Market Outlook Report

A quarterly economic outlook prepared by Steve Crane of C3 Statistical Solutions and provided by the National Fluid Power Association as a service to its membership. The content should not be viewed as representing an official position of the Association.

FALL 2002

Quarterly Economic Conditions Report

General Commentary

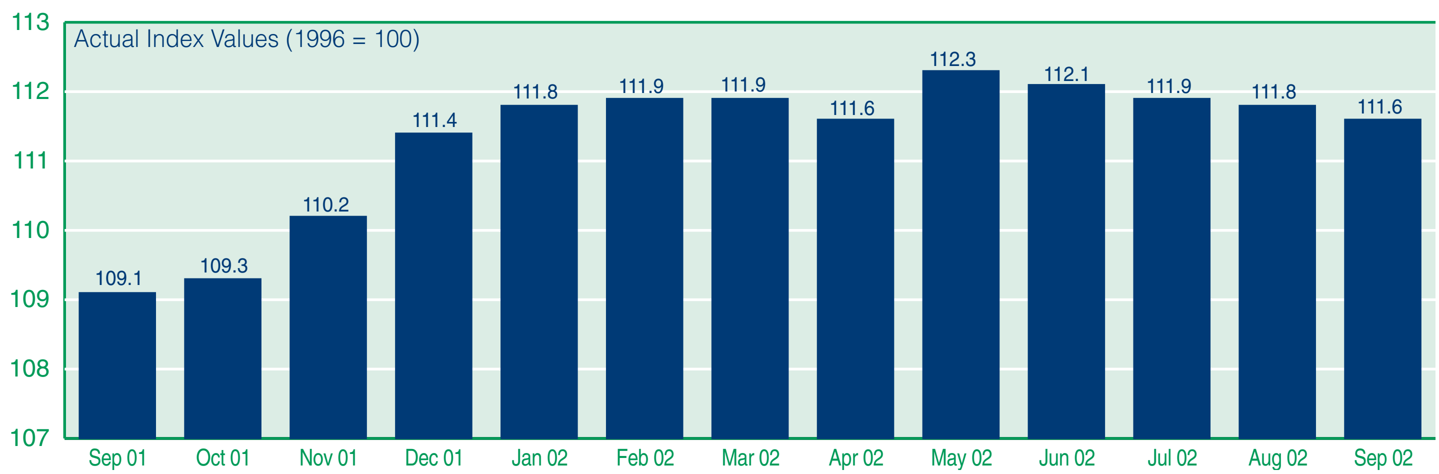
The general outlook for the economy has soured notably in recent months. The majority of the data now point to a very weak finish to what has been an up and down year. Overall growth during the fourth quarter of 2002 is likely to fall well short of the 2.7 percent pace set during the fourth quarter of 2001. It will probably do only modestly better than the anemic 1.3 percent growth in the second quarter of this year.

The reasons for the stalling recovery are relatively easy to identify: weakening consumer demand combined with widespread excess capacity. On the demand front, consumers have always been the backbone of the economy, and they have been doing a remarkable job of keeping things going during the current business cycle. But they are now tired and increasingly worried. An extended slump in the financial markets, weakness in the labor market, terrorism, and the threat of war have consumers curtailing their consumption. This is most evident in the auto market, but the pull-back is evident almost everywhere but housing.

Meanwhile, there is little progress on the business investment-spending front. The overhang from the investment binge of the late 1990s continues to cast a long shadow. With substantial excess capacity and slumping demand, it's easy to see why capital spending plans remain on hold. Unfortunately, this keeps sustainable recovery on hold as well.

Looking forward, it may take a while to get consumers back up to the plate. A reduction in geopolitical tension, or at least less uncertainty would help. A sustained rally in the financial market would be a real plus. It is also likely to be a while before capital spending rebounds. Most of any advance in the near term is likely to be confined to rebuilding inventories. As a result, it looks like it may be a while before we finally achieve a sustained recovery.

U.S. Leading Indicator*



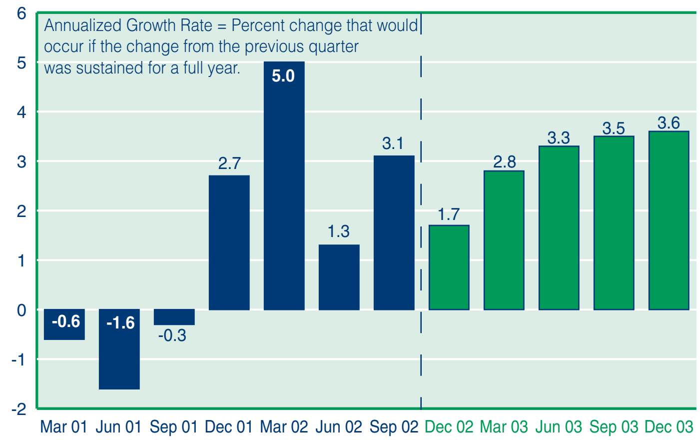
*(*See page 2 for commentary.)*

The National Fluid Power Association (NFPA) is a trade association of 255 U.S. and multinational manufacturers of hydraulic and pneumatic products and systems. Fluid power products make use of a liquid (in hydraulics) or a gas (in pneumatics) to provide power transmission and motion control for industrial and mobile machinery of all types. NFPA is located at 3333 N. Mayfair Road, Milwaukee, WI 53222-3219. Telephone: (414) 778-3344 FAX: (414) 778-3361 E-mail: stats@nfpa.com Internet: www.nfpa.com

U.S. Leading Indicator: (cover graph)

What it is: This is an index combining 10 series chosen to anticipate the future direction of the economy. It provides a better signal than each separate series. Rising trends indicate growth over the next 6-9 months; falling trends suggest stagnation or possible recession.

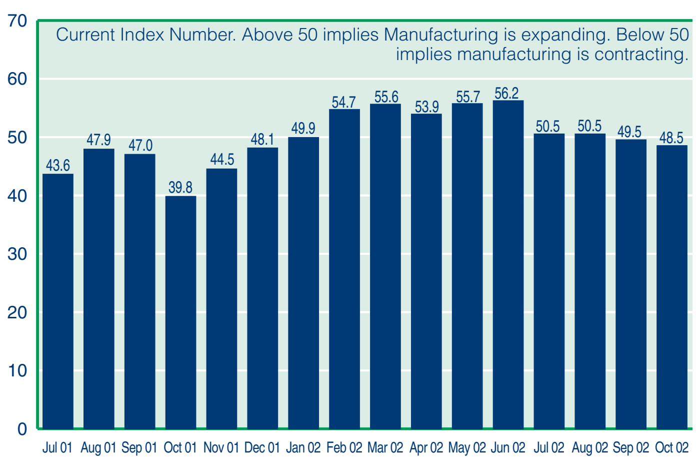
- Through September, the leading indicator had fallen for four consecutive months.
- For that matter, data revisions have produced a flat profile for the entire year.
- Few see this as an indication that the economy is slipping back into recession.
- But it does suggest economic weakness from now into early next year.



Gross Domestic Product (GDP)

What it is: The dollar value of all final goods and services produced in the economy. It is measured in real terms, using 1996 chain-weighted dollars, so the data have been adjusted to remove the effects of inflation. GDP is the broadest summary measure of economic activity.

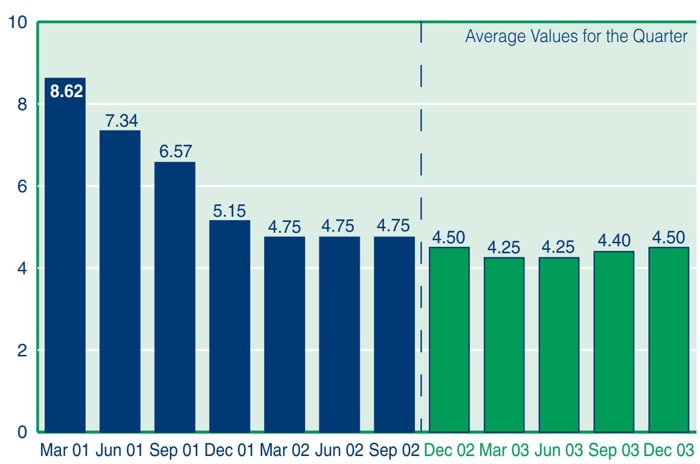
- Third quarter GDP growth of 3.1 percent was quite respectable, although a bit below most analysts' expectations.
- The problem is that most of the strength came early, and momentum faded late in the quarter.
- This fade has continued into the fourth quarter.
- Achieving 2.0 percent fourth quarter GDP may prove to be an accomplishment.
- Most likely, we will be well into 2003 before growth gets back above 3 percent.



Purchasing Managers Index (PMI)

What it is: This is an index compiled by the National Association of Purchasing Management from the responses to a monthly survey of its members. Participants are asked to indicate whether certain industry characteristics are getting better, staying the same, or getting worse. The PMI is a composite of the responses regarding New Orders, Production, Supplier Deliveries, Inventories, and Employment. It is designed to reflect conditions in Manufacturing.

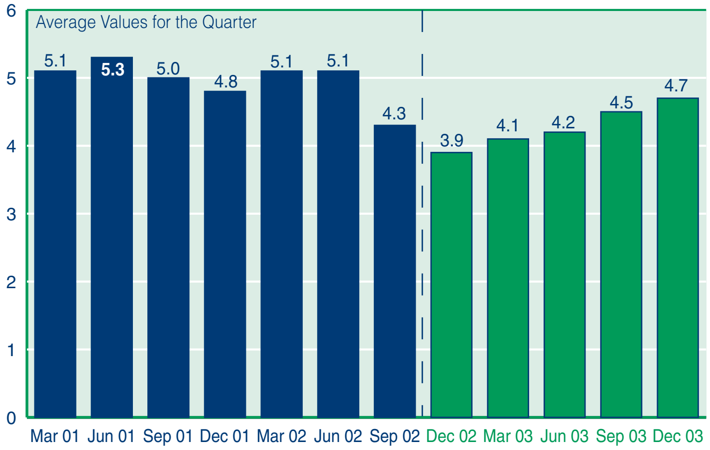
- The PMI clearly signals a slumping manufacturing sector.
- The index has been falling since June, and it has now recorded two consecutive months below 50.
- The new orders component has managed to stay slightly above 50, and export orders have done a bit better.
- Otherwise, there is not much to be encouraged about, and manufacturing looks to struggle through the end of the year.



Prime Rate

What it is: At one time, it was the rate banks charged their best customers on short-term loans. Now, it is a short-term rate set by individual banks for use as a benchmark when making business and personal loans. It tends to reflect monetary policy moves by the Federal Reserve Bank.

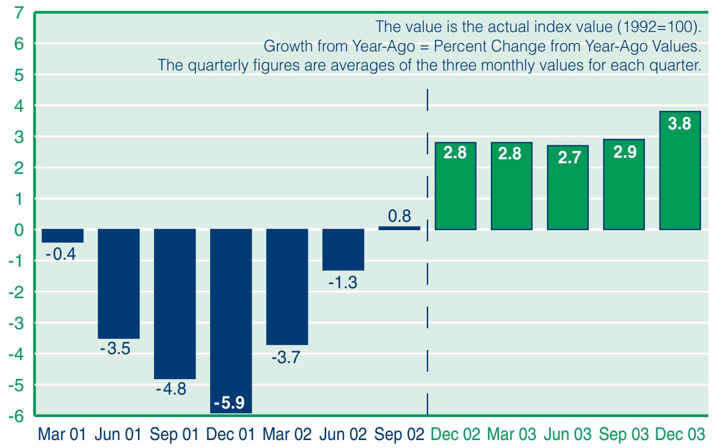
- The Fed acted aggressively early in November, cutting interest rates by 0.5 percent.
- As is the custom, the prime dropped almost immediately by the same amount.
- The Fed is clearly concerned about the stalling economy and the potential threat of deflation.
- But its current position is that no additional rate cuts will be needed.



Long Term Interest Rates

What it is: This is the "constant maturity" rate for 10-year U.S. government bonds. It is interpolated by the U.S. Treasury from the daily yield curve using composites of quotes obtained by the Federal Reserve Bank of New York.

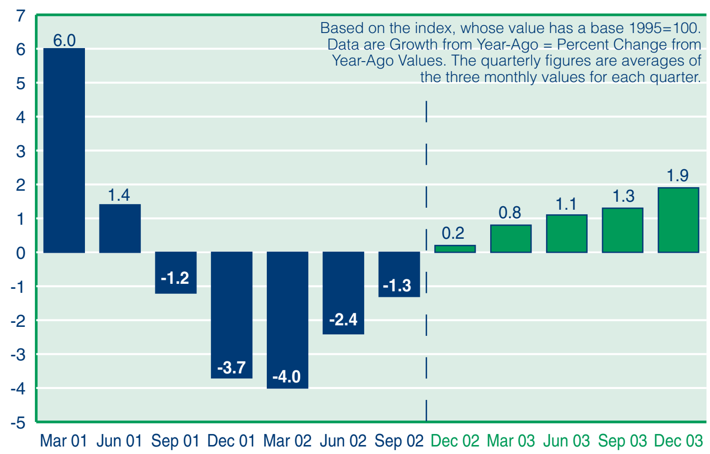
- There has been an impressive bond market rally this fall.
- Global tensions, strong foreign demand, and money fleeing the plunging stock market have fueled the rally.
- Ten-year treasury rates have plunged well below 4.0 percent to hit 40+ year lows.
- Given the current economic and geo-political uncertainties, long rates should be rising only modestly during the first half of next year.



U.S. Total Industrial Production

What it is: This is an index of total goods production by the nation's factories and mines and utilities. Because it is reported monthly, it is often used as an alternative to GDP, to provide an early indication of the direction of the overall economy.

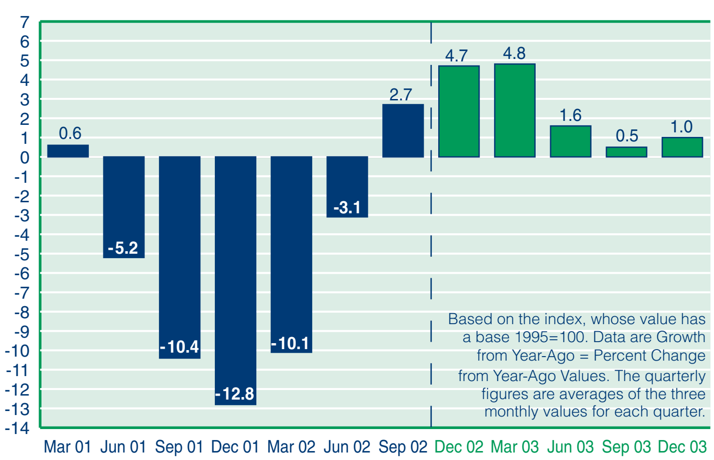
- Manufacturing has been significantly affected by the stalling economic recovery.
- After a solid first half of the year, momentum began fading rapidly in July.
- In recent months, growth has disappeared and the manufacturing sector has slipped back into contraction.
- Manufacturing déjà vu should be in the cards next year, as this sector works to duplicate the first half performance of 2002.



Industrial Production: Germany

What it is: This is an index of total goods production. It includes goods produced in establishments engaged in mining (including oil extraction), manufacturing, and the production of electricity, gas, and water. Because it is reported monthly, it is often used as an alternative to GDP to provide an early indication of the direction of the overall economy. Data are from OECD. They are seasonally adjusted.

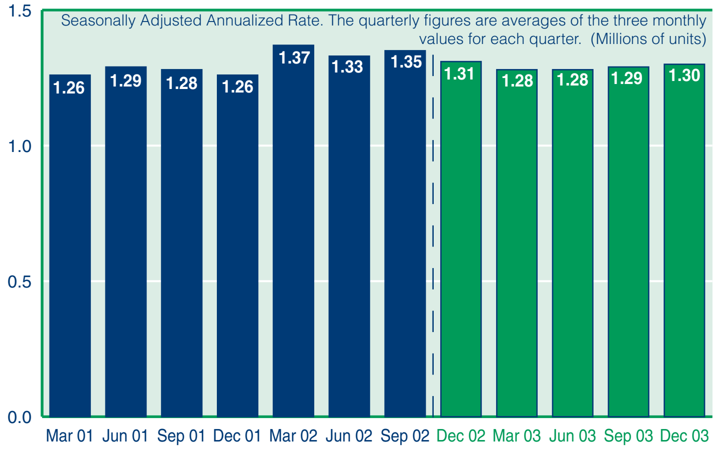
- While almost all of the eurozone economies are struggling, Germany is in the worst shape.
- Unemployment is pushing close to the double-digit level and consumption spending is slowing.
- Factory orders are off, and business confidence is down.
- Germany may slip back into negative growth during the fourth quarter, and will see sluggish growth at best during 2003.



Industrial Production: Japan

What it is: This is an index of total goods production. It includes goods produced in establishments engaged in mining (including oil extraction), manufacturing, and the production of electricity, gas, and water. Because it is reported monthly, it is often used as an alternative to GDP to provide an early indication of the direction of the overall economy. Data are from OECD. They are seasonally adjusted.

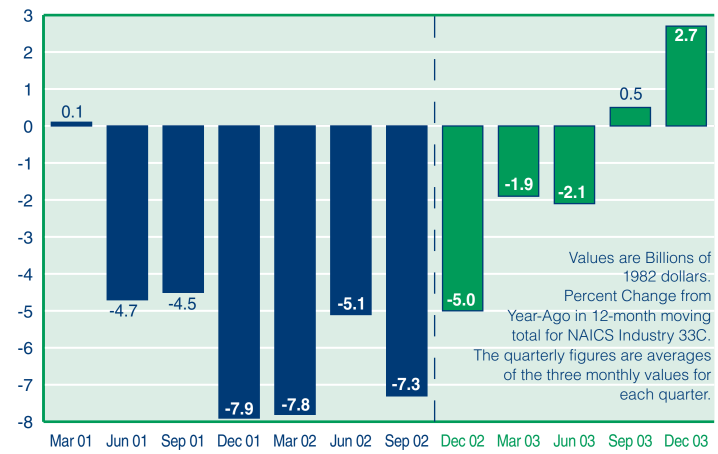
- A second quarter surge in exports has slowed considerably in recent months.
- Domestic demand appears unlikely to offset the loss of export volume.
- So Japan is teetering on the edge of slipping back into stagnation.
- This is masked in the figures shown here because very weak year-ago benchmarks produce relatively strong positive growth rates through early 2003.



Housing Starts

What it is: This is the total number of single-dwelling structures (including condos and town houses) that were started. It is an estimate of the annual total derived from the seasonally adjusted number of actual starts reported for a particular month.

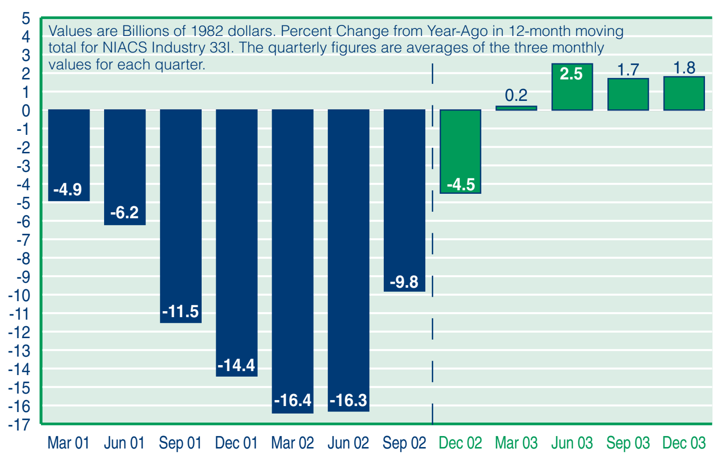
- After slowing moderately during the summer, single-family housing starts came roaring back in September.
- Part of the impressive 18.2% monthly advance could be attributed to favorable weather in September.
- But weather alone couldn't push starts to their highest level since the inflation-driven housing boom of the late 1970s.
- Extremely attractive mortgage rates and the lack of attractive alternative investment opportunities provided much of the drive in the housing sector.
- The housing market should stay solid, but some slowing will reemerge.



Construction Machinery Manufacturing, New Orders

What it is: This is the percentage change from year-ago values for the annual moving total of the volume of new orders for goods from NAICS Industry 33C.

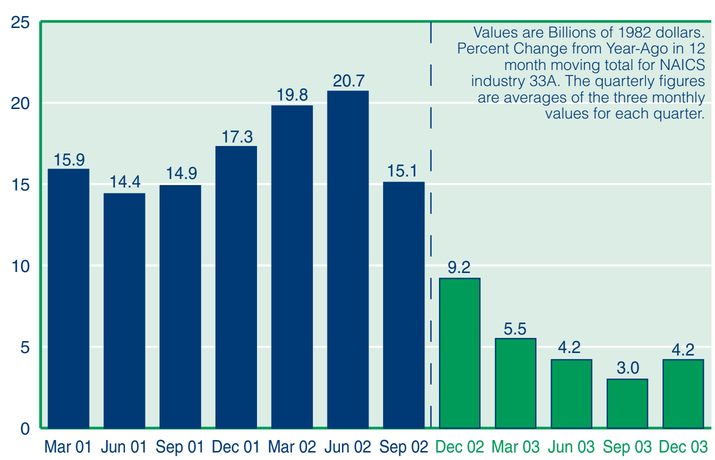
- Construction orders tumbled in September.
- Ongoing weakness clouds the picture well into next year.
- The strongest support for this sector will continue to come from residential construction activity.
- Nonresidential construction activity remains extremely weak, and public construction threatens to become so during 2003.



Metal Working Machinery New Orders

What it is: This is the percentage change from year-ago values for the annual moving total of the volume of new orders for goods from NAICS Industry 33I.

- September saw a small decline in orders that doesn't derail the modest move toward recovery that has been occurring this year.
- The major concern, of course, is the renewed weakness in the manufacturing sector.
- If manufacturing can at least stabilize, this sector seems poised for modest growth.
- Of course, given the conditions over the last few years, it doesn't take much to show improvement.



Farm Machinery & Equipment Shipments

What it is: This is the percentage change from year-ago values for the annual moving total of the volume of products shipped by NAICS Industry 33A.

- Shipments slipped 1.6 percent in September compared to August.
- This was a mild decline compared to the rest of the manufacturing sector.
- Looking forward, there are many positive signs.
- The potential gains from trade with China, and the stable financial support of the new farm bill are two of the biggest plusses.