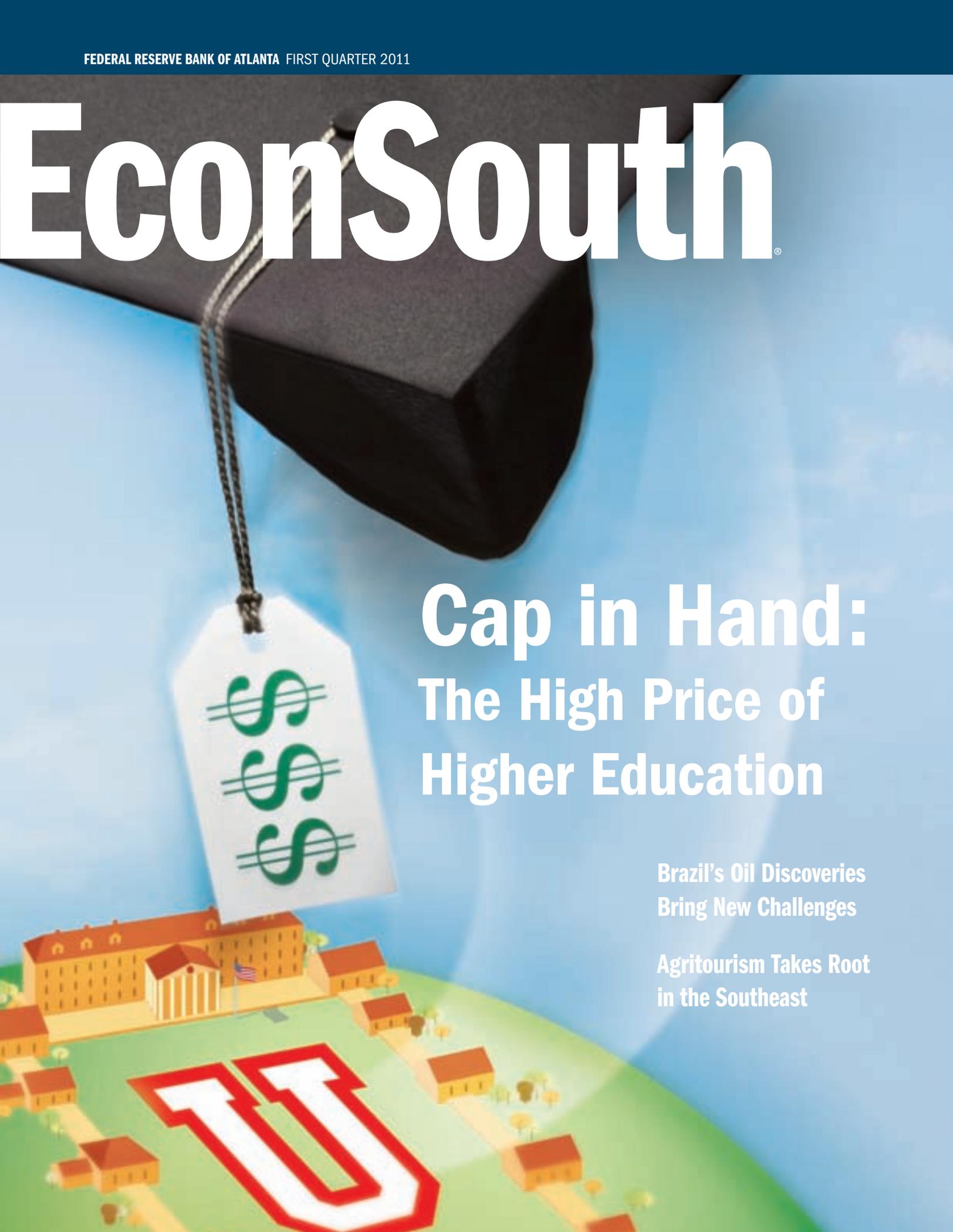


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Cap in Hand: The High Price of Higher Education

Brazil's Oil Discoveries
Bring New Challenges

Agritourism Takes Root
in the Southeast

EconSouth

FEDERAL RESERVE BANK OF ATLANTA FIRST QUARTER 2011



Inside:
Augusta, Ga.,
and the Masters

DEPARTMENTS

1 On Point

2 Fed @ Issue

4 Grassroots

11 REIN

16 Q & A

29 Closing Numbers

6

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18

22

Cap in Hand: The High Cost of Higher Education

Today's college-bound students have to decide not only which colleges to apply to but also how to pay for school: an increasingly daunting proposition. The cost of post-secondary education continues its skyward trajectory, and remedies to slow its ascent are in scant supply.

Agritourism Takes Root in the Southeast

Increasing numbers of people are going back to the farming lifestyle—at least as tourists. Agritourism, a leisure activity that melds modern-day agriculture with tourism, is growing in popularity across the region as urban residents seek to play in the dirt again.

Brazil's Oil Discoveries Bring New Challenges

Brazil's discovery of large offshore oil reserves will likely make it a significant player in world energy markets. But would a sudden influx of resource wealth be accompanied by undesirable economic effects?



Education, Exploration, and Spring Escapes

The rising cost of college education is an issue that is attracting the attention of a wide range of people, from students to policymakers. In researching the story on education affordability, Ed English said he noted the changing needs of the labor force from producers to knowledge workers and how higher education must adapt accordingly.

“I saw a bumper sticker once that said, ‘If you think education is expensive, try ignorance,’” English said. “The wisdom of that idiom is as true now as ever. Next to spending on health care, maybe no other expenditure is as significant as the cost of education. What is interesting is how distance learning will be a factor in cost containment. What is the point at which distance learning maximizes its cost effectiveness? Will it be when there are only a few flavors of a particular course serving all institutions nationwide? Or will it be something less than that? And as the number of distance learners rises, when will we reach the equilibrium point at which no more face-to-face education can be shifted online? Clearly we are moving that way, but where the finish line will be is far from certain.”

On the international front, this issue’s feature on Brazil’s discovery of large undersea oil reserves required authors Laurel Graefe and Steve Kay to dig a little deeper: four miles beneath the seabed, to be precise. Apart from the technological feats required to extract the oil, Kay was more concerned with the oil wealth’s potential effects on Brazil’s economy.

“In researching this article, I was reminded how, due to the so-called ‘resource curse,’ the prospects of billions of dollars in oil revenue can come with a potentially high price tag,” Kay said. “I found that researchers in Brazil already see signs of the resource curse in municipalities receiving revenue from oil royalties.

It’s apparent that governments need to be prepared with policies that can mitigate the negative impact of the resource curse.”

On the home front, Lela Somoza’s story on the growing agritourism industry in the Southeast points to the public’s interest today in where their food comes from and how it makes its way to their table. The article also highlights the tenaciousness of many of today’s small farms. Agritourism has given farmers an effective way to diversify and supplement their income with activities like farm “staycations.”

“I was surprised to learn how inclusive the agritourism sector is,” Somoza noted. “A range of activities—even the gleaned food to feed the hungry—is part of this fast-growing industry, but I’d never thought of them as agritourism. These activities are helping farmers stretch their ability to earn a living beyond their harvests and also contributing to volunteerism.

“It was also really amazing to learn how many farmers involved with agritourism are embracing social media as a way to market their operations, something I learned from my conversation with Dora Ann Hatch of Louisiana State University. Many farms don’t have the marketing budgets to roll out high-profile advertising campaigns, so they’re using blogs, Twitter, and Facebook to let people know what’s new on the farm.”

Our Regional Economic Information Network pages in this issue feature current Southeast economic information and data. We hope you enjoy the issue, and please visit the Atlanta Fed’s website at frbatlanta.org to see the supplemental material that accompanies the online version of *EconSouth*. ■

Lynne Anservitz
Editorial Director

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Editor’s note: Throughout this issue, Southeast refers to the six states that, in whole or in part, make up the Sixth Federal Reserve District: Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee.

Photo p. 4: photo by Michael Holahan and courtesy of the Augusta Chronicle/ZUMAPRESS.com; p. 5 courtesy of the Augusta Chamber of Commerce; p. 17 courtesy of the Tennessee Technology Centers; p. 18 (top) and p. 20 (top) courtesy Curry Farms; p. 27 (top) by Rainier Ehrhardt and courtesy of the Augusta Chronicle/ZUMAPRESS.com; p. 27 (bottom) photo by Zach Boyden-Holmes and courtesy of the Augusta Chronicle/ZUMAPRESS.com; back cover (left) courtesy of the University of Tennessee Office of Communications; (right) courtesy of the Library of Congress photographic archives.



MIKE BRYAN is vice president and senior economist in the Atlanta Fed's research department.

Always and Everywhere: A Central Bank Phenomenon

I read about inflation every day, mostly in academic work. But lately, I can't pick up a newspaper or magazine without seeing a story about inflation. Some of it is interesting. Some of it is ill-informed. But the volume of articles being written on the subject today makes one thing clear: people are anxious about inflation. And if you're a central banker with price stability as one of your dual objectives, that anxiety is not a good thing.

Let's look at a few of the more troubling recent developments. Food prices are rising globally, and the United States is no exception. Meat and egg prices are up more than 6 percent since this time last year. In January, gasoline prices were up 3.5 percent and apparel prices were up 1 percent for the month alone. So if you eat food, drive cars, and wear clothes—basically every American household—then your budgets have been getting squeezed.

But at the end of January, the Federal Open Market Committee (FOMC), the folks responsible for keeping inflation in check, had this to say: “[M]easures of underlying inflation have been trending downward ... [and] are currently low relative to levels that the Committee judges to be consistent with price stability.”

I'm guessing that you'd like to invite someone from the FOMC to walk with you down the aisles of your local grocery or drive with you as you fill up your gas

tank and point out that downward-trending inflation they're so concerned about.

Drawing distinctions

I'm not sure I can bridge the gap between what you're *feeling* and what the FOMC is *saying* about inflation, but it might help if I reiterate a few principles Atlanta Fed President Dennis Lockhart discussed in a recent speech to the Calhoun County Chamber of Commerce in Anniston, Ala.:

- Inflation encompasses all prices and is a reflection of a decline in the purchasing power of money. It is a distinct concept from your cost of living, which is the cost of attaining a certain standard of living.
- While central banks—and only central banks—can affect the purchasing power of money, central banks are powerless to prevent fluctuations in your cost of living.

The idea that underlies these principles is that inflation is about money, but your cost of living is about goods and services you buy to maintain a certain standard of living. Since the central bank controls the amount of money that circulates in our economy, it ought to be clear that the central bank can ultimately determine what the rate of inflation will be. But equally clear is the fact that the central bank does not produce oil, or grow food, or make clothes. So if

what's happening to prices is a result of droughts or growth or turmoil in emerging nations, central banks will find that their tools cannot prevent these costs from ultimately pinching your wallet.

But in today's vernacular, it seems inflation has become synonymous with any price increase, and the goal of price stability can be mistaken as a commitment from the central bank to prevent

The volume of articles being written on the subject today makes one thing clear: people are anxious about inflation.

any price increase. So let me add a third principle to the discussion—price stability isn't assurance that your cost of living won't rise; rather, it's an assurance that as you make long-term financial decisions, you do it with reasonable certainty about what the purchasing power of your money will be in the future.

How's that third principle looking? Well, economists' forecasts put the average rate of inflation right at 2 percent over the next 10 years, which is where participants of the FOMC see it, too. That forecast should give heart to the central bank, even if the recent behavior of food prices doesn't.

Peering down the road

Does this mean inflation isn't a risk? After all, the Federal Reserve's balance sheet, which has grown from about \$900 billion to \$2.5 trillion in the past year-and-a-half as a consequence of our asset-purchase programs, is in uncharted territory. Doesn't the size of the balance sheet threaten the purchasing power of our money? It's a legitimate question. But the more than \$1 trillion in excess reserves held by the Federal Reserve hasn't made its way into the economy in the form of bank loans and need not be inflationary

as long as we have the tools to manage our balance sheet when the time comes.

Let me quote from a speech Federal Reserve Chairman Ben Bernanke gave to the National Press Club on February 3 on this topic:

"[I]t bears emphasizing that we have the necessary tools to smoothly and effectively exit from the asset purchase program at the appropriate time. In particular, our ability to pay interest on reserve balances held at the Federal Reserve Banks will allow us to put upward pressure on short-term market interest rates and thus to tighten monetary policy when required, even if bank reserves remain high. Moreover, we have developed additional tools that will allow us to drain or immobilize bank reserves as required to facilitate the smooth withdrawal of policy accommodation when conditions warrant. If needed, we could also tighten policy by redeeming or selling securities."

In other words, we have a belt and suspenders to do our jobs. ■

Note: To see the latest inflation indicators and research, please see the Atlanta Fed's Inflation Project web page at <http://www.frbatlanta.org/research/inflationproject/>.

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Augusta, Georgia

Keeps Out of the Rough

In the movie *Caddyshack*, Carl Spackler didn't riff about just any midsize southern city—only Augusta, Ga.

The comically misfit greenkeeper played by Bill Murray imagines himself winning “at Augusta.” Spackler was referring to the most renowned event of Georgia's second-largest metro area—the Masters golf tournament, played every April at the Augusta National Golf Club. The 2011 tournament is scheduled for April 7–10.

The Masters winner gets a green jacket and a large paycheck. The Augusta area gets a major economic jolt. How major is hard to say. The last economic impact study was done in 1997 by the Augusta Convention and Visitors Bureau and showed a \$109 million effect. Augusta National will not release information on its revenue, so no one's done an analysis since. But it's safe to assume that as the event has grown, revenues have increased.

Consequently, the local populace generally embraces Augusta National—known on its home turf as “the National”—even though it is famously exclusive and secretive. Caterers, hotels, other golf courses, restaurants, even locals who rent their homes for the week depend on the Masters like retailers rely on the Christmas holidays. Revenue per hotel room in the city doubles during April and restaurants offer different menus with higher prices, said Simon Medcalfe, an economist at Augusta State University. Greens fees at local golf courses rise like a well-struck nine-iron.

“It's unbelievable,” said Diane Starr, who for 32 years has arranged accommodations for Masters fans, “patrons” in Augusta National parlance. “Right down to the teachers on spring break that want to make some extra money and decide to clean houses—it's a domino effect that touches everybody in Augusta.”

Starr's business is completely tied to the Masters. Her company, Corporate



Quarters Inc., is among several leasing agencies for residents who leave town and rent their homes for tournament week. What started three decades ago as a necessity because of a paucity of hotel rooms has become a popular moneymaker.

An ordinary three-bedroom, two-bath house can fetch more than \$10,000 for the week, according to Starr, while larger houses command many thousands more. A pool, hot tub, even a basketball goal add to the price. Some homes come with Masters tickets, or badges. That perk supercharges the rent, as the badges are among the most precious tickets in sports and entertainment. (In mid-March, weekly passes were going for about \$6,000 on the online



Augusta, Ga.

Population

(Augusta-Richmond County) 192,824

Median household income \$44,519

Median owner-occupied home value \$97,900

Source: U.S. Census Bureau, 2005–09 American Community Survey



marketplace StubHub.com, compared to \$325 to \$1,200 for weekly U.S. Open golf passes.)

Yet even the Masters—or more to the point, those whose businesses depend on it—has not escaped the recession. Corporations have curtailed spending on client entertainment, according to Starr and other local businesspeople. For the 2009 and 2010 tournaments, Corporate Quarters rented about half the 1,000-plus homes it lists, compared to the typical 70 percent. Homes also rented for lower prices than in past years.

Crowds on the tournament grounds were as large as ever, but the recession muted the normally frenzied demand for badges, meaning a lot of original badge holders—including Augustans, who

would normally sell them—instead used them themselves.

As the 2011 Masters approached, the nation's gradual economic recovery appeared to be in evidence. Home rental rates were ticking upward and volume was rebounding, Starr said. Sue Parr, president of the Augusta Metro Chamber of Commerce, which runs another rental intermediary—the Masters Housing Bureau—said corporate renters were less tentative and making arrangements earlier than in 2009 and 2010. “Things are not back to normal, but they are getting better,” Starr said.

It's not all about golf

As momentous as the Masters is in Augusta, it lasts only a few days. For the remaining

51 weeks each year, other economic forces matter more. Health care and the Fort Gordon army base are linchpins. The Medical College of Georgia (MCG) and its hospitals employ more than 7,000 people, and six of the 11 largest employers in Augusta-Richmond County (including MCG) are in the health care sector, according to the Development Authority of Richmond County.

As of December 2010, private education and health services as a category employed 29,100 people, or 13.8 percent of metro Augusta's nonfarm employment, according to the U.S. Bureau of Labor Statistics (BLS). That proportion was fourth behind government, professional and business services, and trade, transportation, and utilities. The area's single biggest employer is the U.S. Army Signal Center at Fort Gordon, with 19,844 military and civilian workers, according to the Development Authority. About 25 miles southeast of Augusta, the Savannah River Site (SRS), a sprawling U.S. Department of Energy facility that used to make nuclear weapons material, employs 12,000.

The twin anchors of Fort Gordon and health care—along with the absence of a housing boom and its lingering aftereffects—have helped cushion Augusta through the recession, according to Moody's Economy.com and other analysts. Notably, none of the city's banks have failed, even as the state has led the nation with 56 failures since the middle of 2007.

“We're not a boom-or-bust town,” Parr said. “We're steady as she goes.”

Grassroots continues on page 27



Cap in Hand:

The High Price of Higher Education

A college degree has become an indispensable credential in today's workforce. But with the cost of postsecondary education soaring, a degree is also slipping out of reach for more people. What's behind tuition inflation, and can its trajectory be altered?

The price of higher education started soaring decades ago. A 1997 *Time* magazine article, "Why Colleges Cost Too Much," reported that after a lengthy period of stability, tuition increased at a rate twice that of the overall cost of living between 1977 and 1997. Since going through the roof in the '90s, the cost of higher education has continued spiraling upward. In the decade from 2000–01 to 2010–11, tuition and fees at public four-year colleges and universities increased at an average rate of 5.6 percent per year above the rate of general inflation, according to *Trends in College Pricing 2010*, published by the College Board Advocacy and Policy Center, a nonprofit association of more than 5,700 schools, colleges, universities, and other educational organizations.

For the current school year, the price tag varies based on a student's specific arrangement and geographic location, according to College Board figures. At the high end of the spectrum, students living on campus at private four-year colleges and universities faced a national average of \$27,000 for tuition and fees with an additional \$9,700 for room and board. Add in books (another soaring expense) and other fees, and the total surpasses \$40,000 for the year. Students living on campus at public

four-year schools spent an average of \$7,600 for in-state tuition and fees and \$8,535 on room and board (and more on books and supplies), incurring an overall annual expense averaging slightly more than \$20,000. At the other end of the spectrum, students attending two-year schools averaged \$2,700 for tuition and fees, \$7,300 for room and board, and more than \$14,000 for total expenses.

Students at four-year schools in the Southeast had it a little better financially than students in other regions. Students with in-state residency paid an average of \$2,000 below the national average for public school tuition, fees, and room and board, while students at private schools paid almost \$5,000 below the national average for the same expenses. Students at the Southeast's two-year colleges received no geographical benefit, as the region's prices mirrored national averages.

At some point, rising prices typically reach a threshold at which demand is reduced. With higher education, that reduction has yet to occur. However, as prices continue to rise, students and educators alike are looking for ways to ensure the affordability of higher education. This quest may significantly reshape the landscape of higher education.

Table 1

Debt levels of college seniors in the Southeast in 2009

State	Average debt (in dollars)	Rank among states	Percentage of graduates with debt	Rank among states
Georgia	16,568	48	58	24
Louisiana	19,677	41	48	43
Tennessee	20,678	32	53	35
Florida	20,766	31	49	41
Mississippi	22,566	20	57	28
Alabama	24,009	16	51	38

Note: The U.S. average is \$24,000.

Source: Project on Student Debt, Student Debt and the Class of 2009

Demand stronger than ever

So far, the rising price of higher education hasn't scared away the students or parents. In the decade spanning the 1999–2000 and the 2008–09 academic years, the number of full-time and part-time students in the United States rose from 15.3 million to 19.1 million, a whopping 25 percent increase, according to the *Digest of Education Statistics*. Accompanying this influx of college students is a rise in the percentage of Americans with degrees. In the College Board's *Education Pays 2010* report, the percentage of Americans between the ages of 25 and 34 with a four-year college degree grew from 29 percent in 2000 to 32 percent in 2009, after having hovered around 24 percent through the 1980s.

In many cases, incoming students do not have cash on hand to fund the escalating tuition price tag, leading them to turn to grants and federal tax benefits for help. The College Board reports that the average of grant aid and federal tax benefits per student for the 2010–11 school year is \$6,100 at public four-year schools, \$16,000 at private nonprofit four-year schools, and \$3,400 at public two-year colleges. Two-thirds of students at four-year schools, public and private, currently receive grant aid.

However, for many Americans, their increasing appetite for higher education (fueled in part by the recent recession) has led them to bite off ever-larger amounts of debt. Last August, the *Wall Street Journal*, quoting figures from the Federal Reserve, FinAid.org, and FastWeb.com, reported that for the first time ever Americans owed more on outstanding student loans (\$829.79 billion) than revolving credit (\$826.5 billion).

That pinnacle was reached after the sustained upward trajectory of student debt became apparent. In 2004, graduating college seniors carried an average debt of \$18,650, but by 2009, this figure had risen to \$23,200, according to the Project on Student Debt by the Institute for College Access & Success. This rise reflects an annual growth rate of 6 percent per year, slightly more than the growth rate of tuition and fees during that same span (5.6 percent). In the Southeast, graduating

Table 2

Educational attainment and annual income

Degree attained	Average annual income (in dollars)
Professional degree	100,000
Doctoral degree	91,900
Master's degree	67,300
Bachelor's degree	55,700
Associate degree	42,000
Some college, no degree	39,700
High school graduate	33,800
Not a high school graduate	24,300

Source: The College Board

seniors in all but one state fared better than the national average (see table 1).

Two factors are behind the greater tuition affordability in the region. One is that the Southeast lacks the concentration of higher-priced private institutions found along the Eastern Seaboard and the Northeast. Additionally, state-sponsored merit-based scholarships help students across all economic strata in the region. Sandy Baum, an independent higher education policy analyst at the College Board who specializes in college pricing and student aid, estimates approximately one in four states has state-sponsored, merit-based scholarships (usually funded by lottery earnings). However, every southeastern state except Alabama has this type of program.

Return on investment remains strong

So what is it that sends so many students (and parents) headlong into this educational spending spree? In most cases, a payoff

down the road is the allure. Recent statistics make a case that the benefits of higher education are more important now than ever. In the College Board's *Education Pays 2010* report, annual earnings are compared to the level of education attained (see table 2). The relationship is clear: more education, more income.

But enhanced earning power is only part of the story. The other part concerns the widening gap between those with a bachelor's degree and above and those without a bachelor's degree. The *Education Pays 2010* report noted that between 1998 and 2008, women with a bachelor's degree or higher made 60 percent more than women with high school diplomas did in 1998, but by 2008 the higher-educated women earned 79 percent more, a 19-percentage-point increase. For men in the same age group, those with bachelor's degrees or higher made 54 percent more than did males with high school diplomas in 1998, a gap that widened to 74 percent more by 2008, a 20-percentage-point increase.

Also, even though the up-front debt may be daunting, the *Education Pays 2010* report found that, 11 years after graduation, the average four-year public university graduate's higher earning power made up for being removed from the labor force for four years and for student loans, at 6.8 percent interest. After that period, the graduate is economically ahead of where he or she would have been without a degree.

Is everybody a winner?

But while the benefits of higher education for the individual appear undeniable, an emerging school of thought contends that the high return on investment may not apply to everybody. According to U.S. Bureau of Labor Statistics data, just seven of the 30 jobs expected to grow at the fastest rate in the next 10 years in the United States will require a college degree. "It is true that we need more nanosurgeons than we did 10 to 15 years ago," Richard Vedder, professor of economic history and public policy at Ohio University and founder of the Center for College Affordability and Productivity, told the *New York Times* in May 2010. "But the numbers are still relatively small compared to the numbers of nurses' aides we're going to need. We will need hundreds of thousands of them over the next decade," adding that those aides could receive their training outside the traditional college setting.

Vedder's position raises the question of whether colleges are preparing graduates with the right skills. Rolando Montoya, provost of Miami Dade College, believes colleges are and that they can also take steps to make graduates even more ready for the labor force. "Most of the unemployment among recent college graduates is due to the struggling economy," Montoya said. He added that since data indicate that college graduates historically have fared better in the job market, colleges can enhance gradu-

ates' odds by reducing the time it takes to graduate and emphasizing instruction in high-demand fields.

What does the future hold?

College students of the future can expect an evolving educational environment with many things changing except the incessantly rising prices.

Future costs. The College Board's Baum says there's no reason to think pricing trends for education will change. "It's going to keep going up faster than inflation," Baum said, adding that schools devote ever-larger portions of revenue to staff salaries.

"Certainly there's more we can do to increase productivity, but productivity is never going to go up the way it does in industries where new technology and new production methods emerge," he said. "The labor [in higher education] is primarily highly educated, highly skilled. The wages for this type labor have gone up faster than for low skilled labor."

In addition to the rise in labor costs, colleges may be forced to charge more as cash-strapped state governments reduce appropriations for higher education. For the 2009–10 school year, the College Board's *Trends in College Pricing 2010* report showed that government appropriations per full-time equivalent (FTE) student averaged 19 percent lower than a decade earlier, after adjusting for inflation. State appropriations per FTE student dipped 5 percent for the 2009–10 school year after a larger dip, 9 percent, in 2008–09.

Montoya said Miami Dade College's tuition could have risen even more had it not pursued cost-cutting measures. "We cannot operate at a deficit," Montoya said. "A lot of institutions, including ours, are relying more on adjunct faculty, part-time faculty. To teach a class with an adjunct faculty is a lot cheaper." He pointed out another area that has undergone reduction: administrative services, such as managers and clerical staff. Also, increasing numbers of schools are cutting costs by outsourcing services such as security officers and custodians, allowing schools to eliminate expenses associated with health care benefits and paid vacations.

Changing of the guard? The economy will likely affect higher education in terms of the mix of schools. Baum has some ideas about who the winners and losers will be. She foresees the winners being the schools that cater to nondegreed people who have realized that they need a degree to compete effectively in the job market. "The people on that margin are much more likely to get a vocational education, to go to a for-profit or community college," she said. "There will be more and more opportunities for people to need those kinds of labor market credentials. So there's going to be more growth in those areas for that reason."

Baum predicts the losers will come from the private sector of higher education, but only from a certain group. "The schools

College students of the future can expect an evolving educational environment with many things changing except the incessantly rising prices.

at the top—the Ivy League schools, Duke, Stanford, etc.—they’re doing just fine, thank you,” she said. “They have long waiting lists of people able and willing to pay the price.” She takes the position that those top-tier institutions should increase their enrollment. “But at the other end of the spectrum, you’ve got hundreds of small private colleges, regional colleges, that are not selective at all and are really struggling, financially on the brink,” she said. “They have trouble enrolling full classes. We will see some of those institutions cease to exist because they have a really high cost model and not enough resources to be really innovative. They are going to have to do something very different because they don’t have an easy time differentiating what they offer from what you can get more cheaply.” The perilous outlook for smaller private schools was also the topic of “Will Higher Education Be the Next Bubble to Burst?” by Joseph Marr Cronin and Howard E. Horton in the May 22, 2009, edition of *The Chronicle of Higher Education*.

The rise of technology and distance learning. With faculty salaries constituting a major part of a college’s budget, many schools are exploring technological innovations for help with budget reductions. “One of the reasons we are able to reduce personnel both at the instructional level and the administrative level is because we are acquiring more technology,” Montoya said of Miami Dade College. “You can see

Still in its relative infancy, online instruction holds the possibility of providing a more affordable educational opportunity than traditional instruction, but the method is still establishing its foothold in the marketplace.

the shift in the composition of our expenses. There was a time when our overall human resources accounted for close to 85 percent of our expenditures. Now it has declined to about 75 percent.” Montoya said his school has also been able to conserve salaries by hiring adjunct faculty—with the accompanying lower salaries—in addition to incorporating more technology. He added the caveat that greater reliance on technology is not without its own attendant costs: “We need more equipment. We need more software licenses, and we also need the specialized technicians to manage all of that.”

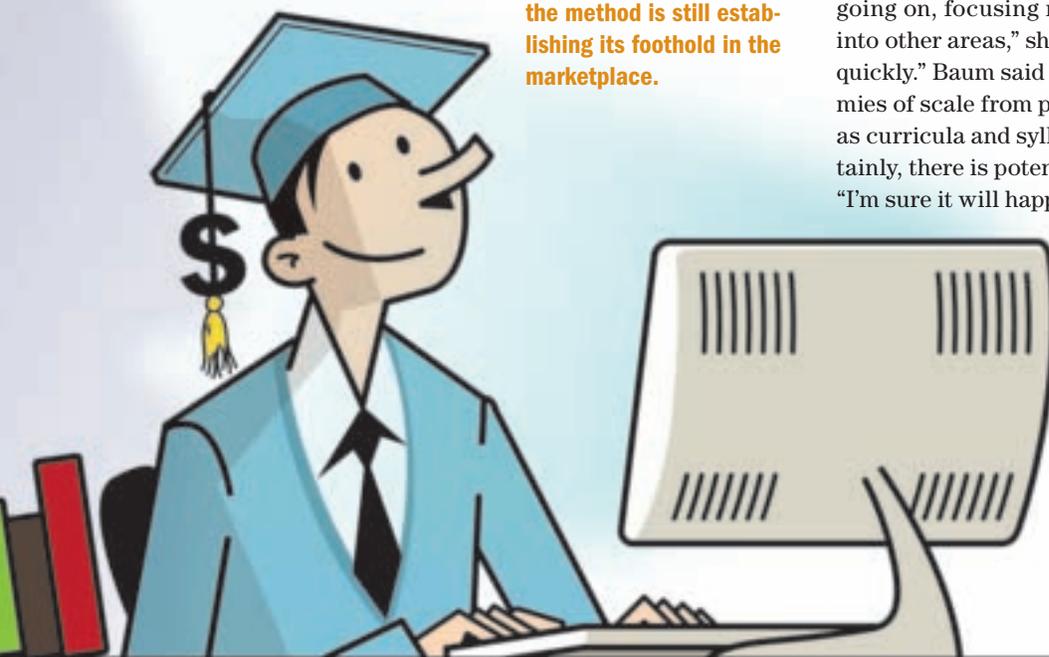
One use of technology has been the ongoing shift to distance learning. More than 5.6 million students were taking at least one online course during the fall 2009 term, according to the *Online Education in the United States, 2010: Class Differences* report by the United States Distance Learning Association. The report also notes that the total represented an increase of nearly 1 million students over the previous year, a 21 percent growth rate. The report also noted that nearly 30 percent of higher education students now take at least one course online.

At Miami Dade, Montoya notes that the growth of enrollment for online education is about three to four times higher than the growth of more traditional face-to-face offerings.

Despite these advances, Baum thinks distance learning is still finding its footing in the education marketplace. “To date, it hasn’t saved money,” she said. “Right now, it actually ends up costing more,” adding that some institutions charge more tuition for online learning. But she also cited some noteworthy innovations in distance learning. “Carnegie Mellon has great experiments going on, focusing mostly on statistics but also broadening into other areas,” she said. “Students learn more and learn more quickly.” Baum said when schools across the country gain economies of scale from pooling their online-instruction assets (such as curricula and syllabi), the savings will be significant. “Certainly, there is potential for increasing productivity,” she said. “I’m sure it will happen.”

Schools innovate their instruction methods, adopt cost-saving technologies, and hire cheaper faculties, but college costs have only continued soaring. Even as schools equip students with the skills required to compete effectively in the job market, students can’t escape the financial bottom line. The country’s brightest minds either haven’t been able to solve the problem or haven’t had the inclination. Perhaps one of the country’s 20 million college students will find the answer. ■

This article was written by Ed English, a staff writer for EconSouth.



Regional Update

Regional Recovery Continues at a Modest Pace

Recent data and reports from the region's business contacts indicate that economic activity continues to increase moderately, although labor market indicators continue to lag. A majority of business contacts indicated that current cost pressures remain high, citing increasing material prices and rising benefits outlays. However, most firms remained reluctant to pass input cost increases through to consumers given intense competitive pressures. Recently, though, some manufacturing and retailing contacts noted that they are anticipating passing on price increases to customers in 2011.

Retail sales and tourism revive

Most southeastern retail stores noted that holiday sales were above their expectations and indicated that traffic and sales increased compared with a year ago. The outlook among merchants remained optimistic. District automobile dealers indicated that vehicle sales improved recently and were ahead of year-ago levels. Sales of commercial trucks were also up modestly.

Tourism activity increased slightly relative to year-ago levels for both business and leisure travel, and the outlook remained modestly positive going into 2011. Hotel occupancy rates rose in several of the region's major markets compared with last year. Cruise lines reported an increase in both bookings and pricing power.

Real estate and construction remain soft

Weakness persists in the real estate sector as both builders and brokers noted very low levels of activity.

Reports from most Southeast homebuilders indicated that the pace of new home sales growth remained weak. Builders also noted construction activity held steady at very low levels. The outlook was mixed, with Florida and Georgia builders expecting weaker activity over the next several months, while elsewhere in the region, homebuilders expected only modest improvements. Monthly home price measures indicated that new home prices in the Southeast continued to weaken, most notably in Alabama and Florida.

Residential broker reports indicated that the pace of existing home sales growth remained weak compared with a year ago but said declines had moderated. Throughout the region, distressed sales continued to hold down existing home prices, which remained below year-earlier levels in most areas. Real estate agents' outlook for sales growth over the next several months improved somewhat from previous reports.

Nonresidential construction activity remained at low levels as well. Commercial contractors reported that the pace of development and backlogs remained below the year-earlier level.

Contacts indicated that access to funding remained challenging, and competition for projects had become more intense. Many indicated that they expected the commercial market to remain constrained in 2011.

Manufacturing and transportation see mixed performance

Most manufacturers noted increases in new orders and production levels, although those producing construction-related goods continued to experience slower activity. Several contacts expressed plans to increase production in the short term. Transportation companies reported that freight volumes were rising but that the pace of growth had slowed.

Labor markets struggle to grow

Southeastern states shed 57,500 jobs in December 2010, while the aggregate unemployment rate for the region remained at 10.5 percent—well above December's national rate of 9.4 percent. Business contacts reported that their hiring plans for 2011 have not changed, with most remaining hesitant to add to their permanent labor force until they experience a sustained increase in sales. Southeastern firms continued to note a preference for increasing existing staff hours and using part-time or temporary staff to hiring permanent, full-time workers. Nevertheless, some contacts noted that they plan to hire in 2011 at a conservative pace in response to increased output and planned store openings. However, state and local budgets remain under stress, which may result in cutbacks to public sector employment in 2011.

Atlanta Fed President Dennis Lockhart spoke at Miami Dade College on January 31, noting, "Confidence appears to be growing. According to the Conference Board, consumer confidence rose sharply in January. Business confidence is also building. Business leaders remain cautious regarding investment and hiring, but in my contacts with business people across a range of industries, I hear more optimism than I heard even a few weeks ago. I believe that as businesses become more assured that growth will continue and their revenues will grow, they will increase investment and hiring."

Although not reflected in labor market data through December, employment should grow slowly as this renewed confidence gains traction.

Prices feel pressure

A majority of business contacts indicated that current cost pressures were higher, citing increasing



material prices and labor and benefit costs. Many firms also noted that they were setting aside funds for expected future increases in employment taxes and health care costs. However, firms remained reluctant to pass input cost increases through to consumers given intense competitive pressures.

Lockhart noted these trends in his Miami speech when he said, “We are hearing stories that businesses incurring higher input costs may try to pass them through to retail prices. Higher input costs have not, however, translated to broad inflation of consumer goods and services. And, importantly, longer-term inflation expectations have stabilized in a healthy range.”

University Studies

Although the Great Recession ended in June 2009, overall growth during 2010 was weak compared to previous post-recessionary periods. However, towards the end of the year, signs of improvement began to appear as gross domestic product (GDP) growth accelerated and labor markets began to stabilize. Annual forecasts produced by members of the Local Economic Analysis and Research Network (LEARN) indicate that the pace of growth should be sustainable and that 2011 is anticipated to be a better year.

Alabama anticipates leveling out in 2011

Alabama’s economy was stable during 2010 and, according to the University of Alabama’s economic outlook, the state should begin showing steady growth in 2011. Sam Addy, the director of the Center for Business and Economic Research, calls for Alabama’s real GDP to grow more than 3.4 percent for the year. Employment should increase 0.7 percent in 2011 after declining 1.1 percent in 2010. The report also foresees unemployment remaining high for some time. However, as a result of the state’s diverse job base, Alabama’s economy should rebound more quickly than other states.

Recovery under way in Georgia

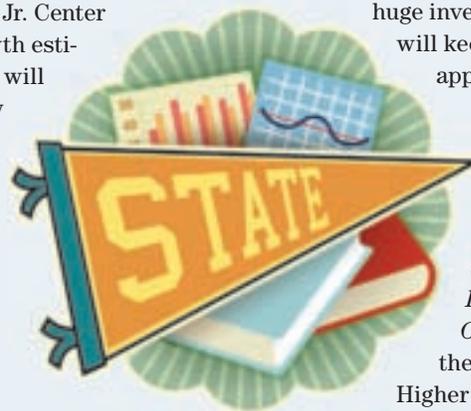
Georgia’s economic recovery was sluggish in 2010, but the University of Geor-

gia’s Simon S. Selig Jr. Center for Economic Growth estimates that Georgia will sustain its recovery and expand GDP by 2.3 percent in 2011. According to the center’s forecast, 2011 will mark the end of three years of job losses, but the state’s jobless rate will remain stubbornly high. Georgia’s nonfarm employment is predicted to rise by about 1 percent, the first annual gain for the state since 2007. The state’s unemployment rate is forecast to decline to about 9.5 percent by the end of 2011. The center also forecasted that the state’s fastest-growing industries in 2011 will be business services and the transportation and warehousing industry. It also noted that for the first time in many years, Georgia’s manufacturing industries will add jobs.

The center predicts that consumer spending in the state will increase about 2 percent in 2011, which is tepid from a historical standpoint but a welcome improvement compared with 2010. As for the housing market, the center expects Georgia’s home sales to continue to rebound in 2011, which should allow home prices to stabilize. However, the

Nearly all contacts noted that markups were either near or below what they considered to be normal, reporting that increased productivity has placed some downward pressure on product prices.

Looking ahead, we expect the region to continue to mirror the national recovery, but perhaps at a more modest pace because of the significant impact of the weak housing sector and the slow pace of development in the region. ■



huge inventory of unsold homes will keep a lid on home-price appreciation.

Slow recovery foreseen for Mississippi

According to the semiannual *Mississippi Economic Review and Outlook*, published by the Mississippi Institute of Higher Learning, Mississippi’s recovery from the recession

could be a slow one. Marianne Hill, senior economist at the institute, forecasts Mississippi’s gross state product to rise to 2.1 percent in 2011. The report also projects employment to increase in 2011 by about 0.6 percent and the unemployment rate to drop to 10.2 percent from 10.9 percent in 2010 as job creation gains momentum. Personal income is expected to rise 3.1 percent in 2011, in line with trends in employment and output. Wage and salary payments are forecast to rise 2.5 percent in 2011, up from an increase of only 0.5 percent in 2010. ■

Data Corner: Small Business Trends

Recent data from the Atlanta Fed's fourth quarter 2010 survey of small businesses shows business conditions improving in the Southeast, but access to credit markets remains a challenge for many businesses. Employment at small firms has also picked up in recent months, contributing substantially to overall job growth for the nation. The desire and ability of small firms to expand and hire new employees plays a large role in the pace of the economic recovery, according to the survey.

Economic outlook brightens

Small business owners in the Southeast anticipate hiring more employees, expect sales to accelerate, and plan to spend more on capital expenditures in the coming months, according to the 131 firms that participated in the Atlanta Fed surveys in the last three quarters of 2010. Excluding those in the construction and real estate industries, 41 percent of repeat respondents anticipate increasing employees over the next 6 to 12 months. Further, the net percent of respondents anticipating an increase has been steadily improving throughout 2010 in all three categories of economic activity.

Firms' Outlooks for Hiring, Sales, and Expenditures

Anticipated changes to:	Construction and real estate			All other industries		
	Q2	Q3	Q4	Q2	Q3	Q4
Employees	-13	-7	-11	26	28	32
Sales	16	18	17	38	49	50
Capital expenditures	-21	-7	-9	10	20	31

Note: Figures represent percentage of survey respondents' anticipated changes. The responses equal the percentage of firms anticipating positive changes minus the percentage of firms anticipating negative changes. The three surveys cited included 131 respondents.

Source: Atlanta Fed small business survey

This activity is consistent with the nationwide trend in employment at firms with fewer than 500 employees. While only about half of all private payroll employees work at small businesses, more than 90 percent of private job growth has come from small businesses during this period, according to a national employment report from the payroll-processing firm ADP.

Credit availability shows mixed progress

Access to credit remains an obstacle to many small businesses. The portion of lenders in the Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices reporting more willingness to lend did not improve in the third or fourth quarters of 2010 despite recent increases in the portion

Firms' Credit and Financing Experiences

	Construction and real estate			All other industries		
	Q2	Q3	Q4	Q2	Q3	Q4
Percent who had their financing needs met mostly or in full	57	57	50	81	88	86
Percent experiencing no obstacles to obtaining credit	24	22	27	45	48	51
Percent citing tighter lending standards as an obstacle to credit	59	61	57	37	39	34

Note: Figures represent percentage of survey respondents. The three surveys cited included 131 respondents.

Source: Atlanta Fed small business survey

citing greater demand. Repeat respondents in the Atlanta Fed small business survey have a slightly different story to tell. Excluding firms in the construction and real estate industries, the portion experiencing no obstacles to credit has increased for three consecutive quarters while the percent citing tighter lending standards has fallen. The percentage of firms that had their financing needs met mostly or in full decreased slightly in the fourth quarter, but combined with information from the senior loan officer survey showing that demand is increasing, this result could be because of a greater number of requests for credit.

While economic outlook measures have improved recently and credit conditions suggest progress, conditions remain below those seen before the recession, and full recovery could prove especially prolonged for the hard-hit construction and real estate industries. ■

The D6 Factor

The D6 Factor remained negative for all of 2010, ending the year at -0.66 . The index improved by 0.34 points from the previous quarter and by more than 3.5 points from a year ago. The D6 Factor has been on the upswing since the record low of -5.5 , set in April 2009. Although the index has been in negative territory since December 2006, the year-end level represents overall improvements in southeastern economic activity. ■

About the D6 Factor

The D6 Factor is an estimate of the trend common to 25 distinct monthly series of economic data for the six states of the Sixth Federal Reserve District. It provides a broad measure of southeastern economic conditions that is available more frequently than estimates of gross domestic product (GDP) for the six states. Also, unlike an average of state-level GDPs or other factors, the D6 Factor can filter out idiosyncratic shocks that disproportionately affect individual states. For detailed information on the D6 Factor's construction, see "When More Is Better: Assessing the Southeastern Economy with Lots of Data," by Pedro Silos and Diego Vilán (*Economic Review*, Third Quarter 2007).

The D6 Factor

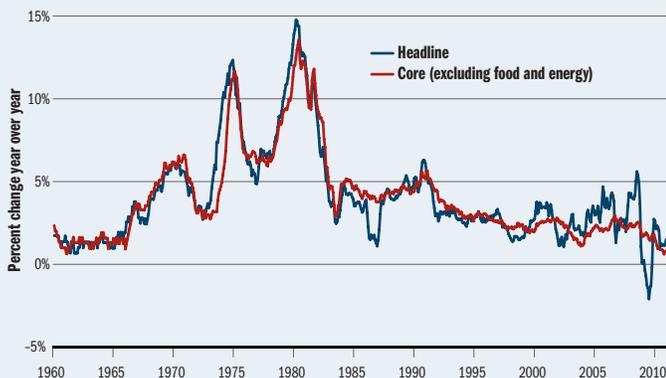


Note: Data are through December 1, 2010.
Source: The Federal Reserve Bank of Atlanta

Econ 101: Inflation, Deflation, and Disinflation

A general rise in the level of prices over time, when each unit of currency buys fewer goods and services, is referred to as *inflation*. *Deflation*, on the other hand, refers to a fall in the general price level. *Disinflation*, conversely, describes a scenario when prices are rising, but at a slower pace than before—or a declining rate of inflation. In other words, if the rate of inflation is positive but falling, prices would be disinflating; if inflation is negative the economy is experiencing deflation.

Consumer Price Index



Note: Data are through December 2010.
Source: U.S. Bureau of Labor Statistics

Excluding a few notable exceptions, the United States has generally experienced positive but modest inflation in the post-Depression era. In the past 20 years, prices have grown at an average pace of around 2.5 percent. However, on a month-by-month basis, overall—or *headline*—inflation can be volatile. For that reason, economists often refer to *core* inflation. Core inflation attempts to smooth out the headline number by excluding the most volatile components, typically food and energy prices, which tend to show a relatively large monthly variance. (Other measures of core inflation include trimmed-mean, median, and moving averages of price statistics.)

More than a half-dozen major statistics aim to gauge changes in prices in the United States, including the consumer price index, the personal consumption expenditures price index, producer prices, import prices, employment cost index, and unit labor costs. ■



On the Ground: An Interview with Tom Cunningham, Atlanta Fed Regional Executive



Would you briefly describe the role of Georgia regional executive?

The Federal Reserve Bank of Atlanta has established the Regional Economic Information Network, or

REIN. The logical outcome of the federal nature of the Federal Reserve System is that while monetary policy is not made on the basis of local conditions, each district or region served by a Reserve Bank can bring local economic information to the policymaking process, and information will collectively span the domestic economy. The Atlanta Fed's REIN initiative is our attempt to make that process systematic. Our region is quite large, and the information gathered through our REIN process can be quite useful in the policymaking process.

How is information gathering structured throughout the Atlanta Fed's region?

Each of the branch offices in the Sixth Federal Reserve District (Jacksonville, Miami, Birmingham, Nashville, and New Orleans) has an executive who functions as the focal point for REIN activities in that section of the region. Atlanta is the headquarters for the Sixth Federal Reserve District and so can be thought of as a branch of the Atlanta Fed serving Georgia. So the Atlanta regional executive functions as the focal point for REIN activities within the state of Georgia.

In the private sector, the territory of the Federal Reserve Bank of Atlanta contains 38 of the Fortune 500 companies. Of those, 14 are located in the state of Georgia. In the public and nonprofit sectors, Georgia is home to many national and multinational organizations that significantly influence or respond to national and world events. Discussions with the leaders of those organizations can provide a great deal of insight into the challenges faced by the overall economy.

Outreach to local chambers of commerce, trade associations, and other vari-

ous local groups are also an important way of bringing the perspective of small and medium-size businesses as well as the general public to the policy table. Again, the regional executive is central to that effort.

What do you bring to the job? For about a decade, one of my assignments in the Atlanta Fed's research department was to run our regional research group. That assignment happened to coincide with the Atlanta Olympic Games, so it was an interesting time for an economist watching the region. Economists have terrific models for thinking about how small, open economies interact with the rest of the world. In the real world, however, there are a lot of complications in trying to apply those models. Our region, however, has an economy that is large—roughly the size of Italy—and is completely open in most of its trade, because that trade is done with the rest of the United States. So in an abstract sense, we can use the international trade models to understand a lot of what's going on, both in our region and in the rest of the United States. It's a cool application of the models, and it can be really useful for understanding economic phenomena that might otherwise take a long time to show up in the macroeconomic data. I think my experience in the regional group is going to provide a really useful base for this new assignment. ■

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JAMES KING

Title	Vice chancellor
Organization	Tennessee Technology Centers
Website	www.tbr.state.tn.us/schools/default.aspx?id=2654
Other	King has been vice chancellor of the Tennessee Technology Centers since August 1999. He is a former commissioner of the Council on Occupational Education. He currently serves on the board of directors as president of the American Technical Education Association and serves on the Board of Trustees for the National Vocational Technical Honor Society. He is a graduate of the University of Tennessee at Martin and has a master's degree from the University of Memphis.

“There’s Light at the End of the Tunnel”

An Interview with James King of the Tennessee Technology Centers

Harvard University’s graduate school of education published an article titled “Pathways to Prosperity: Meeting the Challenges of Preparing Young Americans for the 21st century.” The article cites the Tennessee Technology Centers for its 75 percent graduation completion rate, a rate most two-year institutions don’t meet. During the economic downturn, the Tennessee Technology Centers (TTC) placed 83 percent of their graduates in jobs. James King, vice chancellor of the 27-school system, spoke with *EconSouth* about the evolution of higher education, tuition inflation, and the future of distance learning.

EconSouth: *The Tennessee Technology Centers have combined remedial education with college-level development. What are the benefits and results of this sort of hybrid?*

James King: The research shows that many students starting their college career are not ready for college-level work. Our system integrates the remedial and development work within the program area. For instance, if we—Tennessee Technology Centers—have a student who wants to be an automotive technician, machinist, or computer operator, part of his or her day is spent in remedial and developmental [R&D] while still attending his or her program. This approach allows the students to understand why math and other basics

are so important. Those students find out in the first few weeks that a machinist does need to know math, algebra, and geometry. You’ve got to improve your reading skills to succeed in that field. The student sees the importance of the basic skills to the career choice.

I’ve got friends with children in college, and the parents boast and say, “My child is going to college,” but they haven’t completed a class that counted for credit in [most of] their first year. They’re in remedial and developmental programs. This is happening at colleges and universities across the country. Students get frustrated with the process and do not see the importance of R&D and leave with little or [no] real achievements toward a career. If the TTC system operated in that manner and placed an automotive student in remedial and developmental for the first six months, that student would be gone after about three days.

ES: *What is the reason behind the intensiveness of the schedule?*

King: I am a firm believer that the longer it takes you to go to school, the more likely you’ll drop out. Life gets in the way. We’re graduating students within the [traditional] time frame because our program structure is designed to get you in and get you out with a marketable skill. We integrate the remedial. We provide a strong student-service component. The program structure design is more like the



The curriculum at the Tennessee Technology Centers integrates remedial work with work within a student's program area, resulting in a placement rate of 83 percent of the system's graduates.

workplace. It's a model that has proven to work and [that] we have continued to perfect over the last 40-plus years. After a review of the IPEDS [Integrated Postsecondary Education Data System] data, I was amazed to find out of the 1,145 two-year public postsecondary institutions in the United States, only 105 can report that, for the last five years, more than 50 percent of their students graduated within an average of 150 percent of the normal time. One-fourth of the 105 are Tennessee Technology Centers, and our completion rates are 70 percent or more. There is no other state postsecondary system that comes anywhere close to achieving these outcomes. We're proud of that fact.

ES: *How has inflation in the cost of postsecondary education affected institutions of higher learning?*

King: When I look at our [tuition] inflation over the past 10 years, we have, like most institutions of higher education, nearly doubled our tuition. We are now faced with a troubling situation. We have a weak

economy and a decrease in state appropriations, and I cannot continue to see the tuition rate increasing and continue placing the burden on the backs of the students. Fortunately, in Tennessee we have two lottery scholarship programs providing help to students. One is the HOPE scholarship for the universities and community colleges, which is tied to ACT scores and high school graduation. We also have the grant [that serves our schools]; the Wilder-Naifeh Technical Skills Grant is available to all Tennessee residents, no matter the age. It presently covers about 70 percent of the tuition for our students. By removing some of the financial aid burden, we help increase our completion rates at the technology centers. However, our system is still looking at the possibility of double-digit tuition increases. At one point, this lottery scholarship covered 92 percent of tuition. As a result of tuition increases, the percentage of the costs covered by the Wilder-Naifeh Technical Skills Grant continues to go down, placing more burden on the student.

ES: *Is tuition inflation in the Southeast similar to what other regions are experiencing?*

King: When you look at the Southeast, I think tuition rates have traditionally been lower. For years, we were a low-tuition region. But I think at the same time, our tuition rates have nearly doubled or more than doubled over the past 10 years, as has been the case everywhere else in the country. We're raising tuition at the same rate as most of the nation, but the South probably had a lower tuition base to begin with. I think if you look in the New England area, the cost of education is probably higher, but we have probably raised tuition as much as anyone over the past several years. We have had to do so to keep the doors open and the lights on.

ES: *How will rising tuition affect the average family?*

King: There is going to be a point where the costs are going to get out of reach for a significant portion of our population. I really believe that. Especially at the university level, it's going to be back [to where] it probably was years ago, in the 1960s, when only [the upper class] could afford to go. However, I think you will see that students are more cost-conscious and are not going to come out of institutions anymore with \$100,000 to \$150,000 in student loans for a \$30,000 or \$40,000 job in a career that does not have the return on their investment. I think you'll see more of a shift to state institutions over the private schools if that continues to happen. Those \$30,000 and \$40,000 jobs are even getting more competitive to get. I think one shift you could see are state institutions being the lower-cost [option] for some of the students who can no longer afford to go to higher-cost private schools.

ES: *Will the Internet make distance learning more viable for more people?*

King: Yes, we have seen a huge surge in distance education and online education

Question & Answer continues on page 26



Corn Maze



Takes Root in the Southeast

Most Southerners are generations removed from their agrarian roots, if they ever had any. Agritourism, which combines elements of modern-day agriculture and tourism, is growing in popularity across the region as urban residents seek to play in the dirt again.

When Bentley Curry began growing and selling Christmas trees on his small family farm in northeastern Louisiana in 1981, he didn't realize that he was part of a budding trend in agriculture. Initially, Curry and his wife were simply looking for a way to wring more income from their farmland, but within a few years they were embracing agritourism—short for agricultural tourism—as a way to supplement and diversify their income. From October to mid-December, they welcome about 20,000 visitors to their farm, which started with just the tree farm and a lake stocked with mallards and catfish. Over time, their operation has grown to include a three-acre corn maze, a pumpkin patch, and hayrides, among other activities.

Sitting at the intersection of two of the Southeast's largest economic engines—agriculture and tourism—the growing agritourism industry is helping rural communities tap into the region's dynamic tourism market. Agritourism covers a wide variety of operations, from pick-it-yourself farms and farmers markets to corn mazes and farm stays. While the term is relatively new, the practice has been around far longer, said Dora Ann Hatch, agritourism coordinator with the Louisiana State University (LSU) Agricultural Center. Although agritourism really picked up in the late 1990s, she traces it back to at least

the 19th century, when well-heeled urbanites took summer trips to the country to escape hot, crowded cities. `

A diversion born of pragmatism

Today's more modern version of agritourism is driven by a host of other factors, in addition to the desire to escape urban settings. For one, financially squeezed small farms and ranches across the United States are looking for ways to increase revenues and diversify their sources of income. While some farmers cultivate niche products, such as baby organic greens or cage-free chickens, or seek off-farm employment, others are touting tourism to generate additional revenues. Reflecting what has been a nationwide trend, more than 2,600 southeastern farms are involved in agritourism, according to the U.S. Department of Agriculture (USDA). Indeed, farm-based recreation is an important source of income for southeastern farmers, who account for a large portion of all U.S. farms receiving recreational income.

Agritourism "is a logical and necessary transition for many farms," said Jane Eckert, founder and CEO of Eckert AgriMarketing. "We're seeing a growing interest because [farmers] are not making enough money in production agriculture to sustain the farm, much less carry it into the next generation." Small



A growing interest in the sourcing of food is one of the factors fueling the growth of agritourism, which combines elements of farm life with recreation.



The USDA's 2007 agriculture census took note of these efforts, stating that "producers are finding that diversification can make their operations more profitable by providing additional income from agritourism."

Both crops and cash grow

Farms engaged in agritourism and other recreational services generated an average income of \$24,276 in 2007 on top of their traditional farm income, up more than 230 percent from 2002, according to the USDA. Further, agritourism creates a direct market for farm products. For instance, many farmers set up farm stores that sell value-added products such as jams, cheeses, eggs, and other goods to earn additional income on top of an admission fee to their venue, said LSU's Hatch.

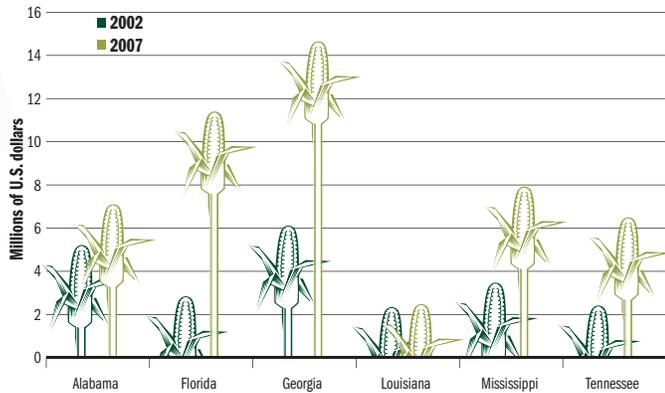
In addition to supplementing farm income, agritourism also benefits the surrounding community—perhaps most importantly by bringing more tourists to rural areas. The influx of tourists generates additional revenues for local restaurants, shops, and other businesses, bringing a welcome infusion of outside dollars. These "imported" dollars often stay within the local economy and are recirculated through additional purchases of goods and services or wages paid.

"Agritourism is a great economic development tool," said Kent Wolfe, director of the University of Georgia's (UGA) Center for Agribusiness and Economic Development. While the various operations vary in terms of size and revenues, "the successful ones are able to hire local folks," he explained. Further, a recent report by the USDA's Economic Research Service surmises that agritourism, while still a small segment of the larger agriculture and tourism industries, "could play a more important role in the U.S. economy in the future, both as an alternative source of

commercial farmers (those with gross cash income between \$10,000 and \$250,000 annually) saw their share of U.S. production halved, to roughly 20 percent, between 1991 and 2007, said the USDA. Meanwhile, more than half of small farms lost money in 2007. Further, depending on the type of activities that are offered, agritourism revenue can be a more constant and reliable source of income than commodity sales.

The pressures driving farmers to consider alternative sources of income are many—including competition from larger farms and overseas products, variable commodity prices, rising production costs, and harsh weather conditions, such as the droughts that plagued parts of the southeastern United States in recent years. "Farmers are looking beyond what they can grow," Eckert said. They are considering what they have, be it a secluded lakeside cabin or an apple orchard, and asking, "What would people pay for this experience?" she explained.

Value of Agritourism and Recreational Services



Source: U.S. Department of Agriculture's 2007 Census of Agriculture

farm income and as a way for rural communities to diversify and stimulate their economies.

In Georgia, agritourism had an economic impact of more than \$107 million (direct and indirect impacts), according to a 2005 study conducted by UGA's Center for Agribusiness and Economic Development. In addition, the industry generated more than 1,000 full- and part-time jobs that paid more than \$21 million in wages. State and local government coffers benefited, too—agritourism contributed \$4.75 million and \$2.5 million in state and local taxes, respectively, the 2005 UGA study said. Across the Southeast, farms' agritourism and recreational activities generated more than \$50 million in revenue, according to the USDA's 2007 census (see the chart).

Tourists remain grounded

Agritourism may also provide an important educational experience for a population whose agrarian roots are becoming increasingly distant with each generation. Only about 17 percent of the U.S. population lived in nonmetro areas in 2009, the USDA estimates. In past generations, most people had at least one relative they could visit on a farm. These opportunities have become increasingly rare as the number of family farms dwindle. However, agritourism helps urban dwellers connect to the agrarian past, even if it is not their ancestors' past.

For instance, one popular activity among agritourists, the farm stay, allows people to experience farm life firsthand. Farm stays typically involve visitors paying for accommodations on a working farm. The accommodations can be as rustic as a sleeping bag on a hay-covered barn floor or as comfortable as a luxury hotel. Most farm stays give tourists an opportunity to help with the daily chores as well as participate in a range of activities that showcase farm life. "People want to get out of the city and experience nature, and agritourism gives them an opportunity to do that in a controlled environment," Curry said.

Agritourism's growing popularity can also be attributed to its alignment with a number of consumer trends. For instance, over the past several decades Americans have trended toward shorter, more frequent vacations. Further, the 2007–09 recession's impact on consumers' pocketbooks has caused travelers to look for vacation destinations that are affordable and closer to home. A 2010 Ypartnership/Harrison Group survey confirms the trend. It found that family travelers in particular are more likely to take a vacation less than 50 miles from home—the so-called "staycation" that has gained popularity in recent years. As a result, low-cost agritourism operations that are within a couple hours' drive from metropolitan areas are well-positioned to capitalize on these trends.

Another trend behind agritourism's growth is consumers' increasing awareness of food production. Spurred by the "locavore" movement—which encourages consumption of locally grown meats and produce and a renewed emphasis on nutrition—interest has grown in where and how food is produced. Indeed, in a recent survey by the National Restaurant Association, chefs identified locally sourced meat and produce as two top industry trends. "We are generations removed from the farm, and people do not understand where their food comes from," explained Hatch. "Agritourism helps people, especially urban dwellers, learn about what life on a farm is really like and what farming is all about."

Future of agritourism: Fad or lasting trend?

"It's not a fad—agritourism is here to stay," said Eckert. Agritourism may be the next big thing in agriculture, but will the trend sustain farms over the longer term? Proponents of the industry say that there is plenty of room for it to grow, especially since each farm is unique. At the same time, experts like Hatch encourage farmers to add new features often to keep up a steady stream of visitors. And while many farms have successfully embraced tourism as a way to sustain their farms, it's not for everybody, said Curry. "You've got to have an extroverted personality."

State and local governments and other organizations are beginning to take agritourism seriously, too. A number of southeastern states have enacted laws that support farmers involved in agritourism. For instance, Louisiana passed a law in 2008 that affords limited liability protection to agritourism operators. Additionally, Florida and Georgia have passed laws that allow agricultural land to be used for agritourism while still maintaining an agricultural classification for tax purposes.

While it is still unclear how much agritourism will grow, those involved in the industry maintain its importance as a diversification strategy for farmers and as a way to protect an important part of the southeastern economy and cultural heritage. ■

This article was written by Lela Somoza, a staff writer for EconSouth.

Brazil's Oil Discoveries Bring New Challenges

Brazil's discovery of large offshore oil reserves holds the possibility of raising the country's profile in the international energy market and bringing an influx of wealth to the country. Safeguarding the nation's economy against the downside of newfound resource wealth is among its leaders' concerns.



While deepwater drilling permits in the United States were being withheld because of concerns about safety and the environment, Brazil is moving at full speed to develop its massive deepwater reserves. In fact, Petrobras, the country's state-run oil company, has already committed to investing \$224 billion through 2014 in its plan to develop deepwater fields off the country's coast.

The Brazilians have much to be optimistic about. The discovery of the Tupi oil field in October 2006—the largest oil field found in the Western Hemisphere in 30 years—signified Brazil's emergence as a global oil power. During the inaugural extraction from the Tupi super-field, former president Luis Inacio Lula da Silva described the country's newfound oil riches as a “second independence for Brazil.” (In December 2010, the Tupi field was renamed “Lula.”) Although the oil finds present an enormous opportunity for Brazil, the logistical and political challenges involved in developing the fields leave much of the future unmapped, however.

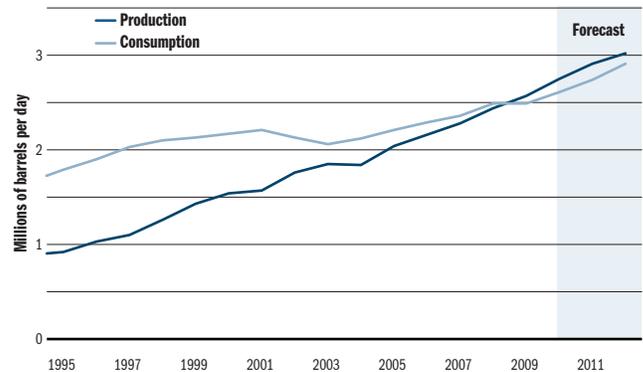
Pre-salt discoveries: Striking gold

According to the *Oil & Gas Journal (OGJ)*, Brazil has 12.9 billion barrels of proven oil reserves for 2011, the second largest in South America, after Venezuela. The Santos Basin, the Germany-sized offshore pre-salt basin about 200 miles southeast of São Paulo, has been the site of several new oil fields, including Carioca, Iara, Libra, and Lula. The location of the Santos Basin beneath deep layers of salt—remnants from ancient oceans trapped deep below the ocean in rock—kept it hidden until recent technological breakthroughs led to its detection. However, locating the oil is just one step in an inevitably lengthy process that poses significant technological challenges.

Brazil's National Petroleum Agency estimates that the Santos Basin area contains 50 billion barrels of reserves, and a recent study by a former Petrobras geologist found that the area may hold as much as 123 billion barrels of oil. (By way of comparison, Saudi Arabia's proven reserves are 267 billion barrels.) However, only a fraction of these estimates is currently considered “proven” as technological and logistical constraints deem much of the resources unrecoverable or uneconomical at today's oil prices. Regardless of how much oil ultimately lies off Brazil's Atlantic coast, it is clear that Brazil is rapidly on its way to becoming a leading exporter of petroleum.

The discovery of Brazil's vast subsalt (also known as pre-salt) resources quickly transformed the focus of Brazil's energy sector. Unlike most of the petroleum previously produced in Brazil, the subsalt field contains lighter and sweeter oil, which is more easily processed and commands a higher price in global markets. However, the considerable logistical challenges presented by the unprecedented depth (nearly four miles of sand, rock, and salt beneath the seabed) mean that production is likely to be both difficult and costly.

Brazil: Oil Production and Consumption, 1995–2012



Source: EIA Short-term Energy Outlook, January 2011

Though Brazil's subsalt oil will not be produced in significant volumes for years to come, the global energy community is already taking note of how the country's expected export capacity will play a major role in the global energy market. This new capacity could be particularly consequential in Latin America, especially as production in the two largest net oil exporters in the Western Hemisphere, Mexico and Venezuela, is forecast to decline.

Rising oil production and relatively flat consumption growth moved Brazil from net importer to net oil exporter status in 2009, according to the U.S. Energy Information Administration (EIA) (see the chart). This newfound status is quite a dramatic contrast from the days of the oil crises of the 1970s, when Brazil's heavy dependence on petroleum imports brought devastating economic consequences. Brazil's vibrant ethanol industry emerged in the 1980s, following a series of oil shocks, as part of a strategy to reduce dependence on oil imports. Increasing oil production shouldn't hinder the growth of the nation's sugarcane-derived ethanol industry. Ethanol usually costs less and is mostly consumed domestically, with demand spurred by Brazil's expanding fleet of flex-fuel cars. Higher consumption of biofuels at home means that more higher-cost petroleum will be exported. According to Ricardo Dormelles of Brazil's Secretariat for Petroleum, Natural Gas and Renewable Fuels, “The discovery of subsalt [petroleum] won't reduce the importance that the government attributes to the development of the biofuel sector.”

The Santos Basin discovery was particularly important from an international energy perspective because the energy industry—long known for its optimism about a seemingly limitless supply of oil—has only recently begun to express a bit more caution. The International Energy Agency (IEA), a global energy watchdog long known for its confidence about the future availability of oil, took a big turn in fall 2010 by announcing that the

The Risks of the “Resource Curse”

Brazil’s former president Lula referred to discoveries of large petroleum reserves as “superior to all the opportunities offered to us by our history” on September 24, 2010, during an event marking the conclusion of Petrobras’s record-breaking share offering. Indeed, Brazilian policymakers have high expectations that the discovery of these reserves will reduce poverty and lead to long-term sustainable economic development.

However, to achieve these goals, Brazil will need to avoid the so-called “resource curse,” the term economists give to a phenomenon that can occur in countries rich in natural resources: their growth rates are lower than those in countries without such endowments. This occurrence is also called “Dutch disease,” from the impact that the discovery of a significant North Sea natural gas deposit had on the Netherlands economy in the 1960s. Venezuela and Ecuador, the two largest oil exporters in Latin America (measured as a percentage of GDP), are two primary examples of countries affected by this phenomenon—both have averaged lower economic growth and higher inflation than other Latin American countries during the past three decades.

Many observers fear that Brazil could also experience the resource curse because the returns on investment in oil are so large that they divert investment from other economic activities. A surge in revenue from petroleum exports can lead to a surplus in a nation’s balance of payments, which then results in a stronger domestic currency. The overvalued exchange rate would

world had likely already passed a peak in world oil production. So the energy community seems to be embracing the idea that large discoveries—like Brazil’s pre-salt find—are unlikely to occur at a frequency as high as had been experienced in the past.

Such large oil discoveries—the ones that revise expectations for the future global supply environment—are increasingly

rare nowadays, as exploration drilling and seismic technology have already scoured most of the planet for “liquid gold.” The United States Geological Survey (USGS) estimated in 2000 that the earth’s oil resource endowment falls somewhere between five trillion and six trillion barrels, with

result in a loss of competitiveness in other economic sectors as imports become cheaper and exports more expensive.

Actually, concerns about “resource curse” and “Dutch disease” in Brazil have existed for some time, and the recent oil discovery has only amplified critics’ warnings. Recent research by economist Fernando A.S. Postali, of the University of São Paulo, found that municipalities in Brazil currently receiving petroleum royalties had lower economic growth rates than did municipalities that were not eligible for royalties. Another study, by Sérgio Wulff Gobetti, economist for the Institute for Applied Economic Research, found that the top 100 Brazilian municipalities receiving royalties had similar levels of investment as those not receiving any royalties but spent 33 percent *more* per capita on financial compensation for employees. Gobetti therefore concluded that other ways of distributing royalties should be considered.

Meanwhile, in December, Petrobras CEO Jose Sergio Gabrielli warned of Dutch disease when he noted that hasty development of Brazil’s deepwater reserves could hurt other industries as they struggle to compete for labor, resources, and capital at a time when the oil industry is already expanding at a rapid pace. “If you accelerate this much...the risk of Dutch disease increases,” he commented.

Brazil has instituted a social fund intended to combat this threat. The revenue that accrues to the fund from the pre-salt oil revenue is intended to contribute to economic stabilization and is planned for investment in education, health, culture, science, and technology, as well as to combat poverty and mitigate climate change. ■

only about 650 billion barrels yet to be found. All oil finds are not created equal, however, as much of the most accessible and easily extractable oil has already been produced. So the remaining 650 billion barrels is largely thought to be more challenging and expensive to find and develop.

Restructuring Brazil’s oil industry

According to the EIA, energy consumption in Brazil has increased by nearly a third over the past decade as the economy expanded robustly. The Brazilian government has long stated its goal of increasing domestic energy production—to meet internal demand, and with hopes to take on an important energy-exporting role on the international stage. Thus, the timing and the scale of the recent subsalt oil discoveries have driven oil to the top of the political agenda.

The government has instituted a variety of measures aimed to take greater control of the country’s oil industry in the wake

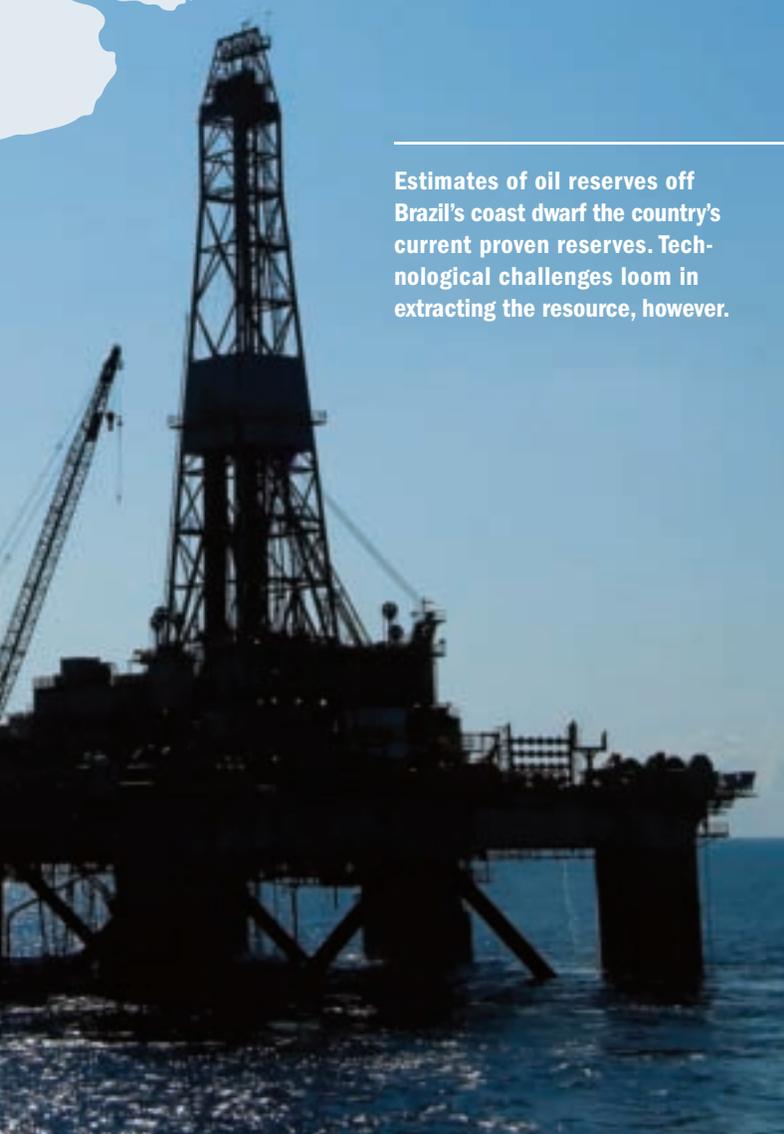
ECONSOUTH NOW PODCAST

Laurel Graefe and Steve Kay of the Atlanta Fed’s research department discuss various aspects of Brazil’s oil discovery. On frbatlanta.org, select “Podcasts.”





Estimates of oil reserves off Brazil's coast dwarf the country's current proven reserves. Technological challenges loom in extracting the resource, however.



of the subsalt discoveries, hoping to use the new source of wealth to broaden and deepen the country's industrial base. In September 2010, Petrobras sold nearly \$70 billion in new shares, marking the largest sale of stock in history. The sale of stock will fund the \$42.5 billion purchase of five billion barrels of oil of offshore reserves from the government, and the proceeds will finance the Brazilian government's purchase of a larger stake in Petrobras, a move that means Brazil's government will increase its total ownership stake in Petrobras to 48 percent from 40 percent.

Brazil recently instituted a new production-sharing agreement for areas designated as "subsalt" and "strategic," while previous concession arrangements remain in place for other areas. Under the new system, Petrobras will be the legal operator of the fields and will be required to hold a minimum 30 percent stake in new projects. Companies that offer to provide the biggest percentage of oil output to Petrobras will win bids to participate. The government also created a new state-owned oil firm, Pré-Sal Petróleo S.A. (known as Petrosal), which will represent the government in pre-salt joint ventures.

The Brazilian National Development Bank (BNDES) forecasts that developing the offshore oil could generate \$240 billion worth of goods and services over the next four years. The government wants 65 percent of those purchases to be sourced domestically, with the aim of developing the local oil services industry.

Some oil industry experts question whether Brazil's oil services industry will be able to keep up with this surge in activity. For example, Petrobras will have to hire thousands of new engineers in a very short period of time, potentially straining the industry's current labor supply. Analysts expect that, even with the quickly expanding national oilfield service industry, Petrobras may have to lean heavily on foreign companies and labor in order to keep pace with announced plans. Brazil's infrastructure also faces challenges, as the country's ports, airports, and roads are already straining as rising economic demand outpaces domestic infrastructure investment.

Though the government's growing participation in the oil industry is intended to help foster sustainable growth, critics are wary of greater government intervention in logistical production decisions and caution that politicizing decisions about developing the fields could backfire. Nonetheless—as the record-breaking stock offering attests—the global community remains optimistic that Brazilian industry will rise to the challenge. ■

This article was written by Stephen Kay, coordinator of the Atlanta Fed's Americas Center, and Laurel Graefe, a policy specialist in the Atlanta Fed's research department.

Question & Answer continued from page 17

here in Tennessee. With the economic downturn, we are seeing a 40 percent increase in our students wanting online education. And some of it is two-fold. Students save time and money by enrolling online. The cost of fuel and everything tied to [transportation] makes online education less costly than getting up and going to school every day. We have had programs that have long waiting lists because, with the downturn in the economy, our enrollment has increased so much and class sizes have filled. You have students that end up on waiting lists. Students then rely on the distance education courses until they can get in an on-ground program. Online education also provides the opportunity for the individual who holds a job and cannot attend the traditionally offered classes. These students can take classes from the comfort of their homes at a time that fits their work schedule. I think the [increase in distance learning] will continue as people get more comfortable with online education, as the credibility of online education continues to improve, and online education is accepted in the world of academia and the workplace. Today, you are looking at a generation of students who are comfortable in the technology environment and taking classes online. Those of us who did not grow up in the computer age are still not quite as comfortable. I am still more comfortable in a classroom setting, but for those students who are tech savvy, distance education is a truly viable option.

ES: *Are students today resigned to graduating with large debts?*

King: Our students do not graduate with training-related debt. Out of the 27 technology centers in the state of Tennessee, we have eliminated the loan program in all but one. I made a commitment 12 years ago to eliminate the loan program primarily to protect the students from themselves. We tried to put together a financial aid package that would work, including the technical skills grant scholarship, federal financial aid, etc. I didn't want to hear

a commercial running where one of our students was saying, "I am still paying for that slice of pizza I ate in 1986." We have a technical skills grant that serves the purpose of the loan, and we're completing 75 percent of our students without the students going in debt.

With that said, I do feel like there's more emphasis placed on student debt now in the higher education settings than there was 10–20 years ago. I think students are being a little more conscious [about debt]; they're trying to keep from taking out as many loans. Unfortunately, many traditional college students still rely on loans to go to school with tuition continuing to increase. They have no choice at this point but to [borrow] if they're going to go to school.

ES: *What industries have the greatest employment opportunities?*

King: In Tennessee, we are seeing graduates with marketable skills and industry credentials finding employment opportunities. Specifically, graduates within the health care arena are currently being placed. Practical nurses, surgical techs, health information technologists, and other allied health professionals are getting jobs even with the economic downturn. We're seeing a high placement rate in the area of machinists, automotive technicians, and skilled trade areas. Our students are getting jobs due to their specific skill sets.

What has changed slightly is that for years we viewed the only road to success as a four-year degree. Employers are now placing more emphasis on the employee's skill and/or industry credentials instead of the once-coveted general four-year degree. People with generalist degrees are having trouble finding employment and will continue to have problems because the workplace is changing.

There are fabulous opportunities available for skilled technicians coming from community colleges and technical colleges. These graduates, our graduates, are well trained for the marketplace

and have a high level of expertise and knowledge specific to an industry. The 1950 mindset that we put Johnny in an automotive program because he is not capable to do anything else has changed for the better. Right now, it takes some of the best and brightest students to actually succeed in automotive programs, electronics programs, or any other technical field. Students who succeed and will have the greatest employment opportunities are the students with high academic and technical skills to succeed in current technical education.

ES: *Do you see Tennessee's approach influencing other states?*

King: The last year has been exciting for Tennessee Technology Centers. We have been asked to share our successes regionally and nationally. We do have some elements other systems can learn from and adapt to see similar completion results. The four key areas that distinguish our success are program structure, high-quality education in demand fields, strong student services, and integrated remedial and developmental programs. But we should not overlook a simple but very central lesson: providing high-quality education and organizing educational delivery and program structure to support student completion and success in the labor market can lead to high outcomes. We achieve these outcomes with a population of students who are very often very low-income and who have not fared well in other educational settings. We need to provide students with the ability to see there is light at the end of the tunnel. ■

This interview was conducted by Ed English, a staff writer for EconSouth.



The area also benefits from a varied manufacturing base, said Walter Sprouse, executive director of the Richmond County Development Authority. The area's 19,300 factory jobs make up 9.1 percent of employment, compared to 8.8 percent in all of Georgia, according to the BLS. Sprouse noted that Augusta-made products range from Famous Amos cookies to EZ Go golf carts to Tide detergent.



Trade goes with the flow

Historically, Augusta's economy was grounded in textiles. Located on the Savannah River, the city in the late 1800s became a major inland cotton market. Then in the 1950s, construction of what was formerly known as the Savannah River Plant, and now the SRS, brought thousands of new residents.

Today, Moody's ranks the Augusta metro area in the top one-quarter in the country for employment growth. Likewise, the University of Georgia's Selig Center for Economic Growth identifies Augusta as one of four metro areas in the state, out of 14, that will add net jobs in 2010 and 2011. Meanwhile, a December 2010 study by the Brookings Institution listed Augusta among 10 U.S. metro areas that had regained more than a quarter of the jobs lost in the recession.

Even so, Augusta's unemployment rate has climbed. It hovered between 8.5 percent and 9.9 percent during 2010, according to the BLS—generally below the national and state rates but considerably higher than Augusta's 6.3 percent average for 2008 and 5.5 percent for 2007.

Looking ahead, local officials are hoping that the area's educational and military institutions are not too badly bruised by federal and state budget cuts. Fort Gordon appears safe, Parr and others said, because of its focus on areas that appear unlikely to be drastically downsized, such as communications and information technology. Also, the National Security Agency is nearing completion of an area facility that represents a \$400 million investment, Sprouse said. Meanwhile, a \$38 million trade, exhibit, and events center is under construction downtown. Financed by a special local option sales tax approved by voters, the "TEE" is designed to lure larger conventions.

"Most of the economic variables are heading in the right direction, so overall I am cautiously optimistic for Augusta in 2011," Medcalfe said. "Augusta is in a far better position relative to many other cities to grow in 2011." ■

This article was written by Charles Davidson, a staff writer for EconSouth.

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Closing the Gap



23,200

Amount, in dollars, of the average debt carried by graduating U.S. college seniors in 2009

Source: Project on Student Debt, as cited in *EconSouth's* article, "Cap in Hand: The High Cost of Higher Education"

76.7

Percent of gross domestic product made up by services

Source: Central Intelligence Agency World Factbook

50+

Revenue, in millions of dollars, from agritourism and related recreational activities in the Southeast in 2007

Source: U.S. Department of Agriculture, as cited in *EconSouth's* article, "Agritourism Takes Root in the Southeast"



5.5

Percent of gross domestic product spent on education in 2007

Source: Central Intelligence Agency World Factbook

1.2

Percent of gross domestic product made up by agriculture

Source: Central Intelligence Agency World Factbook

18

Percent of land in the United States considered suitable for agriculture

Source: Central Intelligence Agency World Factbook

70

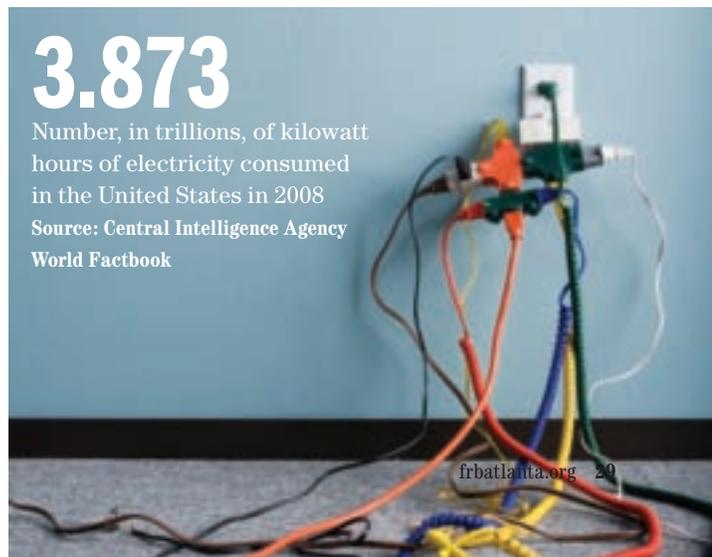
Amount, in billions of dollars, of new shares of stock sold by Petrobras, the Brazilian energy company

Source: Petrobras, as cited in *EconSouth's* article, "Brazil's Oil Discoveries Bring New Challenges"

3.873

Number, in trillions, of kilowatt hours of electricity consumed in the United States in 2008

Source: Central Intelligence Agency World Factbook



18.69

Number, in millions, of barrels of oil consumed daily in the United States

Source: Central Intelligence Agency World Factbook

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College campuses have expanded along with the size of their tuition bill. The scale and Victorian simplicity of the University of Tennessee's Barbara Blount Hall (shown at right in 1903; the building was razed in 1979) stand in stark contrast with the massive modernity of buildings on today's campus such as the John C. Hodges Library (far left).

now **and** then