

# EconSouth



An Old Industry Chugs Along

**Brew Diligence: The Growth of Craft Beer in the Southeast**

**Multifamily Housing: The New American Dream?**

**Making Change: What Bitcoin Could Mean to the Payments Industry**

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## Tracking the Economy: An Old Industry Chugs Along

One of the country's early infrastructure projects was also one of its most ambitious, and its success has endured: the freight railroad system. Despite profound changes in the U.S. economy, railroads still play a vital role in commerce.

## Brew Diligence: The Growth of Craft Beer in the Southeast

The craft beer renaissance has brought benefits that have spilled over into the region's economy, contributing billions of dollars in economic impact and thousands of jobs. In a region long dominated by national brands, small makers are slowly establishing a foothold.

## Multifamily Housing: The New American Dream?

Multifamily housing starts have seen nearly four consecutive years of growth, and some observers have begun to wonder if this real estate sector is becoming overheated. How much apartment construction is under way, and is it sustainable?

## Making Change: What Bitcoin Could Mean to the Payments Industry

When it comes to bitcoin, misconceptions—benign and otherwise—abound. But as the currency strives for mainstream acceptance, can bitcoin become a serious contender in the payments arena?



SAMPLE



EDITOR'S NOTE: This issue of *EconSouth* contains quick response, or QR, codes. Using an iPhone, Android phone, or other device and a downloaded reader application, you can scan the QR

codes embedded throughout the issue. The codes will take you to locations on the Atlanta Fed's website that will provide enhanced information on the subject at hand.

## Freight and See

Today's economy moves in ways our ancestors could not have imagined. But one of the economy's linchpins has played a key role for centuries: the railroad. In this issue, staff writer Charles Davidson looked at the important economic function that railroads deliver and found an industry that has evolved to meet today's needs.

"The railroad business is fascinating on several levels," he said. "It's nearly 200 years old, and it's unusual in a lot of ways. For example, it's one of a few industries that still has a largely unionized workforce. And most railroad executives have been in the industry for decades. Yet it is embracing all sorts of new technologies and remains vital to the economy because it moves so many of the goods we use every day."

### Tiny bubbles, big business

The boom in craft beer is a national phenomenon, but staff writer Lela Somoza looked at the growth of craft breweries in the Southeast and found that the region's small breweries are getting warm receptions for their cold products.

"I was surprised to learn just how deep craft beer's roots are," she said. "The craft beer scene has exploded in the Southeast in just the past few years, but craft beer in its modern form got its start in the 1970s—the industry even went through a boom-and-bust cycle in the 1990s. The regional difference in craft breweries and production is also quite interesting, which I think really just underscores the role beer plays not only in the local economy but also as a part of the community's cultural fabric."

This issue hops (pun intended) from brewing to building as Jessica Dill, a senior economic research analyst in the Atlanta Fed's research department, examines the growth of multifamily housing in the Southeast. Although her

examination confirmed the impressive growth, she said looking over the horizon remains as challenging as ever.

"I'd hoped the data would offer straightforward insight that would indicate whether the ramp-up in apartment construction was sustainable," she said. "Unfortunately, the evidence was more suggestive than it was conclusive. There's still a big question mark around how this situation will play out."

### Keeping current with cryptocurrency

This issue also delves into bitcoin, a topic that seems to generate as much confusion as discussion. Associate editor Nancy Condon, the article's coauthor, set out with research analyst Sadat Karim to shed some light on the subject.

"One of the reasons I wanted to write this story is to understand the concept of cryptocurrencies better," Condon said. "I already knew that there is no shortage of information out there, but what I didn't know is just how small a player bitcoin really is. With all the media focus on bitcoin, I'd assumed it was playing a larger role. I also learned that the technology behind bitcoin could some day streamline the payments system, especially cross-border transfers."

The next issue of *EconSouth* will be our annual outlook issue. We'll take a closer look at the economic trends of the past year and suggest the outlook for 2015. We appreciate your continued readership. ■

**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.

Photos inside front cover (top), pp. 8-9, and p. 35 courtesy of CSX; inside front cover (middle) and pp. 20 and 22 courtesy of Monday Night Brewing; pp. 4-5 courtesy of the Alexandria Chamber of Commerce; p. 21 and p. 22 (center) courtesy of Lazy Magnolia; p. 23 courtesy of Orpheus; back cover (right) courtesy of the Library of Congress photographic archives.



**CARL HUDSON** is the director of the Center for Real Estate Analytics at the Federal Reserve Bank of Atlanta.

# This Time It's Different! Or Is It?

**D**uring the dot-com bubble, “it’s different this time” was a common response to the sometimes wild valuations some tech firms received. Ultimately, we learned that things really were not that different from other business cycles—it just took longer for the cycle to turn. To distinguish between a permanent change and an unusually long cycle is difficult, if not impossible. The slow recovery in residential investment raises the questions: Are we experiencing a longer cycle, or has there been a more permanent shift in the structure of the housing sector? Can we tell if things are really different this time?

One element that differentiates the current recovery from previous ones is the slow pace of the housing sector’s growth. After bottoming out in early 2011 and following an upward trend for two years, national new house sales on a seasonally adjusted basis have been essentially flat since January 2013 and are at a pace about half that of 2000–01. In May 2014 speeches, Fed Chair Janet Yellen and Reserve Bank presidents William Dudley, Charles Plosser, and John Williams all cited a slowing housing sector, in the face of strong fundamentals, as a source of economic uncertainty.

Current and expected house prices, apartment rents, mortgage interest rates, demographics, banks’ willingness to lend, consumer balance sheets, and tastes and preferences for housing services all affect residential investment and hence the economy. As a way to make sense of these many factors, I split the factors into the “4 As” of housing: affordability, availability of credit, access to credit, and ap-

peal of homeownership. Though we can’t pin the recent softness in housing on any one factor, examining the “4 As” does reveal what we know, what we don’t know, and what we need to research further.

## More questions than answers

In a recent post on the Atlanta Fed’s *Real Estate Research* blog [realestateresearch.frbatlanta.org/](http://realestateresearch.frbatlanta.org/), I touched on the affordability and availability dimensions. In sum, affordability as measured by

## How will housing preferences such as size and density change when couples start having families?

indexes such as the National Association of Realtors’ should not overly concern us, given that mortgage rates are still pretty low and house prices in many areas have not rebounded to prerecession levels. Regarding the availability of credit, recent bank lending data is consistent with (1) banks’ continued interest in mortgage origination and (2) their return to construction and development lending as a line of business.

Alas, when we look at the accessibility of credit and the appeal of homeownership, we end up with more questions than answers—and we see that these factors may even be a source of things being “different this time.”

It is not clear that the accessibility of mortgage finance, which refers to the attributes of a potential borrower that

will qualify the borrower for credit, has improved broadly to the extent needed to boost housing. In its first-quarter 2014 flow of funds data release, the Fed reported that aggregate household net worth had reached a new record high. Despite this new high, improvements in household balance sheets have been uneven and have favored older households that own their homes.

Analysis from the St. Louis Fed indicates that the wealth of households headed by someone under the age of 40 has been much slower to recover from the Great Recession than has that of households headed by someone aged 40 years or more. The homeownership rate of younger families has plunged due to foreclosures and delayed entry into homeownership. Consequently, younger families were less likely to benefit from the recent house-price gains that helped rebuild homeowners' equity and household net worth.

### **The economic plight of millennials**

To make matters worse, younger households are also more likely to have student loans as part of their balance sheet. According to Equifax, outstanding balances on student loans ballooned from roughly \$700 billion in 2009 to roughly \$1.1 trillion in the fourth quarter of 2013. One thought is that recent graduates have less access to mortgage credit, given that either the burden of student debt impedes accumulation of a sufficient down payment or it thrusts buyers above the 43 percent debt-to-income (DTI) ratio that the qualified mortgage (QM) rule dictates. Hence, recent graduates are unable to make a positive contribution to the housing recovery due to limited access to mortgage credit.

While shouldering student debt certainly does not help access to mortgage credit, two factors make student loans less likely to be the primary cause of housing's slow recovery. First, mortgages guaranteed or insured by the government or those made by small lenders

and kept in their portfolios do not need to meet the DTI limit of QM standards, which were intended to make certain that borrowers had a reasonable ability to repay their mortgages. According to the Consumer Financial Protection

## **To distinguish between a permanent change and an unusually long cycle is difficult, if not impossible.**

Bureau CFPB, approximately 92 percent of mortgages issued prior to the QM rule would qualify under the new rules. Though financial institutions can make mortgages that do not meet QM standards, many institutions appear reluctant to do so considering the liability they could face if a borrower is unable to service the mortgage. Second, people have many ways to obtain a mortgage with less than 20 percent down (including Federal Housing Administration loans). Thus, the evidence regarding the direct impact of student loan debt on access to credit is suggestive but not conclusive. Could it be that rather than being *unable* to buy a house, consumers—especially younger adults—are more *unwilling* to own and would rather rent?

### **Millennials move on**

If the accessibility and availability of mortgage finance were not an issue, would there be a strong desire to purchase a home? Perhaps we have confused someone's *ability* to become a homeowner with that person's *desire* to become a homeowner. Two things we know are going to happen are that the baby boomers will retire and the millennials (or "echo boomers") will continue to form households.

As discussed in an article in the January–April 2014 edition of *EconSouth* ([frbatlanta.org/pubs/econsouth/14q1\\_](http://frbatlanta.org/pubs/econsouth/14q1_)

[summary\\_millennials.cfm](http://summary_millennials.cfm)), the millennials watched the Great Recession dramatically reshape the landscape of employment and consequently also their general expectations—including those regarding housing. Furthermore, the housing that millennials desire may differ from the housing that the baby boomers are selling. If careers in the future are going to be more varied, it may be that freedom to move around is more desirable. Assuming that renters are more mobile, our society may have shifted from one that values homeownership to one that values mobility. In the short run, things may seem quite different given that millennials have deferred big decisions such as forming households, getting married, and starting families. How will housing preferences such as size and density change when couples start having families?

It would be nice to identify one factor as *the* cause of housing's slow recovery. In fact, many factors have been at play and most are not independent of each other. It is this joint determination, or endogeneity, that makes it difficult to say whether things really are different this time. ■

## Alexandria, Louisiana

# Alexandria Fighting to Save Its Economic Base

**O**n the eve of America's entry into World War II, 400,000 troops descended on central Louisiana for a huge field exercise. "The Louisiana Maneuvers," as the exercise came to be known, also brought superstar generals Patton, Eisenhower, and Bradley to Alexandria's historic Bentley Hotel.

Most important for Alexandria, that sprawling military practice session led to the creation of Fort Polk, an hour's drive from town and still the linchpin of the metropolitan area economy. Fort Polk remains the largest single employer in central Louisiana, with about 15,000 workers, including nearly 7,000 civilians, according to the base's website. But in this time of federal budget uncertainty, officials in Alexandria and allies in Louisiana's congressional delegation are fighting to save the installation as the Pentagon continues a long-term downsizing.

"I think we're back on the chopping block, as is everyone else," said Albin Provosty, chief of the city of Alexandria's economic development operation. "We can stand a small cut. I don't think we can weather a big one."

One small cut has already been made. In June 2013, the army decided to reduce Polk's 9,500 troops by roughly 240 over the next four years, instead of the feared potential cutback of 5,300, according to news reports. Although less severe than feared, those cuts surely did not help the local economy. Alexandria's preliminary unemployment rate of 6.1



percent as of June is equal to the national June jobless figure. The metro area's jobless rate climbed from 4.5 percent in April, as the once-shrinking labor force inched upward.

The labor force remains slightly smaller than it was before the recession started, and the metro area's total employment—63,187 in June—remained a couple thousand below its prerecession peak, according to the U.S. Bureau of Labor Statistics (BLS). Louisiana as a whole has more jobs than it did before the Great Recession, and the national economy has likewise finally matched its 2007 employment number.

### **Alexandria's second rodeo**

The fight for Fort Polk is not Alexandria's first fight for a military base. The area lost England Air Force Base in 1992, during an early round of the Defense Base Closure and Realignment Commission (commonly known as BRAC) process. England's closure initially eliminated nearly 4,000 jobs, but local, state, and congressional representatives convinced the Pentagon to give the base to a public authority created by the Louisiana legislature. The defunct base is now a mixed-use development and commercial airport, which is heavily used by troops arriving at and departing Fort Polk. England Industrial Airpark and Community encompasses 60 businesses that together employ 2,000 people, according to the development's website.

"We were told it would take 10 to 15 years for our economy to recover" when England Air Force Base closed, said Pro-



Although Alexandria's unemployment rate is below the U.S. rate, it's in part because the city's labor force shrank.



### Alexandria, Louisiana

Rapides Parish population	153,704
Alexandria population	47,723
Total housing units	20,366
Median household income	\$35,888
Median home value	\$125,900

Source: U.S. Census Bureau, 2012 American Community Survey

Provostry, who was involved in the England work. "But we did it in five years."

But Fort Polk is a larger economic engine than England was. The base had a \$1.9 billion impact during 2012, including a payroll of \$980 million. Polk is one parish (Louisiana's county-equivalent political subdivision) over from Rapides Parish, home of Alexandria, and is not technically within the Alexandria metropolitan statistical area (MSA). But the fort's influence on all of central Louisiana is clear: the 2012 payroll alone equaled 21 percent of the Alexandria MSA's gross domestic product (GDP), according to the base's figures and local GDP data from the U.S. Bureau of Economic Analysis.

"Fort Polk is essential to central Louisiana," declared Clifford Moller, executive director of the Greater Alexandria Economic Development Authority.

### In central Louisiana, wood is good

As critical as Fort Polk is, Alexandria is not exclusively a military town.

In the heart of central Louisiana, Alexandria is the least populous of the state's eight metropolitan areas. It's surrounded by woodlands. Paper mills and lumbering are the economic stalwarts, though in recent years employment has fallen in those industries. Three bioenergy plants using wood as raw material are either operating or planned in the area. Two public sector hospitals are mainstays, along with a handful of large industrial employers.

Unlike southern Louisiana cities such as Lafayette and New Orleans, Alexandria is not an energy hub. An electric utility, Cleco Corporation, is based in the

metro area and among its largest employers with 800 local workers. But petroleum extraction and related services are not where Alexandria makes its living.

That living has generally been stable. Consider that between 1990 and the onset of the Great Recession at the end of 2007, Alexandria's job base grew 9 percent while total employment in the United States expanded by nearly 25 percent, according to the BLS.

On the other hand, the housing bubble and subsequent bust that fueled the Great Recession largely bypassed Alexandria. During the recent cycle, Alexandria-area house prices fell just 4 percent, according to the Federal Housing Finance Agency. Meanwhile, in the nation's 20 largest metro areas, prices plunged 33 percent, according to the S&P Case-Shiller 20-City Home Price Index.

"You don't expect massive surges there, but you also don't expect major declines," said James Richardson, director of the Public Administration Institute and a professor of economics at Louisiana State University (LSU) in Baton Rouge.

### New technical college to address workforce challenges

Like many smaller southern cities, Alexandria faces educational and socioeconomic challenges. For example, only 18 percent of adults 25 and over in Rapides Parish hold at least a bachelor's degree, compared with 21 percent in Louisiana overall and 29 percent in the United States, according to the U.S. Census Bureau. Median household income in Rapides was \$40,946 as of 2012, about \$3,700 below

the statewide level and \$12,000 below the national median (but slightly higher than Alexandria's median household income), according to census figures.

Finding skilled workers can be tricky. Train car manufacturer Union Tank Car Company is having a difficult time filling 40 to 50 open welder jobs at its Alexandria plant, Provostry said. Crest Industries, which makes electrical power equipment, faces similar challenges. It's not easy to find experienced engineers in central Louisiana or to convince them to move there, Crest Chief Executive Officer Kenneth Robison said. So the 600-employee company generally hires young engineers and technicians and trains them.

Still, there's another side to the company being located there, Robison explained. "People here have strong integrity and a strong work ethic," he said. The area is also well-suited for families and appeals to people who enjoy the outdoors, Robison added.

To address education and skills issues, a new technical college is in the works. Alongside vocational courses, the downtown campus will offer English classes in partnership with the LSU branch campus in Alexandria. The 1,500-student technical college's curriculum will be shaped in part by local employers to meet their needs.

"We have our challenges, particularly in education," Moller said. "But we're taking action. Things are happening." ■

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

# TRACKING THE ECONOMY

## AN OLD INDUSTRY CHUGS ALONG



## The freight railroad system was one of America's early infrastructure successes, and, despite great changes in the U.S. economy, it remains a vital link in the nation's commerce.

Every six hours, a freight train more than a mile long glides into a 200-acre asphalt expanse 25 miles south of Atlanta, in Fairburn. Many originating in California, the trains are double-stacked with metal containers stuffed with everything from iPhones to T-shirts to auto parts to appliances to toys to FedEx packages. The containers—800 of them each day—are decoupled, and then lifted from flat cars by towering cranes that straddle the tracks and by more modest “side loaders.” Next, smaller cranes as well as trucks place the containers on a chassis so tractor-trailer trucks can deliver them to their next destination. Most of the products will be used within a 200-mile radius of the Fairburn, Georgia, CSX Intermodal Terminal, explained Mike

Herman, terminal manager. (“Intermodal” refers to transporting cargo via multiple modes of transport, trains, trucks, and—for some cargo—oceangoing ships.)

The Fairburn terminal is but one of dozens like it in the Southeast and of hundreds like it across the country. (CSX alone has more than 60.) The rail yards are cogs in an important if largely unseen part of the nation's transport system. In terms of “ton miles,” a measure of cargo volume that considers weight and distance carried, railroads haul the most goods of any form of transport in the country, about 40 percent of the total, up from 27 percent in 1980, according to the U.S. Bureau of Transportation Statistics (see the infographic on page 8).





# WHO CARRIES HOW MUCH U.S. FREIGHT IN TON-MILES

 40% railroad

33% trucks 

 14% pipelines

12% barges 

 0.3% airplanes

Note: Data do not total 100 due to rounding.  
Source: U.S. Bureau of Transportation statistics



country's largest industry in the early 20th century—are now less than half those of Apple Inc.

### At the crossroads of the nation's economy

Though its profile might have diminished, the freight rail business sits at literal and figurative intersections of the economy. Because trains haul such a variety of cargo, rail plays a role in virtually every industry, making it a highly cyclical business and a reliable economic barometer. Economic and population growth leads to more movement of goods, which means more business for railroads, according to Bruce Lambert, executive director of the New Orleans-based Institute for Trade and Transportation Studies.

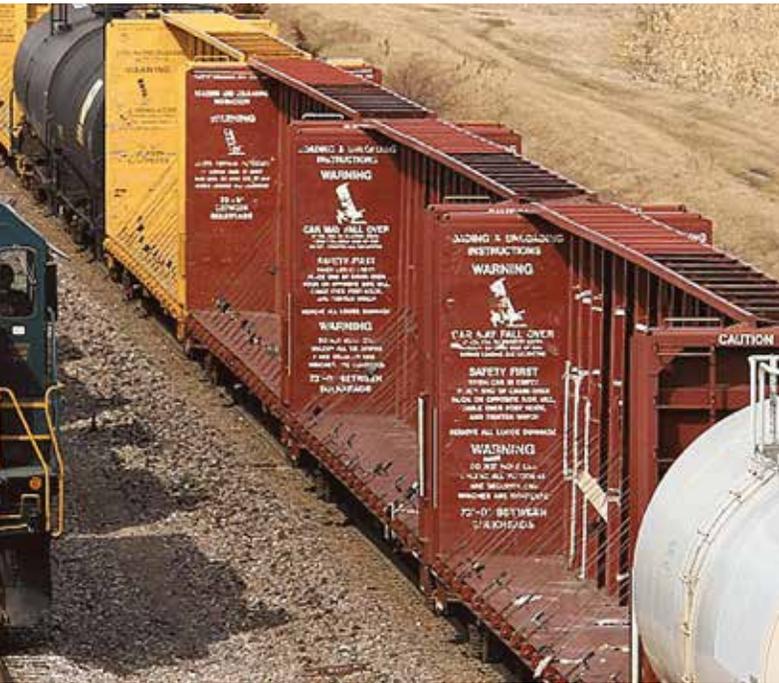
Rail industry dynamics offer a great deal of fodder for interpretation. The average American annually consumes enough products to fill nearly three of the 40-foot-long containers that move through Fairburn and other rail yards, Lambert said. So more Americans mean more consumption and thus more containers. A growing economy and population fuel the industry, and railroads have fared well, said Clarence Gooden, executive vice president of CSX Transportation. CSX is, along with Norfolk Southern, one of two major rail lines operating in the eastern United States.

"I think this economy's a lot stronger than we're giving it credit for," Gooden, a member of the Atlanta Fed's trade and transportation advisory council, said recently. Gooden noted that through May, cargo volume at Jacksonville, Florida-based CSX was up 8 to 9 percent over the same period a year ago. "Something's moving," Gooden said. "Somebody's buying something."

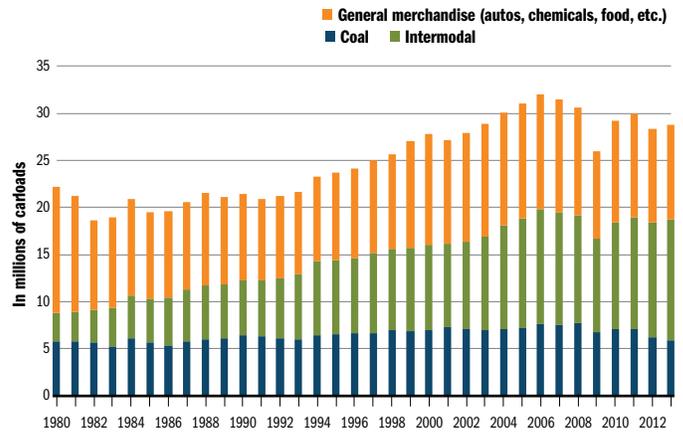
After enduring severe financial woes during the 1960s and 1970s, regulatory reforms helped the freight rail industry become more competitive. Rail lines shed unprofitable miles of track and consolidated. Today, there are seven Class I, or major, railroad companies, down from 106 in 1960. Though there are still hundreds of smaller rail lines, five of the seven big companies account for nearly 90 percent of the industry's total revenue.

Freed in the 1980s from federal requirements to provide service where it was not financially feasible, freight railroads today operate about 140,000 miles of track nationally, less than half the track they had in the mid-1960s, according to the Association of American Railroads (AAR).

Certainly, the industry remains formidable. Overall revenues topped \$70 billion last year and employment rose to roughly 180,000, the AAR notes. Yet in a sign of how much the economy has changed, the annual revenues of the entire rail industry—the



## What's on the Trains?



Source: Association of American Railroads

### As coal declines, intermodal rises

Some of what people are buying moves through the Fairburn Intermodal Terminal, where every movement of every container feeds wirelessly into global positioning systems, to be relayed among CSX and its customers. These systems can track their containers in the same way that consumers track packages for delivery. The rail line's customers in this case are mostly trucking firms that dispatch hundreds of tractor-trailers a day to the terminal to fetch containers and deliver them to their final destination—a typical example of intermodal transport.

Intermodal is the present and the future for the freight rail industry. In the past couple of decades, intermodal shipping became the second-largest freight category on the rails (in terms of revenue) behind coal, as the number of containers carried by trains has more than doubled since 1990, according to the AAR (see the chart).

Containers' growth comes at a good time for rail because the demand to haul coal is slipping. During 2013, the industry generated more revenue from intermodal cargo than from coal for the first time in many years, said Dan Keen, the AAR's assistant vice president of policy analysis. Rail lines hauled a record 13 billion containers in 2013, and during the second quarter of 2014 were well on the way to breaking that record, Keen said. Intermodal accounted for 22 percent of industry revenue last year, a share that has steadily grown over the past quarter century and figures to keep rising.

Global trade plays a large role in intermodal transport. Ships carry hundreds of strategically stacked containers, most of which eventually end up on trains. According to the World Bank, international merchandise trade accounted for 24 percent of U.S. gross domestic product in 2012, up from 14 percent 25 years earlier. Adjusted for inflation, that growth equates to a jump to nearly \$4 trillion in trade in 2012 from about \$700 billion in 1987.

Railroads continue to invest heavily in their intermodal facilities. Each of the Class I firms typically opens or upgrades several intermodal terminals every year, Keen said. These firms have also strengthened tracks and bridges and expanded tunnels to support the taller and heavier double-decked trains, which currently make up 90 percent of CSX's intermodal traffic, according to Gooden.

### Power plants cool on coal

Intermodal will continue to be vital for railroads. As they look ahead, a coal comeback would seem unlikely. Trains carry most of their coal to electricity-generating plants, but in the past four and a half years, 167 coal-fired power plants have closed or announced they are closing, and another 183 proposed coal plants have been canceled since 2005, according to the Sierra Club. In 2013, coal generated 39 percent of U.S. electricity, down from 50 percent in 2005, according to data from the U.S. Energy Information Administration.

Power companies are turning away from coal because of tighter antipollution standards and moving toward cheaper, cleaner alternative fuels such as natural gas and solar and wind power. Gooden doesn't foresee a bright future for coal in the

Continued on page 35



## DAN KEEN

**Title:** Assistant vice president, policy analysis

**Organization:** Association of American Railroads

**Website:** [aar.org/Pages/HomePages.aspx](http://aar.org/Pages/HomePages.aspx)

**Other:** Keen has been with the AAR since 1993. He is a graduate of Dartmouth College and Johns Hopkins University.

# “The Need to Move More Freight Will Grow”

## An Interview with Dan Keen of the Association of American Railroads

The freight rail industry has been enjoying a resurgence since the Great Recession. Over a longer time horizon, the industry’s fortunes have improved markedly since it endured a crisis during the 1960s and 1970s. Dan Keen, assistant vice president of policy analysis for the Association of American Railroads, closely tracks business on the rails. Keen produces papers and testimony on freight railroad economic and policy issues and compiles extensive data on rail financial and operational matters. He is also responsible for *Rail Time Indicators*, a monthly publication that combines rail traffic data with current economic information.

**EconSouth:** *How would you describe the overall state of the freight rail industry?*

**Dan Keen:** The industry is in a good position. In recent years, railroads have been reinvesting record amounts back into their systems, including more than \$25 billion in both 2012 and 2013 and at least that much again this year. The result is a physical plant that is in better overall condition than ever before.

Rail traffic is trending higher, too. Rail intermodal—shipping containers and truck trailers moving on rail cars—is setting new records this year, and rail traffic for a wide variety of other commodities—including steel, grain, lumber, petroleum products, and construction products—is up as well.

And railroads have been very successful in developing and implementing

new technologies that improve safety and enhance productivity. The list is long, but just two examples are improved defect detector systems that use advanced electronic and optical instruments to inspect track and rolling stock. The goal is to catch potential problems before they occur, and sophisticated trip-planning software that optimizes how and when rail cars are assembled to form trains, when those trains depart, and how they are sequenced across the railroad.

To be sure, railroads also face serious challenges. Above all, railroads need to continually demonstrate the importance of the safety of their employees, their customers, and the communities in which they operate. It’s also important that policymakers in Washington and elsewhere remember that, unlike other modes of freight transportation, railroads operate almost exclusively on infrastructure that they own, build, maintain, and pay for themselves. Railroads need to be able to earn enough to pay for all the things needed to keep their networks functioning now and growing in the future.

**ES:** *One of the major opportunities for freight rail is converting more truck cargo to train cargo. What are the keys to making that happen?*

**Keen:** Truck conversions happen when railroads are able to convince customers that they can provide a better combination of price and service than trucks

can provide. Recently, railroads have been doing a good enough job of this to convince a number of trucking firms that they can also provide their customers the best value by using rail intermodal

**“Railroads need to continually demonstrate the importance of the safety of their employees, their customers, and the communities in which they operate.”**

service. These results can only happen if railroads have sufficient line haul and terminal capacity to keep trains moving and to avoid congestion or delay, and if rail operations are sufficiently reliable and efficient. This helps explain why railroads have been reinvesting so much back into their systems in recent years and why railroads put enormous effort into finding big and little ways to get the bugs out so that their operations are as problem-free as possible.

**ES:** *Freight rail is a heavily capital-intensive business, and railroads have made record levels of capital investments in recent years. Why? And are railroads likely to continue to invest in their infrastructure at or near record levels?*

**Keen:** America’s demand for safe, affordable, and environmentally responsible freight transportation will grow in the years ahead, and railroads simply want to be ready.

No one disputes that trucks are indispensable to our economy and will remain so long into the future. That said, because of the enormous costs involved in building new highways, as well as environmental and land-use concerns, it’s highly unlikely that sufficient highway capacity can be built to handle expected future growth in freight transportation demand. As it is, during the past 30 years, highway traffic volume growth has far eclipsed growth in highway lane-miles,

and there’s no good reason to think that will change in the years ahead. Fortunately, freight rail represents a viable and socially beneficial alternative.

Railroads will continue to reinvest huge amounts of their own funds back into their systems as long as they operate under a regulatory structure that allows that to happen.

**ES:** *It’s well established that the freight rail business is closely linked to the health of the overall economy. Are there ways the industry and individual firms try to be less cyclical? Or is the cyclical-ity, for better or worse, something the industry really can’t change?*

**Keen:** For many of the commodities railroads haul, cyclical-ity is simply a fact of life. Demand for rail service occurs as a result of demand elsewhere in the economy for the products that railroads haul, so if people and businesses are not buying and building things, then railroads are not hauling them. That’s not going to change. That said, there is always a large amount of “churn” in a railroad’s portfolio of business, so they are constantly searching for new opportunities.

And, of course, a lot of rail traffic isn’t terribly cyclical. For example, poultry farms in the Southeast will always need a lot of grain for feed, and ports in the Southeast and elsewhere will always need exports delivered to them and imports moved from them inland. So cyclical-ity is mixed for railroads.

**ES:** *To what extent do fuel efficiency and other “green” factors such as lessening highway traffic congestion help railroads secure business?*

**Keen:** For a growing number of firms, “going green” isn’t just an empty slogan. It’s become a real, significant part of their corporate culture. And more and more, they’re recognizing that the environmental advantages of rail are real and significant, too. On average, moving goods by rail is about four times more fuel efficient than moving them by truck, reducing

greenhouse gas emissions by 75 percent. That’s appealing to many firms, as is the realization that a single freight train can replace several hundred trucks.

Of course, railroads’ environmental advantages can only get them so far. They also have to offer competitive prices and service levels, and they work hard every day to do that.

**ES:** *What are two or three of the biggest reasons freight rail will continue to flourish?*

**Keen:** First, as noted, as America’s economy and population grow, the need to move more freight will grow, too. Recent forecasts from the Federal Highway Administration found that total U.S. freight shipments will rise from an estimated 19.7 billion tons in 2012 to 22.1 billion tons in 2020 and 25.1 billion tons in 2030. Some of this freight will move by truck or barge, but railroads will be the mode of choice for much of it as well.

Second, as I noted earlier, shippers choose to move their freight on railroads only if the value that railroads offer, in terms of cost and service, is superior to the alternatives. Rail employees today, from upper management all the way down the line, are acutely aware of this fact and know that a customer-first mentality is a necessity.

Third, railroads will benefit from headwinds faced by other transportation modes. For example, the days of cheap fuel are probably gone forever. Since railroads are much more fuel efficient than trucks, that’s a competitive advantage for rail. Continuing truck driver shortages and highway congestion are other issues that are helping push more freight to rail. ■

*This interview was conducted by Charles Davidson, a staff writer for EconSouth.*

## Regional Update: Halfway Through 2014, Activity Moderate

Business activity in the Southeast moderately improved in the second quarter of the year. Many contacts attributed the growth to a strengthening economy rather than simply a rebound from a weak first quarter.

Contacts reported the consumer environment was improving gradually across most of the region, particularly in major metropolitan areas. The auto industry reported robust sales growth. The hospitality sector was overall enthusiastic regarding activity, and the number of visitors—especially international travelers from Latin America and Europe—to New Orleans, Atlanta, and most parts of Florida increased.

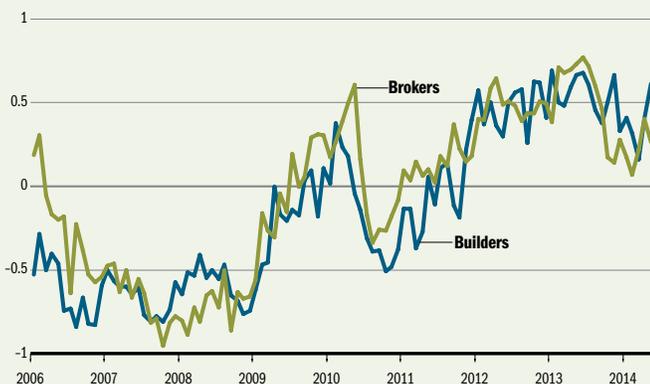
Banking contacts indicated that loan demand continued to improve, with some growth coming from increased credit line usage and corporate borrowing as businesses took advantage of low interest rates. These contacts also indicated that competition, particularly related to pricing and structure, was strong.

Energy activity in the Southeast continued to expand as new discoveries, production, and oil field development increased across the Gulf Coast, where refineries continued to run at near-record levels, as they have for much of 2014. Crude oil production, in particular, was especially solid, leading to record-high inventories for the region.

### Real estate improves its foothold

Residential real estate contacts reported that activity continued to be positive in May. However, the pace of growth has slowed in recent months. Results from the Atlanta Fed's monthly survey of residential brokers and homebuilders indicated a slight decrease in the number of brokers who reported home sales had increased from a year earlier. The majority of builders reported that new homes sales were ahead of a year ago (see chart 1). The survey

Chart 1  
Southeast Home Sales versus a Year Earlier



Note: Data are through May 2014.  
Source: Atlanta Fed business contact poll

Chart 2  
Southeast Home Inventory versus a Year Earlier



Note: Data are through May 2014.  
Source: Atlanta Fed business contact poll

Chart 3  
Home Prices versus a Year Ago



Note: Data are through May 2014.  
Source: Atlanta Fed business contact poll

also revealed that fewer brokers and more builders noted that inventory levels were down from a year earlier (see chart 2). Most brokers and builders continued to report that home prices appreciated slightly compared with year-ago levels (see chart 3). The number of builders who reported an increase in construction activity decreased slightly (see chart 4).

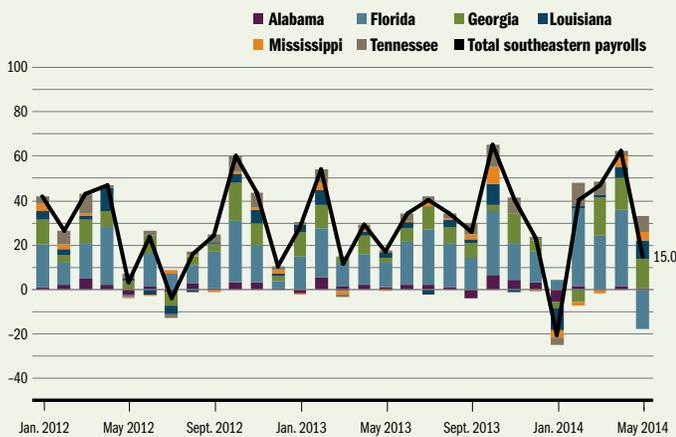
On the commercial real estate front, demand for commercial real estate continued to improve. Absorption remained positive, though contacts indicated that the rate of improvement varied by metropolitan area, submarket, and property type. Construction activity continued to increase at a modest pace from last year. Most

Chart 4  
**Southeast Construction Activity**



Note: Data are through May 2014.  
 Source: Atlanta Fed business contact poll

Chart 5  
**Contributions to Changes in Net Payrolls in the Southeast**



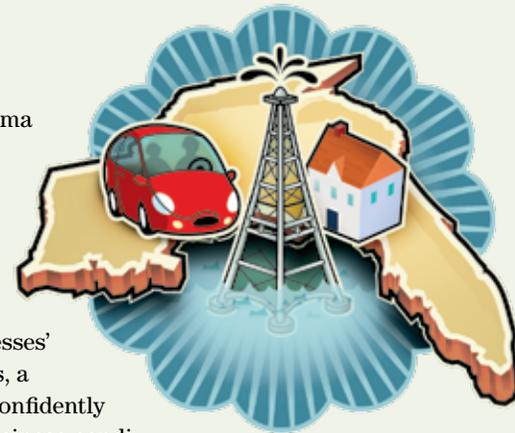
Note: Data depict changes in thousands of seasonally adjusted net payrolls.  
 Source: U.S. Bureau of Labor Statistics

contacts reported that their current backlog was ahead of year-earlier levels. Contacts indicated that apartment construction remained fairly strong and reported that the level of construction activity across other property types remained steady.

**Manufacturing makes strides**

Automotive contacts noted that manufacturers and their suppliers were operating at or near full capacity or will be in the near future. According to the Southeast Purchasing Managers Index (PMI), a gauge of regional manufacturing conditions, overall manufacturing activity continued to expand (see the PMI update on page 15). Of the southeast-

ern states, Alabama and Florida had index readings higher than the region's—at 62.9 and 65.5, respectively.



Large businesses' visibility—that is, a firm's ability to confidently predict future business conditions—improved in the short term. The improvement was enough to initiate capital projects for some of these contacts. We heard reports of capital investment plans from a variety of sectors, such as steel and chemical manufacturing, transportation, health care, construction, and some retail. Cash and nontraditional financing continued to play a major role in capital investment funding. However, the story was different for small businesses, where uncertainty continued to weigh heavily on business decisions and appetite for risk.

Transportation contacts continued to cite expanding activity in the second quarter. Railroads saw considerable increases in the movement of petroleum products and heavy equipment as well as continued expansion in intermodal traffic (see the related feature article on page 6). Trucking companies reported robust freight volumes.

**Employment and hiring show some muscle**

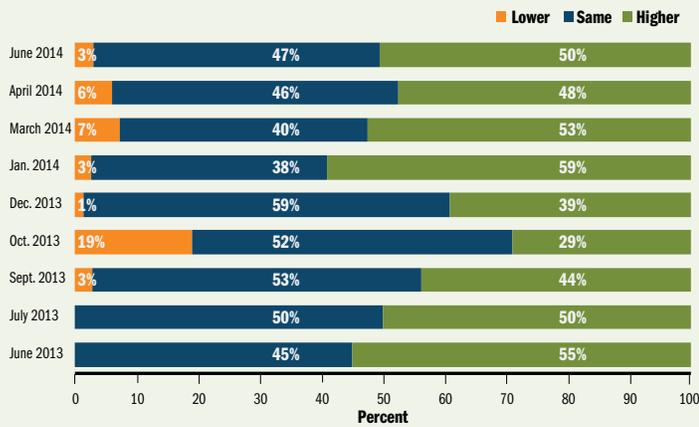
On balance, firms reported modest improvements in hiring, though most remain cautious in their approach. Recent data confirm this growth. In May, the region added 15,000 net jobs, following a net increase of 62,400 in April. Florida, which had been responsible for adding the largest number of payrolls in the region for the past several months, subtracted 17,900 payrolls, on net. The remaining states made job gains in May (see chart 5).

Contacts continued to express difficulty filling certain skilled positions, specifically in the fields of information technology, construction, and trucking.

**Costs, prices inch up**

Firms noted price increases in construction materials, commercial leasing, auto lending, hotel rooms, food, and trucking services. In a notable change from previous cycles, a growing number of contacts indicated their firm was able to implement price increases. However, many contacts said that passing along these increases was a

Chart 6  
Firms' Outlook for Growth for the Next Three to Six Months



Note: Respondents were asked the question "What is your outlook for the rate of growth in your business over the next three to six months compared to current rates?" Percentages may not add to 100 due to rounding.  
Source: Atlanta Fed directors poll

challenge that required a great deal of negotiating with customers, and those contemplating doing so were concerned about their customers' willingness to accept the new prices.

The Atlanta Fed's business inflation expectations (BIE) survey indicated that firms' unit costs were up 1.9 percent compared with this time last year and, on average, they expect unit costs to rise 2.0 percent during the next 12 months, up slightly from May's reading (see the BIE update on page 16).

Wage growth was largely constant, with most contacts still reporting increases in the 2 to 3 percent range, except in some high-skill fields with a relatively low supply of candidates. Construction contacts across the region noted significant wage pressures.

## On the Ground: An Interview with Karen Gilmore, Regional Executive at the Atlanta Fed's Miami Branch



**EconSouth:** *You've been on the job as the Atlanta Fed's Miami Branch regional executive since January. Tell us a little about your job. What impressions have you*

*formed about the economy in South Florida?*

**Karen Gilmore:** I represent the Atlanta Fed to the South Florida community with the primary goal to enhance the Bank's reputation. At the same time, I want to have the business community participate

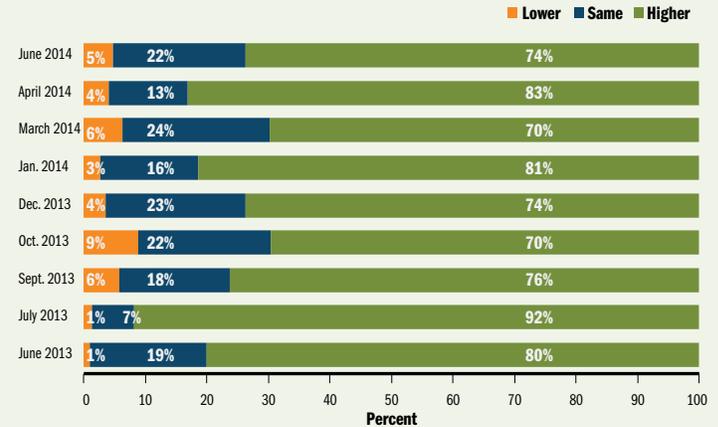
and feel a part of the monetary policy process.

I have had the opportunity to meet with several top executives in a number of the larger companies within the South Florida region. I have also spent time with community bankers, developing a stronger relationship between them and the Federal Reserve. These bankers come into contact with many midsize to small companies, so they are a wealth of information as to what is happening.

I have traveled throughout the region meeting folks in different kinds of

venues, such as convening key business leaders for a roundtable discussion in Naples, participating in an economic council in Fort Lauderdale, and meeting with key executives in companies as far north as Vero Beach. We have a number of very large companies hidden in some of our smaller communities. I have also done a few presentations highlighting the Federal Reserve's current policy positions and provided a general economic overview. I will say there is a lot of meeting and greeting, and someone always has something to share with you!

Chart 7  
Firms' Outlook for Growth for the Next Two to Three Years



Note: Respondents were asked the question "What is your outlook for the rate of growth in your business over the next two to three years compared to current rates?" Percentages may not add to 100 due to rounding.  
Source: Atlanta Fed directors poll

### Business outlook largely standing firm

The outlook among the Atlanta Fed's board of directors improved slightly this quarter. Just under half of the directors anticipate the same rate of growth in their business, and the other half expect even higher growth over the next three to six months (see chart 6). Directors also expressed continued optimism over the medium term (see chart 7).

All in all, our contacts were upbeat about a strengthening economy and shared information that points to progress. Most notably, some of them increased capital investment as their outlook brightened, and some felt better positioned to raise prices. ■

**ES:** *In your information-gathering and outreach activities, what have you found to be most surprising or unexpected?*

**Gilmore:** I have received a very open and warm welcome from the business community in taking on this role. The community bankers within the region in particular seem to be very pleased to have a former banker in the position. I have been most impressed with how well the Federal Reserve is perceived by business. The Bank is looked at as having a great deal of credibility and integrity. As a banker for so many years, I guess I just never dwelled on it until I actually began representing the Fed. I am impressed with how many Fed watchers are out there. The business community has been very open and willing

to share experiences and thoughts. I have found that executives and other business leaders really appreciate being asked to participate in the process.

**ES:** *Looking ahead, what are some of the challenges the South Florida economy faces?*

**Gilmore:** Miami has such an interesting business environment and culture. The city has a tremendous amount of foreign capital and wealth coming in every year. The region as a whole seems to be enjoying good business activity and a high level of optimism about the economy. Business leaders throughout the region talk about the growing wealth and are expressing concerns about wealth disparity and the cost factor to live in South Florida. This is-

sue just adds concerns for employers about their ability to attract employees to live and work here. The large urban areas are also challenged with infrastructure issues, particularly in transportation.

**ES:** *What questions are you most often asked when traveling throughout your region?*

**Gilmore:** I smile when I think of the most common question I am asked: "How's my money doing?" Generally it is asked in jest, but I think it symbolizes that people truly believe in the Federal Reserve Bank and that they feel a high level of comfort and safety that their money is safe and that the system functions. There is enormous confidence in the central bank. ■

## Regional PMI: A Look at Regional Manufacturing

Manufacturing activity in the Southeast gained momentum in the first quarter of 2014 and continued to expand into the second quarter, according to the Southeast Purchasing Managers Index (PMI). After a modest start to the year, which was partly the result of severe winter weather, the PMI picked up steam in February and has averaged a solid overall reading of 60.1 during the last four months (see the chart). A reading on the index above 50 represents an expansion in the manufacturing sector, and a reading below 50 indicates a contraction.

The Atlanta Fed's research department uses the PMI to track manufacturing activity in the Southeast. The PMI is produced by the Econometric Center at Kennesaw State University and provides an analysis of market conditions for the manufacturing sector in Alabama, Georgia, Florida, Louisiana, Mississippi, and Tennessee. The index is based on a survey of purchasing managers from manufacturing firms in the Southeast states regarding activity in new orders, production, employment, supplier delivery time, and finished goods inventories.

The overall PMI ticked down in May to 59.8, following an overall reading of 63.2 in April and 61.5 in March, yet remained in expansionary territory for the fifth consecutive month. The new orders and production components of the PMI have been especially strong during the past three months. The employment component has also contributed to the strong PMI, indicating that hiring at manufacturing firms has been increasing. At the state level, manufacturing activity in all southeastern states was in expansionary territory in May except for Mississippi, which fell slightly below the 50 threshold, to 49.9.

**Southeast Purchasing Managers Index**



Note: A reading above 50 indicates expansion. A reading below 50 indicates contraction. Data are through May 2014.  
Source: Kennesaw State University Econometric Center

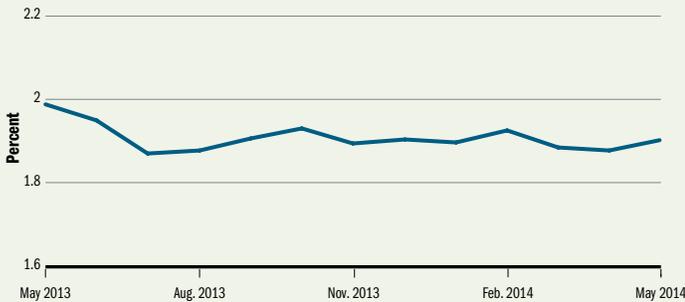
Purchasing managers who participate in the Southeast PMI are also asked about their outlook for production over the next three to six months. In May, 41 percent of survey respondents indicated they expect production to be higher in the coming months. The April and May responses to the survey question were more subdued compared with earlier in the year. The survey question is not a component of the overall PMI. It does, however, gauge optimism among purchasing managers. ■

## Business Inflation Expectations Update

In the second quarter of 2014, firms' year-ahead inflation expectations had moved little from their long-term range of 1.8 to 2.0 percent for the last several months (see chart 1). Most recently, long-term inflation expectations (per year, during the next five to 10 years) decreased slightly in April to 2.7 percent, reflecting a slight downward shift from the first half of 2013 (see chart 2). The three-month moving average of the firms' sales levels measure has shown a steady upward trend since November 2013, and profit margins appeared relatively flat during the same period (see chart 3). The recent trend in year-over-year unit costs also showed little movement, remaining around 1.7 percent (see chart 4).

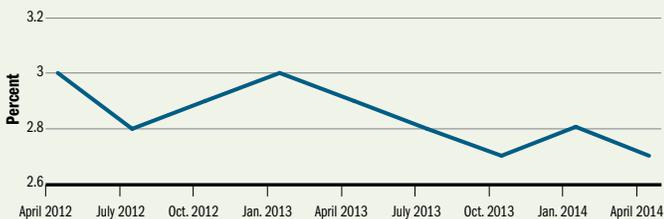
From the September 2013 to March 2014 reading, firms' average percentage below normal unit sales levels (the "sales gap") decreased for midsize firms (those with 100–499 employees). Large firms (500 or more employees) and small firms (fewer than 100 employees) reported increases in their sales gap during the same period. Midsize firms' sales gap shrank from 6.6 percent in September to 5.6 percent in March, and small and large firms' sales gaps increased 1.7 percentage points and 0.5 percentage point, respectively, in the same period (see chart 5). ■

**Chart 1**  
**Year-Ahead Inflation Expectations**



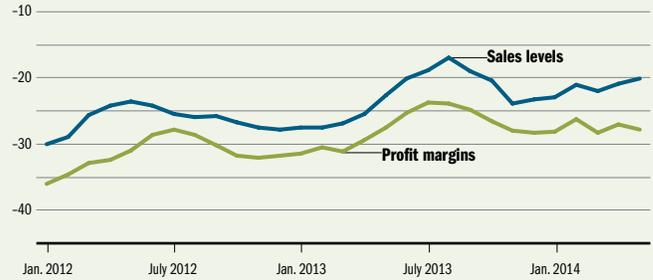
Note: Data indicate a three-month moving average.  
Source: Atlanta Fed Business Inflation Expectations (BIE) survey

**Chart 2**  
**Long-Term Inflation Expectations**



Note: Data indicate expectations per year during the next five to 10 years.  
Source: Atlanta Fed Business Inflation Expectations (BIE) survey

**Chart 3**  
**Sales Levels and Profit Margins**



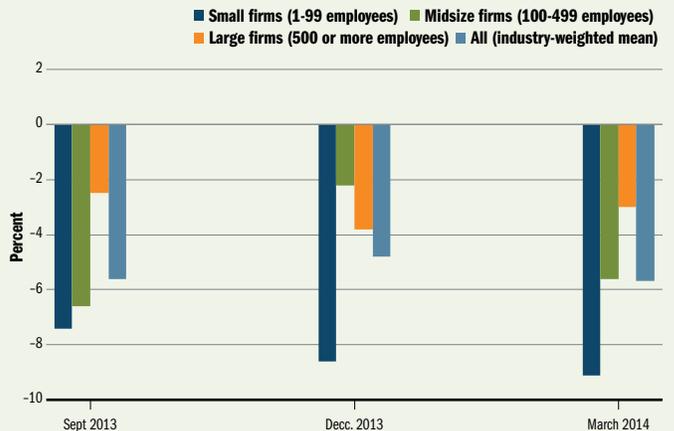
Note: A reading in the diffusion index greater than zero indicates better-than-normal activity. Data depict a three-month moving average compared with a normal level of activity.  
Source: Atlanta Fed Business Inflation Expectations (BIE) survey

**Chart 4**  
**Year-over-Year Unit Costs**



Note: Data depict a three-month moving average.  
Source: Atlanta Fed Business Inflation Expectations (BIE) survey

**Chart 5**  
**Firms' Unit Sales Levels**



Note: Respondents described their unit sales levels at that time versus what they consider normal unit sales levels.  
Source: Atlanta Fed Business Inflation Expectations (BIE) survey



# WHAT'S THE FUTURE OF WORKFORCE DEVELOPMENT AND LABOR MARKET ISSUES?

## JOIN US FOR A CONFERENCE TRANSFORMING U.S. WORKFORCE DEVELOPMENT POLICIES FOR THE 21ST CENTURY CONFERENCE

A national conference sponsored by the Federal Reserve Banks of Atlanta and Kansas City and the John J. Heldrich Center for Workforce Development at Rutgers University

### Conference highlights:

- Atlanta Fed President Dennis Lockhart and Kansas City Fed President Esther George will provide comments on the current state of the workforce system.
- An esteemed panel of experts from Georgetown University Center on Education and the Workforce, W.E. Upjohn Institute, and MDRC will discuss measuring success through research, evaluation, and data in the workforce development field.
- Policymakers will give their perspectives on key issues facing U.S. workers, education and training institutions, and local communities. They will also discuss policies they're embracing to respond to current labor market issues.

The conference will take place October 15-17 at Rutgers University, which is easily accessible by public transportation.

Register and view more information about the conference sessions and speakers:  
[frbatlanta.org/news/conferences/2014workforce.cfm](http://frbatlanta.org/news/conferences/2014workforce.cfm)



For news and updates, follow the conference on Twitter @AtlantaFed using #WDPolicy14.

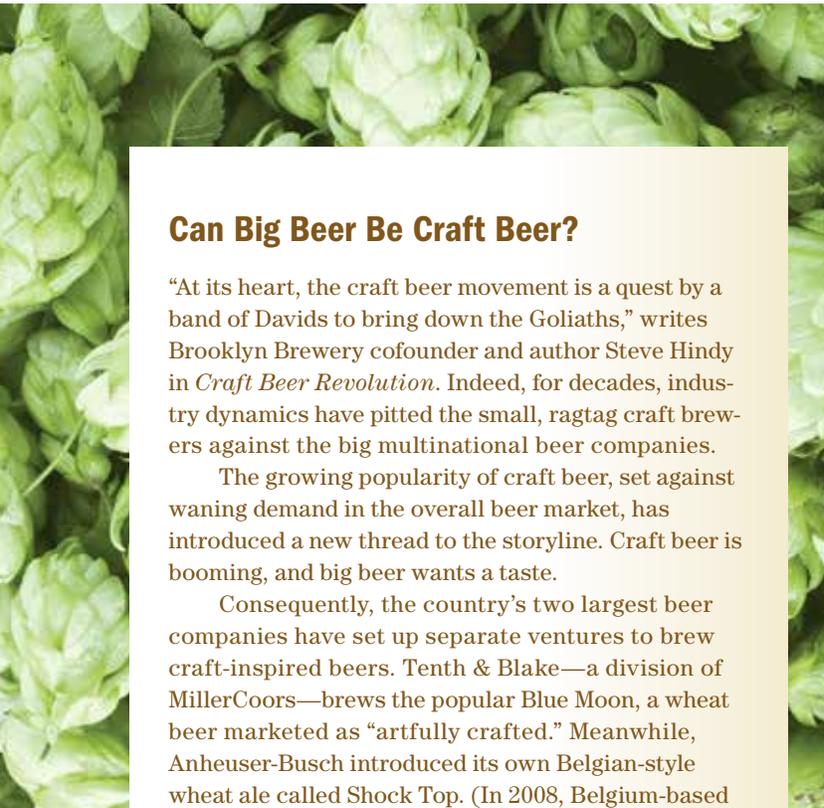




# BREW DILIGENCE

## THE GROWTH OF CRAFT BEER IN THE SOUTHEAST

The tasting room is packed at Orpheus Brewing. The heady aroma of hops and barley hangs in the warm evening air as casually dressed 20- and 30-somethings gather around highboy tables and spill out onto the wood-planked patio overlooking Atlanta's Piedmont Park. Already there's a gentle buzz, although it's hard to tell whether the buzz is a side effect of the artisanal brews on tap or simply the excitement surrounding the latest addition to the city's burgeoning craft beer market. Scenes like this are becoming more common across the Southeast as craft beer takes hold in a region long dominated by national brands and light lagers.



## Can Big Beer Be Craft Beer?

“At its heart, the craft beer movement is a quest by a band of Davids to bring down the Goliaths,” writes Brooklyn Brewery cofounder and author Steve Hindy in *Craft Beer Revolution*. Indeed, for decades, industry dynamics have pitted the small, ragtag craft brewers against the big multinational beer companies.

The growing popularity of craft beer, set against waning demand in the overall beer market, has introduced a new thread to the storyline. Craft beer is booming, and big beer wants a taste.

Consequently, the country’s two largest beer companies have set up separate ventures to brew craft-inspired beers. Tenth & Blake—a division of MillerCoors—brews the popular Blue Moon, a wheat beer marketed as “artfully crafted.” Meanwhile, Anheuser-Busch introduced its own Belgian-style wheat ale called Shock Top. (In 2008, Belgium-based InBev purchased Anheuser-Busch. The company name is now Anheuser-Busch InBev, or AB InBev.)

The big beer companies have also invested in existing craft breweries in an attempt to capture a piece of the market. For instance, Anheuser-Busch purchased Chicago’s Goose Island Brewery in 2011, and MillerCoors owns a minority stake (less than 25 percent) in the Athens, Georgia–based Terrapin Brewery.

Beer market analysts suggest this trend of consolidation will continue as more craft breweries enter partnerships with big brewers. But what does that mean for craft beer? Can big beer be craft beer?

“I’m torn on this one,” said Monday Night Brewing’s Jonathan Baker. “The capitalist in me is like, ‘Hey, if it’s good beer and you can make money selling it, sell it.’ But as a consumer, I do want to know more about the story behind the product and what goes into it and where the profits are going,” he said.

Ultimately, what defines a craft beer “is completely consumer perception,” Baker said. And with success comes changing perceptions. “You’re going to get some pushback if you’re successful. Where the line is, I don’t know. I think it’s different for every brewery.”

Luckily, the definition of craft brewing has continued to evolve along with the industry, noted Lazy Magnolia Brewery’s Leslie Henderson. As a result, success doesn’t necessarily mean outgrowing the craft beer niche. ■



“Pockets of craft beer geeks throughout the Southeast started the booming craft beer culture, and this trend has now spread to other groups,” explained Owen Ogletree, a beer columnist and founder of two popular Georgia craft beer events. “Everyone is now realizing that craft beer has flavor, personality, and a huge amount of appeal,” he added.

Indeed, the emergence of handcrafted brews to sip and savor—a craft beer renaissance—has elevated this humble beverage to a status on par with wine and cocktails. The benefits of craft beer are also spilling over into the region’s economy, contributing billions of dollars in economic impact and thousands of jobs.

### A hopping scene

As the Southeast’s palate for craft beer has developed, a wave of new breweries has sprung up to satisfy growing demand.

At the end of 2013, the region boasted nearly 160 craft breweries and brewpubs, up roughly 20 percent from the previous year, according to the Brewers Association (BA), a national trade group (see charts 1 and 2). Add to that figure the astounding array of innovative beers being brewed across the United States, and beer connoisseurs have more options than ever to quench their thirst.

The BA defines craft breweries as “small, independent, and traditional,” which translates to a 6-million-barrel cap on annual production and less than 25 percent ownership by a noncraft brewer. Last year more than 2,700 breweries and brewpubs nationally fit that definition, up 15 percent from the previous year. Together, those small breweries sold more than \$14.3 billion worth of beer in 2013, accounting for a growing

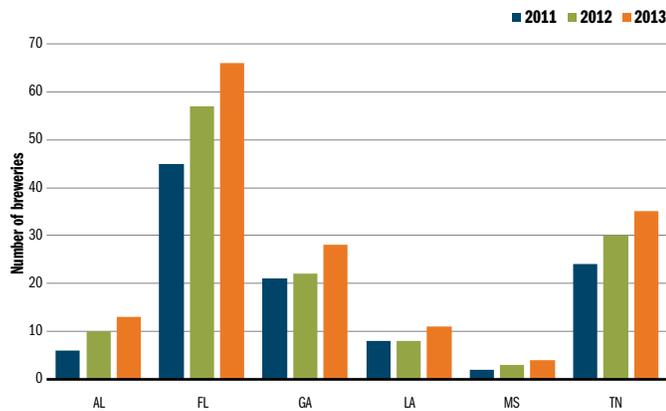


**157** CRAFT BREWERIES  
IN THE SOUTHEAST  
in 2013



LAZY MAGNOLIA, KILN, MISSISSIPPI

Chart 1  
Southeastern Craft Breweries



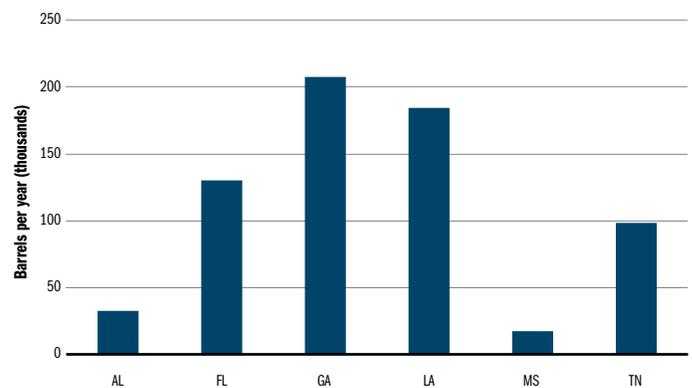
Source: Brewers Association

share of the \$100 billion beer market. Notably, craft brews enjoyed robust 17 percent sales growth despite a 2 percent decline in beer sales overall.

**Craft beer still young in the Southeast**

Accounting for just over 4 percent of U.S. craft beer production, the region’s industry is still in its infancy. But for an idea of what it could become, look no further than the West Coast. California boasted 381 craft breweries in 2013—more than any other state—generating an economic impact of nearly \$4.7 billion. Meanwhile, fellow beer mecca Oregon ranked

Chart 2  
Craft Beer Production by State



Source: Brewers Association

first in the nation for breweries per capita. The Beaver State counts 6.3 breweries per 100,000 drinking-age adults and has nurtured a thriving beer tourism industry. In those states and others, craft beer is woven into the cultural tapestry, much like coffee in Seattle or wine in the Sonoma Valley.

Craft beer has yet to achieve that distinction in the Southeast, although a few early entrants have built a regional presence (SweetWater, Lazy Magnolia, and Abita, for example). “The Southeast always seems to lag a few years behind regions like the Northeast and West Coast, but eventually food and beverage trends become ingrained here as well,” noted Ogletree.



MONDAY NIGHT BREWING, ATLANTA, GEORGIA



**48%** GROWTH IN SOUTHEAST CRAFT BREWERIES FROM 2011 TO 2013



LAZY MAGNOLIA, KILN, MISSISSIPPI

Several complementary trends are propelling the industry's growth, including the local farm-to-table food movement and people's desire to know the story behind the products they consume. From specialty cheeses to cured meats, locally sourced and artisanal products are taking a larger share of the consumer dollar, and beer is no exception.

"People are curious about how their beer is made and what's in it, and they want a story connected to it. And if it's local, that's even better," said Jonathan Baker, the self-proclaimed "marketing guy" at Monday Night Brewing, an Atlanta-based craft brewery.

Mark and Leslie Henderson, owners of Lazy Magnolia Brewery, also take a local approach to beer. Since 2003, the pair has been incorporating distinctly southern ingredients such as pecans and sweet potatoes into their brews. Like many of the region's businesses, they've found their local-ness to be a strong selling point. Lazy Magnolia was Mississippi's first production brewery since 1907—that alone piqued many people's curiosity. In addition, residents were eager to support a homegrown enterprise, Leslie explained.

### Craft beer packs an economic punch

The region's burgeoning craft beer industry is more than a win for local taste buds—it's also a boon to the Southeast economy. According to the BA's calculations, craft beer's economic impact in the Southeast topped \$2.8 billion in 2012. That figure accounts for economic activity at the brewery, wholesale, and retail levels and includes nonbeer products for sale in brewery taprooms and brewpubs, such as food and tasting glasses.

The Southeast's share amounted to just 8 percent of the national economic impact of \$33.9 billion. Across the United States, craft breweries directly employed 108,440 people, according to the BA. Meanwhile, small brewers in the Southeast were responsible for about 31,000 jobs and nearly \$1 billion in labor income.

The craft beer craze has also spawned a host of companies catering to beer-loving locals, including specialty beer retailers and pubs, growler shops, and even beer ice cream in flavors such as Peach Lambic and Honey IPA.

### Small brewers confront a complex brew of challenges

Would-be brew masters looking to open a brewery often face a series of challenges, from securing funding to navigating the region's stringent alcohol regulations.

According to a 2014 article in the *Atlanta Business Chronicle*, the average cost to start a brewery ranges from \$1 million to \$2.5 million. Financing can be difficult to come by, especially in the Southeast.

When the Hendersons started Lazy Magnolia 10 years ago, their local banks had little experience funding breweries. Lenders were used to dealing with restaurants, but no one was trying to start a brewery back then, Leslie explained. She pins much of their initial success on good timing, which allowed them not only to make a few mistakes along the way but to get their equipment at a discount. (A previous craft beer boom and bust in the 1990s meant plenty of used equipment on the market.)

The region's antiquated alcohol regulations present another set of challenges for small brewers. Although states have slowly eased some of the more stringent laws in recent years, such as bans on home brewing in some states and strict alcohol by



 **\$2.8** BILLION TOTAL ECONOMIC IMPACT



volume limits, the remaining regulations impede more robust growth in craft beer.

In some ways, that's what they were designed to do. The three-tier distribution system, in place throughout much of the country, helped the government control the supply of alcohol after Prohibition ended. The details vary by state, however, with the Southeast states generally taking a less flexible approach. For instance, state laws throughout the region prohibit breweries from selling directly to consumers, a barrier smaller brewers say limits their opportunities to build relationships with customers and digs into profits. "Your margins are lower because you're going through a distributor, and so you're basically fighting the clock to get to a certain scale before your money runs out," explained Monday Night's Baker.

Strict alcohol regulations come with another potential pitfall in the form of missed economic development opportunities. In 2012, for example, two expanding breweries, Sierra Nevada and New Belgium, chose North Carolina as the site of their new facilities after reportedly considering Georgia. It's no coincidence, perhaps, that North Carolina was one of the first states in the region to loosen its beer laws.

Despite the limitations, few brewers advocate dismantling the current system entirely. Instead, local brewers' guilds and grassroots groups are pushing for tweaks to current laws. Further, although the system has its pitfalls, many small brewers stress the important role of distributors as partners in getting their products on retail shelves and taps.

#### **A craft beer flood?**

As the boom lures more aspiring brewers from the sidelines, some worry about the craft beer market becoming too saturated.

Monday Night's Baker points to at least 10 breweries scheduled to open this year in Georgia alone, with more likely in 2015. Meanwhile, the BA expects more than 1,000 new breweries to open nationwide in 2014.

In the Southeast, however, insiders say there is still plenty of room for growth. The region still ranks near the bottom in terms of breweries and production per capita. "I could see a scenario where the craft beer market in Georgia is double the size it is now," Baker said. "Is everyone going to survive? Probably not, but there's this kind of natural selection that occurs within the industry," he said.

Even as competition heats up, the region's craft brewers are, for the most part, a collegial bunch. "Brewing is definitely the most collaborative environment that I've ever seen. That's not to say there's no competition...but there is still a sense that we're working together toward the same goal," said Baker, who left a career in consulting to launch Monday Night Brewing. As an example, he recounted a recent incident in which his brewery ran out of a certain kind of hops. "We called up SweetWater, and they loaned us the hops we needed," he said.

It's that sense of community—both among brewers and enthusiasts—that will help sustain craft beer's popularity long after the buzz has worn off. "Part of what drew us to beer was how communal a beverage it is," Baker explained. "It's really cool to be able to be friends with your competitors." ■

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

# MULTIFAMILY HOUSING

THE NEW AMERICAN DREAM?

SOUTHEAST APARTMENT CONSTRUCTION  
RENTERS HOMEOWNERSHIP MORTGAGES  
INDUSTRY HOMEOWNERSHIP  
AMERICAN MILLENNIALS SECTOR UNITS HOUSING  
DREAM UNITS SOUTHEAST MORTGAGES CONSUMERS MULTIFAMILY AMERICAN DREAM SUSTAINABILITY



## After nearly four consecutive years of growth in multifamily housing starts, many industry players and analysts are beginning to wonder if this property sector is becoming a bit overheated and overbuilt. How much apartment construction is under way, and is it sustainable?

### Trends in apartment construction

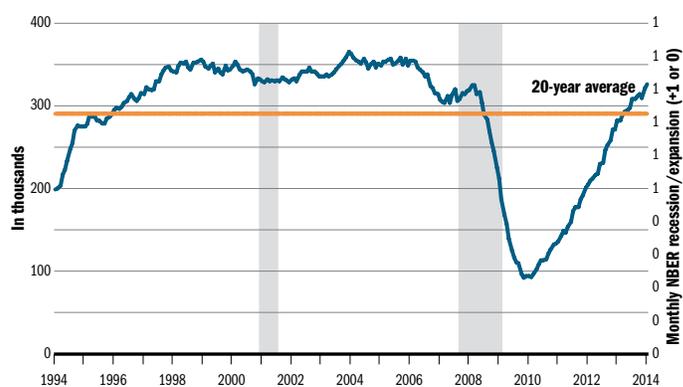
“If we build it, they will come.” This misquote was often thrown around during the housing bubble years in discussions that aimed to justify new construction. In this case, the “it” could have been just about anything in real estate—homes, retail spaces like outlet malls and restaurants, office buildings, or even stadiums. It’s unlikely that this phrase gets much play today. Construction activity across many fronts has been fairly anemic—except for multifamily construction.

According to May 2014 data from the U.S. Census Bureau, the 12-month moving average of multifamily starts has rebounded from the 2008–10 downturn. In fact, these starts have been on a strong upward trajectory for the past four years that has shown little, if any, sign of slowing. In 2013, starts even climbed past the 20-year average (see the chart).

June 2014 data from Axiometrics reveal that more than 225,000 apartment units across the nation are in lease-up—a number just shy of 295,000 apartment units under construction and more than 878,000 apartment units in some phase of planning. (Units in lease-up are in the process of acquiring tenants.) Not all of the planned units are guaranteed to break ground, of course, but the number of units on the drawing board

### Multifamily Housing Starts

(seasonally adjusted, 12-month average)



Source: U.S. Census Bureau through May 2014

is roughly three times as large as the number of units under way, suggesting that apartment activity may continue to be quite healthy for years to come (see table 1 on page 26).

Between 13 and 14 percent of these apartment units, depending on the phase, are located in the Southeast, according to Axiometrics. Perhaps not surprisingly, most of the Southeast

Table 1  
**Multifamily Housing in the Southeast**

	Lease-up	Under construction	Planned
Alabama	2,762	1,268	6,337
Florida	19,171	21,113	73,877
Georgia	4,832	8,887	29,529
Louisiana	725	822	3,191
Mississippi	80	50	816
Tennessee	4,988	8,272	17,216
Southeast	32,558	40,412	130,966
U.S.	225,090	294,718	878,516

Source: Axiometrics

Table 2  
**Owning a Home versus Renting**

	Cost of owning a single-family home (\$/month)*	Apartment rent (\$/month)	Own premium or discount**
Miami	1,112.00	1,213.00	-8.3%
Jacksonville	709.00	809.00	-12.4%
Orlando	764.00	927.00	-17.5%
Birmingham	657.00	803.00	-18.2%
Nashville	721.00	902.00	-20.0%
Atlanta	609.00	869.00	-29.9%
Tampa	623.00	897.00	-30.5%
Average of 52 markets	978.00	1,052.00	-7.0%

\*Assumes a 5 percent 30-year fixed rate mortgage and 20 percent down payment

\*\*A positive value indicates it is more expensive to own than rent; a negative value indicates it is less expensive to own than rent.

Source: CBRE-EA

activity is concentrated in and around urban areas, mostly in Florida, Georgia, and Tennessee.

### Can this level of activity and growth be sustained?

The million-dollar question really seems to be whether all this construction is sustainable. Those who say that multifamily construction is getting a bit overheated may have a point. Recent analysis from CBRE–Economic Associates (CBRE-EA) indicates that, across many major Southeast markets and in most markets across the nation, it is cheaper to buy a home than it is to rent an apartment (see table 2).

A May 2014 blog post by K.C. Sanjay on the Axiometrics website provides some insight into current market fundamen-

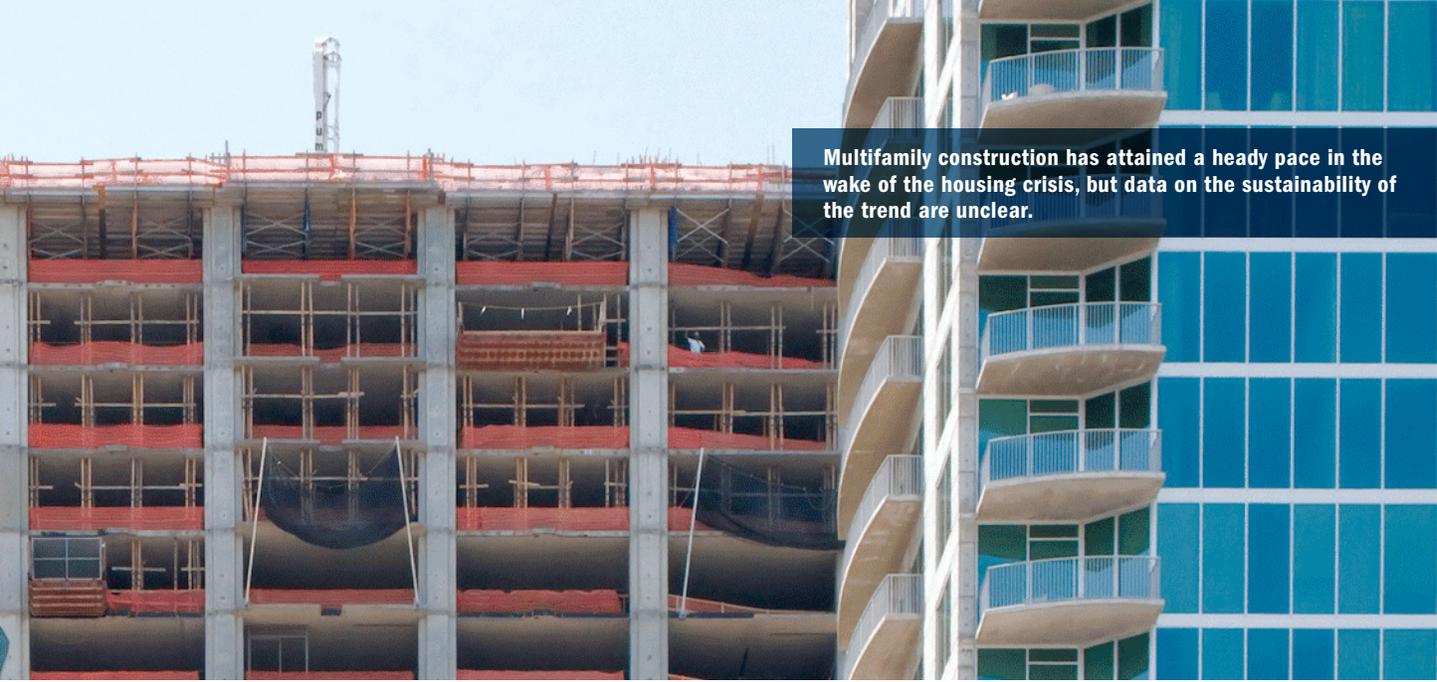


tals. Sanjay, a senior real estate economist, wrote, “The fact that annualized national effective rent growth rose to 3.4% and occupancy increased to 94.8% in April was a surprise...because it exceeded the expectations that rent growth and occupancy would begin tailing off about now.” His post featured a scatter plot of occupancy levels and rent growth that revealed that a handful of metro areas in the Southeast—including Miami, Nashville, Orlando, and Tampa—have stronger occupancy levels than the United States. Some of these same metro areas have also seen higher effective rent growth than the United States. Despite the strong performance so far, as more supply comes online, some of the Atlanta Fed’s business contacts and Axiometrics analysts have said they expect fundamentals to begin to weaken.

Strong rent growth and occupancy levels may make it cheaper to buy a home than rent an apartment, but mortgage credit availability and accessibility may serve as a major barrier to potential homebuyers. One challenge that many buyers have to overcome is the down payment. Interestingly, Freddie Mac posted an *Executive Perspectives* piece in June 2014 highlighting misconceptions about down payments. Christina Boyle, vice president and head of single-family sales, wrote, “Today’s consumers persistently overestimate the size of a down payment they need to finance a home.” She cites a finding from Zelman & Associates: nearly two of every five people surveyed estimated they would need a down payment of at least 15 percent of the purchase price. Further, only one in four people felt they could qualify for a mortgage. But Boyle also pointed out that more than one in five borrowers who took out a conventional, conforming mortgage put down 10 percent of the purchase price or less. The upshot is that if the cost of buying is less than renting, and if homeownership may be more within potential buyers’ reach than many of them believe, then the strength in multifamily housing could get sapped as households move toward owning.

### Timing is the key

If there is a cost advantage to homeownership, and mortgage availability is better than many people think, then why aren’t we



Multifamily construction has attained a heady pace in the wake of the housing crisis, but data on the sustainability of the trend are unclear.

seeing a movement back to homeownership? In trying to answer this question, we have to consider the preferences of the two demographic groups likely to have the most influence: the millennials, born roughly between 1980 and 1995, and the baby boomers, born between 1946 and 1964.

Carl Hudson, director of the Atlanta Fed's Center for Real Estate Analytics, points out in this issue's "Fed @ Issue" that the road back to homeownership might be a long one if, with the millennials, preferences have shifted more toward mobility. So even if mortgages were available and attainable, the appeal of renting may just be greater than the desire to own a home.

A quick look at Fannie Mae's May 2014 National Housing Survey results can shed some light on preferences. Current renters and respondents who indicated that they are millennials noted that their biggest obstacles to getting a mortgage were affording the down payment and closing costs and overcoming an insufficient credit score or history, factors that are consistent with the high levels of student loans this generation carries. More to the point about preferences, the survey revealed that the majority of young renters as well as young owners believe that owning a home makes more sense than renting. Thus, rather than shunning homeownership, it appears likely that the millennials are simply delaying their move to homeownership, which bodes well for multifamily housing in the intermediate term.

But in the longer term, considering both the attitudes toward owning and the reality that owning is cheaper, many of today's renters will likely eventually make the transition to homeownership, which would reduce the demand for apartments. Moreover, the apartment market fundamentals may be strong now, but many analysts expect to see deceleration and deterioration of these fundamentals as more supply comes online. Taken together, these factors suggest that the current level of multifamily construction may not be sustainable into the future.

Baby boomers, on the other hand, may have an opposing influence. Jordan Rappaport, a senior economist at the Kansas City Fed, published an article in the fourth quarter of 2013 that posits that the "longer term outlook is especially positive for

multifamily construction, reflecting the aging of the baby boomers and an associated shift in demand from single-family to multifamily housing." Rappaport looked at the main short-run and long-run determinants of housing supply and demand in an effort to understand the booms and busts and to forecast the trend in housing construction. He projected that multifamily construction will peak by the end of the decade at a level that is two-thirds higher than its highest annual level during the 1990s and 2000s and then plateau at a level that is 15 percent above annual average starts during the 1990s and 2000s.

It is too soon to tell whether the strength in multifamily construction will continue or how supportable it really is. Much of the evidence suggesting it is not sustainable for the long term rests on the shoulders of the millennials. Millennials are coming of age in an environment of wage-growth stagnation. (See "The Economic Plight of Millennials" in the January–April 2014 issue of *EconSouth*.) Many young people are laden with student loan debt and financially unable even to form new households, let alone face the decision of whether to rent or buy. At the same time, the evidence suggesting the upward trend in multifamily construction is sustainable rests on the shoulders of baby boomers. Could it be that both sides of the argument have it right? ■

*This article was written by Jessica Dill, a senior economic research analyst in the research department of the Atlanta Fed.*

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# flow



This year marks the 100-year anniversary of the completion of the Panama Canal. On August 15, 1914, the canal formally opened with the passage of the cargo ship *SS Ancon*. The Panama Canal Authority (ACP) has planned some activities to commemorate its centennial—including a new logo it rolled out this year—but mostly seems to be taking a restrained approach to the celebrations.

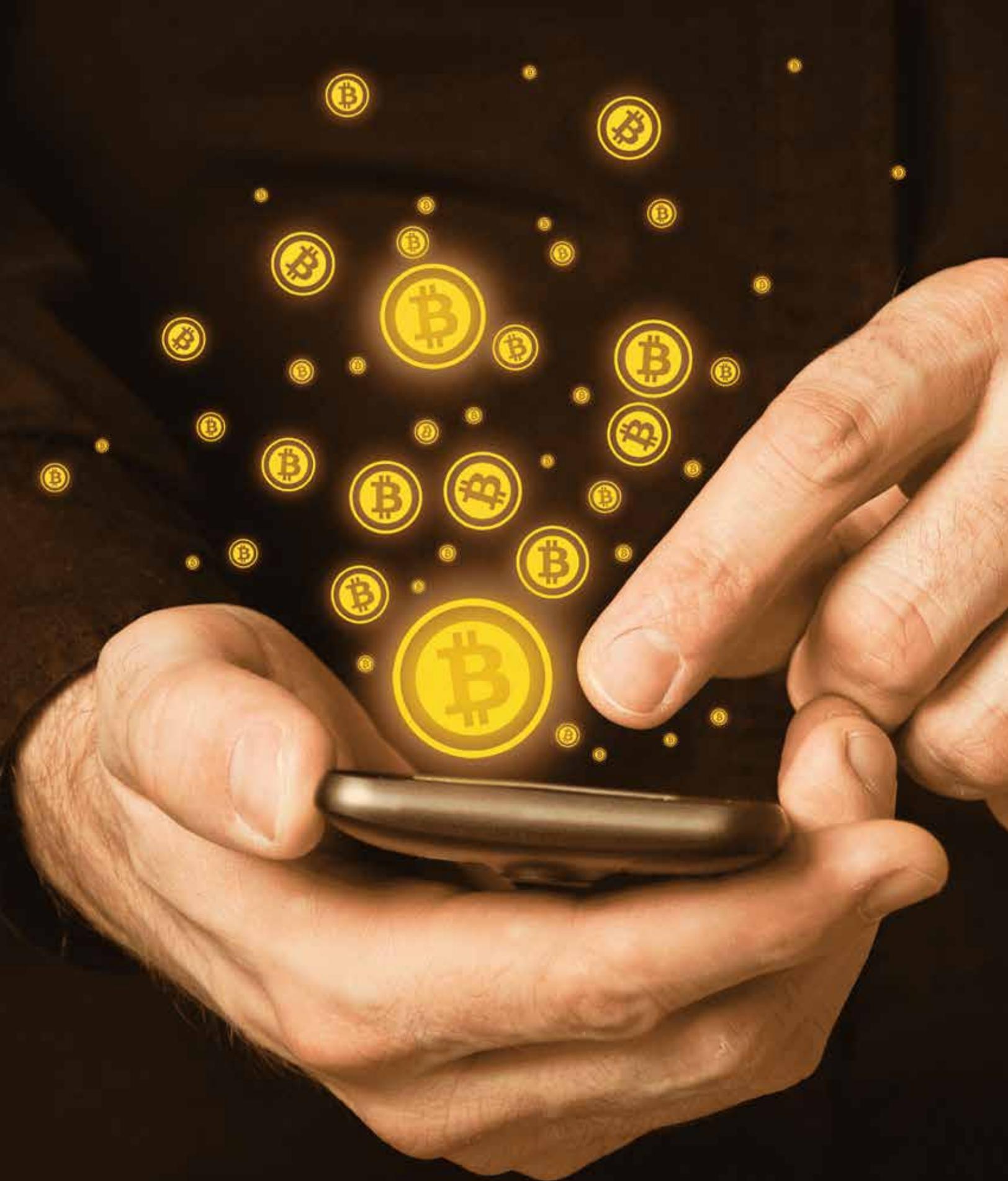
An article in the third-quarter 2010 issue of *EconSouth* described the expansion of the Panama Canal, which began in 2007. “Full Steam Ahead: Southeast Ports Prepare for Panama Canal Expansion” discussed how the prospect of the wider canal was spurring competition among the seven deepwater ports in the southeastern United States to obtain funding to do their own expanding. Each one was hoping to become large enough to accommodate the extra-wide post-Panamax ships, the largest container ships there are. Shipbuilders have been constructing ships that would have been too large to pass through the Panama Canal before the expansion.

At the time the article came out, the ACP had budgeted \$5.25 billion and planned for the construction to be complete in 2014, in time for the canal’s centennial. Construction is only about three-quarters done and is now scheduled for completion in late 2015. The expansion project filled the news early this year, when a dispute between the ACP and the construction company over a \$1.3

billion overrun halted construction. Work has resumed, but the authority has had to obtain stopgap financing, and the financial dispute is now under international arbitration for a resolution.

Meanwhile, in the Southeast, the Port of Savannah, Georgia, has been given the green light to dig deeper so it can accommodate those mammoth ships. On June 10, 2014, the federal government approved the Water Resources Reform and Development Act of 2014, which authorizes the Savannah Harbor Expansion Project. The Georgia Ports Authority estimates that the project will cost about \$706 million. The federal government will share that cost with the state government. (According to the *Atlanta Business Chronicle*, Georgia’s state government has already committed its entire \$266 million share.) Other ports are also making plans. The Port of New Orleans, at up to 47 feet deep, is already deep enough for the post-Panamax ships, but is hoping to dredge to 50 feet to accommodate more ships. The port has said that this project, which has not yet received funding, will take place in two phases, at a combined cost of about \$300 million. ■

By Nancy Condon, associate editor of *EconSouth*.



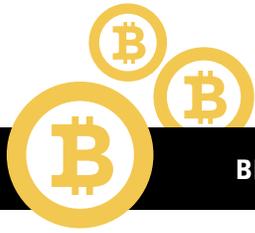


# MAKING CHANGE

## What Bitcoin Could Mean to the Payments Industry

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Imagine that you are at a grocery store, the cashier tallying up your purchase. The cashier asks you, “Will that be cash, card, or bitcoin?” You open the mobile wallet on your phone, hit a button, and transfer your bitcoins to the store account.



## BITCOIN'S ANONYMITY IS AT ONCE AN ADVANTAGE AND A SOURCE OF CONCERN.

That is the dream of a tiny but growing community of enthusiasts. Currently, many major online retailers accept bitcoin, including Expedia, Overstock, and TigerDirect, and some small storefront businesses accept it. The total value of all bitcoins in circulation today exceeds \$7 billion, about seven times the value in 2013. But there's a darker version of this dream, most infamously exemplified by Silk Road, an online black market where people bought and sold illegal items, transacting exclusively in bitcoin. Last November, the FBI shut down Silk Road. Somewhere between these two versions of the bitcoin dream lies a tangled mess of questions, including: Is bitcoin a viable contender in the payments arena? Is its current pace of growth sustainable enough for bitcoin truly to compete with contemporary currencies or payments systems?

Any discussion of bitcoin must begin with the disclaimer that it really is a very small player in the payments system. (This article uses the word bitcoin to refer to the network, technology, concept, and unit of account.) "It is a minuscule dot on the payments spectrum, yet it is receiving an enormous amount of attention," said Doug King, a payments risk expert at the Atlanta Fed. To put it in perspective, bitcoin averages about 60,000 transactions a day, according to the consulting firm Deloitte. By comparison, Visa's electronic payment processing network handles more than 150 mil-

### ECONSOUTH NOW PODCAST

Doug King of the Atlanta Fed's Retail Payments Risk Forum discusses bitcoin. On [frbatlanta.org](http://frbatlanta.org), select "Podcasts."



lion transactions a day from 2.1 billion credit cards and more than 2 million ATMs.

"I think a lot of the interest in bitcoin is because payments are generally pretty dull to the average person, and bitcoin—like mobile wallets—is new and exciting," King said. He added that some of the news stories, including those about Silk Road and the failure of the Japanese bitcoin exchange Mt. Gox, contribute to the conversation because they have elements of mystery and intrigue that would be ripe material for a movie.

### Do cypherpunks dream of electronic currency?

Talk of a decentralized currency has been around at least since 1998, when "cypherpunks" proposed the notion of a decentralized, digitalized medium of exchange. Cypherpunks were members of underground technology groups who advocated the use of cryptography to promote social and political change. (In cryptography, a "cypher" is an algorithm used to perform encryption or decryption.) Believing that the government could not adequately protect their cyberspace privacy, they wanted to take privacy protection into their own hands. (WikiLeaks founder Julian Assange was among the original cypherpunks.) They envisioned that each transaction with this digitalized currency would be authorized through cryptography—hence the term "cryptocurrency."

Ten years after the cypherpunks' conception of cryptocurrency, the white paper that launched the bitcoin network was published under the name of Satoshi Nakamoto. The paper described a decentralized, peer-to-peer electronic payments system, bringing to reality what the cypherpunks had concep-



tualized. (To this day, no one seems to know who, or what, Nakamoto is. The writer of a March 6, 2014, *Newsweek* article—“The Face behind Bitcoin”—claimed to have interviewed him.)

Although the bitcoin technology is itself open source, and therefore public, its use of cryptography ensures the anonymity of the people behind the transactions. This privacy appeals to those consumers who are wary of using their credit or debit cards online.

The merchants on the other end of these transactions like bitcoin’s relatively lower cost and greater security compared to traditional payments. Existing payments systems, like bank wire transfers, are expensive for many reasons, including stringent government regulations. So far, the regulatory environment regarding bitcoin is not entirely clear, but if that changes, the cost of transacting in bitcoins could rise. For now, BitPay and Coinbase, two of the largest bitcoin payment processors, for example, charge at most 1 percent per transaction, compared to the 2 or 3 percent that credit and debit card processors charge.

Officials may be facing something of a conundrum when it comes to regulating cryptocurrencies, not just bitcoin. As BitPay CEO Tony Gallippi told attendees at a conference on finance, “Consumers will demand more security, and that will lead to self-regulation. Regulators don’t want to regulate [bitcoin] because if they do people would see it as safe. Regulators don’t want to relay the message right now....They want to have the attitude ‘buyer beware.’ They can’t do that if they also regulate, so they’re kind of stuck.”

#### **“Come over to the dark side”**

The very anonymity that appeals to some consumers and privacy advocates—and to the cypherpunks—is what worries risk experts like the Atlanta Fed’s King as well as Gary Warner, who developed and runs the Center for Information Assurance and Forensics Research at the University of Alabama at Birmingham.

“Criminals are using bitcoin to purchase items they don’t want their identity attached to—drugs, porn, weapons—just as they’ve always used cash,” he said.

When the FBI shut down Silk Road last fall, it confiscated some 175,000 bitcoins. The U.S. Marshals Service recently auctioned off 30,000 of these coins, worth almost \$18 million. The fate of the remaining coins—144,336, taken from Silk Road’s alleged proprietor Russ William Ulbricht—is undecided. (Ulbricht recently filed a motion demanding that a federal judge dismiss money laundering charges against him because of the Internal Revenue Service’s guidance, issued in March this year, that bitcoin is property, not currency.)

It turns out that bitcoin may not be as anonymous as criminals would like to believe, said Warner. Each bitcoin transaction in a block chain carries with it “a very large swath” of previously validated transactions. “Everything is public there, and everyone can follow the transactions in real time,” said Warner. “So if I can find any transaction from any merchant that I can tie to your ID—say, through a package shipped to you or an e-mail address associated with the transaction—then I can mark that coin” and trace it back to the originator.

#### **Innovation in payments**

In a March 2014 research note, Goldman Sachs interviewed a number of financial and technology experts about bitcoin’s growing popularity and the possibility of the currency gaining mainstream acceptance. The panel featured both skeptics and believers. The overwhelming conclusion from both sides was that “bitcoin likely can’t work as a currency. But [there’s] some sense that the ledger-based technology that underlies it could hold some promise.”

Atlanta Fed president and CEO Dennis Lockhart echoes that sentiment. “I’m still skeptical about bitcoin...but as a payments



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platform that is basically a file transfer technology, it may have legs," he said. King agrees. "While I wonder if the currency aspect of virtual currencies will last, the technology itself holds promise as a way to transfer ownership of funds or assets."

King also pointed out that bitcoin faces tremendous hurdles before it could become a contender. For one, unlike traditional currency, bitcoin's value can fluctuate wildly. In December 2013, the value of a bitcoin jumped from about \$100 to \$1,240 per "coin," and then dropped back down to an average of \$400. As of this writing, one bitcoin is worth about \$580. (A bitcoin is divisible to the millionth, so it can theoretically be used for small transactions.) For many, this volatility adds to the allure of bitcoin as a speculative commodity. Moreover, because of the limited number of bitcoins, some regard bitcoin as a commodity market that is easily manipulated, making it an easy target for fraudulent market maneuvers.

The very technology that offers efficiencies for online transactions makes it difficult for storefronts to accept bitcoin payments. Bitcoin transactions take about 10 minutes to authenticate, King explained. "When you now walk into a store and buy a \$500 television, you swipe your card and that transaction is authorized or declined immediately. Would merchants want to slow down the checkout process? Probably not," he said.

The Internal Revenue Service dealt bitcoin payments hopefuls a serious blow when it ruled that bitcoin will be taxed as an asset. "The accounting could be a nightmare for consumers who want to transact in bitcoin," King said.

### There's bitcoin in them thar hills

In some superficial ways, bitcoin resembles gold. It is scarce, people often go to great lengths to uncover it, and many people hoard it. Users are even said to "mine" for new coins. And like mining for gold, mining for bitcoins requires intensive tools. Because mathemati-

cal proofs form the basis of the bitcoin network, it takes powerful computers to solve these math challenges to produce additional bitcoins. With every bitcoin mined, the math problems and computing power needed to solve them become incrementally harder, which slows down the flow of new bitcoins. That's because the original design by Nakamoto limited the total amount of bitcoins to 21 million. That scarcity is largely what gives bitcoin its value. So far, miners have unearthed about half of that number and are expected to hit the money supply limit around 2030.

As the work to mine bitcoins has increased, so has the cost. No one seems to have precisely pegged the cost of the electricity to run—and cool—the computers that solve the algorithms, but estimates run up to \$15 million a day. *Forbes.com* blogger Tim Worstall contends that this figure is unproven and overestimates the cost, but concedes that the electricity consumption is still astonishing.

Whether the bitcoin dream will ever be fully realized remains to be seen. The cryptocurrency has an enormous image problem to overcome. And consumers will have to be confident that their identities are protected and the value of their cryptocurrency is safe from wild fluctuations, which will likely require some combination of a broader market base and public regulation. However, as Lockhart and King have noted, the technology that underlies bitcoin may have a future. With that technology's advantage of protecting consumer privacy and making transfers comparatively fast and secure, the potential payments systems of the future based on block chain technology may be more flexible, cost-effective, secure, and accessible—with or without bitcoin. ■

*This article was written by Sadat Karim, Atlanta Fed strategic info research analyst, and Nancy Condon, associate editor of EconSouth.*



United States, but he believes demand to haul coal to seaports for export to other countries will persist.

The two railroads that dominate the Southeast certainly have run fewer coal trains lately. Revenue from coal hauling for CSX and Norfolk Southern combined declined nearly \$2 billion, or 25 percent, from 2011 to 2013, according to the companies' financial reports. At the same time, combined intermodal revenue for the firms rose by 15 percent. Crude oil shipments have also risen dramatically, but still make up a smaller business than intermodal for the rail lines.

"If you would've told me four, five, six, seven years ago that my [coal] revenue would be down a billion dollars in three years and my earnings after that would still be up, I would've told you, 'No way,'" Gooden said. "But in fact they have been up, way up, since then." Indeed, from 2009 to 2013 combined operating income at CSX and Norfolk Southern climbed 59 percent.

Intermodal alone isn't making up for the dip in coal shipments. A stronger economy, higher prices and wider profit margins, and rising crude oil shipments have also helped offset the declining coal business.

Shipments of crude oil and liquefied petroleum gas were behind big increases in the volume of chemicals that the two major eastern railroads carried in 2013 and early 2014. Chemicals posted double-digit percentage volume and revenue gains for CSX and Norfolk Southern in 2013 and the first quarter of 2014, according to the companies' financial reports filed with the Securities and Exchange Commission.

Whether oil represents a sustainable growth opportunity for railroads is not clear, said Gooden and Lambert. Even though volume has soared recently because of the shale fracturing boom and a shortage of pipelines out of the Great Plains states, crude still represents a small share of train cargo, Gooden said. He believes pipelines will eventually supplant trains in moving oil and gas.

Also, just how long the gusher will last is unclear, Lambert noted. If production continues at a high rate for many years, rail

lines could continue to see that part of their business grow. On the other hand, long-term robust oil and gas production would also increase the feasibility of major pipeline construction, Lambert said. In addition, safety concerns about hauling petroleum products on trains have received widespread media and public attention. Those concerns are leading rail companies to purchase expensive rail cars better suited than their predecessors to carrying oil.

#### **An old mode goes high tech**

No oil comes through the Fairburn Intermodal Terminal, only big metal boxes. But those boxes are handled with great care. Modern-day rail lines employ all manner of technology: robots to hook and unhook cars that are headed to different destinations, drones with video cameras to inspect the undersides of bridges, and onboard systems that automatically transmit information about the condition of wheels and other gear. Those mile-long trains carry only two people to run them and could easily operate with one, Gooden said.

And rail companies track exactly how long it takes cars to move through their yards. (For CSX, it took an average of 27 hours during the first quarter this year. Bad winter weather was the culprit in pushing that figure up from 22 hours in the first quarter of 2013.) Whether a little faster or slower, the cars keep rolling through in an endless stream, every day of the year.

"I don't think there's any question the U.S. population is going to continue to grow," said the AAR's Keen, "and these people are going to need clothes and food and fuel and lumber." ■

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

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# Numbers Closing

## 60

Average number, in thousands, of daily bitcoin transactions

Source: Deloitte, as cited in *EconSouth's* article "Making Change: What Bitcoin Could Mean to the Payments Industry"



## 22.9

The percentage of U.S. households that had a computer at home in 1993

Source: U.S. Census Bureau

## 78.9

The percentage of U.S. households that had a computer at home in 2012

Source: U.S. Census Bureau

## 4,485,180

The number of U.S. workers employed as retail salespeople in May 2013, making this category of employment the largest in the nation

Source: U.S. Bureau of Labor Statistics

## 6,132,000

The number of Americans employed as farmers in 1910, at that time the largest U.S. employment category

Source: U.S. Bureau of Labor Statistics



## 8.6

Amount, in billions of dollars, spent at family clothing stores in August 2013

Source: U.S. Census Bureau

# 295

Number, in thousands, of apartment units under construction in the United States in June 2014

Source: Axiometrics, as cited in *EconSouth's* article "Multifamily Housing: The New American Dream?"

## 679

Number, in thousands, of barrels of craft beer produced in the Southeast in 2012

Source: Brewers Association, as cited in *EconSouth's* article "Brew Diligence: The Growth of Craft Beer in the Southeast"



## 13,897

The number of nursery, garden center, and farm supply businesses with paid employees in the United States in 2012

Source: U.S. Census Bureau, 2012 County Business Patterns



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Even if the methods of brewing beer have changed over the years, its delivery remains consistent in one respect: people still haul it to destinations for consumption. An establishment in Louisiana receives a shipment in 1938 (above), and more contemporary kegs roll along today (left).

**now and then**