

# Chicago Fed Letter

## Auto sales put the pedal to the metal

Forecasting light vehicle sales in the mid-1990s was as easy as saying “15.1 million”—the remarkably stable average of sales from 1994 to 1998. Given that stability, it is not surprising that even though sales in the first third of 1999 averaged 16.2 million units, the 1999 Automotive Outlook Symposium consensus forecast was 15.6 million units, with the highest forecast 16.3 million units. In fact, sales in 1999 accelerated through the year, ending at 16.7 million units and surpassing the previous annual sales record. The industry was so healthy that peace generally reigned throughout the Big Three—United Auto Worker (UAW) labor negotiations as both sides did not want to risk the robust profits the industry stood to gain in 1999. The heavy truck industry was also strong, though less media attention was paid to it than light vehicle sales. One of the big problems in the trucking industry was having enough drivers to fill the record number of heavy-duty trucks that were sold. At the beginning of 2000, there were signs of slowing in heavy-duty trucks but light vehicle sales continued to strengthen, averaging 18.1 million units in the first quarter. It was in this environment, on June 1 and 2, 2000, that the Federal Reserve Bank of Chicago held its seventh annual Auto Outlook Symposium. This *Chicago Fed Letter* summarizes the consensus outlook from the symposium as well as the presentations from vehicle producers and research organizations.

### Consensus outlook for the U.S. economy

The U.S. economy began 2000 on a fairly strong note. In the fourth quarter of 1999, the economy expanded at a 7.3% rate, the strongest quarterly increase since 1984, and preliminary

1. Actual 1999 and median forecast for GDP and related items			
	1999 (Actual)	2000 (Forecast)	2001 (Forecast)
GDP, current dollars <sup>a</sup>	5.7	6.7	5.3
Chain-type price index <sup>a</sup>	1.4	2.1	2.2
GDP, chained 1996 dollars <sup>a</sup>	4.1	4.7	3.3
Personal consumption expenditures <sup>a</sup>	5.3	5.3	3.4
Fixed–nonresidential expenditures <sup>a</sup>	8.3	10.3	7.0
Fixed–residential expenditures <sup>a</sup>	7.4	1.0	–1.8
Change in business inventories <sup>b</sup>	42.2	41.8	43.2
Net exports of goods and services <sup>b</sup>	–323.0	–389.3	–385.0
Government expenditures and gross investment <sup>a</sup>	3.7	3.0	2.3
Industrial production <sup>a</sup>	3.6	4.8	3.4
Car & light truck sales <sup>c</sup>	16.7	17.3	16.4
Housing starts <sup>c</sup>	1.67	1.61	1.52
Unemployment rate <sup>d</sup>	4.2	4.0	4.2
Inflation rate (Consumer Price Index) <sup>d</sup>	2.2	3.0	2.7
Treasury constant maturity 1-yr. rate <sup>d</sup>	5.08	6.25	6.23
Treasury constant maturity 10-yr. rate <sup>d</sup>	5.64	6.48	6.42
J. P. Morgan trade-weighted dollar <sup>a</sup>	–2.3	0.0	–2.4

<sup>a</sup>Percent change from previous year.  
<sup>b</sup>Billions of chained (1992) dollars.  
<sup>c</sup>Millions of units.  
<sup>d</sup>Percent.

growth for the first quarter was a solid 5.4%. The symposium participants expect the overall economy, as reflected by real gross domestic product (GDP), to grow by 4.7% for 2000 and then slow to 3.3% next year (see figure 1). The unemployment rate is anticipated to decline 0.2 percentage points to 4.0% in 2000 and rise by 0.2 percentage points next year. The consensus forecast for light vehicle sales for this year, 17.3 million units, is half a million more units than last year’s record-setting sales pace. Sales averaged 18.0 million units for the first four months of the year, implying the group was expecting sales to slow to an average of 17.0 million units for the remaining two-thirds of the year. Vehicle sales are expected to ease somewhat, to 16.4 million units, in 2001, which would make 1999, 2000, and 2001 the three strongest vehicle sales years in history. The participants

expect inflation to jump from 2.2% in 1999, to 3.0% this year, and then drop to 2.7% in 2001.

### Global outlook

The chief economist from one of the Big Three automakers opened the conference by presenting their global industry outlook. The economist discussed the compelling optimism for global auto sales, but pointed to the consolidation of the industry through mergers and acquisitions as the big story. The economist suggested that another industry realignment trend of alliance forming would prevail in the long run.

The year 2000 opened optimistically for the global automotive market, unlike the past two years. At the beginning of 1999, industry analysts expected some economic turmoil, following

Russia's difficulties. But, any further severe panic in financial markets did not materialize, and auto sales across the globe were generally strong. The economist pointed out that the U.S. was on pace to set another record for sales as sales momentum and declining nominal vehicle prices should outweigh any attempts by the Fed to slow the economy. Europe showed strong sales potential. Latin America was improving but should fall short of the record sales levels of 1997. The weakness of Japan's economy has slowed sales, but the Asian-Pacific region in general looked strong based on the strength in India's auto market. Considering all this market strength, global auto sales should grow 4.0% in 2000.

Despite the strength in global auto sales, the big story in the industry was the numerous international mergers and acquisitions by the world's automakers. Driving this trend was a global automotive market that is increasingly difficult for small companies to compete in, due primarily to increasing cost structures and the riskiness of entering into the small, but high growth markets. Some analysts have been arguing for 20 years that in the long run, only six or seven large automakers will exist, but the economist argued that this will not be so. Over the same 20 years, the market share of the world's top six automakers has not changed. As the new "big" markets (i.e., China, Russia, and India) develop, new automakers in those countries are likely to develop. Additionally, the economist argued that alliance and partnership formation for specific projects or components will prevail as the dominant trend in industry realignment, rather than mergers and acquisitions.

### **Perspectives on the industry**

In an expanded portion of the conference, two panel discussions focused on the long-term trends analysts and industry managers saw driving change in the industry, primarily the effects of technology changes and supply chain changes.

Technology developments have allowed original equipment manufacturers (OEMs) to have a cheaper, more flexible production process.

Some analysts estimate that utilizing the Internet in the supply chain will allow OEMs to save \$1,000 to \$3,000 in costs per vehicle; though one panel participant suggested that those estimates were exaggerated and that any savings were at least six years away. One manager pointed out that most of the savings will come on the retail end. Two managers agreed that OEMs will use the Internet to just buy commodities and that it was unlikely they could use it to buy complex modules. Technology improvements will also help OEMs achieve their conflicting goals of simplifying the manufacturing process with common platforms while offering consumers differentiated products; however, panel participants noted that the OEMs have some work to do in differentiating the products enough so that consumers know the difference between products that share the same platforms.

There was some discussion on how the supply chain of vehicles will change in the future. Analysts and managers suggested that OEMs hold the bulk of the power in the chain currently, but there were several signs of weakness. Consumers have very little brand loyalty and one analyst pointed to a study where consumers said they were more loyal to their dealer than to any one brand. If mega-, Wal-Mart-type dealerships come into being, as a manager and an analyst suggested, OEMs might sacrifice some of their power to get favorable "shelf space" from the large dealers. Though there has been much consolidation of dealerships, powerful franchise laws keep them afloat and hinder OEMs from selling vehicles directly over the Internet. That could change if consumers revolt and demand the option of ordering a car over the Internet, an uncertain possibility given that only 12% of vehicle purchasers currently order their vehicles by any ordering method. On the supply side, managers contended that suppliers currently have very little pricing power with OEMs, and the key to changing that is offering greater product differentiation and developing a brand image. A few symposium participants noted that they expect suppliers to take a larger role in vehicle technology development in the future.

### **2000-01 vehicle sales**

The director of North American market analysis from one of the Big Three presented the near-term outlook for vehicle sales. Though the industry's sales continued at record levels in the U.S., it remains a very competitive market place.

The record sales of 1999 and 2000 were founded on the strength of the U.S. economy. Strong labor markets contributed to high consumer confidence and vehicles were more affordable—monthly automobile payments as a share of household income fell to the lowest level in four decades. But in the outlook for 2000, there are some threats on the horizon. Energy and fuel costs were rising, but the economist suspected that this was a short-term problem and that gas prices would fall \$0.20 per gallon after inventories were built up. Financial markets have become more volatile and the potential effect of any sustained correction in equity prices is unclear. There is the possibility, considering asset to liability measures that are adjusted for inflated equity prices, that consumers have overextended themselves on debt. Finally, the Fed's efforts to cool the economy and the environment of rising interest rates could affect vehicle affordability. All told, however, the economist sees U.S. sales peaking in 2000-01, with total vehicle sales in 2000 moderating in the second half of the year but still setting a record in the mid-17.0 million unit range.

Even with record sales levels, the automotive industry remained intensely competitive. There were very few uncontested market segments, such as large sport utility vehicles (SUVs)—which Ford and General Motors (GM) dominate—and premium luxury vehicles. U.S. automakers face renewed threats for market share from foreign nameplates. Since 1997, GM's and Ford's market share declined noticeably, while non-Big Three automakers gained 3.3 percentage points of the U.S. market. Though it is commonly assumed that these gains came largely from low-end sales, only 0.5 percentage point was gained from that segment and the rest was largely from SUVs and minivans.

## Heavy trucks

The head of a nationwide commercial vehicle research company presented the outlook for heavy trucks. Class 8 trucks hit a turning point, as slowing order flow and declining backlog should slow production and sales in the near term. Sales and production of lighter class 5-7 trucks and trailers should level or decline slightly.

Strong economic growth increased demand for shipping services which boosted class 8 truck sales, but industry specific issues pose a larger threat to truck makers' profitability. New truck inventories have generally been growing for the past two years and the inventory/retail sales ratio has been trending higher, indicating that manufacturers will have to make an adjustment to production eventually. Additionally, class 8 build has been flat in the last six months, but excess build compared with net orders—the state of the industry for about a year—may be signaling a downturn in production. Manufacturers' policy of promising to buy back used trucks from their first owner created an excess supply of used trucks and the decline in valuations threatens to cost the industry \$0.5 billion. The industry is also bracing for its first real driver shortage in 2000—as opposed to the churning of a small supply of drivers that happened in recent years—which is contributing to slowing orders and a higher order cancellation rate. Additionally, higher fuel costs, insurance rates, and interest rates have all dampened the effects of a booming economy on the truck market. Given all these factors, production is forecast to fall from a record 332,000 units in 1999 to between 260,000 and 280,000 units in 2000, then fall again in 2001. Retail sales of class 8 trucks are forecast to slow from over 300,000 units in 1999 to about 260,000 units in 2000.

These factors and others also affect trends in trailer and class 5-7 truck sales and production. The driver shortage should contribute to a slowdown in trailer production, but the slowdown should not be as marked as the class 8 truck slowdown because there is not a concurrent excess build to create more pressure for cuts. Trailer

production should fall from 368,000 units in 1999 to 350,000-360,000 units in 2000 and 335,000-340,000 units in 2001. For class 5-7 trucks, demographic trends indicate stronger RV (recreational vehicle) and bus sales, but with retail sales losing momentum and orders slowing, build plans were expected to decline. Production was 241,000 units in 1999 and should fall to 230,000 units in 2000 and 225,000-230,000 units in 2001. Retail sales should fall from about 220,000 units in 1999 to about 210,000 units in 2000.

## 1999 labor negotiations

An economist from a university automotive think tank discussed the impact of the 1999 Big Three-UAW contract negotiations. The environment of labor relations at the beginning of 1999 was one of no strikes and no lockouts. The industry just had a big strike the summer before and the 1999 automotive sales were just too profitable to all parties for anyone to take risks. The union won rich wage and benefit agreements and reviews of the job security agreements were mixed. The agreement itself signaled the near completion of final restructuring in the industry and the concessions by the UAW toward Delphi and Visteon—mostly negotiating independently with Delphi and agreeing to the eventual independence of Visteon employees—signaled that the union was beginning to accept the reality of multi-tier wages for suppliers and manufacturers. The price of the contract was high for the Big Three—it was the richest agreement since 1978—but it alleviated the threat of strikes and should help level the playing field for the companies.

One of the big issues in the negotiations was job security for union workers. Some analysts regarded the job security agreement this year as the toughest that the union had negotiated, but the agreement only set a floor (of 76%) for total employment and did not mention employment at specific factories. Some technical and local barriers will probably prevent the Big Three from taking full

advantage of the opportunity to reduce their work force (and increase productivity) but GM stands to gain the most from this portion of the agreement, as its labor force should decline about 3.4% over the term of the agreement and could close the gap in productivity between itself and its two largest competitors.

## Other issues

A much-repeated topic was the idea of an underlying trend level of automotive sales: whether the recent strength in the market is just a deviation from the trend, whether something has structurally changed the underlying trend, or if this trend actually exists. The market analyst from a Big Three company noted that the trend does exist, but it changes with the number of vehicles that need to be replaced, the number of households, and the vehicle ownership rates of those households. While it is hard to argue that there was a large structural change, ownership rates are probably higher than previously assumed. One analyst noted that the last surge in demand was in 1992 and 1993, and given the typical life cycle of vehicles, the current strong sales have just been a timely surge accentuated by the strength in the economy.

There was also some discussion of the auto industry's effect on the Michigan

---

Michael H. Moskow, *President*; William C. Hunter, *Senior Vice President and Director of Research*; Douglas Evanoff, *Vice President, financial studies*; Charles Evans, *Vice President, macroeconomic policy research*; Daniel Sullivan, *Vice President, microeconomic policy research*; William Testa, *Vice President, regional programs and economics editor*; Helen O'D. Koshy, *Editor*.

*Chicago Fed Letter* is published monthly by the Research Department of the Federal Reserve Bank of Chicago. The views expressed are the authors' and are not necessarily those of the Federal Reserve Bank of Chicago or the Federal Reserve System. Articles may be reprinted if the source is credited and the Research Department is provided with copies of the reprints.

*Chicago Fed Letter* is available without charge from the Public Information Center, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, Illinois 60690-0834, tel. 312-322-5111 or fax 312-322-5515. *Chicago Fed Letter* and other Bank publications are available on the World Wide Web at <http://www.frbchi.org>.

ISSN 0895-0164

economy. In addition to discussing the 1999 labor agreement, the university economist also discussed the industry's cyclical nature. With an increased percentage of Michigan automotive employment devoted to salaried workers, heavier use of overtime on the production end, and heavier use of imported parts, a downturn in the industry now would probably have less of an effect on Michigan's employment and income than in the past. This assumes that salaried workers would be as immune to layoffs as they had been in the past and that many of the effects of ups and downs in the industry have been shifted to the suppliers. However, one market analyst argued that some of the sales, marketing, and research and development work—which constitutes the bulk of that salary work—might eventually move to the Sun Belt, where the U.S. sales market is growing the fastest.

The director of a Big Three company's advanced vehicle technology research team presented an outlook for fuel economy. Fuel economy developments are currently driven by a company's desire to provide customer satisfaction, its attempts to improve brand image through technological developments, its sense of corporate responsibility, and its government regulations. To

improve fuel economy, companies make changes to current technologies by improving powertrain efficiencies—where the majority of potential evolutionary gains will occur—by developing engine attributes such as variable compression ratios, flexible valve timing, or changing volt architecture. Or companies can reduce the amount of energy a vehicle requires to run by reducing the vehicle's weight and improving climate control and aerodynamic styling. Other options are for companies to develop long-range technologies, such as gas-electric hybrid vehicles—which, depending on conditions, can improve urban fuel economy as much as 60%. Within a decade, the researcher predicted that fuel economy will become a heavily competitive attribute for vehicles as companies strive for environmental leadership, leading to about a 15% improvement in fuel economy for all cars on the road.

An analyst from an industry publication discussed the latest trends in foreign nameplate penetration in the U.S. auto market. To improve their market penetration, foreign nameplates are diversifying their product lines by adding or expanding new light truck lines. Much of the expansion is focused on the SUV market, where seven nameplates plan to expand their offerings

and another seven plan to offer their first SUV within the next four years. The analyst also pointed to the market segments to be hardest hit in a significant downturn in sales (sub-15.0 million units), which included small cars, midsize sedans, large cars, sports cars, small SUVs, and small pickups, and noted that the foreign brands focused in those segments would take a hit in a downturn.

### **“A brave new world”**

In the near term, economic changes pose some small threat to market demand, but symposium participants forecast strong sales to continue during the next two years. Companies still face intense competitive pressures to maintain or grow market share. In the long run, manufacturers and suppliers will have to adapt to the technological changes and use them to develop quality products that foster brand loyalty from consumers. As one panel participant noted, the industry is facing “a brave new world and [OEMs and suppliers] will have to be brave to live in it.”

—William Strauss  
*Senior economist and economic advisor*  
Michael Munley  
*Associate economist*

Return service requested

(312) 322-5111  
Chicago, Illinois 60690-0834  
P.O. Box 834  
Public Information Center

FEDERAL RESERVE BANK OF CHICAGO

**Chicago Fed Letter**

PRESORTED  
FIRST CLASS MAIL  
US POSTAGE PAID  
CHICAGO, IL  
PERMIT 1942