.8	4.2	4.3	4.4	4.9
South America	**5.6**	**6.1**	**4.8**	**-1.0**	**2.6**	**4.5**	**4.6**	**4.3**	**4.1**
Argentina	8.5	8.7	7.1	-1.8	2.7	3.1	3.3	3.7	3.8
Brazil	4.0	5.7	5.1	-1.2	3.2	5.6	5.3	4.7	4.3
Colombia	6.9	7.5	2.5	-1.8	2.3	3.9	4.0	3.9	3.7
Venezuela	10.3	8.5	4.9	-1.0	-1.7	2.3	3.0	3.5	3.7
World	**4.1**	**3.9**	**2.0**	**-2.8**	**1.9**	**3.6**	**3.6**	**3.6**	**3.4**

Global Consumer Price Inflation

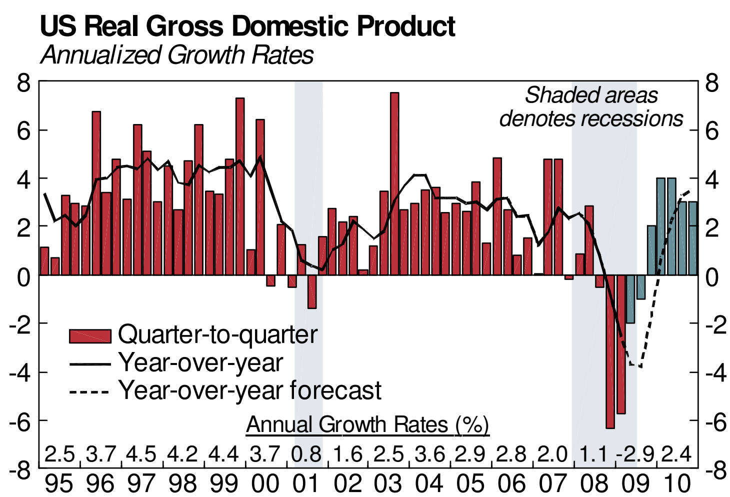
	2006	2007	2008	2009	2010	2011	2012	2013	2013-2018
				Forecast					
North America									
United States	3.2	2.9	3.8	-0.5	2.5	2.5	2.5	2.5	2.5
Canada	2.0	2.1	2.4	0.5	1.7	2.0	2.1	2.0	2.0
Mexico	3.6	4.0	5.1	4.9	2.9	3.2	3.3	3.0	2.5
Western Europe	**2.0**	**2.1**	**3.2**	**0.6**	**1.3**	**1.7**	**1.9**	**1.9**	**1.9**
France	1.7	1.5	2.8	0.4	1.5	1.9	2.2	1.9	2.1
Germany	1.6	2.3	2.6	0.3	1.0	1.4	1.4	1.5	1.5
Italy	2.1	1.8	3.3	0.6	1.2	1.9	1.8	1.7	1.7
Spain	3.5	2.8	4.1	0.0	1.0	1.9	2.2	2.1	1.9
U.K.	2.3	2.3	3.6	1.4	1.3	1.7	1.9	2.2	2.0
Central Europe	5.5	5.6	7.7	4.3	3.9	3.9	3.4	3.1	2.9
Russia	9.7	9.0	14.1	12.2	10.2	9.0	8.2	7.4	5.4
Asia/Pacific									
Japan	0.2	0.1	1.4	-1.1	-0.7	-0.2	0.7	1.7	1.9
ex Japan	3.5	4.4	6.7	1.6	2.1	3.3	3.5	3.5	3.7
Australia	3.5	2.3	4.4	1.5	2.1	2.9	3.1	3.1	3.0
China	1.5	4.8	5.9	-0.8	0.1	2.3	3.0	3.2	3.6
India	5.8	6.4	8.3	6.2	6.2	6.3	6.3	6.0	5.2
Indonesia	13.1	6.4	10.1	5.7	5.7	5.8	4.9	3.9	4.5
Korea (South)	2.2	2.5	4.7	1.9	2.3	2.6	1.8	2.0	2.6
Malaysia	3.6	2.0	5.4	1.1	1.9	2.2	2.7	4.2	4.6
Singapore	1.0	2.1	6.5	-0.2	1.2	2.2	2.8	2.6	2.4
Taiwan	0.6	1.8	3.5	-1.0	1.4	2.5	2.5	2.4	2.3
Thailand	4.6	2.2	5.5	-0.2	2.7	2.8	2.9	4.3	4.7
South America									
Argentina	10.9	8.8	8.6	6.4	6.9	7.5	7.9	7.7	7.3
Brazil	4.2	3.6	5.7	4.7	3.7	3.8	3.6	3.6	3.4
Colombia	4.3	5.5	7.0	5.7	4.6	4.6	5.0	5.2	5.0
Venezuela	13.7	18.7	31.5	31.5	28.6	17.8	14.8	11.7	9.3

Macroeconomic Overview

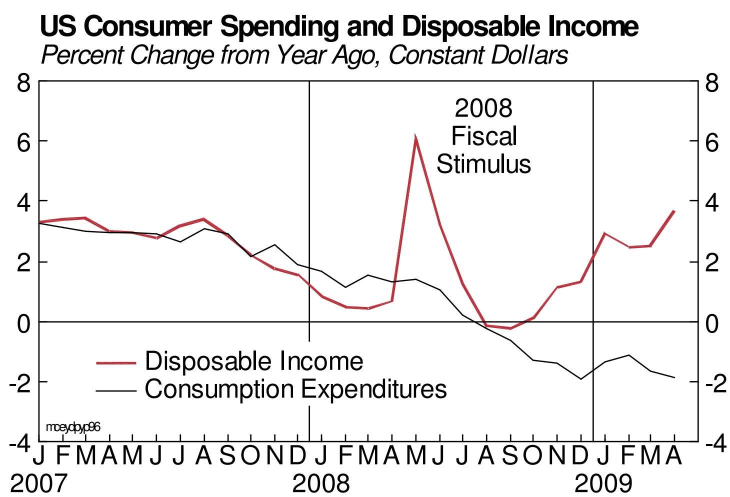
- The worst global recession since the 1930s continued through the first quarter of 2009.
- Real GDP is contracting in almost every country.
- Global GDP is expected to decline 2.8% in 2009, the first annual decline since the 1930s.
- Global GDP is expected to rise 1.9% in 2010.



- U.S. real GDP fell at a 5.7% annual rate in the first quarter, after falling at a 6.3% rate in the fourth quarter of 2008. It was the worst two-quarter decline in 51 years.
- Available monthly data suggest a much smaller decline in GDP in the second quarter. Another small decline is expected in the third quarter, with growth resuming in the fourth.
- Annual GDP is expected to decline by 2.9% in 2009 after growing just 1.1% in 2008. GDP is expected to grow by 2.4% in 2010.



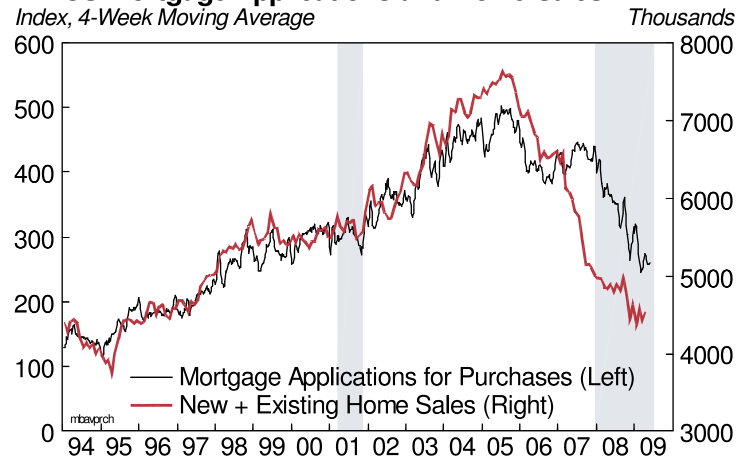
- U.S. personal consumption expenditures rose at a 1.6% annual rate in the first quarter after the largest two-quarter decline in consumption since 1980.
- Disposable income was boosted in March and April by increased government benefit payments and reduced tax withholding associated with the fiscal stimulus plan. Falling oil prices boosted real disposable income in late 2008, but rising oil prices are now reversing that impact.
- The personal saving rate, which was near zero in early 2008, rose to 5.7% in April.



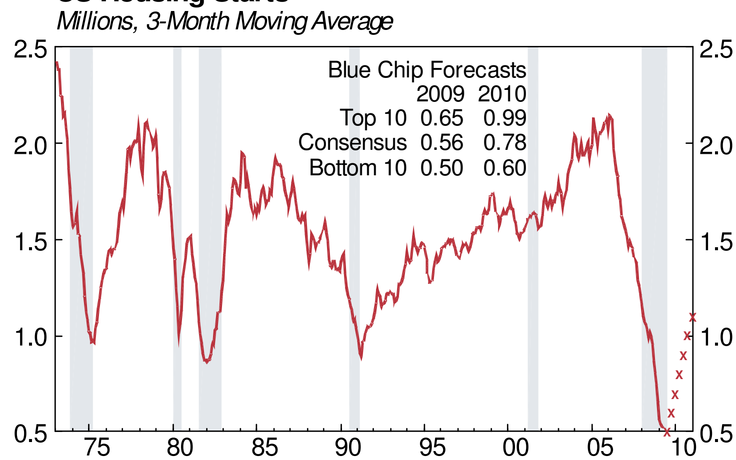
U.S. Construction Activity

- Sales of both new and existing homes hit bottom in January, but the small rise since is more of a stabilization than a recovery.
- The Case-Shiller 20-city index of house prices was down 18.7% year-over-year in March, and was down 32.2% from its July 2006 peak.
- The ratio of median house price to median family income has fallen below its 1981-2000 average. This does not mean that prices will not fall further – prices often overshoot equilibrium levels – but does suggest that the bottom is near.
- Housing starts fell in April to their lowest level since 1945, leaving them down more than 80% from their January 2006 peak.
- Single-family housing starts and building permits for new residential construction bottomed in January and have risen since. The April decline in total starts and permits was due to a collapse in multi-family units.
- Annual starts are expected to fall below 600,000 in 2009, the lowest since 1945. Starts are expected to rise going forward, but to remain below one million units in 2010.
- Investment in residential structures declined at a 38.9% annual rate in the first quarter, the 12th consecutive double-digit decline and the largest decline since 1980.
- Investment in nonresidential structures declined at a 42.3% annual rate in the first quarter, also the largest decline ever. (Quarterly data began in 1947.) Credit constraints and the lagged impact of residential construction on associated commercial construction suggest that investment in nonresidential structures declines significantly further in 2009.

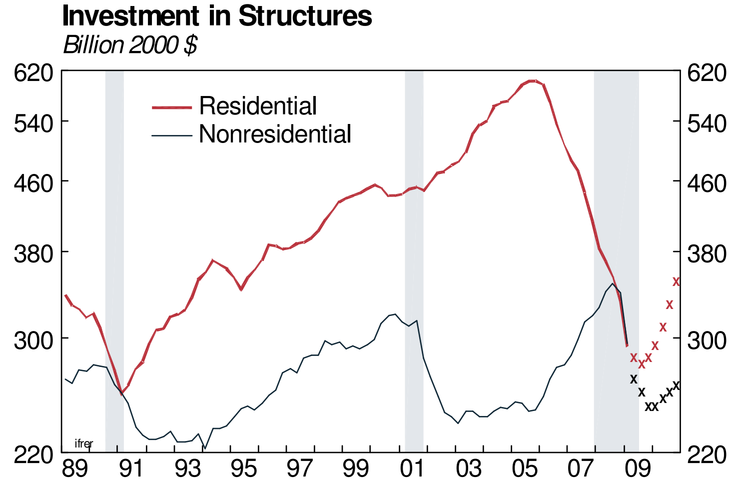
US Mortgage Applications and Home Sales



US Housing Starts



Investment in Structures

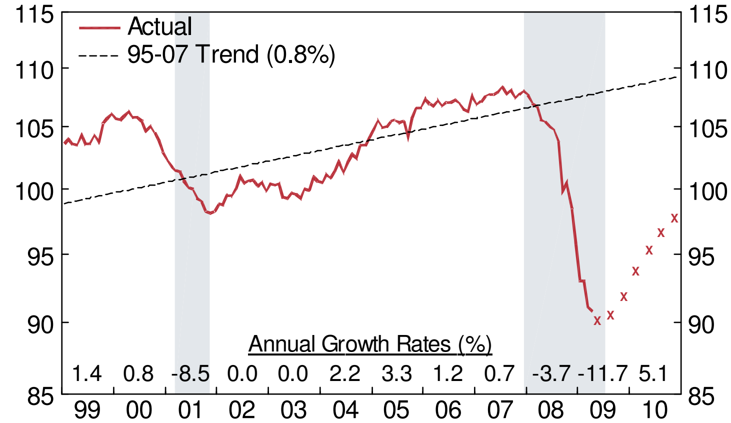


U.S. Production and Key Markets

- Industrial production in U.S. manufacturing (excluding computers, communication equipment, and semiconductors) fell 16.2% from July 2007 to April 2009.
- The Institute of Supply Management's New Orders Index rose above 50 in May. That suggests that production is likely to turn up within the next few months.
- The 2007-2009 decline in industrial production is similar in both magnitude and trajectory to the decline during the 1973-75 recession, but the expected recovery is weaker.

US Manufacturing Production ex High-Tech Sectors

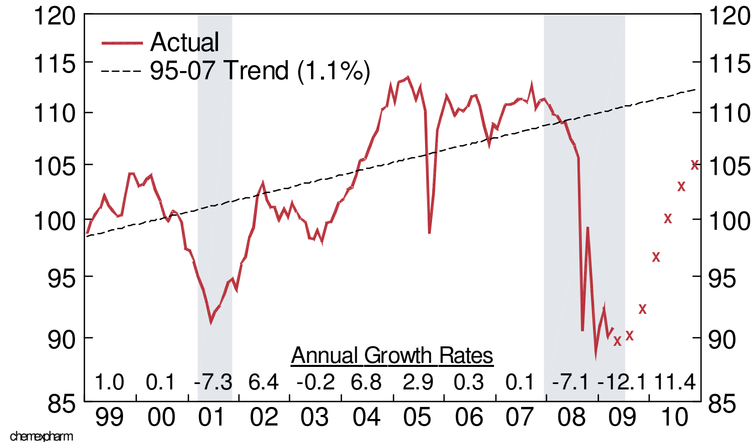
2002 = 100



- Industrial production in the chemical industry (ex pharmaceuticals) fell 21% from September 2007 to December 2009 and has remained near its December low.
- The strong export growth that supported U.S. chemical industry production in recent years faded in the second half of 2008 as the dollar has rebounded and recession has spread around the world.
- Growth is expected to resume in the second half.

US Industrial Production, Chemicals ex Pharma

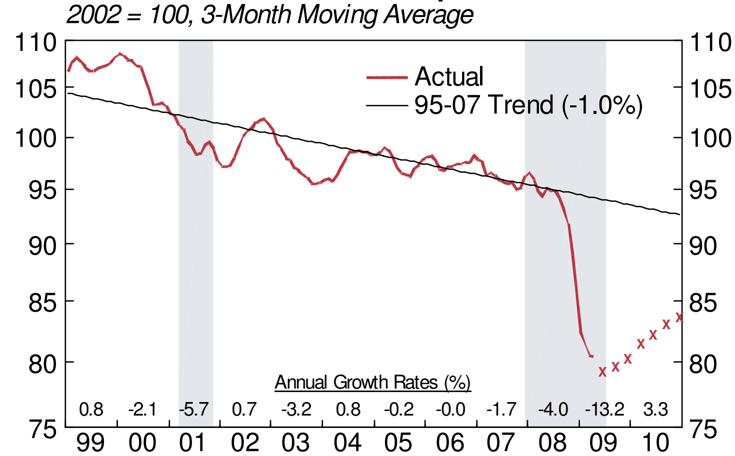
2002 = 100



- Paper production, which had been gradually declining since peaking in 1995, has plummeted since the middle of 2008. Production fell 18.1% from May 2008 to March 2009 before edging up in April.
- The impact of the recession is being compounded by a structural reduction in paper demand as email replaces office documents and the internet replaces newspapers, catalogs, etc. An increase in imports cannot explain the weakness in U.S paper production, which parallels similar weakness in printing and publishing.

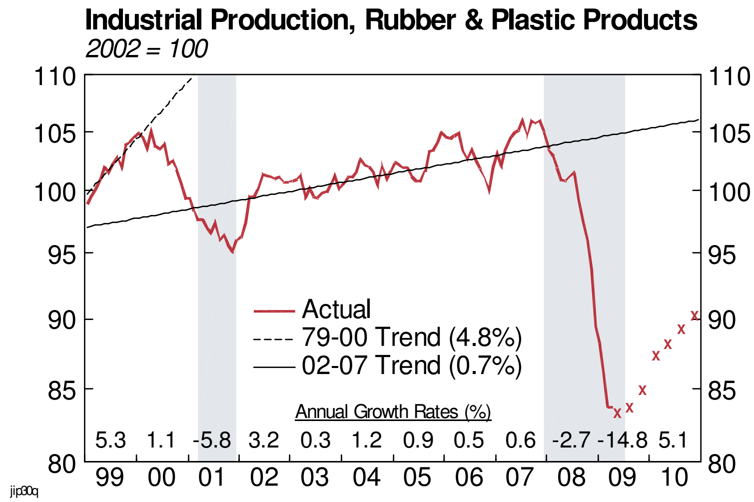
U.S. Industrial Production, Paper

2002 = 100, 3-Month Moving Average

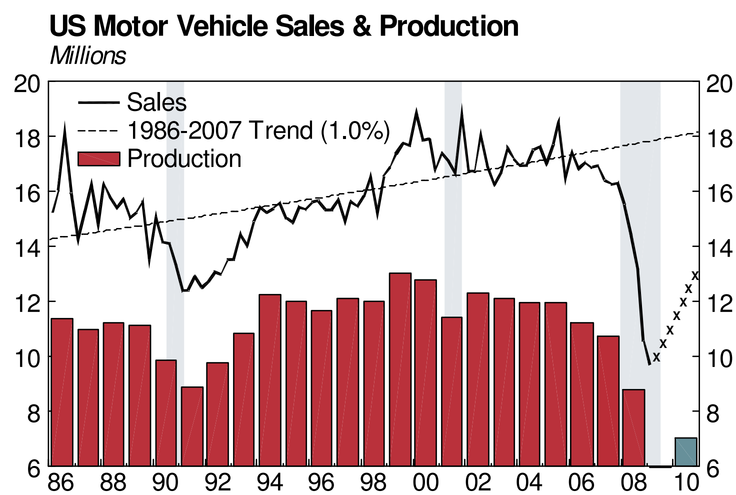


U.S. Production and Key Markets

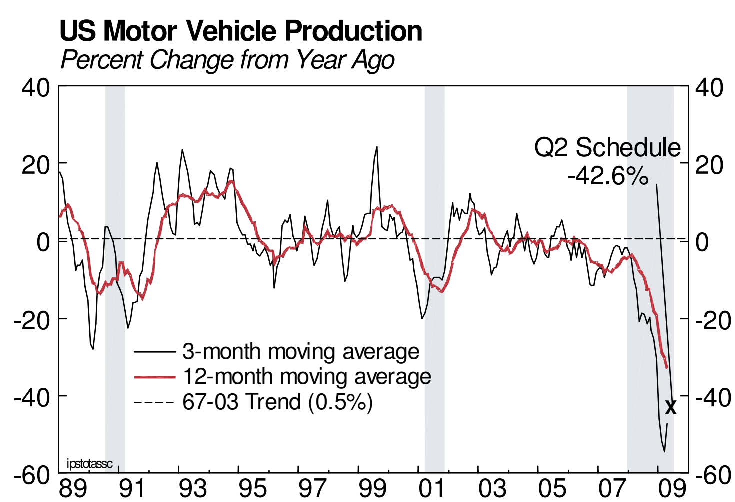
- Industrial production of rubber and plastic products in April was down 21% in from its November 2007 peak, to a level first reached in 1994.
- Production showed signs of stabilizing in April.
- Production of rubber and plastic products, which include tires, belts, hoses, and automotive parts made from high-performance polymers, has been adversely affected by the sharp decline in motor vehicle production.



- U.S. motor vehicles sales remain close to the 28-year low hit in February. Annual sales, which averaged 17.3 million units over the 1999-2006 period before slipping to 16.5 million units in 2007 and 13.4 million units in 2008, are expected to total only 10.3 million in 2009.
- Total annual U.S. motor vehicle production is expected to fall this year to its lowest level since 1961.



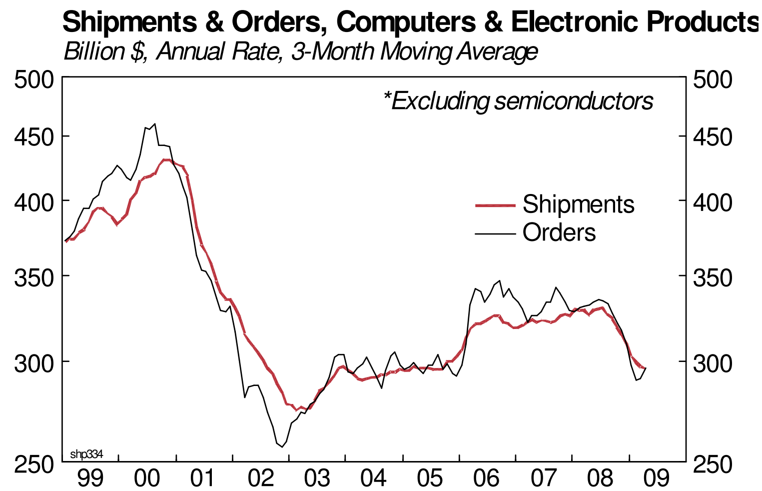
- U.S. motor vehicle production was down 54.2% from year-earlier levels in the first quarter and is scheduled to be down 42.6% from already-depressed levels in the second quarter.
- Motor vehicle production in the first quarter was the lowest for any quarter since 1958.



U.S. Production and Key Markets

- U.S. shipments of computers and electronic products fell in April to their lowest level since July 2005. However, the rate of decline has slowed in recent months.

- Orders bottomed in January and are now about equal to shipments. This suggests that shipments will soon stabilize and then turn up.



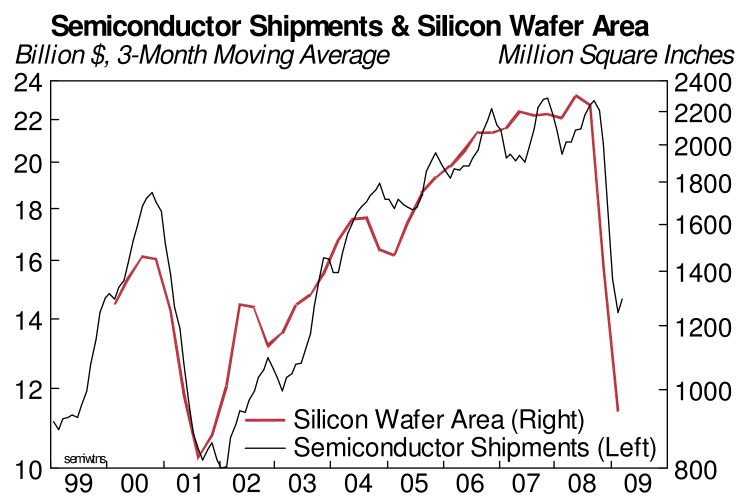
- Shipments of silicon materials (wafer area) are a good indicator of global demand for products going into the electronics industry. Wafer area fell 34% in the first quarter after falling 36% in the fourth quarter of 2008, the biggest quarterly decline ever.

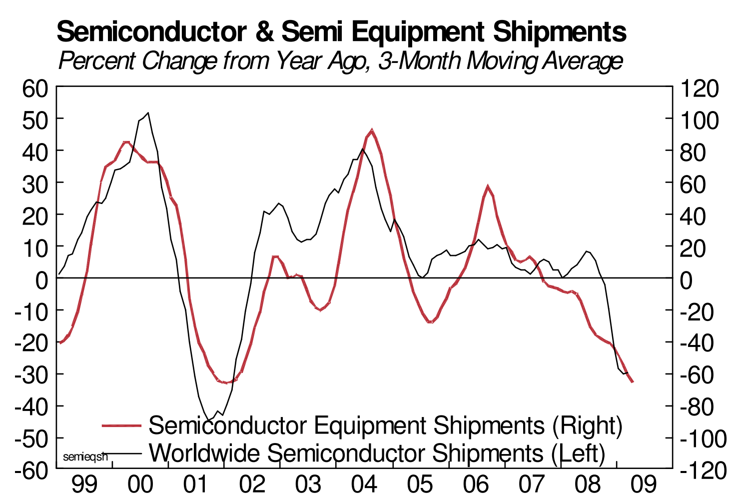
- The data are only reported quarterly back to 2000, but silicon wafer area (in square inches) has been strongly correlated with semiconductor shipments (in dollars), which are reported monthly back to 1976.

- Semiconductor shipments also plummeted in the fourth quarter of 2008 and early first quarter of 2009. The March upturn may just reflect a normal seasonal increase.

- Worldwide semiconductor shipments were down 29.9% year-over-year in the first quarter, the worst decline since 2001.

- Shipments of equipment used to make semiconductors were down 70% year-over-year in the three months ending in April. The book-to-bill (i.e., orders-to-shipments) ratio for semiconductor equipment was 0.65 for those three months. A book-to-bill ratio below one suggests further declines in shipments.

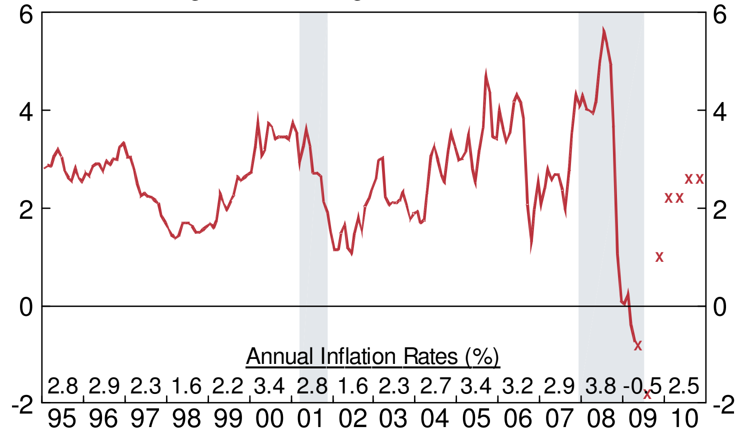




U.S. Prices and Costs

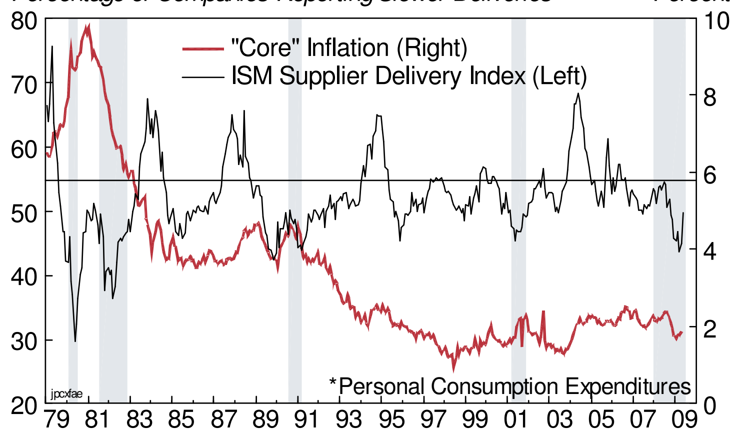
- Rising oil prices pushed headline inflation to 5.6% last July, but falling oil prices (through January) and recession have pulled the year-over-year change in the consumer price index below zero.
- The annual increase in the CPI in 2008 was the largest since 1991. In 2009, the CPI is expected to decline for the first time since 1955.
- The fear that stimulative monetary and fiscal polices will lead to high inflation is not baseless, but is premature. The Federal Reserve can still prevent this.

US Consumer Price Index
Percent Change from Year Ago



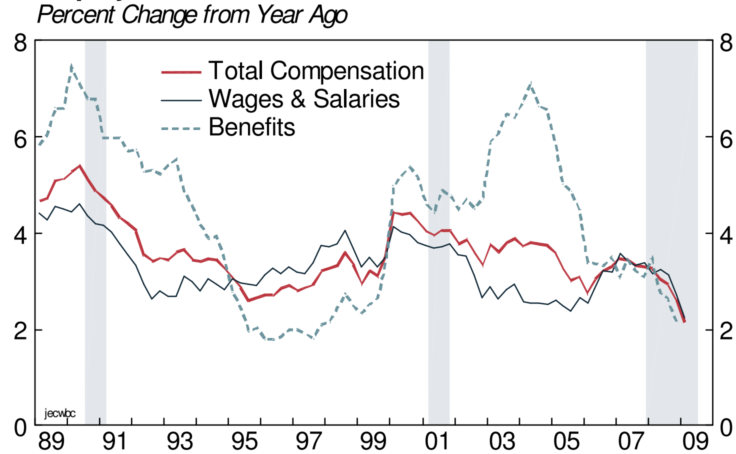
- "Core" inflation, as measured by the year-over-year change in the Personal Consumption Expenditures price index, excluding food and energy, fell from 2.4% in August 2008 to 1.7% in January, but has since risen back to 1.9%.
- The Institute of Supply Management's Supplier Delivery Index, a leading indicator of inflation, suggests that core inflation is likely to decline going forward, but rising commodity prices could prevent this.

PCE* Price Index, ex Food & Energy
Percentage of Companies Reporting Slower Deliveries *Percent*



- The Employment Cost Index for total compensation was up just 2.1% year-over-year in the first quarter; this is the smallest increase since the series began in 1982.
- High unemployment is likely to put continued downward pressure on labor costs.
- Given that labor accounts for about 70% of costs and income, a significant increase in inflation is unlikely unless labor costs reverse their current deceleration.

Employment Cost Index, Civilian Workers
Percent Change from Year Ago

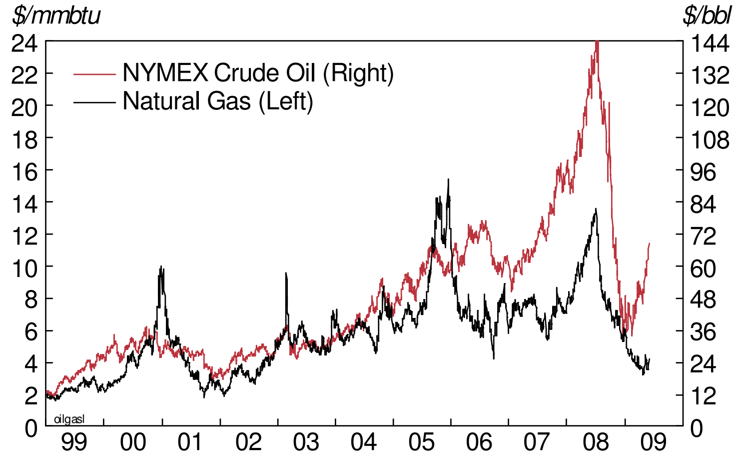


U.S. Prices and Costs

- The price of crude oil (West Texas Intermediate) fell from $147/barrel to $33/barrel in January, but has since risen above $65. Further increases could impede the anticipated economic recovery.

- Natural gas prices remain near their lowest level since 2002. Recent finds (e.g., Marcellus Shale formation) have significantly increased the supply of natural gas in the United States, putting downward pressure on prices.

US Crude Oil and Natural Gas Futures Prices



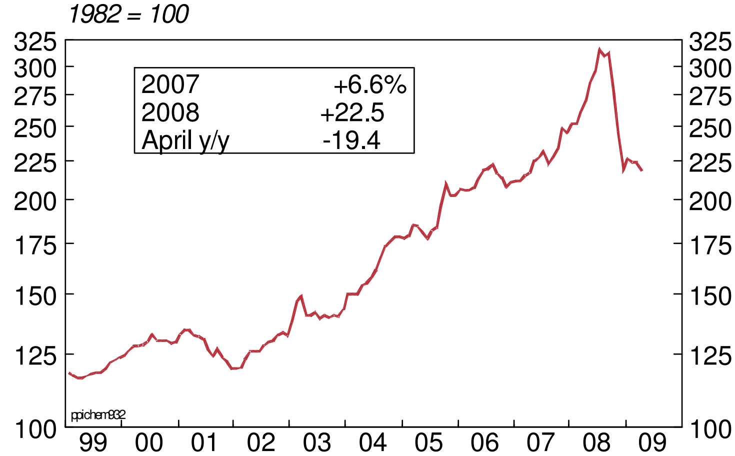
- The Producer Price Index for industrial chemicals fell 30.5% from July to December 2008, but has remained relatively stable since then.

- Industrial chemical prices did not fall nearly as much as oil prices; historically, they have fallen more slowly when oil prices fell than they have risen when oil prices rose.

- For most producers of polymers and specialty chemicals, industrial chemical prices are a proxy for raw material costs, not a measure of selling prices.

US Producer Price Index, Industrial Chemicals

1982 = 100



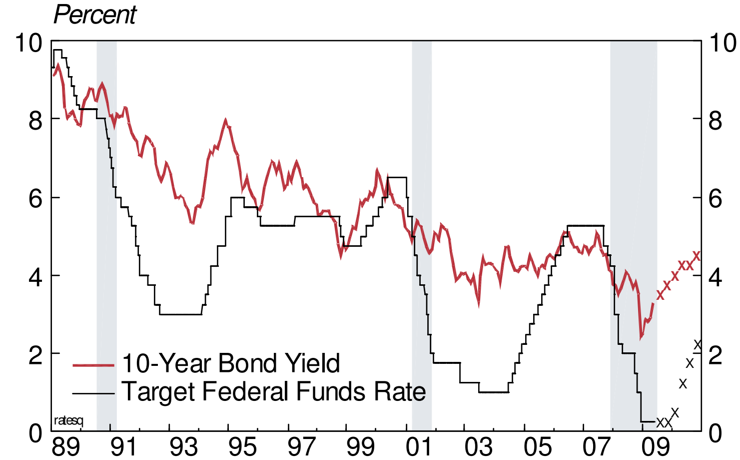
- The Federal Reserve's target Federal Funds rate remains in a range of 0-0.25%, a record low.

- The Fed is likely to keep its funds rate target close to zero until the economy starts growing again, however the Fed continues to emphasize providing liquidity for the financial system over any specific interest rate target.

- The European Central Bank has sharply, if belatedly, cut short-term rates, and the Bank of England has cut its policy rate to 0.5%, a record low.

US Interest Rates

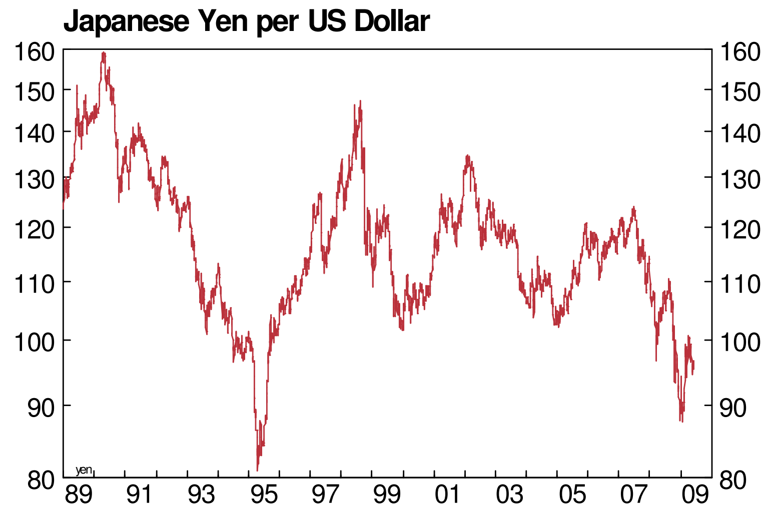
Percent



Trade and Currency Overview

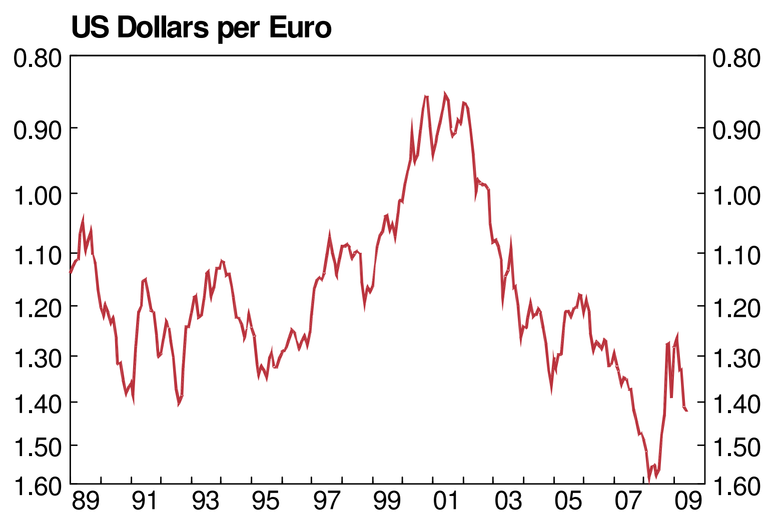
- The U.S. dollar remains near last year's 13-year low versus the Japanese yen.

- The strong yen has reduced the profitability and competitiveness of Japanese exporters, but should boost export growth and profitability for U.S. companies.



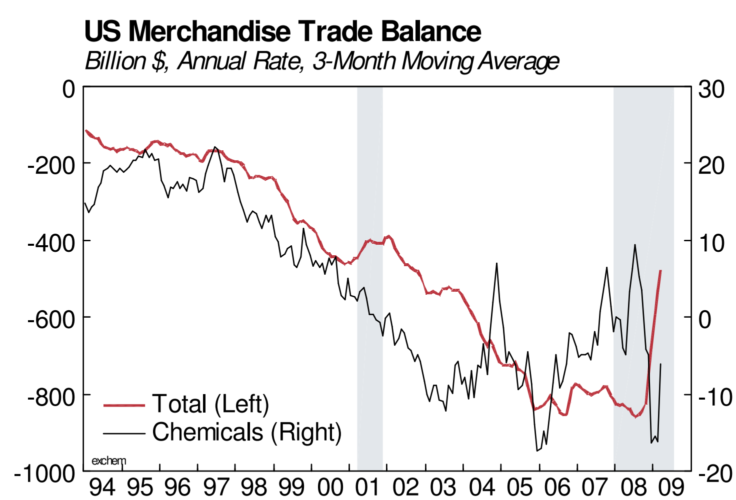
- Last year's rebound in the value of the dollar versus the Euro has ended with the Euro still over-valued relative to the level that equates the purchasing power of the dollar and Euro. (Most estimates put "purchasing power parity" at around $1.20/Euro.)

- The over-valued Euro will benefit U.S. companies at the expense of their European competitors.



- The U.S. trade deficit has shrunk since last summer, first as oil prices fell and then as the U.S. recession reduced demand for imported goods. The deficit usually shrinks during recessions.

- The chemical industry trade balance fell into deficit last year as Asian demand for U.S. chemicals dropped sharply during the global recession. The deficit has shrunk as growth has resumed in parts of Asia, but has not been eliminated.



Non-U.S. Industrial Production

- In March, industrial production in EU manufacturing was down 20.8% from its February 2008 peak, with most of the decline after August 2008. For the first quarter as a whole, production was down 8.3% from the fourth quarter and down 18.9% from year-earlier levels.

- The Organization for Economic Cooperation and Development's leading index for Europe rose in March after 16 straight monthly declines.

- Real GDP for the European Union fell 2.5% quarter-to-quarter (-9.6% annualized rate) in the first quarter, after falling 1.5% in the fourth quarter of 2008.

- Industrial production rebounded in Korea and Taiwan in the first quarter after plummeting in the fourth quarter of 2008.

- Production rebounded in China as well after a much smaller decline in the second half of 2008.

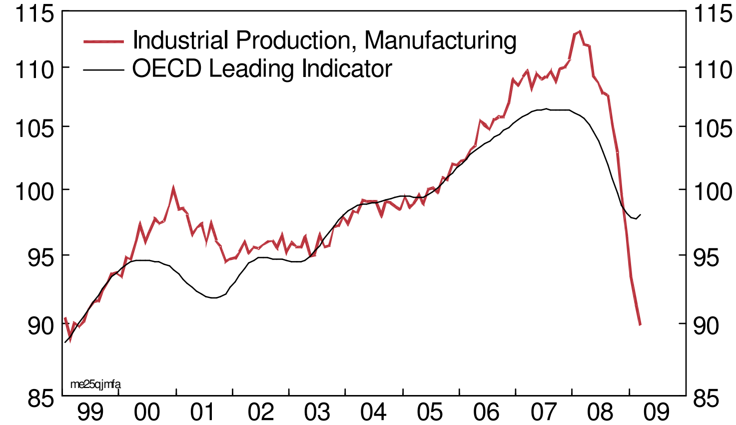
- Industrial production in Japan rose in March and April after hitting a 26-year low in February. Real GDP fell at a 15.2% annual rate in the first quarter after falling at a 14.4% annual rate in the fourth quarter of 2008.

- Industrial production in Brazilian manufacturing rose in each of the first four months of 2009, but was still down 15.1% from its September 2008 peak (and down 12.3% year-over-year) in April.

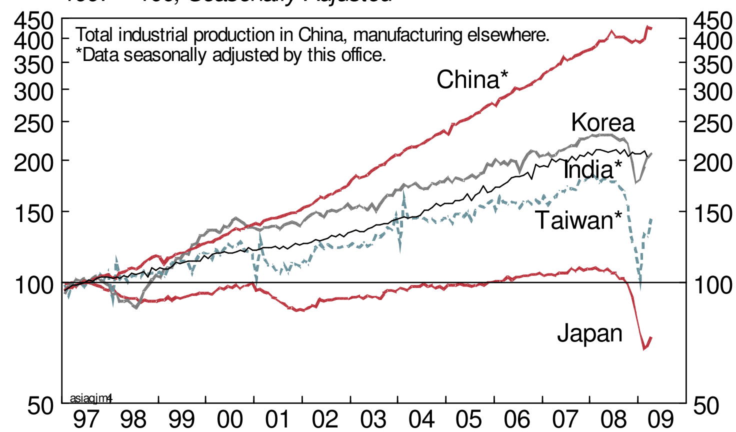
- Industrial production in Argentina rose in March and April, but was still down 11% year-over-year in April.

- Industrial production in Mexican manufacturing continued to decline through March. Production was down 13.8% year-over-year in the first quarter.

Industrial Production: European Union
2005 = 100



Industrial Production: Asia
1997 = 100, Seasonally Adjusted



Industrial Production, Latin America
1997 = 100, 3-Month Moving Averages