Agricultural Economy

U.S. Recession, Slow World Growth Leave Mixed Picture for Farm & Rural Economy

By November 2001 it was official. The U.S. economy was in recession—and had been since March. The recession ended a decade-long expansion, the most durable on record. World economic growth—both in 2001 and 2002—is expected to be sluggish, posting the lowest back-to-back growth rates since the world debt crisis of 1981-82.

With a larger percentage of jobs lost in nonmetro counties relative to metro counties, the U.S. and global economic slump appears to have had a disproportionately negative impact on the rural economy. But in the coming year, the combined world and domestic recessions will have mixed effects on farm operations. On the one hand, world recession and a strong dollar will dampen agricultural export growth, pressuring farm prices downward. Meanwhile, flat wages, lower interest rates, declining fertilizer prices, and negligible input price inflation will cut 2002 farm expenses from 2001. For farm households, the overall impact will be mixed, with net farm income up but off-farm income down due to the soft economy.

The National Bureau of Economic Research (NBER) declared on November 26, 2001 that the U.S. economy was officially in recession. According to the NBER, an academic nonprofit organization, "A recession is a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail trade [indicators]." The NBER noted that before the attacks of September 11 the decline in the economy might have been too mild to qualify as a recession, but the attacks may have been a key factor pushing the economy into a recession.

The four monthly indicators used by NBER to determine the starting month of a recession—industrial production, wholesale-retail trade, personal income, and employment—did not point unambiguously to a specific beginning date for the recession. Based on industrial production (an indicator of manufacturing activity) and wholesale-retail trade alone, for example, the recession would have started as early as the fall of 2000. Partly as a result of the 2001 tax rebate, though, real personal income actually continues to grow as of late 2001. But overall weakness in the service sector in early 2001 and employment data—often considered the single best indicator of overall economic activity—led the NBER to conclude that the recession started in March 2001.

The U.S. recession occurred despite an accommodative monetary policy by the Federal Reserve Board beginning in December 2000, but lower short-term interest rates could not overcome a slump in investment spending on business plant and equipment as financial intermediaries continued to tighten credit conditions. Nor did reduced short-term rates buoy sluggish retail sales. Normally, a sharp drop in short-term interest rates generates a noticeable drop in long-term interest rates, which can help stimulate investment. But as of early November 2001, a 4 percentage-point drop in the Federal funds rate—the overnight rate at which banks lend each other money—generated only a 0.66 percentage-point drop in long-term AAA corporate bond rates.

During an economic expansion, imbalances inevitably develop that set the stage for the next recession. With the benefit of hindsight it is possible to locate the excesses, but predicting when a recession will start and how long it will last is next to impossible. In any event, few economists believed the U.S. economy could maintain annual growth rates of 4 percent or above that occurred during 1996-2000.

In retrospect, excesses were most evident in the technology sector. Fueled by expansion of business Internet use, home computing, and dramatic growth in use of mobile cell phones, the new technology revolution enhanced productivity growth, but household and business demand for high-tech equipment eventually reached saturation. The technology bubble was the first to burst after technology-company earnings growth peaked in early 2000.

Three Stages Lead to Recession

The collapse of the technology sector inaugurated the first of three stages (broad economic developments) that eventually led to a full-fledged U.S. recession. In the first stage, collapse of the technology sector quickly reverberated through the financial markets, wholesale trade, and manufacturing sectors. In stage two, increasing energy prices combined with

tighter credit and falling U.S. exports to cause a drop in manufacturing profits, output, and jobs. The third stage was the spread of the recession in the manufacturing sector to the larger services sector, making the downturn economywide.

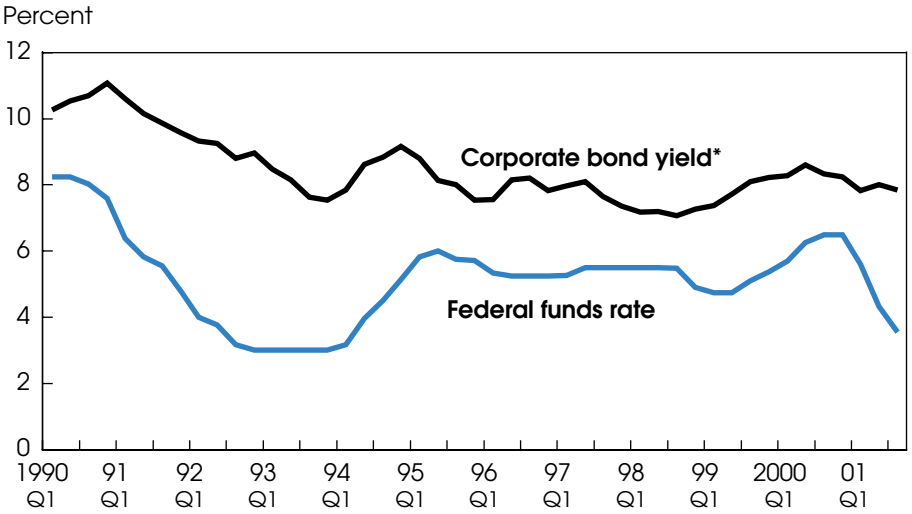
Financial markets hit by falling technology-sector profits and employment (Stage 1).
In early March 2000, the technology-laden NASDAQ stock index had soared above 5,000, about double the level of just a year earlier. By the end of 2000, however, the NASDAQ gains had evaporated, and the index dipped below 2,500.

The NASDAQ had been bid up as the technology companies that dominate the index saw earnings and sales growth boom following double-digit growth rates in equipment and software investment during the late 1990s. The investment was driven largely by nontechnology companies exploiting the cost-saving potential of the Internet and the personal computer, and by the expansion of the world telecommunications network.

Despite the NASDAQ plunge, overall demand for computer-based office equipment in 2000 was strong, and output during the year actually grew. But price cuts were required to keep sales volume up, so earnings declined, and by the fourth quarter, employment in the technology sector also shrank. So in contrast to the earnings growth through the late 1990s, many Internet backbone companies saw deteriorating balance sheets and employee layoffs. New technology companies with growth prospects predicated on rapidly increasing computer or telecommunications sales, or on other unrealistic assumptions, went bankrupt, causing further layoffs. Prices of high-technology stocks that dominate the NASDAQ index fell as the technology bubble burst, with the new lower stock prices reflecting more reasonable potential long-term sales and earnings prospects.

The financial markets were not reacting negatively just to exigencies experienced by dot.com and new technology companies. Electronic equipment manufacturers, for example, had an unexpected drop in operating income of over $3 billion in the last quarter of 2000, despite increasing sales volume, and employment in that sector dropped in 4 of the last 5 months of 2000. Starting in late 2000, declining profit margins and the beginning of widespread technology company layoffs contributed to a tightening of credit conditions as loan standards were raised and the spread between corporate bonds and U.S. Treasury bonds widened.

Despite Fed Interest Rate Cut, Corporate Borrowing Costs Remained High



Quarterly data.
*Corporate yield on BAA rated bonds, the lowest rated bonds that can be held in a bank portfolio. Ratings are by Moody's.
Sources: Federal Reserve Board; Moody's Investors Service; Haver Analytics.
Economic Research Service, USDA

By usual standards, the enormous drop in household wealth caused by stock market losses could well have been large enough to trigger a recession as early as mid-2000, especially given other weaknesses then present in the economy (as in the housing, and car and truck markets). The wealthiest 10 percent of the U.S. population ignored their large paper losses in the stock market, however, and instead used the trillion-dollar gain in the real estate market to finance new consumer spending in excess of household income. In addition, while technology and related manufacturing jobs were lost, other sectors of the U.S. economy continued to create jobs.

Manufacturing output recession begins in late 2000 (Stage 2).
A second catalyst to the recession was the runup of energy prices between 1999 and the end of 2000. Continued overall strength in the U.S. and Asian economies, along with substantial drops in oil production among OPEC and foreign non-OPEC oil producers, combined to cause wholesale energy prices to more than double. The price of wellhead natural gas more than quadruped between early 1999 and the end of 2000, reflecting both continuing strength in U.S. industrial demand during much of this period, and the increasing use of natural gas in electricity generation. In some parts of the country, gasoline prices rose more than 70 percent.

Rising crude oil prices and higher demand caused a shortage of refinery capacity in the Midwest, which caused higher than average gasoline price increases in that region. Sharp energy price increases hammered consumer and business budgets and, coupled with tighter credit conditions, slowed the adoption of new technologies for home and business use. This further lowered technology companies' profit margins, but the greatest impact was on more prosaic goods—output of textiles and domestically manufactured cars and trucks dropped far more sharply than new technology goods.

Manufacturing employment drops in most years, driven by rapid productivity growth in auto and other mature industries. But

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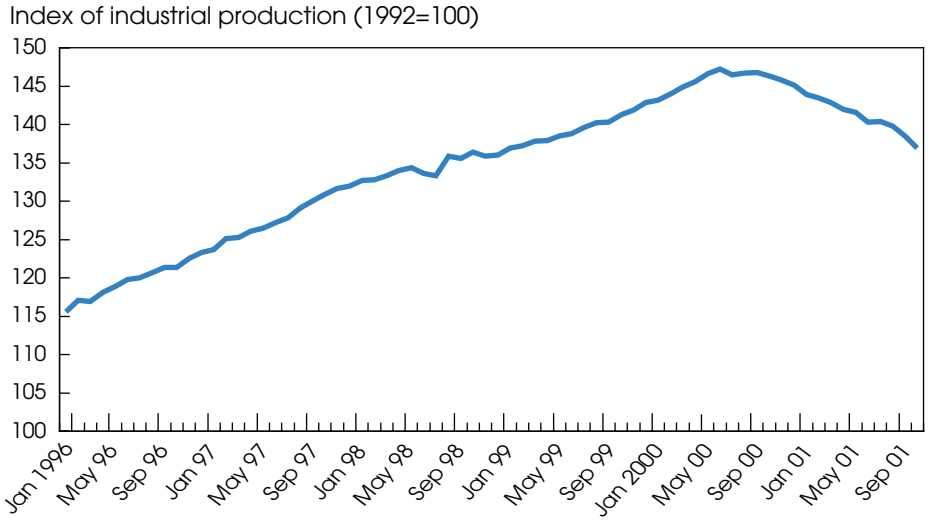
Industrial Production Falls Sharply from September 2000, Foreshadowing Recession



Source: Federal Reserve Board; Haver Analytics.
Economic Research Service, USDA

the magnitude of the decline in manufacturing employment and the drop in industrial output in late 2000 indicated a clear-cut manufacturing recession was underway. The drop in industrial production in October 2000 marked the start of a lasting slowdown in manufacturing. In late 2000 and early 2001, the largest consecutive-quarter employment drop since the 1990-91 recession confirmed that manufacturing was in bad shape.

The bellwether "real manufacturing and trade sales" indicator declined in 3 of the last 4 months of 2000, presaging a full-blown recession despite continued growth of retail sales. The drop in wholesale and manufacturing sales was especially pronounced. Manufacturing sales declined more than $10 billion in the last quarter of 2000, driven largely by plummeting sales of machinery.

Although the technology-stock bull market collapsed through 2000 and technology-company earnings dropped, the boom in total equipment investment continued into early 2001. This boom largely drew on imports and inventory depletion, however, and domestic production of electronic goods and equipment started to decline in January 2001.

As general credit conditions tightened and it became increasingly difficult for medium and small businesses to obtain credit, demand for computer-based equipment and other business products finally fell. This exacerbated the drop in technology-sector profits as the volume of product sales dropped despite lower prices. Worldwide demand for manufactured goods stagnated, resulting in lower corporate earnings for technology-using companies as well as technology-making companies, particularly since wage and energy costs had accelerated. These factors in turn caused further weakness in the technology sector, pushing down the NASDAQ and the Dow stock indexes, and generating a second and third wave of technology layoffs.

Manufacturing recession spreads to rest of economy (Stage 3).
By the end of the first quarter of 2001, the service sector could not generate enough new jobs to offset the increasing loss of U.S. manufacturing jobs. The disappearance of a total of 165,000 jobs in March 2001 signaled the beginning of the U.S. recession. As the third wave of technology and nontechnology manufacturing layoffs began and wholesale trade workers were added to the layoff lists, the drop in employment accelerated.

By late November, numbers for September 2001 showed continuing drops in industrial production, overall private nonfarm employment, and wholesale-retail trade. With no sign of an upturn, there was little doubt that the slowdown that started in March indeed qualified as a recession. Although real consumer spending on manufactured goods was actually up in this 6-month period, it did not induce any new U.S. manufacturing output, as inventories were tapped and imports rose. But real consumer spending on services was flat from March to September, quite consistent with a broad-based shrinkage in the domestic economy.

World Growth Slows As Locomotives Falter

World economic growth prospects depend to a large degree on the economic growth of the leading economies, the so-called locomotives. During the 1996-2000 period as a whole, the U.S. did help pull the world economy along, growing faster than the global average. In fact, except for Canada, the U.S. had the fastest growth rate of all of the leading industrial "G-7" countries (U.S., Japan, Germany, France, the United Kingdom, Italy, and Canada) for each year of 1996-2000. However, as of the last half of 2001, the U.S. and Japan were both in recession; Germany contracted in the third quarter.

Weakness in the world's three largest economies made world recession in 2001 almost inevitable. The estimated world GDP growth of just above 1 percent in 2001 is considerably less than the 2.5 percent considered necessary by the International Monetary Fund (IMF) to keep the world out of recession. World growth below that rate causes key standard-of-living indicators, such as individual country unemployment rates, to deteriorate.

Contributing to the global slowdown was a general weakness in leading East Asian economies. Just as East Asia was helped out of the 1998 crisis by low oil prices, the region received a negative hit from the recent runup in oil prices and a sharp drop in demand for parts by U.S. computer and telecommunications manufacturers. Besides Japan, Taiwan and several other major customers of U.S. farm and manufactured goods exports were in recession

by early 2001. U.S. technology and manufacturing companies, facing weak bottom lines, were forced into major layoffs in Asian and European operations as well as in the U.S. The result was lower demand for U.S. goods exports and deepening of the worldwide manufacturing recession.

Concentration of the manufacturing recession in the technology sector contributed to a sharp slowdown in the economies of Asia, particularly in East Asia. Japan's recession, coupled with the decline in U.S. computer equipment demand, resulted in a slowdown of Asian economic growth in 2001 almost as sharp as in the Asian financial crisis during 1997-98. U.S. exports to Asia in goods, such as machine tools, dropped, and by early 2001, total U.S. machine production fell to less than half the level of early 2000.

A strong dollar exacerbated the recession in U.S. goods production. The dollar, expected to fall in value against the yen and euro, instead appreciated in 2001. Japan, expected to pick up in 2001, instead went into full recession, causing the yen to fall in value relative to the dollar. Similarly, when European Union growth fell below expectations, the euro declined, largely because financial investment prospects appeared better in the U.S. The net result was a 5-percent appreciation of the dollar in late 2001, a trend likely to aggravate the already huge $500-billion U.S. trade deficit. For the farm sector overall, slow economic growth and a strong dollar kept commodity prices relatively low. Some markets, such as textiles, simply collapsed with sharp drops in world cotton prices.

U.S. & World Growth Prospects for 2002

A reflection of the potential depth of the domestic recession was the fall in U.S. industrial production by late 2001. The industrial production index, a broad-gauge index of output from U.S. factories, mines, and gas and electric utilities, fell for 14 months in a row (as of October 2001) for the first time since World War II. The domestic industrial decline was concentrated in the high-technology sector as business computer equipment production dropped over 10 percent between November 2000 and October 2001.

In the coming months, the strength of personal income growth, low energy prices, the lagged effects of loose Fed monetary policy, and the combined impact of a fiscal stimulus package and the 2001 tax cut are expected to bring the country out of recession. This is expected to occur by spring 2002, with trend growth restored by late 2002. The current Blue Chip consensus forecast of 1 percent U.S. GDP growth for 2002 reflects that outlook.

Prospects for world economic growth in 2002 are likely to be driven by the three largest economies. The U.S. is expected to be back to further growth in 2002, but not to reach full throttle until late 2002. Japan, the world's second-largest economy, is expected, by many private economists, to remain in recession in 2002 as problems in the banking system limit credit expansion for new business ventures. Germany is expected to grow less than 1 percent in 2002, and the entire 12-country Euro zone to grow less than 2 percent.

With these potential economic locomotives growing so slowly, overall world GDP growth in 2002 is expected, by most analysts, to be between 1 and 1.5 percent, still a recession by global standards. Asia is forecast to have GDP growth of less than 2 percent for 2001 and 2002. Not since 1981 and 1982, when the world debt crisis began, have Asian and world growth been so sluggish for 2 consecutive years.

Outlook is Mixed For Rural Economy

The recession has likely affected the average income of rural households more than the average income of U.S. households at large. The manufacturing slump, which started in late 2000 (at least 4 months before the start of the general recession), hurt the rural and farm economies more quickly and sharply than the economy as a whole, reflecting their dependence on the manufacturing sector for off-farm income. Further, with the world recession expected to last longer than the U.S. recession, and with the dollar expected to remain relatively strong, the manufacturing sector is likely to recover less rapidly than the overall U.S. economy. The gap between nonmetro and metro unemployment rates has already widened and is expected to widen further as manufacturing takes longer to recover fully than other sectors.

The one bright prospect for most (nonenergy producing) rural areas is that energy prices are expected to remain relatively low until at least the middle of next year. This should partly offset the impact of reduced income from overtime pay, an important component of rural income.

Farm exports are projected up for fiscal 2002 but most farm commodity prices are weak. However, weak commodity prices in 2002 are likely to be partially offset by lower energy and fertilizer prices early in 2002, and those with ample storage facilities can probably obtain diesel fuel at very low prices for next year's farm operations, noticeably reducing expenses. With wholesale natural gas prices close to the 1999 low, nitrogen-based fertilizer prices are expected to continue to drop sharply compared with 2000. Combined fuel and fertilizer expenses, while not expected to drop below the low levels of 1999, should be down sharply from 2001.

Further news on the positive side is that farm interest rates, especially in the first half of 2002, should be quite favorable for those with good credit, significantly cutting farm interest expenses compared with 2000 and 2001. Farmers largely dependent on off-farm income will likely have a harder time getting loans and will likely face reduced hours or earnings for part-time off-farm employment. But the going rate for farm labor will likely be lower in 2002 than in 2001, and as the general rural job market deteriorates, fewer fringe benefits will be necessary to attract farm workers. AO

David Torgerson (202) 694-5334
dtorg@ers.usda.gov