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EconSouth

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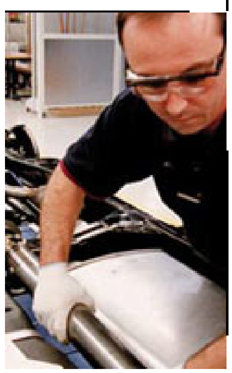
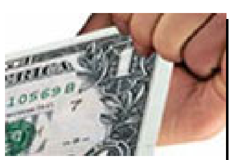


COVER STORY

The Southeastern Auto Industry:
Moving into the Fast Lane

The auto manufacturing industry has changed dramatically during the past 30 years in response to consumer demand. Technological innovations, precision production systems and just-in-time delivery of auto parts have changed how and where cars are made. The Southeast stands to gain significant economic benefits as auto manufacturing facilities increasingly migrate to the region.

FEATURES



State of Flux?
State Revenues in a Slower Economy

For the last several years, greater-than-expected revenues were routine for state governments as the U.S. economy enjoyed extraordinary growth. The recent slowdown in growth has confronted some state governments in the Southeast with the challenge of falling revenues and budget cuts.

U.S. Sneezes, World Catches Cold

The U.S. economy's robust health during the past decade has helped protect the rest of the world from the worst effects of various economic ills. But the United States has recently caught a slight economic cold, and the global economy should expect to suffer some of the symptoms.

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DEPARTMENTS

FEDERAL RESERVE BANK of ATLANTA

Economic Research

CURRENT ISSUE

The Burden of Debt

Recent news reports on the current condition of U.S. consumers have been disturbing. Aggregate data show that consumer debt levels and debt service burdens have trended upward in recent years. Some economic analysts believe that a large consumer debt burden presents a notable risk to the economy as it struggles through a transition to a more sustainable growth rate. They are quick to point out that high debt levels and related debt service payments may spur a retrenchment of consumer spending. Are concerns warranted?

Consumer debt statistics, put in perspective, can be used for drawing inferences about how well consumers are positioned in terms of servicing their debt levels. In this regard, debt service payments must be examined relative to income flows in order to get a sense of how sustainable debt levels are.

The “why” of consumer debt

Despite current media pessimism, the existence of consumer debt is generally a good thing. For example, the widespread availability of credit market instruments, particularly conventional mortgage financing, has allowed many U.S. consumers to own homes at a much earlier age than homeowners did in previous generations. Rising home equity values and moderate mortgage interest rates have further encouraged consumers to refinance, allowing them to borrow more against this asset to finance other purchases at typically attractive interest rates. In addition, wide access to credit card debt has enabled consumers to purchase goods when they need them rather than only when they have the cash.

But debt also has potential drawbacks. Other things being equal, when consumer debt levels are high there is a greater risk that some debt cannot be serviced; that risk carries with it the costs related to default or bankruptcy. High debt burdens also raise the possibility that consumers could rein in their future spending to a considerable degree. These risks become even higher, for a given debt level, when the economy slows and sustained income growth is uncertain.

What the data say

Consumer debt service payments (including consumer credit and mortgage debt) as a percentage of disposable personal income reached 14.3 percent in the fourth quarter of 2000, nearly a record high. By itself, this figure is unsettling, given the more modest outlook for economic growth. The data also may hide troubling concentrations of debt simply because the figures are aggregated across households with wide income dispersion.

The 1998 Survey of Consumer Finances shows that nearly 20 percent of families earning a gross income of less than $50,000 per year had more than 40 percent of their income earmarked to cover debt payments. These consumers could be the first to suffer if the labor market should soften considerably, pushing them to dramatically curtail their consumption and possibly default on loans.

What to watch for

On the whole, households currently appear to be able to service their debt without major difficulty. The overall loan delinquency rate has increased only slightly and remains low by historical standards although this figure is admittedly a lagging indicator of a problem. Further, consumers continue to spend on goods and services, though not at the booming pace of the late 1990s, and show no clear signs of retrenching.

But what might the future hold? In one upbeat scenario, households will adapt quickly to slower economic growth and rearrange their finances to prevent financial dislocations. In response, consumer debt burdens should level off and then recede over time, preventing widespread financial distress and consumer retrenchment. Still, any transition involves uncertainty with respect to the economic outlook. The performance of economic fundamentals, mainly employment and income growth, will be of primary importance to low- to middle-income families in particular as well as to the well-being of the overall economy.

By Ellis Tallman, assistant vice president of macroeconomic research of the Federal Reserve Bank of Atlanta; Nicholas Haltom, economic analyst, also contributed to the article

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FEDERAL RESERVE BANK of ATLANTA

Economic Research

COVER STORY

The Southeastern Auto Industry: Moving into the Fast Lane

In consumers' imaginations, cars are inextricably linked with visions of things to come, and automakers must stay two steps ahead of customers' cravings. Experimentation in the industry is standard operating procedure. During the past 30 years auto manufacturing has undergone a series of pervasive transformations that have affected every aspect of the industry: how cars are made, what kinds of cars are made, who makes the cars and where cars are made. One outcome of these shifts is that the Southeastern United States has become an incubator for revolutionary approaches to auto production, and the region stands to reap significant economic benefits as a result.

Change in the auto industry is reflected in the restless successions of plant openings and closings in the Midwest, the industry's traditional home. Foreign and domestic manufacturers have settled in rural Southeastern locations, bringing with them new approaches to labor and production.

Assembly plants, once maintained in dispersed locations across the country, have pulled away from the coasts and into the center of the nation. Old plant locations based on obsolete assembly systems have been abandoned, and new ones have sprung up to replace them — sometimes on the same site, sometimes across the country. The "auto corridor," which corresponds roughly with the area 200 miles on either side of I-65 and I-75, has extended steadily to the South. The whole approach to auto manufacturing has been transfigured by technology in response to changing consumer demand and new marketing strategies.

Mass production in reverse

Increased competition in the auto industry has driven car manufacturers to maximize both cost and production efficiencies. Being responsive to consumer tastes is another essential factor in maintaining a competitive edge. Technological innovations and new production systems have been critical resources for automakers as they negotiate the traffic jams of a tightening economic environment and consolidation. Many have found that the key to success lies in precision production systems that pinpoint consumer demand and respond with a high degree of accuracy. Some analysts describe this new approach as "mass production in reverse."

Excess inventory is a serious problem in the auto industry. Unlike some other dated or unsuccessful consumer goods, outmoded vehicles that have foundered in the marketplace are not easy to dispose of. They present storage, transport and distribution headaches of major proportions. Electronic communications and highly sensitive, just-in-time production techniques allow manufacturers to be much more precise in reading and responding to consumer demand and thus avoid a build-up of obsolete products.

In the past, car manufacturers produced automobiles "on spec," so to speak. They trusted the ingenuity of designers, the wizardry of advertisers, and the retailing expertise of dealers to win consumers. Assembly plants across the nation were geared to produce identical models of a vehicle with identical parts and manufacturing processes. When a model flopped in the showroom, manufacturers suffered full-scale financial catastrophes because thousands of cars rolled off the assembly line before anyone could stop them. Now manufacturers are focusing on smaller runs of specialty models that meet customers' varied tastes and needs so that plant locations specialize in producing particular models. The term *mass customization* has been coined to describe this process, which allows auto manufacturers to produce only the number and kind of vehicles that consumers will likely buy.

Computer modeling applications in the design and testing of vehicles greatly facilitate manufacturers' ability to respond to shifts in consumer tastes. Older systems of auto design required a lead time of about five years to move a car from the conceptual stage to the manufacturing stage, according to Emil Hassan, senior vice president of Nissan in charge of North American manufacturing, purchasing, quality and logistics. Models of the car must be created and tested and trial driven. Computer modeling now allows designers to create "virtual cars" that can move from conception to fabrication in less than half the time. The appeal of a design and its safety, efficiency and marketability can all be determined before the car is produced. Computers even conduct crash tests to detect safety flaws in design so that they can be corrected before the car is ever actually produced. This speed in the design process, combined with the capacity to create smaller runs of vehicles more efficiently and economically, also allows producers more versatility in the range of models and features that can be offered to consumers.

THE WHOLE APPROACH TO AUTO MANUFACTURING HAS BEEN TRANSFIGURED BY TECHNOLOGY IN RESPONSE TO CHANGING CONSUMER DEMAND AND NEW MARKETING STRATEGIES.

Under the wire

Critical to the process of mass customization is a system of production that provides for "just-in-time" delivery of auto parts to the manufacturer. In traditional approaches to auto manufacturing, workers at one plant assembled every facet of the finished vehicle from chassis to chrome stripping to seat covers. This method served well when parts were produced at distant locations and shipped to the plant. Smaller parts can be transported with less expense and require less storage space. This production mode emphasizes uniform quantities of products and a work environment in which assembly-line specialists are trained for very specific, repetitive tasks.

Just-in-time delivery, on the other hand, is based on a modular paradigm of production. Parts suppliers no longer provide nuts and bolts that must be assembled at the plant but furnish fully assembled exhaust systems, axle systems, dash consoles or seats. These modules are delivered on an as-needed basis, even as a car is coming down the assembly line, so that a seat module, for example, can be ordered two hours prior to the time it will be installed. The success of this strategy depends on having a cluster of parts producers close to the manufacturer so that the modules can be delivered and installed quickly — often robotically.

A new Nissan plant in Canton, Miss., scheduled to open in 2003, will have suppliers of modules on site so that modules can be assembled simultaneously with vehicles. According to Hassan, who is a manufacturing logistics expert, this approach has extraordinary advantages: while it doesn't eliminate warehousing, it does cut down markedly on inventory and handling. Hassan also cites hidden value: quality is greatly improved because each module is tested by the parts supplier before it goes into the vehicle at the assembly plant. "We can fix problems in minutes instead of days," he notes. Module producers develop expertise in their area of specialization and are thus able to spot defects and recommend design improvements. These efficiencies in installation, handling and quality control result in major cost savings, helping to keep the price of vehicles steady or even lower if improved quality and luxury features are taken into consideration, says Hassan.

The sum of their parts

Outsourcing of module and component production is handled in different ways by different auto producers. The Big Three American automakers — Ford, General Motors and Daimler Chrysler — originally maintained so-called "captive" component manufacturers that produced parts solely for the target company. According to a 1996 Chicago Fed working paper, "The Evolving Geography of Production — Is Manufacturing Activity Moving Out of the Midwest? Evidence from the Auto Industry," by James M. Rubenstein and Thomas Klier, "this practice insulated the components divisions from market pressures — potential independent competitors were stifled, standards of quality and efficiency were low, and cost accountability was minimal." The Big Three producers now encourage their components suppliers to seek bids from other companies as well.

About 69 percent of the parts plants surveyed by Rubenstein and Klier were American-owned independent plants, while foreign companies owned about 17 percent of the parts manufacturers surveyed. The remaining plants were affiliated with U.S. automakers.

Not everyone is enamored with the modular approach to component manufacturing. Mike Miller, a Mercedes-Benz mechanic with Atlanta Classic Cars, says that the modular approach has made his job rebuilding and replacing parts more complicated. “We’ve gone from hand-held wrenches to hand-held computers,” he says. Cathy Ellis, the company’s owner and president, adds that her service staff have to exercise great ingenuity to keep increasingly complex electronic systems ticking.

Replacing modular parts can be expensive for consumers as well. Bryan Burkhardt, a team leader at Saturn’s service parts warehouse, stressed that even though Saturn builds with modules, repairs focus on the replacement of smaller component parts to assure economy for customers. Saturn uses a computerized stocking system that assures each dealer will have parts available for timely repairs. Rather than locating parts suppliers in tiers near dealerships, Saturn maintains a centralized facility at Springhill, Tenn. Burkhardt says that despite some additional cost in shipping, cost savings on facilities, labor, equipment and everything else easily compensate.

Strategies for supplying parts are an important consideration in determining how much economic benefit a new plant location will provide. If a new plant is large enough to draw component manufacturers as well, the new location will enjoy more significant spin-off effects. But if parts are provided from central locations, the local benefits are less. Since the Southeast has drawn foreign manufacturers that are more likely to seek parts on site, the region stands to gain considerably from new plants.

Why the Southeast?

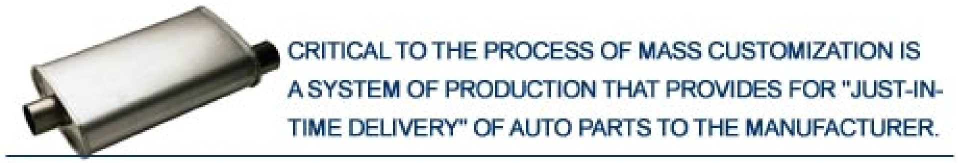
On the surface, the Southeast’s leading role in new approaches to auto manufacturing is easily explained: because the automobile industry is relatively new in the region, innovative methods of production are more readily introduced and implemented here than in older Midwestern assembly plants geared to more traditional approaches to manufacturing.

According to Hassan, “innovations in the Southeast are a byproduct of the fact that many Southeastern plants are new sites. They have a lot more capability to apply new technologies than existing sites.”

The auto corridor has been moving southward since the 1970s. Chicago Fed economist Klier and demographer Kenneth Johnson note in their 2000 article “Effect of Plant Openings on Net Migration in the Auto Corridor, 1980–97” that General Motors began the trend in the 1970s when it sought to lower procurement costs by locating component plants south of the traditional auto states — Michigan, Illinois, Indiana, Wisconsin and Ohio. Japanese-owned assembly and supplier plants also chose Southern locations, adding to the momentum. Klier and Johnson’s research indicates that between 1970 and 1997, Kentucky and Tennessee boosted their share of light vehicle production from 4 percent to 13 percent, tripling their production, while the traditional automakers moved from 43 percent to 50 percent. (Both regions gained from a trend toward greater centralization of production in the heartland and away from the coasts.) Between 1980 and 1997, seven new plants opened in the Southeast — three in Kentucky, two in Tennessee, one in South Carolina and one in Louisiana. Mercedes-Benz recently opened a plant in Alabama, a Honda plant is scheduled to open there this year, and Nissan is starting a plant in Mississippi. Ten plants opened in traditional auto-producing states between 1980 and 1997 — four in Ohio, four in Michigan, one in Illinois and one in Indiana. But Midwestern states have also experienced numerous plant closings.

A favorable labor climate is an important part of the equation that explains new growth in the Southeast’s auto industry. Not only is labor readily available, but some states provide incentives to auto manufacturers by agreeing to set up programs to train workers and pay for their instruction. Some manufacturers prefer workers who haven’t been trained in older methods of auto production because they believe workers who enter the industry with a clean slate can adapt more readily to new modes of manufacturing.

According to Hassan, who began his career in the auto industry as a Ford factory manager before rising through the ranks at Nissan, workers must be flexible and technically skilled to keep pace with innovations. He states that technological breakthroughs have helped to create a safer, healthier working environment and more high-tech positions. For example, robots now routinely handle painting and welding. Rather than breathing paint fumes or handling dangerous equipment, workers operate robots. Hassan says that a creative approach to human relations makes it possible to retrain workers and keep layoffs to a minimum. “We haven’t had a layoff in 20 years. And we owe that in part to our good workforce.”



The green flag

While locating plants in rural areas assures a flexible workforce, expanding into such “greenfield” locations can create a labor crunch. Even though localities vying for auto producers often agree to train the workforce as an incentive, it is still sometimes difficult to find sufficient skilled labor. In the mid-1990s, sophisticated components requiring skilled labor, such as engines and brakes, were more likely to be produced centrally in the Midwest while bulky or low value-added items such as seats and tires were produced more widely in Southeastern locations.

Recent developments in engine production suggest that this trend may be shifting, however. Increasingly, foreign manufacturers are locating engine producers near their Southern assembly plants to avoid the cost of transporting engines from remote locations. Two new engine plants are slated for Alabama, and plants in Tennessee and West Virginia will be expanded.

One strategy adopted by Toyota to assure a good pool of workers was to build three plants at intervals of several hundred miles along I-64. Geographical separation allows each location to have its own labor market, but the interstate highway makes it possible to transport components quickly from one location to another.

Another significant impetus to locate auto plants in the Southeast is the proximity of good markets, says Atlanta Fed economist John Robertson, who heads the regional section of the Bank’s research department. Automobile manufacturing, even more than other types of production, is most economically located near centers of demand. Moving cars across distances is more expensive than moving most other manufactured goods, so it is most cost-effective to locate industrial production near the marketplace. While this logic once induced manufacturers to locate in the center of the nation — in Illinois, Michigan and Indiana — during the past 25 years it has lured producers to the Southeast, where population and markets have been growing at rates faster than those of the nation as a whole.

Southeastern states have also courted auto manufacturers with a variety of incentives in hopes of establishing new catalysts for economic growth. The establishment of a large auto manufacturing firm can have a significant impact on both rural and metropolitan population growth. This effect is important in the Southeast, where workers welcome the option of being able to work at lucrative jobs while maintaining rural lifestyles.

The modular approach to car manufacturing promises that spin-off companies will come in the wake of new plants if production volume is high enough. Larger firms tend to have a more significant impact on local economies, increasing population not only in the county in which the firm is located but also in adjacent counties.

Whether new approaches to car manufacturing herald deeper trends destined to transform the industry or whether they prove as transitory as the big fin, automakers are exploring innovations at full throttle, and the Southeast has become an important proving ground for their experiments.

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REGIONAL FOCUS

When an economy moves from boom times to slower growth, as the U.S. economy is doing now, businesses and individuals can adjust to the change by cutting their own spending. For governments, though, a slowdown is more problematic — expenses may rise as pressure on unemployment benefits and other economic and social assistance programs begins to build. So for states, revenue collections may serve as a sort of fiscal early-warning system: falling revenues may portend higher expenses — and more budget cuts — in the months ahead.

Gross domestic product (GDP) grew 5 percent in the United States in 2000, capping an extraordinary four-year period in which GDP grew by more than 4 percent annually as unemployment and inflation fell to new lows. While the numbers were recognized as benchmarks for economic performance, they raised expectations accordingly. Investors, businesses and consumers all spent more freely, assured that the economy had entered a new era of upside surprises.

Government expectations changed too. At the federal level, budget surpluses made tax cuts a central issue in the 2000 presidential campaign. And for states, "higher than expected" became the standard-issue boilerplate in revenue collection announcements. Eventually, these expectations began to affect state budget debates as well. Consider the states in the Southeast.

Forecasting revenues

The Tennessee General Assembly had history on its side when it voted to base its fiscal year 2001 budget on revenue projections (see table 1) that exceeded the State Funding Board's forecasts.

Like most economic forecasters, the State Funding Board offers a range in its predictions of likely growth. Also like most forecasters, its highest likely prediction had fallen short in the past, with the economy generating more tax revenues than expected in three of the previous five budget periods.

So in June 2000 the Tennessee General Assembly departed from its usual practice of basing the state budget on a figure somewhere within the State Funding Board's range of estimates, which for fiscal year 2001 was from 4 percent to 4.75 percent. Instead, the General Assembly voted to base the 2001 budget on revenue that was 5.15 percent higher than in fiscal year 2000.

FOR STATES, REVENUE COLLECTIONS MAY SERVE AS A SORT OF FISCAL EARLY-WARNING SYSTEM: FALLING REVENUES MAY PORTEND HIGHER EXPENSES — AND MORE BUDGET CUTS — IN THE MONTHS AHEAD.

As it turned out, both groups missed their estimates. In the first three quarters of fiscal year 2001, tax revenue in Tennessee was only 1 percent higher than in the first three quarters of fiscal year 2000. As a result, Tennessee's $18.9 billion fiscal year 2001 budget, which ends on June 30, faced a revenue shortfall of nearly $220 million — with one quarter of the year still remaining.

Table 1
General Fund Revenue Growth Projections Incorporated in State Budgets
(At Time of Budget Enactment)

Fiscal Year	Alabama[1]		Florida	Georgia	Louisiana[2]	Mississippi	Tennessee[3]
2001	General:	1.5	4.7	7.3	4.9	3.9	5.2
	Education:	4.6					
2002	General:	4.5	4.5	7.3	1.9	3.7	8.3
	Education:	3.0					

[1]Most tax revenue in Alabama is designated for these two funds.
[2]For Louisiana's fiscal year 2001 budget, other sources of revenue were enacted, so the actual budget exceeds the governor's proposed budget mentioned in the article.
[3]Tennessee's fiscal year 2002 budget assumes new sources of revenue.

But revenue shortfalls are not unique to Tennessee. In February, the National Council of State Legislatures reported that fiscal year 2001 revenue was coming in below projections in 20 states. And while the fiscal situation in the states does not begin to approach the level of seriousness of the early 1990s, it stands in dramatic contrast to the last several years, when greater-than-expected revenue growth was routine throughout the states.

As with so many other economic developments, the six states that make up the Sixth Federal Reserve District are representative of the entire nation. While overall fiscal condition cannot be assessed without some consideration of spending levels, revenue collections can provide some preliminary indications about the general direction of state government budgets.

The Tennessee General Assembly was not legally bound to accept the State Funding Board's revenue estimates, but it is required — like most legislatures — to pass a balanced budget. Critics say this is one reason the legislature based its 2001 budget on higher revenue projections. When revenues came up short, it then fell to the governor and the legislature to bring the budget back in balance through some combination of spending cuts and revenue increases.

In January 2001, Governor Don Sundquist unveiled an initial administrative cost-cutting package intended to generate savings through everything from reduced employee travel to delayed software and vehicle purchases to lower-than-anticipated bond costs.

But the shortfall has also become entangled in the Tennessee General Assembly's ongoing tax reform debate. As one of a handful of states that does not tax individual salaries or wages, Tennessee is deprived of what state revenue analysts at the State University of New York's Nelson A. Rockefeller Institute of Government have called "the engine driving this extraordinary growth" in state revenue. The primary engine driving Tennessee's revenue, the sales tax, has sputtered in fiscal year 2001, especially compared to the gains in outlays generated by healthcare and education programs. As *EconSouth* went to press, the Tennessee General Assembly was still considering tax reform, as well as the 2001 and 2002 budgets.

State income tax no certain fix

Mississippi and Alabama are also in budget-cutting mode despite the presence of a personal income tax (for revenue sources, see table 2). Like Tennessee, revenues for fiscal year 2001 have come in below expectations in those states.

Through March 31, revenues to Mississippi's general fund were $148.8 million lower than anticipated in its $8.9 billion budget. The legislature had assumed revenue growth of 3.9 percent for fiscal year 2001. Through the first three quarters of the year, however, revenue grew only slightly over 1.5 percent more than in the same period for fiscal year 2000. As of mid-April, Governor Ronnie Musgrove had already cut more than $130 million from the fiscal year 2001 budget.

Fiscal year 2002 may very well hold more of the same for Mississippi. In March, the legislature overrode Governor Musgrove's veto and adopted a budget based on general fund revenue growth of 3.7 percent. The governor had favored general fund revenue growth assumptions of between 1 and 2 percent.

In Alabama, revenues in the first seven months of fiscal year 2001 — Alabama's fiscal year begins Oct. 1 — actually declined, falling just over 0.1 percent compared with the same period a year ago. However, combined fiscal year 2001 appropriations for the state-tax generated portion of the State General Fund and its Education Trust Fund grew 8.2 percent from fiscal year 2000.

Table 2
State Tax Collection by Source, 1999 (Percent)[1]

	Alabama	Florida	Georgia	Louisiana	Mississippi	Tennessee
Property	2.7	4.0	0.3	0.4	0.0	NA
Sales	27.3	58.3	34.9	37.6	48.8	58.6
Selective Sales	24.5	17.0	8.2	15.9	17.4	18.4
Individual Income	31.6	NA	45.7	25.5	21.5	2.2
Corporate	3.9	5.3	6.4	4.7	5.0	7.9
Other	9.9	15.3	4.5	15.8	7.2	12.9

[1]Because of rounding, figures may not total 100 percent.
Source: Stateline

Alabama's government is operated by five funds, the revenues for which are dictated by statute. Of these five, two major funds provide appropriations for the vast majority of state government operations. The General Fund provides for the operations of the state's Medicaid, health care and criminal justice systems, among other critical functions. The Education Trust Fund provides for the funding of K-12 education, colleges and universities, public libraries, and other cultural and educational programs.

Because the state constitution designates nearly all income tax revenue for teacher salaries, and because state law designates most sales tax revenue for educational purposes, the risk of a shortfall lands disproportionately on the Education Trust Fund, since revenue cannot be re-allocated between funds. The impact is even greater considering that state-generated tax revenue accounts for more than half of Education Trust Fund spending, compared to around 15 percent for the General Fund. (The balance in both funds comes from the federal government and other sources.)

Consequently, programs in the General Fund, the state-generated portion of which grew over 25 percent in fiscal year 2001, have not been cut. Payments from the Education Trust Fund, however, which grew at a much more modest 4.4 percent in fiscal year 2001, have been prorated 6.2 percent.

By many accounts, Alabama has the lowest state taxes in the United States, so the school-funding crisis has been the primary impetus for the latest round in Alabama's ongoing tax-reform debate, which is itself related to a state constitutional reform debate. And while the legislature had not adopted a fiscal year 2002 budget as *EconSouth* was being published, Governor Don Siegelman is taking no chances with his own proposal: the Alabama-generated portion of the Education Trust Fund is actually lower than the 2001 appropriation.

Louisiana gets more than it expected

It's a situation the Louisiana legislature and Governor Mike Foster faced last year as they prepared the fiscal year 2001 budget. The state's Revenue Estimating Conference assumed general fund revenues of $5.57 billion, a drop of $238 million — or 4.1 percent — from anticipated fiscal year 2000 revenue (the budget was prepared, of course, before fiscal year 2000 ended).

More than $300 million of the fiscal year 2001 revenue loss projection was attributable to the expiration of some sales taxes at the end of fiscal year 2000. The governor's budget noted, "If the current sales tax base is restored, then sales tax collections are expected to increase by 1.1 percent and general fund revenue . . . by 1.5 percent." Severance and royalties taxes accounted for more than $50 million of the revenue loss, assuming "an expected decline in oil prices to $20 per barrel."

WHILE THE FISCAL SITUATION IN THE STATES DOES NOT BEGIN TO APPROACH THE LEVEL OF SERIOUSNESS OF THE EARLY 1990S, IT STANDS IN DRAMATIC CONTRAST TO THE LAST SEVERAL YEARS, WHEN GREATER-THAN-EXPECTED REVENUE GROWTH WAS ROUTINE THROUGHOUT THE STATES.

Fortunately for Louisiana, though, oil prices have not fallen much. The Revenue Estimating Conference's latest revision forecast fiscal year 2001 revenue at $6.17 billion, nearly $500 million higher than the initial estimate for the year and 5.4 percent ($314 million) higher than final fiscal year 2000 collections.

The legislature did extend the expiring sales taxes, but at an estimated 8 percent growth — $166 million — sales tax revenues are increasing much faster than anticipated. Royalties and severance taxes are now projected to produce over $100 million more in fiscal year 2001 than last year, with royalties growing 32 percent. Corporate income taxes are also expected to surge, generating nearly $42 million — 19 percent — more than last year.

What accounts for revenue increases that were previously unanticipated? A sentence in the state's fiscal year comparative statement states it plainly: "All the revenue gains are consistent with increased economic activities in the state's economy, due partially to increases in prices of oil and natural gas."

As for fiscal year 2002, the governor's proposed budget assumes revenue growth of $115.9 million, or 1.9 percent, above the official revenue estimate for 2001, consistent with the "mediocre growth" expected in the state's economy.

On target in Florida and Georgia

Considerably less anxiety attended budget sessions in Florida and Georgia, where revenues are on target. While both economies are considerably more diverse than the rest of the Sixth Federal District's, it may very well be that Georgia's revenue grew fastest because its tax code draws from a much broader range of economic sources.

Florida, of course, is the Goliath of the Sixth Federal Reserve District, with 16 million people and an economy to match. Without an income tax, however, most of its revenue — about two-thirds — is generated by the state's 6 percent sales tax. Through the first six months of fiscal year 2001 (the latest period for which figures were available) total state taxes in Florida were up 3.8 percent over the same period in fiscal year 2000. Florida's recently enacted fiscal year 2002 budget assumes revenue growth of 4.9 percent.

In Georgia, the legislature adopted Governor Roy Barnes' 7.3 percent revenue growth estimate for its fiscal year 2002 budget. This estimate assumes a slight increase of revenue growth over fiscal year 2001, which through March was 6.9 percent higher than the first three quarters of fiscal year 2000. That figure would have been significantly higher, however, had revenue collections not *declined* 8.5 percent in March from year-ago levels. Not surprisingly, perhaps, Governor Barnes announced in April that he was preparing a list of potential budget cuts should revenue come up short in fiscal year 2002.

What slower growth means for states

The United States' record 10-year expansion has generated extraordinary gains at every level of economic activity. For individuals, employment growth and wages grew at a rapid clip. For companies, profits soared as productivity increased and unit costs declined. And for governments — federal, state and local — surpluses accumulated as economic gains for individuals and firms generated revenues beyond expectations.

As U.S. economic growth slows, individuals, firms and governments will have to tighten their belts some. Governments could face big adjustments as they may need to pay out more for economic and social assistance programs while bringing in fewer revenues. State governments in the Southeast are already grappling with these challenges — and keeping close track of the economic forecasts as they manage their budgets.

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FEDERAL RESERVE BANK of ATLANTA

Economic Research

INTERNATIONAL FOCUS

The U.S. economy has slowed considerably over the last few quarters; after peaking in the fourth quarter of 1999 at 8.3 percent, growth rates slumped to 1.0 percent in the fourth quarter of 2000 and 1.3 percent in the first quarter of this year (see chart 1).

The U.S. economic slowdown is being felt around the world. As the world's largest economy, the United States is the leading export market for many foreign economies. For much of the '90s the United States was the engine for world growth, helping pull the international economy through several negative episodes. Strong U.S. gains meant that countries suffering the effects of the Asian crisis, for example, could boost their economies by selling goods to the United States.

U.S. investors also played an important role in boosting the global economy. Flush with profits from the strong performance of the stock market, investors expanded their portfolios to include areas of the world with even higher growth potential, emerging markets in particular. But as the U.S. economy weakened, the demand for imports moderated, and investors' ability to send funds overseas declined.

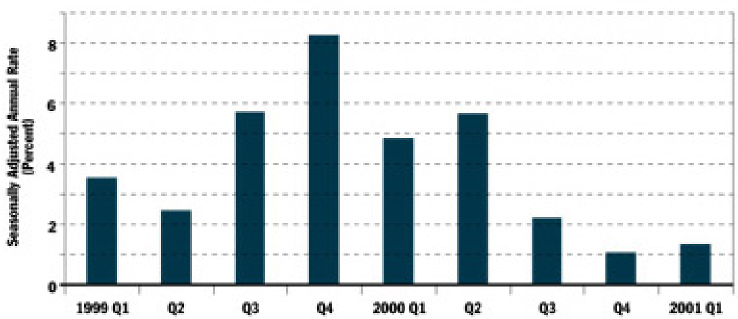
As a consequence, countries that depend heavily on selling goods to the United States and on U.S. capital have seen their economic growth slump. In turn, weaker growth in foreign economies has resulted in weaker demand for U.S. goods abroad. The decline in both U.S. imports and exports has been pronounced (see chart 2).

Another factor weighing on the U.S. export outlook is the strength of the dollar. The dollar's value is at its highest level versus foreign currencies since the mid-1980s (see chart 3). The strong dollar makes U.S. exports more expensive overseas and makes imports to the United States cheaper. The result is a widening trade deficit.

The outlook for the global economy has softened in 2001, and slowing growth in the United States is a contributing factor. But a subdued U.S. economy is not the only reason global growth has slowed. Many countries face domestic problems, such as political situations in some Latin American countries, that continue to constrain growth. In addition, higher energy costs worldwide have dented both personal spending and business investment in most economies as consumers and firms are forced to pay more for power and fuel.

A SUBDUED U.S. ECONOMY IS NOT THE ONLY REASON GLOBAL GROWTH HAS SLOWED, MANY COUNTRIES FACE DOMESTIC PROBLEMS, SUCH AS POLITICAL SITUATIONS IN SOME LATIN AMERICAN COUNTRIES, THAT CONTINUE TO CONSTRAIN GROWTH.

CHART 1
U.S. Real GDP Growth



Source: Bureau of Economic Analysis

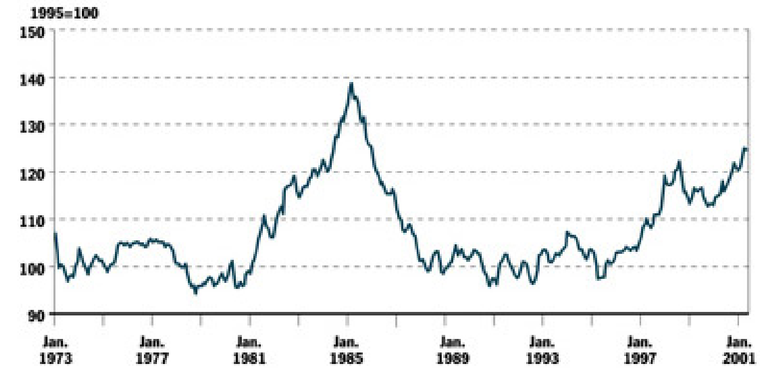
Checking the vital signs

Until recently, industrial weakness was concentrated in the United States, but frailty is now emerging overseas as well. Recent indicators of industrial activity and business confidence have been disappointing for a wide range of countries outside the United States. Surveys suggest that unwanted inventories are now building in countries that use the euro and in Japan. As domestic demand weakens, production may fall in both these economies through the third quarter of 2001. In addition, the weakness in U.S. capital spending reflected in first quarter gross domestic product (GDP) data and the still-declining trend in activity in emerging Asian economies suggest that the global slowdown in high-technology spending is not over.

CHART 2
U.S. Trade: Export and Import Growth

Source: Bureau of Census

CHART 3
Federal Reserve Bank of Atlanta Classic Dollar Index



Source: Federal Reserve Bank of Atlanta

Asia. Japan has so far been unable to emerge from a decade of stagnation; implementing economic reform there remains difficult. Recent economic data from Japan point to continued weakness. Consumer confidence slumped in the first quarter, factory and machinery orders continue on a downtrend, and the leading economic indicators point to further near-term contraction. Real GDP growth contracted in the first quarter, and forecasts point to contractions in the second and third quarters as consumer spending retrenches and industry continues to struggle. On a positive note, Japan's new Prime Minister, Junichiro Koizumi, is expected to accelerate the economic reform process. Japan's central bank has altered its monetary policy that has driven its nominal overnight interest rate to near zero. The uncertain outlook has resulted in weak demand for loans, however, and limited the potentially positive effect of lower interest rates in Japan.

Elsewhere in Asia, domestic financial systems in the emerging economies remain weak in the aftermath of the financial crisis of 1997–98. In addition, recent data show slowing industrial production and weak export demand for these economies — not surprising given the region's dependence on high-tech exports to the United States. Unemployment remains well above rates prevailing before the financial crises, and consumption is weak as well. China was the only Asian economy to post solid first-quarter growth, fueled by exports and government spending.

Europe. Industrial production in Europe continues to post healthy gains, with year-over-year growth at 3.8 percent in March. However, recent surveys found that business confidence continued to slump in major economies, indicating that Europe's economy may slow soon. The European Central Bank lowered its benchmark interest rate 25 basis points to 4.25 percent on May 10 despite an upward trend in inflation data. In March, the headline consumer price index rose 2.6 percent year-over-year, and the core rate hit a four-year high with a year-over-year growth rate of 1.8 percent. Inflationary pressures are expected to ease later in the year as the effects of high energy and food prices wane.

North America. Canada's economy is showing signs of deceleration. Industrial production has slipped, contracting nearly 1 percent from late 2000 levels. Decelerating inflation rates and weak growth led Canada's central bank to lower its benchmark interest rate 125 basis points this year to date.

The Mexican economy contracted on a seasonally adjusted basis in the fourth quarter of 2000 and the first quarter of this year. Industrial activity, in particular, has softened. Reflecting this weakness, the number of workers in manufacturing declined for the fourth consecutive month in February on a year-ago basis. On the consumption side, retail sales are growing at their lowest rate in nearly a year.

Latin America. For Latin America as a whole, regional growth is now expected to be roughly 2 percent, compared to the 3.7 percent forecast in December 2000. The downward adjustment to the outlook reflects the effects of the global economic slowdown as well as domestic situations such as the ongoing financial struggles in Argentina and expected power shortages in Brazil.

Downward revisions were made for all major economies except Ecuador, but that country's forecast is also uncertain given the current struggle to implement tax reforms there. Of the larger economies, the outlooks for Mexico, Argentina, Chile and Peru all fell by at least 1 percentage point. Brazil's forecast has been downgraded in response to a series of negative developments, including problems in Argentina and Brazil's power shortage.

In Argentina, recent events reflect ongoing market uncertainty over the fate of the country's economy. Argentina is struggling to implement policies that move to end nearly three years of recession while protecting against inflation. The appointment of Domingo

Cavallo as finance minister has brought instant credibility to Argentine economic policy. Cavallo was the father of the Convertibility Plan that ended years of hyperinflation in the early 1990s and returned the country to economic stability.

Prognosis: Delayed recovery

At the beginning of 2001, forecasters predicted a turnaround in real economic growth in most regions of the world by midyear. But greater-than-expected industrial contractions early this year and ongoing downgrades in consumer and business confidence have pushed their timetable for recovery to later in the year. This turnaround should be fueled by lower worldwide interest rates, reduced energy prices and a rundown in excess inventories.

The current forecast for 2001 global economic growth is the lowest in a decade. The April Consensus Forecast for world real GDP growth in 2001 is 2.3 percent compared to 2000's estimated rate of 3.9 percent (see the table). Most analysts expect slower annual growth rates in all major economies and areas. Forecasters expect the most pronounced year-over-year slowdown in North America, followed by the developing countries of Asia. Japan's economy is predicted to remain stagnant while Latin American growth should also decelerate until later this year. Europe's economy is forecast to slow as well.

Global Real GDP Outlook

	Percent Change From Previous Year		
	2000	2001	2002
Japan	1.7	0.9	1.6
Emerging Asia*	7.6	4.0	5.1
China	8.0	7.7	8.0
Euro Area	3.3	2.6	2.8
United Kingdom	3.0	2.4	2.7
Canada	4.7	2.4	3.3
Mexico	6.9	3.1	4.5
South America	3.0	3.0	3.7
World	3.9	2.3	3.1

*Not including China

Sources: April 2001 Consensus Forecasts; Federal Reserve Bank of Atlanta

Protectionism: Not the cure

Weak growth abroad and the strong dollar mean that the United States can expect little help from exports in its bid to return to stronger economic growth. In the face of these pressures, calls for efforts to shield the U.S. economy through protectionist measures may emerge. Both economic theory and experience show that protectionism is not the answer, however. Instead, maintaining close economic ties to the rest of the world is in the best interests of the United States in both the long and short term.

The United States remains a world leader in supporting free trade and open capital markets. The U.S. economy has been and will continue to be a major beneficiary of the open global system. More international goods and capital than ever before flow into the United States, giving consumers more choices at lower prices than possible under a closed economic system. The flow of capital has helped lower borrowing costs for individuals and businesses, and the competition fostered by an open trading system has helped make the U.S. economy among the most productive in the world.

FOR MOST REGIONS OF THE WORLD, GREATER-THAN-EXPECTED INDUSTRIAL CONTRACTION EARLY THIS YEAR AND ONGOING DOWNGRADES IN CONSUMER AND BUSINESS CONFIDENCE HAVE PUSHED THE TIMETABLE FOR RECOVERY TO LATER IN THE YEAR.

Although the recent U.S. economic sneeze has helped the world catch cold, both the United States and other economies should be moving toward faster growth by late 2001. Maintaining and expanding ties with foreign economies through international trade and investment will help the global economy return to better health.

This article was written by Michael Chriszt, a senior international analyst and the director of the Atlanta Fed's Latin America Research Group.

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FEDERAL RESERVE BANK of ATLANTA
Economic Research

Research Notes & NEWS

Research Notes & News highlights recently published research as well as other news from the Federal Reserve Bank of Atlanta. For complete text of summarized articles and publications, see the links below.

Making sense of the yield curve

The yield curve shows how the yield on a government bond depends on the bond's maturity. Monetary policymakers and observers pay special attention to the shape of the yield curve as an indicator of the economic impact of current and future monetary policy. But without the proper analytical tools, drawing inferences from the yield curve can be difficult.

In a recent article, Mark Fisher develops the basic ideas about the yield curve using an analogy. Next, he discusses bond pricing in a world of perfect certainty, where no-arbitrage conditions are first worked out algebraically. The element of uncertainty is then added via a single flip of a coin, and the no-arbitrage conditions for bond prices are worked out for this scenario as well. These no-arbitrage conditions are shown to imply the existence of a risk premium that depends on the price of risk and the amount of risk. Finally, Fisher demonstrates how to translate the no-arbitrage condition for bond prices into a no-arbitrage condition for yields.

The author concludes that convexity — the nonlinear relation between bond yields and bond prices — leads to surprising and even counterintuitive results in yield-curve analysis. A firm grasp of the no-arbitrage conditions is therefore necessary to make sense of the shape of the yield curve.

Economic Review
First Quarter 2001

Is why we use money important?

Money and its underlying function as a medium of exchange play a central role in determining the course of macroeconomic activity. But many of the models used to evaluate fundamental questions relating money and monetary policy to economic activity simply assume currency is valued. Such models overlook the important properties of money that influence the way it is used and how its supply affects the economy.

Search and matching models of money identify the characteristic assumptions for motivating the use of money in carrying out transactions by explicitly capturing the trade frictions that cause money, rather than some form of barter, to be used. Victor Li's recent article summarizes some of the recent literature on search models of money and their successful application to issues such as currency substitution and the impact of money's quantity and growth rate on inflation and economic activity.

This promising class of models, the author concludes, does indeed shed light on these topics and has an enormous potential to address an even broader range of issues. Li suggests that future research use quantitative analysis to explore not only how well these models explain the empirical facts regarding money and economic activity but also how well they might provide guidelines for the operation of monetary policy.

[Economic Review](#)
[First Quarter 2001](#)

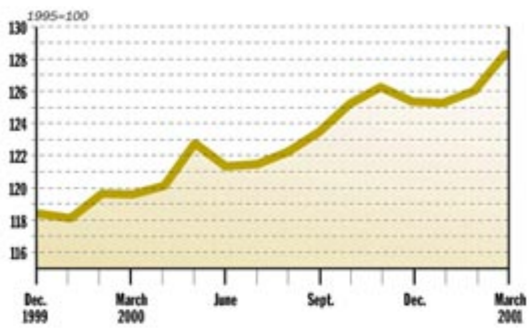
Analyzing the risks and rewards of selling volatility

The popular practice of selling market volatility through selling straddles, or a portfolio of options, exposes traders and investors to substantial risk, especially in equity markets. The returns can be very lucrative, but the probability of large losses far exceeds the probability of large gains. In fact, selling straddles has resulted in substantial losses at banks and hedge funds such as the former Barings PLC and Long Term Capital Management.

A recent article by Saikat Nandi and Daniel Waggoner outlines the risks and rewards associated with selling volatility by first examining the statistical properties of the returns generated by selling straddles on the Standard and Poor’s 500 index. The authors demonstrate that the usual practice of selling volatility by comparing the observed implied volatility with the volatility expected to prevail could be flawed. This flaw could arise if the underlying asset has a positive risk premium and the returns of the underlying asset are negatively correlated with changes in volatility. Thus, basing the decision to sell a straddle on a comparison of seemingly irrational high implied volatilities with much lower expected volatility could itself be an irrational choice.

While rebalancing the straddle to maintain minimal exposure to market direction is theoretically feasible, the authors find that this process exposes the trader to model risk and does not eliminate the skewness of returns from selling volatility.

ATLANTA FED DOLLAR INDEX



The dollar continued a slight decline in January 2001. In February, however, the dollar began to increase again and in March registered an overall increase versus the 15 major currencies tracked by the Atlanta Fed. The slight decline in January was the result of weaknesses against the European subindex. In February and March the dollar reversed this decline.

Note: For more detailed, monthly updates and historical data on the dollar index, see the Atlanta Fed’s World Wide Web site at [www.frbatlanta.org/econ_rd/dol_index/di_index.cfm](#).

[Economic Review](#)
[First Quarter 2001](#)

Social security reforms in Latin America face challenges

Over the last decade Latin American countries have served as the world’s laboratory for pension systems based upon individual retirement savings accounts. In the 1990s several countries in the region followed Chile’s lead in setting up individual accounts, and since that time countries throughout the world have looked to the region for lessons.

In a recent article, Stephen J. Kay and Barbara E. Kritzer examine the broad range of pension reforms in Latin America and highlight some of the most noteworthy and unique features of each country’s reforms. Some countries have adopted defined-contribution individual accounts as a replacement for state-run pension systems; other countries have embraced mixed systems or have made individual accounts optional and supplementary. The authors also examine some of the most serious policy challenges faced by governments implementing the new systems. Policymakers are seeking to reduce administrative costs, limit evasion, incorporate new categories of workers into the system and improve competition in the pension fund industry.

The study concludes that pension reforms are continuously subject to revision and that reform itself can be an incremental process. Latin America's social security systems are likely to continue to attract international attention from policymakers as governments worldwide confront the challenges of pension reform.

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FEDERAL RESERVE BANK *of* ATLANTA

Economic Research

THE STATE OF THE STATES

Recent events and trends from the six states of the Sixth Federal Reserve District

Alabama

- The surge in the energy industry is benefiting the state's shipbuilding industry. Austal U.S.A., Mobile's newest shipbuilder, won a contract for aluminum vessels that will deliver crew and supplies to oil and gas rigs in the Gulf of Mexico.
- Layoffs at high-tech firms continue. SCI Systems, an electronics manufacturer, will shut down one of its largest plants in Arab, Ala., eliminating 330 jobs because of lagging computer sales. The Sony plant in Dothan, which makes magnetic products used to back up computer data, announced it will lay off at least 40 workers.
- New investment in the Southeast's vehicle sector remains on track. Honda's new $440 million plant in Lincoln is 70 percent complete. The plant will be able to produce 120,000 vehicles and engines a year and plans to hire 1,500 workers.

Florida

- Miami contacts expect another solid tourist season. While there is some concern that high fuel prices may slow summer tourism, current booking numbers are encouraging. According to analysts, cruise lines operating out of Miami may be experiencing some excess capacity problems.
- Motorola, Sunbeam, Pratt & Whitney, and Daleen Technologies have reported layoffs in the Palm Beach area during 2001. In addition, SBC Telecommunications is shutting down its Tampa operations because of the slowing economy, putting 400 people out of work. Tampa's Jabil Circuit, an electronics manufacturer, plans to cut approximately 300 jobs. In Orlando, Disney World announced plans to cut over 1,200 jobs to reduce costs as the theme park expects slower attendance growth this year.
- Vehicle shipments continue to boost traffic and revenues at the Port of Jacksonville, which closely trails the Port of New York as the nation's leading car import facility.

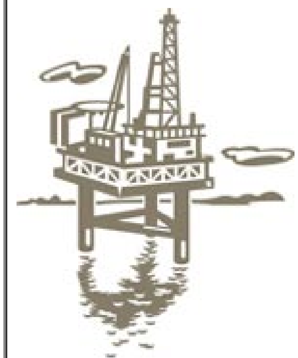
Georgia

- Solectron, a printed circuit board producer for telecommunications, medical and retail industries, is closing its Suwanee plant, affecting over 1,000 workers.
- About 360 people lost jobs at the end of March when Sony closed its cassette production factory in Carrollton because of declining sales. According to a company spokesman, cassette production is no longer competitive versus CDs and DVDs, which are produced at Sony plants in Indiana, Oregon and New Jersey.
- Pirelli Tires is moving its tire production operations and U.S. headquarters to a location near Rome, Ga. The move from Connecticut and California represents a $141 million investment, creating over 300 jobs in northwest Georgia.

- Despite declining revenues in recent months, Georgia projects a solid budget surplus for this fiscal year. The Georgia House approved a $15.5 billion budget for the next fiscal year, which begins July 1.

Louisiana

- Harrah's New Orleans casino avoided bankruptcy recently as the Louisiana legislature approved a tax cut for the troubled facility. Approval was also granted for the casino to operate a hotel and open a restaurant.
- The number of active rigs in Louisiana remained at the highest level in over a decade. The average rig count in April was 226 compared with 176 in April 2000. The U.S. rig count was 1,206 in April compared with 805 a year earlier. Industry experts expect oil and gas field service firms to expand through at least year-end
- Chemical and steel producers continue to experience difficulty. Occidental Chemical, an ammonia producer in Convent, halted production because of high-energy costs and sluggish demand. Bayou Steel temporarily laid off 100 workers at its LaPlace mill, blaming a "glut of cheap imports" in the domestic steel market.



Mississippi

- The state's shipbuilding industry continues to expand. Halter Marine won a contract worth $400 million to build four patrol ships for the Egyptian navy, a project that will create 200 jobs at its Mississippi shipyards. Construction was scheduled to begin in the second quarter of 2001. Halter employs about 2,500 people in Pascagoula and Moss Point.
- The gaming industry continues to be an important engine for Mississippi's economy. The latest casino gaming revenue numbers remain at historically high levels even though gross gaming revenues increased by only 0.7 percent in the first quarter of 2001 versus the first quarter of 2000.
- Low prices continue to plague the local lumber industry. Georgia-Pacific recently closed a plywood plant in Louisville, Miss., affecting 350 workers. The plant was built in 1966 and had the capacity to produce nearly 300 million square feet of plywood a year.

Tennessee

- Auto suppliers continue to locate in the state despite a slowdown in vehicle sales. Toyo Seat U.S.A. recently broke ground for a new plant in Pelham, located close to the Saturn manufacturing plant in Spring Hill and the Nissan plant in Smyrna. The new facility will employ about 200 people.
- Slowing demand for outboard motor boats has forced Outboard Marine to close its Murfreesboro plant, affecting approximately 270 workers. The plant opened in 1988 and recently employed about 430 people before scaling back operations. The company has filed for Chapter 11 bankruptcy protection.
- Sluggish markets for apparel and textiles forced DuPont Co. to scale back production and lay off over 200 workers at its Chattanooga facility. The company makes polyester and nylon at this plant, which currently employs nearly 2,000 workers.

Compiled by the regional section of the Atlanta Fed's research department

FEDERAL RESERVE BANK *of* ATLANTA

Economic Research

Southeastern Economic Indicators

		Alabama	Florida	Georgia	Louisiana	Mississippi	Tennessee	6th District	
Total Payroll Employment (thousands)[a]	**2001Q1**	**1,935.8**	**7,226.5**	**4,042.2**	**1,954.6**	**1,145.6**	**2,750.7**	**19,055.2**	**132,**
% change from	2000Q4	–0.1	0.8	0.6	0.6	–0.7	0.0	0.5	
% change from	2000Q1	0.3	3.6	2.0	1.8	–1.1	0.9	2.1	
Manufacturing Payroll Employment (thousands)[a]	**2001Q1**	**353.0**	**484.8**	**576.0**	**182.4**	**223.4**	**496.9**	**2,316.5**	**18,**
% change from	2000Q4	–1.2	–0.3	–1.3	0.0	–2.5	–1.6	–1.1	
% change from	2000Q1	–2.9	–0.4	–2.7	–1.5	–6.3	–2.6	–2.5	
Civilian Unemployment Rate[a]	**2001Q1**	**5.1**	**3.8**	**3.6**	**5.7**	**5.0**	**4.2**	**4.2**	
Rate as of	2000Q4	4.6	3.6	3.4	5.8	5.4	4.2	4.1	
Rate as of	2000Q1	4.7	3.6	3.9	5.3	5.8	3.7	4.1	
Single-Family Building Permits (units)[b]	**2001Q1**	**16,193**	**113,442**	**69,895**	**12,957**	**8,105**	**26,096**	**246,688**	**1,25**
% change from	2000Q4	23.5	5.7	2.8	4.6	16.2	18.1	7.3	
% change from	2000Q1	8.1	3.4	–2.2	–9.7	–7.2	–5.8	–0.1	
Multifamily Building Permits (units)[b]	**2001Q1**	**6,729**	**54,784**	**22,035**	**2,386**	**3,751**	**7,335**	**97,021**	**45**
% change from	2000Q4	22.7	–2.2	4.7	22.5	–20.9	–5.7	0.0	
% change from	2000Q1	144.3	25.4	–10.3	34.4	74.9	–20.2	15.3	

Personal Income ($ billions)[b]	**2000Q4**	**105.7**	**460.8**	**233.2**	**105.6**	**60.2**	**152.4**	**1,117.8**	**8,**
% change from	2000Q3	0.9	1.7	1.2	0.3	–0.3	1.2	1.2	
% change from	1999Q4	3.5	7.6	6.9	3.9	2.7	6.3	6.2	

		Atlanta	Birmingham	Jacksonville	Miami	Nashville	New Orleans	Orlando	Ta
Total Payroll Employment (thousands)[a]	**2001Q1**	**2,229.2**	**490.5**	**576.7**	**1,032.0**	**691.2**	**629.9**	**924.1**	**1,**
% change from	2000Q4	0.6	0.4	0.9	0.7	0.4	–0.1	0.8	
% change from	2000Q1	2.0	1.2	4.4	2.9	1.7	0.4	2.8	
Civilian Unemployment Rate[a]	**2001Q1**	**3.0**	**3.0**	**3.3**	**5.7**	**3.2**	**5.0**	**2.7**	
Rate as of	2000Q4	2.7	3.0	3.2	5.3	3.2	5.2	2.6	
Rate as of	2000Q1	3.1	3.1	3.0	5.4	2.7	5.0	2.5	

[a] Seasonally adjusted

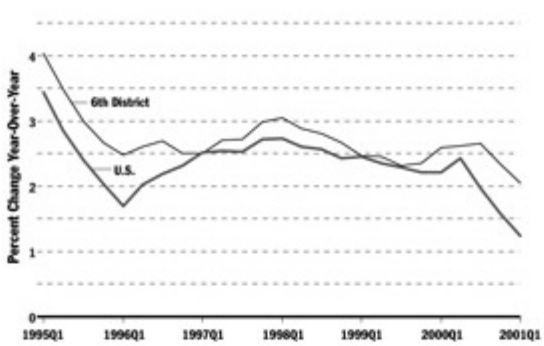
[b] Seasonally adjusted annual rate

Note: In table and charts, “6th District” refers to all Sixth Federal Reserve District states in their entirety.

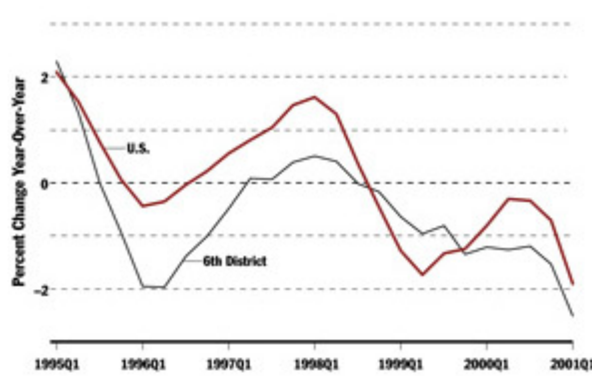
SOURCES: Payroll employment and civilian unemployment rate: U.S. Department of Labor, Bureau of Labor Statistics. Initial unemployment claims: U.S. Department of Labor, Employment and Training Administration. Single- and multifamily building permits: U.S. Bureau of the Census, Construction Statistics Division. Personal income: Bureau of Economic Analysis. Quarteı estimates of all construction data reflect annual benchmark revisions. All the data were obtained and seasonally adjusted by Regional Financial Associates. Small differences from previously published data reflect revisions of seasonal factors.

For more extensive information on the data series shown here, see the Southeastern Economic Indicators.

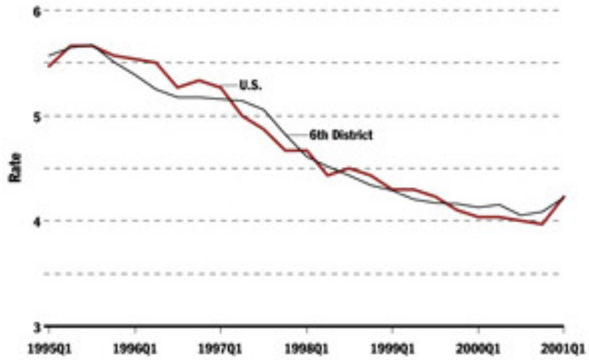
Total Payroll Employment



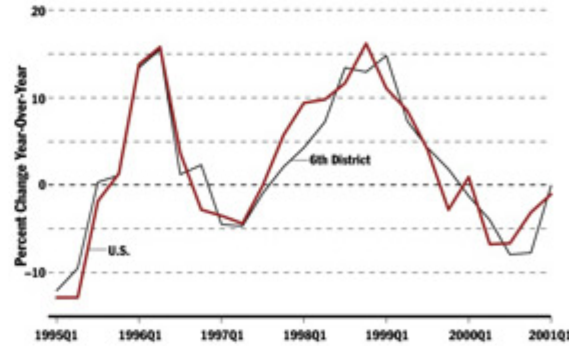
Manufacturing Payroll Employment



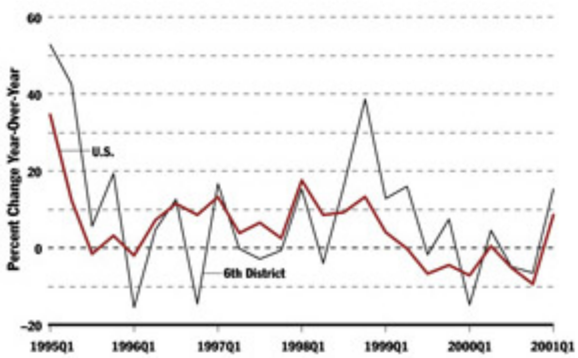
Civilian Unemployment Rate



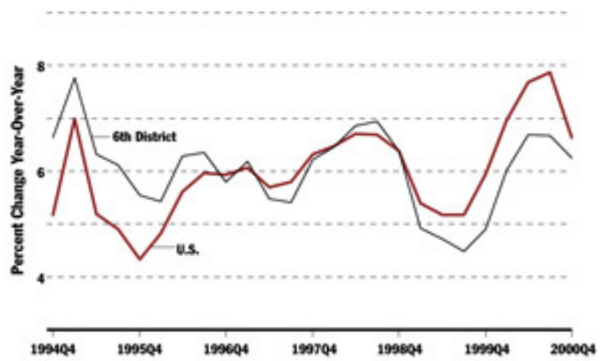
Single-Family Building Permits



Multifamily Building Permits



Personal Income



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