

# TEN

FEDERAL RESERVE BANK OF KANSAS CITY

Fall 2016



## Inside:

**Agriculture's water economy**

**Reaching the unbanked**

**Consumers taking on more debt**

**Does size make banks  
more profitable?**

# SHOOTING FOR SUCCESS

Entrepreneurship in the 21st Century



# On The Cover:

PHOTO BY GARY BARRETT

# TEN

Fall 2016

## SHOOTING FOR SUCCESS Entrepreneurship in the 21st Century ..... 20

Entrepreneurship has declined steadily for the last decade. There is a ray of hope, however, for entrepreneurship in America. Some analysts say data shows new business startups are on the rise, and much of it has to do with the millennial generation. *On the cover: Daveyeon Ross*

## FEATURES



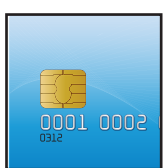
### THE RELATIONSHIP BETWEEN BANK SIZE AND PROFITABILITY ..... 4

In the aftermath of the recent recession, community bankers and industry analysts have expressed concern about the need for smaller community banks to grow larger to be successful.



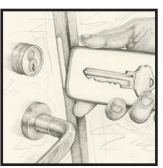
### AGRICULTURE'S WATER ECONOMY The 2016 Agricultural Symposium ..... 6

Consistent water availability is critical to agricultural production everywhere, and intensifying scarcity presents global agriculture with a formidable long-term challenge.



### CONSUMERS TAKING ON MORE DEBT What does the trend say?..... 12

Consumer debt has increased steadily since 2013, but sharp differences underlie this trend. Data shows lower-credit consumers are driving the debt increase, especially in the auto loan sector.



### OPENING DOORS Reaching the unbanked with electronic services ..... 14

Understanding the reasons consumers don't have bank accounts will help financial institutions, payment service providers and policymakers could break down the barriers that prevent unbanked consumers from using financial services.

## IN EVERY ISSUE

- 1     **PRESIDENT'S MESSAGE**
- 3     **ASK AN ECONOMIST**
- 28    **MAKING A CONNECTION**
- 36    **NOTES**

### The accountability and governance of the Federal Reserve

*Editor's Note: The following text is the testimony President Esther George gave Sept. 7 to the House Subcommittee on Monetary Policy and Trade.*

**T**hank you for this opportunity to share my views on the role of regional Federal Reserve Banks as part of the Federal Reserve System.

Because the Federal Reserve is an institution that makes decisions of consequence to the broad public, a discussion of these matters is worthwhile. If changes are to be considered, the public should understand not only the Congressional intent for its current design, but also the strong safeguards that assure its accountability.

Central banks are unique institutions. They have important responsibilities for a nation's financial system and economy. Congress, as it contemplated a central bank for the United States more than 100 years ago, took note of central bank models from other countries, while keeping in mind two earlier attempts at central banking in the United States. Ultimately, it opted for a different approach: one that recognized the public's distrust of concentrated power and greater confidence in decentralized institutions. The Federal Reserve's unique public/private structure reflects these strongly held views and is designed to provide a system of checks and balances. Challenges to this public/private design have surfaced throughout the Federal Reserve's history, not unlike they have today. But in the end, our country has remained most confident in this decentralized governance structure.

Criticism of the quasi-private nature of the regional Reserve Banks was anticipated

from the start. Indeed, the Federal Reserve Act leaves no unchecked power in Reserve Banks. The politically-appointed members of the Board of Governors have oversight authority of the most important governance aspects of Reserve Banks. For example, they appoint the chair and deputy chair of a Reserve Bank's board; they vote to approve the selection of the Bank's president as well as its chief operating officer; and they approve the Reserve Bank's budget and salaries. The Board of Governors also meets with each Banks' chair and deputy chair annually to review the Bank's performance and that of its president. Finally, the Reserve Bank's operations are reviewed by the Board of Governors and an outside independent auditor.



**“Criticism of the quasi-private nature of the regional Reserve Banks was anticipated from the start. Indeed, the Federal Reserve Act leaves no unchecked power in Reserve Banks.”**

Notwithstanding this strong public oversight, some question the role of commercial banks within the Fed structure. Here too, important safeguards exist. The supervision and regulation of the Federal Reserve's member banks is a statutory



**KANSAS CITY FED PRESIDENT ESTHER GEORGE**, right, speaks with U.S. Rep. **Bill Huizenga**, R-Mich., chairman of the House Financial Services Subcommittee on Monetary Policy and Trade, center, and Richmond Fed President **Jeffrey Lacker**, left, following a hearing on the Federal Reserve Sept. 7 in Washington.

responsibility of the congressionally-confirmed Board of Governors. Bankers who serve on Reserve Bank boards are prohibited by law from participating in the selection of the Bank president, and no director can participate in bank supervisory matters. Finally, all directors are required to adhere to high ethical standards of conduct and avoid actions that might impair the effectiveness of the Federal Reserve's operations or in any way discredit the reputation of the System.

The capital stock supplied by these member banks serves as the foundation for the decentralized structure allowing for separate corporate entities. Through the regional Reserve Banks, private citizens from diverse backgrounds and from the largest to the smallest communities, have input into national economic policy; strong and varied independent perspectives more easily emerge to engage in difficult monetary policy discussions; and the central bank is provided insulation

from short-term political pressures.

Altering this public/private structure in favor of a fully public construct diminishes these defining characteristics, in my view. It also risks putting more distance between Main Street and the nation's central bank.

Former Fed Chairman Paul Volcker understood this well. He experienced first-hand how public pressure can be exerted on a central bank when it must make unpopular decisions that he and the FOMC judged to be in the long-run best interest of the economy. In a 1984 speech, he noted the important role of the structure of the Federal Reserve System in supporting the central bank's decision-making by saying, "It was all quite deliberately done by men of political imagination—designed to assure a certain independence of judgment, a continuity and professionalism in staff, a close contact with economic developments and opinion throughout our great land and a large degree of insulation from partisan or passing political concerns."<sup>1</sup>

To that end, I extend a personal invitation for any of you to visit the Federal Reserve Bank of Kansas City to see what a regional Federal Reserve Bank provides in support of the central bank's objectives for economic stability. Thank you.

**ESTHER L. GEORGE, PRESIDENT  
FEDERAL RESERVE BANK OF KANSAS CITY**

### **Further Resources:**

For more information on Federal Reserve governance and structure, visit [www.KansasCityFed.org/governance](http://www.KansasCityFed.org/governance).

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<sup>1</sup> Paul A. Volcker, "Remarks at the 78th Commencement of the American University," (speech, Washington, D.C., Jan. 29, 1984), [https://fraser.stlouisfed.org/docs/historical/volcker/Volcker\\_19840129.pdf](https://fraser.stlouisfed.org/docs/historical/volcker/Volcker_19840129.pdf).

# Ask an Economist ...

## What is the effect of global economic uncertainty on U.S. exports?



Nicholas Sly

Exports of goods and services account for a substantial share of total U.S. economic activity, with a total value of 13 percent of gross domestic product since the year 2000. With so much production, investment and employment concentrated in the export sector, changes in foreign demand for U.S. goods have important implications for domestic growth, says Nicholas Sly, a senior economist at the Federal Reserve Bank of Kansas City.

### What influences demand for U.S. exports?

In recent years, key factors such as foreign income levels and the value of the dollar have changed dramatically with clear consequences for the demand of U.S. exports. Another, less obvious factor that influences demand is uncertainty about global growth and related financial volatility.

### How has this affected U.S. exports?

Slowing foreign growth and heightened uncertainty in the foreign growth outlook, and a high relative value of the dollar has caused demand for U.S. exports to wane. In recent years, stress in foreign financial conditions has further contributed to the declining demand for U.S. goods.

### What does the near future look like?

Movement in oil prices, volatility in equity and bond markets and changes in monetary policy environments across countries have all contributed to uncertainty about future economic growth. Regardless of the total size or income of foreign economies, greater uncertainty about their expected growth path may deter resident consumers and firms from ordering goods and components produced in the United States. Likewise, greater certainty about future economic conditions may boost demand for U.S. goods even if foreign incomes and exchange rate levels remain unchanged.

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BY KEVIN WRIGHT, EDITOR

### Further Resources:

“Global Uncertainty and U.S. Exports” by

Nicholas Sly

[www.KansasCityFed.org/publications/research/er](http://www.KansasCityFed.org/publications/research/er)

### ECONOMIC REVIEW

The *Economic Review* is a quarterly research publication with articles by Kansas City Fed staff on macroeconomics and monetary policy, regional and international economics, banking, financial markets and payments systems.

For more articles such as the one by Nicholas Sly, visit

[www.KansasCityFed.org/publications/research/er](http://www.KansasCityFed.org/publications/research/er).



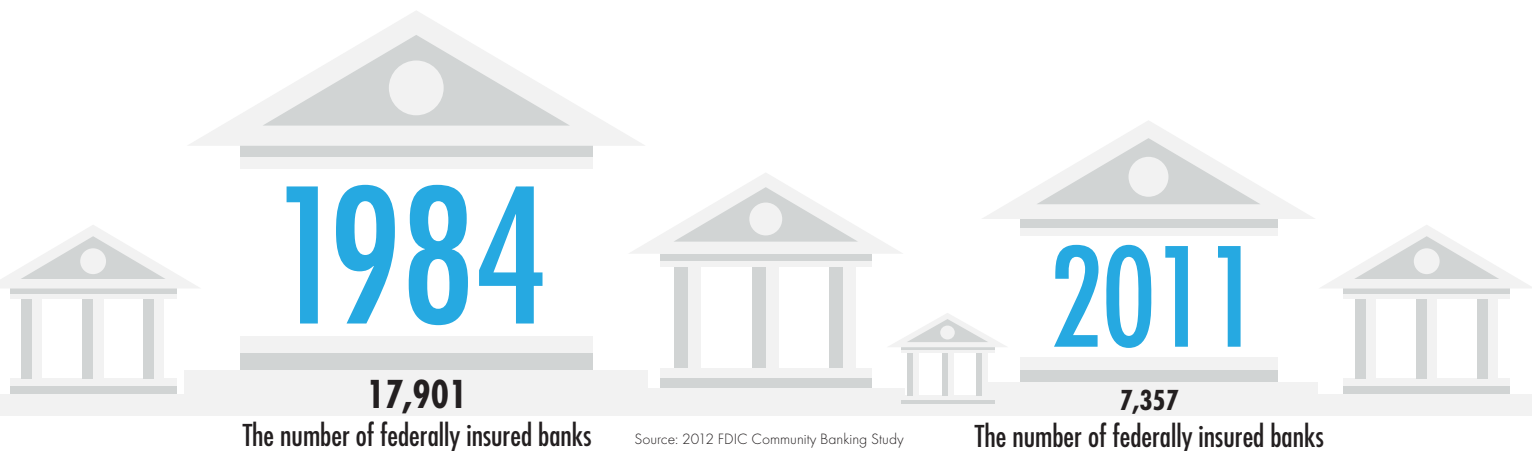
# THE RELATIONSHIP BETWEEN BANK SIZE AND PROFITABILITY



In the aftermath of the recent recession, community bankers and industry analysts have expressed concern about whether smaller community banks need to grow larger to be successful. Kristen Regehr, an assistant economist, and Radjeep Sengupta, an economist, both with the Federal Reserve Bank of Kansas City, examined this assumption in their study about the relationship of bank size and profitability.

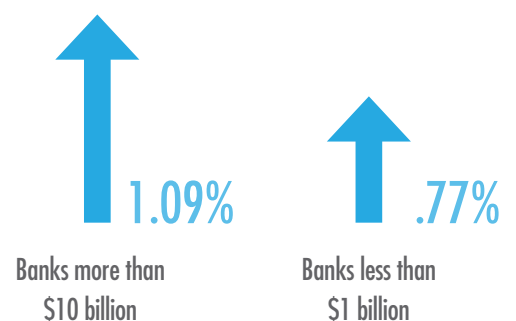
## COMMUNITY BANKS WITH ASSETS LESS THAN \$100 MILLION

From 1984 to 2011, the number of community banks with assets of less than \$100 million declined by nearly 11,000, mainly due to mergers. And while average assets of all banks increased during this time, most of that growth can be attributed to banks with assets of more than \$10 billion.



### BANKS HAVE GOOD REASONS TO BELIEVE PROFITABILITY AND SIZE ARE RELATED.

A simple comparison of banks of various sizes suggests that, on average, larger banks have higher returns. A look at return on average assets (ROAA) shows average returns are highest for banks with assets of more than \$10 billion at 1.09 percent and smallest for banks with assets of less than \$1 billion at 0.77 percent.



## ECONOMIES OF SCALE

Larger banks also can spread costs and minimize risks, which reduces overall costs and promotes profitability, much easier than a small bank. Small banks, however, may be able to form stronger relationships with local businesses and customers than large banks, allowing them access to information useful in setting contract terms and making better credit underwriting decisions. These informational and pricing advantages may fully offset any loss due to size.



## THE MARKETPLACE

Size, however, is not the only aspect that affects a bank's long-run profitability. The characteristics of both individual banks and the markets in which they operate also can affect profitability. These characteristics can include business strategies, reflected in the composition of banks' assets and liabilities, and growth in the markets in which banks operate.

## GROWTH AND RETURN

Taking the factors above and other bank-specific and market-specific details into account, Regehr and Sengupta examined 8,315 community and regional banks with assets of less than \$100 billion during the pre-crisis and post-crisis periods. The estimates suggest the smallest banks experienced large increases in conditional ROAA as they grew; however, the increases diminished as bank size increased. For example, midsized community banks only experienced modest returns relative to their size. In essence, they would have to grow at a phenomenal rate to realize large returns.



## BANKING IN THE PRE- AND POST-CRISIS ERAS

Regehr and Sengupta also studied the effects of banking technology and banking regulations on bank size and profitability. The model they created examined the relationship of profitability and bank size in the pre-crisis expansion, the crisis and the post-crisis recovery. They found that bank asset size associated with the maximum conditional ROAA was significantly smaller during the crisis. They also found that the relationship between size and profitability remained relatively unchanged between the pre-crisis and post-crisis expansions.

## CONCLUSION

In other words, the decline in community bank profitability during the post-crisis recovery cannot be attributed to size or any change in the relationship of size and profitability. Rather, changes in economic and competitive conditions lowered post-crisis profitability without affecting its sensitivity to size.

## FURTHER RESOURCES

**"Has the Relationship between Bank Size and Profitability Changed?"**

By Kristen Regehr and Rajdeep Sengupta

<https://www.KansasCityFed.org/~ /media/files/publicat/econrev/econrevarchive/2016/2q16regehrsengupta.pdf>



# WANTED WATER

## AGRICULTURE'S WATER ECONOMY

*Federal Reserve Bank of Kansas City Agricultural Symposium / July 11-12, 2016*

Agriculture's water economy has demonstrated growing signs of strain. Recent and persistent extreme weather-related events have highlighted the vulnerability of food and agricultural production to substantial variations in water availability.

Consistent water availability is critical to agricultural production everywhere, and intensifying scarcity presents global agriculture with a formidable long-term challenge.

Water availability is crucial for emerging markets such as Asia and Africa—the latter is expected to be the largest food market in the next 30 years, with a population growth of 50 percent, said Mark Rosegrant.

Rosegrant, director of the Environment and Production Technology Division at the International Food Policy Research Institute, was one of several presenters at the 2016 Agricultural Symposium, "Agriculture's Water

Economy," which was in July at the Kansas City Fed. The symposium explored the dynamic link between agriculture and water, the role of markets and institutions, and the path forward.

Rosegrant said this dynamic link is strongest in poor countries with high human water stress and high dependence on agriculture. He thinks the answers to future agricultural water demand, especially in underdeveloped countries, are investment and improvement in crop breeding—getting more yield with less water—and changes in water policies, which he says could increase the food supply by 10 percent.

Although Kenneth Cassman agrees with Rosegrant's assessment, he says 31 percent of total global production of major cereal crops comes from countries with decreasing or stagnant yield rates.

"Something humans can't affect is how



much sun or rainfall a segment of farmland will receive,” he said.

Even though improvements in pest management, crop productivity, fertilizers and irrigation have produced higher yields, the most significant agricultural technology enhancements in the last 15 years are precision planters and harvesting technology, said Cassman, who is an emeritus professor of agronomy at the University of Nebraska.

“We’ve got to accelerate yield growth rates while at the same time protect the environment,” he said. “It’s important that we do this in order to sustain food demand.”

The challenge is how much food demand will increase and how much strain the demand will have on water, said Patrick Westhoff, professor and director of the Food and Agricultural Policy Research Institute, University of Missouri.

“There’s a lot of disagreement on that issue,” he said. “I don’t even know what food demand will be in 2025.”

If data gives any indication, the world population increased 35 percent in the last 30 years and food production increased at almost the same rate. But most of the increase in production went into biofuels and livestock feed.

“If you took out China and the U.S. use of biofuels and their use of grains for other than human consumption, production would be the same as in 1980,” Westhoff said.

The question remains of how to feed a growing, hungry world while increasing food production in the midst of global climate change, which affects soil fertility and the water supply.

Christopher Hartley, deputy director and senior environmental markets analyst for the U.S. Department of Agriculture, says nearly 56 million acres of farmland are irrigated in the United States, mainly in the western part of the country. As a result of climate change and water scarcity, the rate of crop yield improvements in the United States are expected to decrease

by 2020, he said. Better water conservation and sustainability practices will change the marketplace, especially the price of food. But how much are consumers willing to pay for sustainably grown food? Hartley asked.

**“This is not just a U.S. problem, but a global issue that must take the cooperation of the agricultural industry, governments, both national and local, and other elements to help move the world to a more sustainable outcome.”**

This is a question not only for producers and consumers, but for all entities involved in global economics, said Guillaume Gruere, senior policy analyst, Organization for Economic Cooperation and Development.

“Policies must look at what is being done already to reach sustainable goals and make improvements that address the need for more agriculture production and water scarcity,” he said. The problem, however, is that many policies are not compatible with sustainable goals.

“This is not just a U.S. problem, but a global issue that must take the cooperation of the agricultural industry, governments, both national and local, and other elements to help move the world to a more sustainable outcome,” Gruere said.

And this is where the tension between agriculture and environment, production and demand increases.

Hartley says that the federal government has been given the responsibility for resource protection, and the Clean Air, Clean Water,



**NATHAN KAUFFMAN, OMAHA BRANCH EXECUTIVE AND ECONOMIST**, moderates a panel discussion during the Agricultural Symposium in July at the Kansas City Fed's head office in Kansas City, Mo. Kauffman leads the District's agricultural research efforts and plans the annual Agricultural Symposium.

and Endangered Species acts have managed and changed accepted resource practices over time, but they're not enough to prepare us for the future.

It's going to take a combination of policies and practices that address issues such as water scarcity, water rights, farmland availability, soil fertility, production outpacing demand and food waste.

"This may require changes in human consumption, which campaigns to change it so far have not been successful," Cassman said. "It will also require us to change the way we use water, which is not an easy task."

Bradley Udall, a senior water and climate research scientist at the University of Colorado, says there is no greater impact on water resources than climate change. As the agricultural industry proceeds into the 21st

century, prior records on water tables, resources and other information become less useful due to climate change.

"Climate change is occurring; we've already seen it," he said. "More floods, droughts, snow pack melts, changes in water resources, the past is no longer a guide to our future."

So water management and improved farming practices become a top priority, he said.

Ellen Hanak, director of the Water Policy Center, Public Policy Institute of California, says policies that focus on specific water uses, such as consumptive versus nonconsumptive, will help manage water allocation and usage issues. Scientific data, however, will have to help craft these policies.

"We have great data on withdrawals, but not on consumption," she said. "We have to

make institutional changes that will help create better policies.”

This is especially important as farmland conditions change, she added.

“Areas that are not used to droughts, don’t have the right policies in place,” she said. “In the western portion of the country, we’re used to dealing with droughts so our policies reflect it.”

That’s why policies must not only address current conditions but future changes in the environment, said Les Lampe, former vice president and director of water resources, Black & Veatch. Policies, however, are not enough. Agricultural and water use practices must change to align with future conditions.

“Agriculture has a unique role in finding a solution,” he said.

To meet future water demand, the agricultural industry must invest more capital in intensive irrigation technologies, improve seed yields, and implement more precision farming to optimize the use of water and other inputs tailored to local conditions.

“We must improve practices if we are going to meet future needs,” Lampe said.

Technological innovations and scientific data are playing a larger role in helping the global agricultural industry make improvements in farming, such as combating drought, improving planting cycles, and water conservation, said Qiuqiong Huang, associate professor of agricultural economics at the University of Arkansas.

Some of that technological investment is occurring in Silicon Valley. Engineers are developing software applications that tell farmers where the best soil conditions are located and how much water to use according to crop and season. Some applications also will help farmers evaluate how future climate conditions will affect particular pieces of land.

“Bits and bytes are going to solve the problems of bushels,” said John Hamer, managing director, Monsanto Growth Ventures.

“The answer to water scarcity is getting

## GLOBAL TRENDS IN WATER WITHDRAWALS AND CONSUMPTION

It would make sense that agriculture uses a high volume of water to grow crops; however, since the turn of the 20th century, water withdrawals and consumption for industry and other human activity have been historically higher.

For example, in 1900, records show that annual agriculture water withdrawals and consumption was roughly 300 billion cubic meters globally, while all other water uses reached well above 500 billion cubic meters, according to a 2003 study by I.A. Shiklomanov and John C. Rodda.

As the global population grew and industrial uses expanded, water withdrawals and consumption have increased dramatically—at the turn of the 21st century, annual water use levels outside of agriculture reached 4,000 billion cubic meters.

This doesn’t mean agricultural water uses haven’t expanded as well. At the turn of the century, annual agriculture withdrawals and consumption levels reached 2,000 billion cubic meters.

Researchers say the agricultural industry is at a precipice as global climate changes alter water resources and agricultural markets work to provide food for a growing world population.

“As the characteristics of water resources change, it’s important that the industry considers adaptive measures,” said Susanne Scheierling, senior irrigation water economist, The World Bank.

more crop yield based on the water available without overuse, without causing water scarcity,” he added.

Technological improvements can help, however, water application, especially as more areas combat drought, is a current issue that has placed great pressure on the irrigation industry, said Robert Meaney, former chairman-international, Valmont Industries Inc.

“Climate changes have pushed irrigation use up by 5 percent a year,” he said.

Making affordable water application improvements is particularly important for emerging markets.

“Irrigation improvements in third-world countries can allow farmers to triple or quadruple their crop yields and introduces effective water management,” he said.

Bonnie Colby, professor of agricultural and resource economics at the University of Arizona, says, however, that much of the increase in water use, especially in industrialized nations, involves manufacturing and other services unrelated to farming.

That’s why as climate conditions change, access to water is critical for agricultural and industrial markets around the world, said Nicholas Brozovic, director of policy, Water for Food Institute, University of Nebraska.

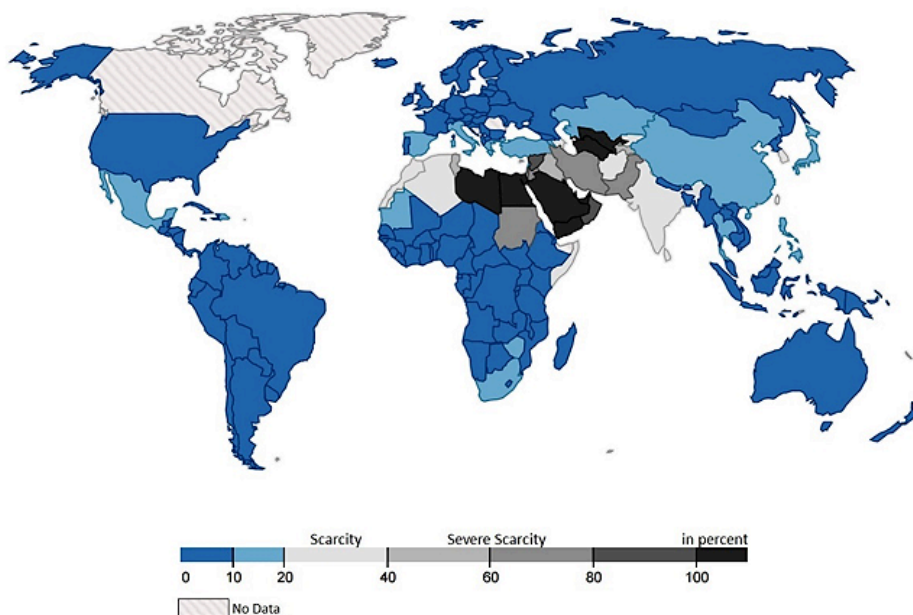
“And that’s why water markets are part of a larger conversation about water management,” he said.

Mike Young, professor and chair, Water and Environmental Policy, University of Adelaide, Australia, says the answer isn’t in the formation of water markets.

“You don’t talk about establishing markets, you set up allocations and markets will come,” he said.

Young says the agricultural industry and governments must focus on water trading in order to meet future needs. He says this can be done through the establishment of two systems—one involves water volumes and the other focuses on the allocation of water. To make these systems work, there will have to be institutional investment and changes to the current system.

## AGRICULTURAL WATER WITHDRAWALS AS PERCENT OF TOTAL RENEWABLE WATER RESOURCES



## “You can’t guarantee when it’s going to rain, and you can’t guarantee water supplies, but you can manage what you have.”

“In the U.S., law firms do trades, which take five years to complete; when it should take 40 minutes,” he said.

“Why don’t we manage water like we manage money in a bank? Make it trustworthy and easy for everyone to participate,” he added.

Creating this system will provide equity among water consumers, and at the same time, make sure water is being used productively.

Udall, however, says there is no guarantee in water systems.

“You can’t guarantee when it’s going to rain, and you can’t guarantee water supplies, but you can manage what you have.”

Richard Sandor, chairman and chief executive officer, Environmental Financial Products, agrees that water must be managed, but building a new system is unnecessary when a commodities market already exists. The establishment of a low-cost market and delivery system within the greater commodities market will provide water management and create equity and price transparency.

“I believe you’ll see water index trading in the United States in the next few years,” he said.

Colby says we need to consider disparities and access to water that occurs throughout different cultures, not just in the United States. The current system of paying for water may no longer be practical, especially when there is an emerging need for a global water market.

“We can do better in creating regional economies that deal with water trading, water rights and water scarcity,” Colby said.

Young says to use caution when establishing any system because water can have negative liabilities, such as flooding and improper water reclamations.

“Who will be liable for flooding” within the system? he asked.

Tom Iseman, deputy assistant secretary for water and science, U.S. Department of the Interior, says whether it’s the commodities market or the development of a new water trading system, there is a clear benefit in managing water—it provides flexibility during drought conditions and can allocate water to more productive uses.

“In America we will see incremental change instead of wholesale change ... but there is a definite need for markets that support local innovations in water management,” Iseman said.



KEVIN WRIGHT, EDITOR

### FURTHER RESOURCES

To learn more about the 2016 Agricultural Symposium presenters and their presentations, visit [www.KansasCityFed.org/publications/research/rscp/rscp-2016](http://www.KansasCityFed.org/publications/research/rscp/rscp-2016). The five main papers presented at the Symposium will be published this fall in a special edition of the Kansas City Fed’s *Economic Review*, which will be available on the Bank’s website at [www.KansasCityFed.org](http://www.KansasCityFed.org).

COMMENTS/QUESTIONS are welcome and should be sent to [teneditors@kc.frb.org](mailto:teneditors@kc.frb.org).

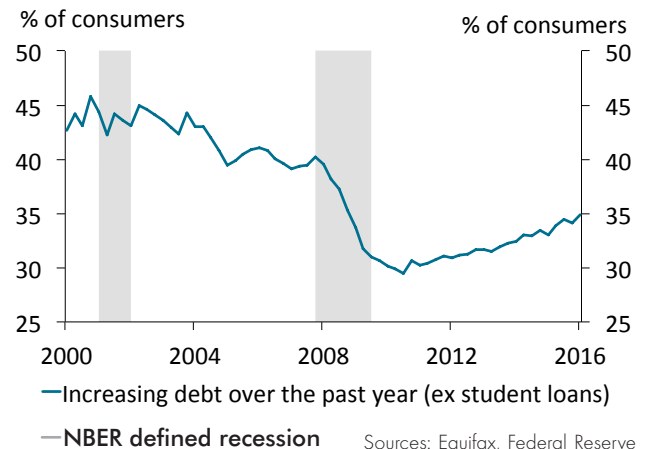


# CONSUMERS TAKING ON MORE DEBT

## WHAT DOES THE TREND SAY?

Consumer debt has increased steadily since 2013, but sharp differences underlie this trend.

**\$2 TRILLION**



Sources: Equifax, Federal Reserve Bank of New York Consumer Credit Panel and National Bureau of Economic Research.

### THE PLUNGE AND RISE OF DEBT

Consumer debt plunged when the Great Recession took hold in 2008, falling nearly \$2 trillion by 2013. Borrowing began an upward trend, however, in mid-2013, with 35 percent of consumers adding debt from the first quarter of 2015 to the first quarter of 2016. Much of the increase, says Troy Davig, director of Economic Research at the Federal Reserve Bank of Kansas City, is among people with lower credit scores.

### WHO'S BORROWING

Since the recession, the scale of borrowing by people with lower credit scores has almost reached pre-recession levels, whereas the share of debt for consumers with higher credit scores has remained flat. The type of debt, however, has trended differently in the post-crisis economy.





MORTGAGE DEBT

PRE-RECESSION



MORTGAGE DEBT

POST-RECESSION

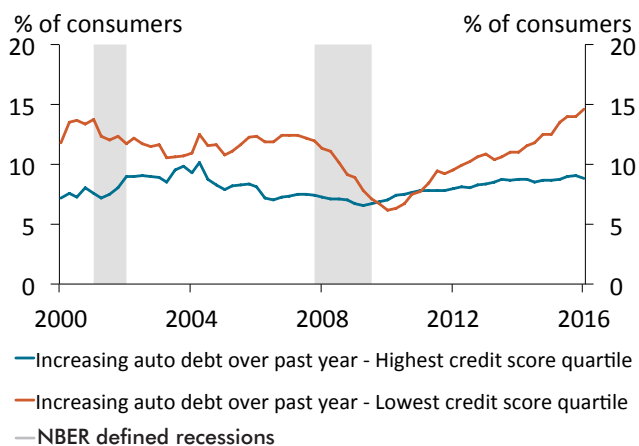
## DECLINE IN MORTGAGE DEBT

There was a large spike in consumer mortgage debt before the recession and then it tumbled during the recession. Since then, mortgage debt has slowly increased but remains 4 percentage points below pre-crisis levels.



## CURRENT DEBT INCREASE

Most of the recent increase in debt is in credit card and auto loans, with the increase in the latter being the largest. While auto loan borrowing has more than recovered from its post-recession decline, the share of borrowers adding to credit card debt is still about 4 percentage points below its pre-recession level.



## WHO'S BEHIND THE TREND?

Consumers with lower credit scores have been the primary drivers of the increase in auto debt borrowing, with the number of borrowers increasing from 6 percent in 2010 to 15 percent in 2016. In that same period, the number of consumers with higher credit scores adding to auto loan debt has grown slightly from 8 to 9 percent.

Sources: Equifax, Federal Reserve Bank of New York Consumer Credit Panel and National Bureau of Economic Research.

## CONCLUSION

Davig says adding debt to buy a long-lived asset, such as a car, can benefit consumers and the broader economy. There are, however, past examples of credit growth instability. Davig and William Xu, a research associate at the bank, looked at how consumers with lower credit scores are managing higher debt levels. The share that is current on all nonauto accounts has increased—meaning consumers are handling debt levels well—however, the share current on auto loans has declined in recent years. This could happen for many reasons, but the result is that the sale of new lightweight vehicles, which had doubled since the recession, is declining and auto demand from those with lower credit scores may face some headwinds, Davig says.

## FURTHER RESOURCES

### “Tracking Consumer Credit Trends”

by Troy Davig and William Xu

<https://www.KansasCityFed.org/~media/files/publicat/research/macrobulletins/mb16davigxu0715.pdf>





# OPENING DOORS

## Reaching the unbanked with new services

In the past, U.S. consumers who traditionally have been underserved in banking tended to live in rural communities. In recent years, however, the demographics have changed, with a majority of consumers living in metropolitan communities.

The term “underserved” in the banking system comprises two consumer groups: the “underbanked,” who have bank accounts, but have used alternative financial service providers outside the banking system such as check cashers and payday lenders within the last year, and the “unbanked,” who have no bank account, and may or may not use alternative financial services.

Kansas City Fed Senior Economist Fumiko Hayashi says a 2014 Federal Deposit Insurance Corporation (FDIC) report estimated nearly 8 percent of U.S. households, or 17 million adults, did not have a savings or checking account.

“Many of these consumers—who are considered ‘unbanked’—rely heavily on cash to meet their transaction needs,” she said.

Although a small fraction uses cash for privacy reasons, Hayashi said a majority of the unbanked do not have bank accounts for other reasons such as limited credit or banking

history, low and unstable income, high fees, negative perceptions of banks and account attributes like complexity and slow speed of funds availability.

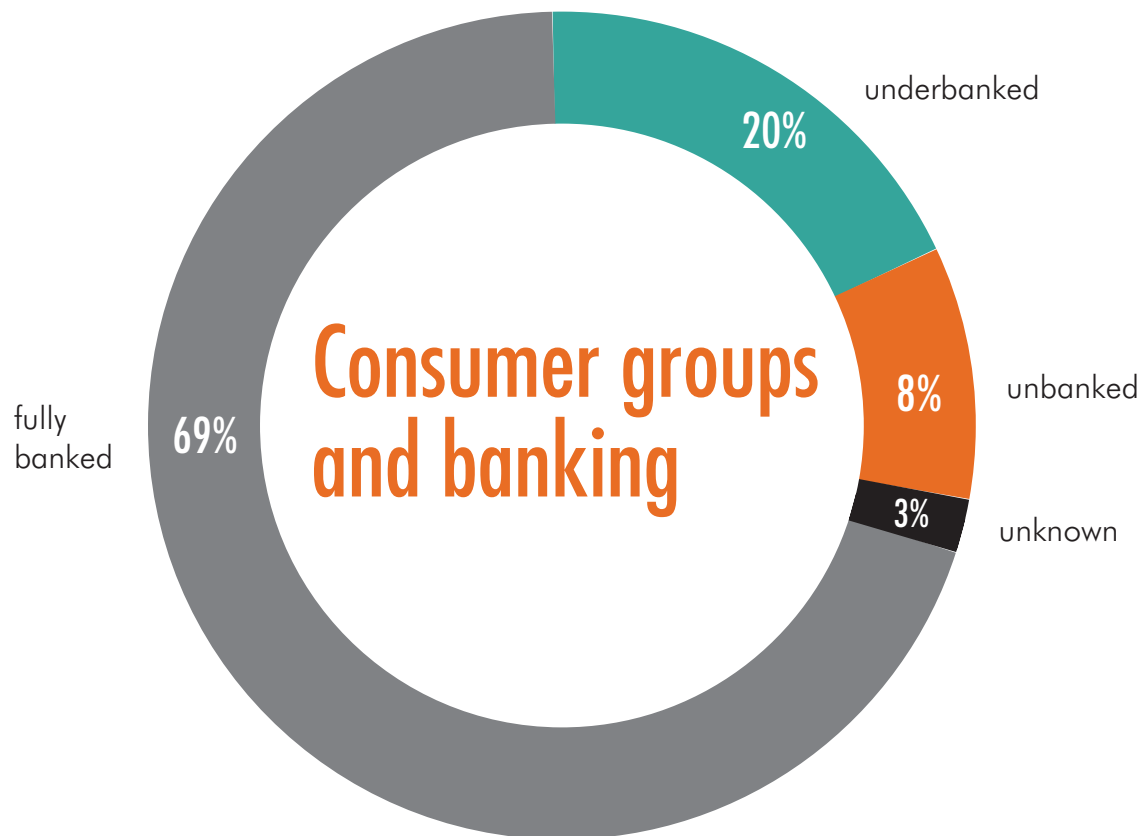
### **Consumers without bank accounts**

Researchers estimate a good portion of the unbanked are low- to moderate-income individuals, including a high percentage of minority populations. Another segment is the unemployed—currently about 5 percent.

The average annual income of unbanked U.S. consumers varies. Surveys and reports on the unbanked show average annual household incomes between \$20,000 and \$50,000.

A 2012 Javelin Strategy and Research report found that a portion of the unbanked were mostly young—between 18 and 24. The report estimates many will change their financial habits as they grow older.

Because the unbanked mainly use cash, it’s not uncommon for this consumer group to pay exorbitant transactional fees. According to the St. Louis Fed, when considering the cost of cashing a bi-weekly paycheck and paying for services, such as rent and utilities using money orders each month, a household with



Source: FDIC 2014

a net income of \$20,000 may pay as much as \$1,200 annually for alternative service fees—substantially more than the expense of a monthly checking account fee.

In her recent research, “Access to Electronic Payments Systems by Unbanked Consumers,” Hayashi describes six main reasons consumers don’t have bank accounts.

The main reasons are ordered by importance to consumers and based on the FDIC report:

- High cost of maintaining an account due to low, unstable income and banks’ high fees
- Negative perceptions or past experiences with banks
- They do not meet banks’ qualification requirements
- Privacy—not using a bank provides more privacy
- The physical accessibility of banks, such as locations and hours
- Attributes of bank accounts and associated

payment services do not meet the needs of certain groups of unbanked consumers

Understanding why consumers don’t have bank accounts is important, Hayashi says, because it will help financial institutions, payment service providers and policymakers remove barriers that prevent unbanked consumers from using financial services. This is especially important because new developments in electronic payment products could attract unbanked consumers.

### **Electronic payment products and the unbanked**

Banks and nonbanks offer several electronic payment products that could attract unbanked consumers, including general purpose reloadable (GPR) prepaid cards, alternative checking accounts, or transaction accounts.

Hayashi evaluated payment products

## PAYDAY LENDING AND THE UNDERSERVED

to see which are best equipped to address the reasons some consumers do not use the banking system.

GPR prepaid card accounts are one of the most prevalent electronic payment products for unbanked consumers. These cards can be used to make ATM cash withdrawals and retail transactions, ACH transactions and person-to-person transfers. Through participating retailers, consumers can reload the card by putting money into their account.

The FDIC report showed the share of unbanked households that had used a GPR prepaid card increased from 18 percent in 2011 to 27 percent in 2013. More than 22 percent of unbanked households used these cards in the 12 months prior to the survey, and nearly 58 percent of these households reloaded funds on their cards at least once.

For the unbanked, GPR cards have several advantages:

- The provider mitigates some qualification requirements, such as credit and banking histories, to open an account
- The cards are available at nonbanks as well as banks
- Consumers consider retailers more convenient than banks for their transaction needs
- Addresses the high costs due to unbanked consumers' low, unstable income and bank accounts' high fees
- Many GPR card providers offer tools such as online access, mobile applications and text alerts so cardholders can easily monitor and manage the balance of their card anytime, anywhere. Although most large banks offer similar tools, many smaller banks do not

GPR cards, however, have no advantage over traditional bank accounts in addressing consumer privacy concerns, Hayashi said. GPR card providers require prospective cardholders to present identification, and the cards' traceable nature means payments are not anonymous, just like a debit card and ACH payments.

Alternative checking accounts offer another option for unbanked consumers

There are an estimated 35 million U.S. consumers who are underserved in banking, according to American Banker. And a majority of them have little or no access to credit—either due to low, unstable incomes or poor or thin credit histories.

Because of these circumstances, many consumers need help making ends meet. That's often when they turn to nontraditional financial institutions, such as payday lenders, for help.

Although payday loans are legal in most states, they are one of the most controversial forms of credit because of their high fees and high propensity for repeat use. Payday loans are usually small-dollar, short-term unsecured loans that are made to high-risk borrowers. A typical loan may consist of \$100 with a two-week term and a \$15 fee, which equates to a 390 percent annual percentage rate, or APR.

Although many critics deem payday lending a “predatory business” that lures consumers into a debt spiral, many underbanked consumers have few other means of accessing credit, says Kelly Edmiston, a senior economist with the Federal Reserve Bank of Kansas City. Edmiston does not say whether payday lending is good or bad, but in his 2011 research, “Could Restrictions on Payday Lending Hurt Consumers,” he finds that when consumers don't have access to these types of lenders, they may fall into other financial traps such as using credit cards with high over-the-limit and cash advance fees, pawnbrokers and loan sharks—all of which can be more expensive than payday loans under many circumstances. The unbanked, however, don't even have access to payday lenders, because many providers require a checking account in order to secure a loan.

Concerns over payday lending have led some states to regulate or prohibit the industry. Edmiston says, however, regulation of these types of lenders often doesn't solve consumers' financial challenges. Until policymakers and the banking industry develop scalable services that provide the underserved access to low-cost, small-dollar lending and other traditional banking services, these types of lenders will continue to serve a purpose, Edmiston said.

to access electronic payment products such as debit cards and ACH. Banks and credit unions offer alternative checking accounts to consumers who are not qualified for, or cannot afford, traditional checking accounts.

The advantages of these accounts include:

- An alternative for consumers with credit and banking history problems
- Some alternative checking accounts offer lower fees than some traditional checking accounts
- Some depository institutions, especially credit unions, offer short-term, low interest rate, small-dollar loans to consumers with little or no credit history, which can mitigate overdraft incidents
- May be easier for consumers with limited financial literacy to manage. Some depository

institutions are certified by the U.S. Treasury as Community Development Financial Institutions, which provides education to account holders and funding for account providers.

The downside, Hayashi says, is the accounts offer no advantage over traditional bank accounts in addressing consumer privacy concerns and physical accessibility. Also, some institutions charge the same fees for alternative accounts as traditional accounts.

Another type of account, a transaction account, also could address unbanked consumers' needs.

“Outside the United States, especially in emerging and developing countries, mobile accounts—generally referred to as ‘mobile money’—have been playing a key role in

## Who are the underbanked?

Male	52 percent
Female	48 percent
White	45 percent
Black	17 percent
Latino	23 percent
Asian	7 percent
18-24	36 percent
25-34	22 percent
35-44	15 percent
45-54	14 percent
55-64	9 percent
65+	4 percent



Source: 2012 Javelin Strategy & Research

promoting financial inclusion,” Hayashi said.

In the United States, mobile wallets linked with mobile carrier billing are emerging—payments made with the mobile wallet are added to the consumer’s mobile phone bill.

PayPal is the major U.S. provider of online accounts. Consumers can use PayPal to make purchases online, transfer money to and from individuals and make purchases at a brick-and-mortar store through a mobile app. Although account holders typically load funds onto the account by linking it to their bank accounts or payment card accounts, they can also load the account with cash.

The advantages of a transaction account include:

- Mitigates qualification requirements and negative perceptions of banks
- Relatively low cost to use
- Accessibility—consumers can use the account online or through a mobile app to make transactions and transfers
- For pre-funded accounts, users can visit an authorized location, such as a mobile provider, to put money into their accounts—more locations and longer operating hours than banks
- Monitor and manage accounts through mobile devices

Where there are no advantages over traditional bank accounts is with privacy—both mobile and online accounts are traceable. Also, there is limited functionality of mobile wallets because of the link with mobile payments—not all merchants accept the payment type. And there are some safety concerns, such as some payment forms are not FDIC insured and providers voluntarily limit consumer liability.

## Reaching the unbanked

These accounts and associated electronic payment products can address issues unbanked consumers have with traditional bank accounts such as credit and banking history problems; high costs due to consumers’ low, unstable income and banks’ high fees; negative

perceptions of or experiences with banks; and the complexity and security of certain account features.

All account types, however, need improvements to help promote adoption among consumers, Hayashi said.

“In particular, by offering faster payments as soon as is feasible, providers of electronic payment products associated with the three account types can meet unbanked consumers’ demand for immediate access to their funds and payments that immediately reach the recipients,” she said.

These options also have implications for policymakers, who will need to review regulatory framework and encourage accessibility of faster payments through bank and alternative accounts.

“Access to affordable electronic payment products could enhance many unbanked consumers’ welfare,” Hayashi said.



KEVIN WRIGHT, EDITOR

## FURTHER RESOURCES

### “Access to Electronic Payments Systems by Unbanked Consumers”

by Fumiko Hayashi

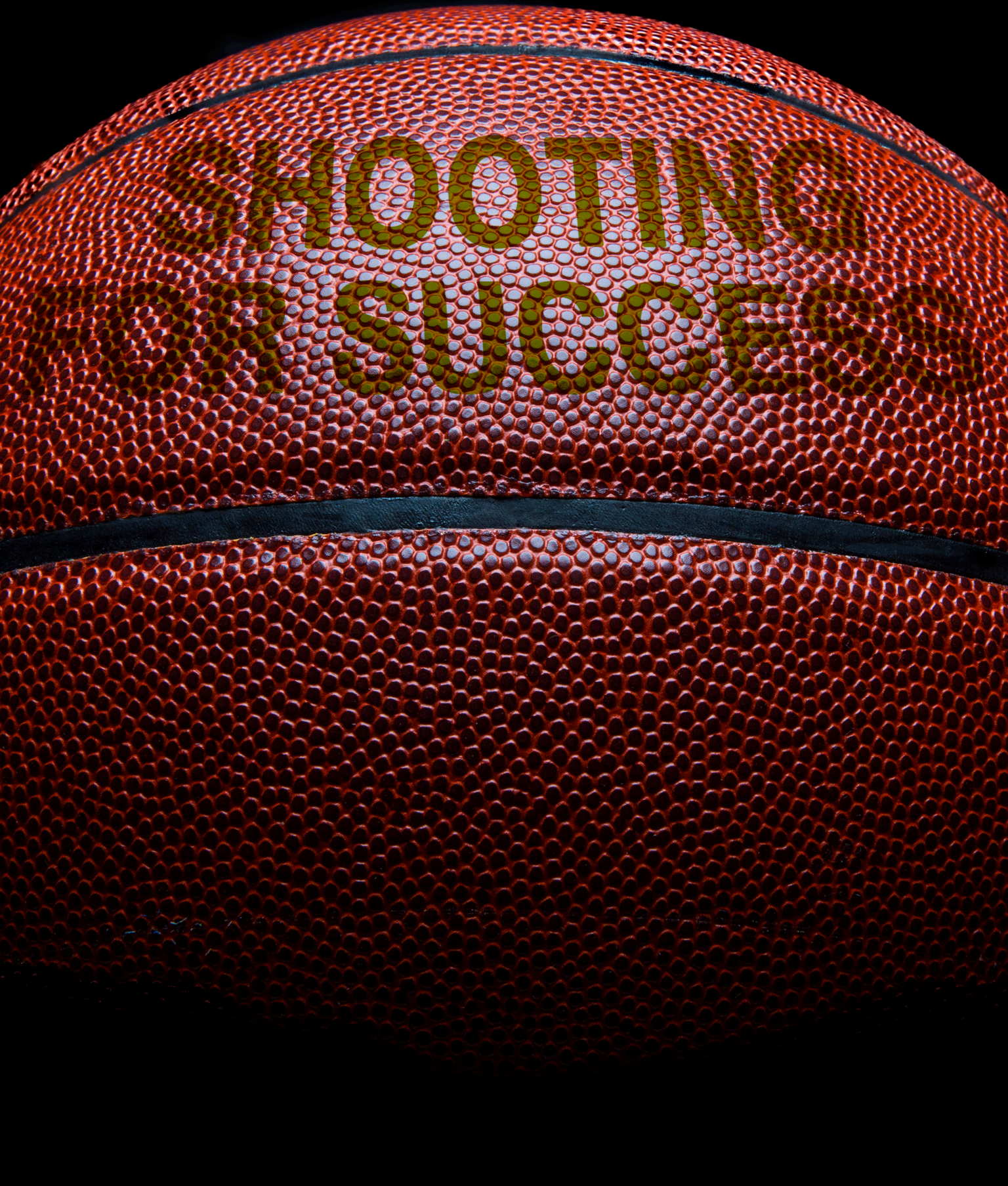
[www.KansasCityFed.org/publications/research/er](http://www.KansasCityFed.org/publications/research/er)

### “Could Restrictions on Payday Lending Hurt Consumers?”

by Kelly Edmiston

[www.KansasCityFed.org/research/community](http://www.KansasCityFed.org/research/community)

COMMENTS/QUESTIONS are welcome and should be sent to [teneditors@kc.frb.org](mailto:teneditors@kc.frb.org).



SPALDING  
SPALDING



# ENTREPRENEURSHIP IN THE 21ST CENTURY

Most economists say the economy is getting stronger.

Overall, employment reports this year show a labor market that is near full employment—the unemployment rate dipped below 5 percent, the labor force participation rate reached pre-recession levels and the employment-population ratio almost reached 60 percent—indicating the United States has gotten back to work since the Great Recession.

Although domestic manufacturing has decreased, consumer confidence has remained steady and even the gap between imports and exports closed in August.

Entrepreneurship, as measured by new business creation, however, has declined steadily for the last decade. During the financial crisis, creation of new businesses dropped 30 percent. And data from the Brookings Institution shows business formation dropped 8 percent from 1978 to 2011 as business closures outpaced business formation.

At the end of 2013, U.S. Census Bureau data showed firms 16 years or older made up almost 40 percent of all businesses; meanwhile, firms 1 to 5 years old declined to less than 10 percent of all businesses.

This decline is significant because labor statistics show newer businesses account for most of the new job creation in the United States while older businesses lay off as many employees annually as they add.

There is a ray of hope for entrepreneurship in America. Some analysts say the millennial generation, which has become the largest segment of the prime-age workforce (ages 25-55), is more inclined to embrace the entrepreneurial spirit than the corporate world. There's also an increase in minority-owned business, especially women, who are the fastest growing group of entrepreneurs in the United States.

## Creating a new business

Daveyeon Ross displayed the spirit of an entrepreneur at an early age, growing up on the Caribbean island nation of Trinidad and Tobago. One time Ross gave his mother more than \$1,000 in the local currency (about \$200 U.S.) to use during a trip to New York City to buy sports-related hats.

“I was going to school with a bag of hats every day and selling them for almost a 1,000 percent profit,” he said.

That same spirit led to a basketball

scholarship in the United States, where he earned a bachelor's degree in computer science at Benedictine College in Atchison, Kan., and a master's in business from MidAmerica Nazarene University in Olathe, Kan.

After college he went to work at Sprint, where he led his own technology team.

"I'm very appreciative of them," he said of Sprint, "but it was such a large organization; I couldn't initiate change."

Much of the innovation in any large corporate environment, he explained, isn't innovation, per se. He called it "intrapreneurship," where a company improves upon what it already has created, but doesn't create anything new.

"Entrepreneurship allows me to control my own destiny," he said. "It allows me to create something new, to innovate and take credit for my own work, and I'm not being told what I can and can't do."

After leaving Sprint, Ross founded Digital Sports Ventures, an interactive technology company with rights to NCAA Division I college sports video across seven major conferences. The company grew, and he sold it in 2011 to a large ad network.

Like most entrepreneurial endeavors, Ross' next business venture started with a question. In his case, the question revolved around how to capture data about player performance in basketball. And while Ross knew the answer would be complex, he believed that with his background in basketball and his technical skill he could form a team to find the answer.

Ross co-founded ShotTracker with Bruce Ianni in summer 2013. Ianni had created Innovadex, an online search engine—a "Google for chemists"—which he sold in 2012.

Their original ShotTracker focused on using hardware and software to capture shot attempts,

**(ON PAGE 23) SHOTTRACKER COFOUNDERS BRUCE IANNI, LEFT, AND DAVEYEON ROSS, RIGHT, LOOK AT VIDEO RESULTS ON RYAN HOOVER'S SMARTPHONE, Hoover works with business development at the company. (Below) Hal Hoffman, right, a firmware engineer, works with Tom Keeley, architect and firmware lead, in the company's office in Merriam, Kan.**



PHOTO BY GARY BARBER



makes and misses for a single basketball player. After finding some success with the product, the co-founders and their development team created ShotTracker Team, which simultaneously captures the stats of every player on the court in real time.

“The team product involves a whole different level of technology,” Ross said.

The hardware includes lightweight sensors that are attached to the players’ shoes, installed in the basketball—the company has an agreement with sports manufacturer Spalding—and above the court. Data are transmitted to a software program, which gives coaches and players instant performance data.

The business continues to refine the program and is working with a company to install sensors in the floor of portable basketball courts.

With its success, ShotTracker has created new full-time and part-time jobs and has moved into a new office in Merriam, Kan.

“We haven’t reached all our goals,” Ross said. “We sometimes create new goals as we go along, but we’re not where we want to be yet.”

With this drive to succeed, Ross says ShotTracker can grow into a large company, or eventually merge with a large corporation.

“That’s the irony of becoming successful,” he said. “You can take that entrepreneurial spirit and turn it into a corporate one.”

## Finding new solutions

Shifts in U.S. population from urban cities to suburban environments began shortly after World War II and occurred for reasons such as congestion, cheaper housing and other economic and social factors. As suburbs began to develop, there also was a philosophical shift among businesses, where companies sought open areas to develop business parks with modern buildings and more space for parking. The change often resulted in the loss of jobs in urban areas.

Dell Gines, a senior community development advisor with the Kansas City Fed, says this shift helped create a strategy of economic development

# SMALL BUSINESSES AND JOBS

Economic researchers often cite entrepreneurship as a tool to spur small business growth, which increases local employment and income levels. That’s why small businesses are often referred to as the backbone of the U.S. economy.

In 2013, there were approximately 27.8 million businesses in the United States. Businesses with fewer than 500 employees represented 99.7 percent of all businesses in the nation. These small businesses employed 50 percent of all U.S. employees. Small businesses also drive new job growth. From 2008-2013, small businesses created 74 percent of all net new jobs.

## U.S. business size by number of employees and total employment

**Blue:** Percentage of businesses in the U.S. by number of employees

**Green:** Percentage of employees by business size

### 0 to 19 employees

90%

18%

### 20 to 499 employees

9.7%

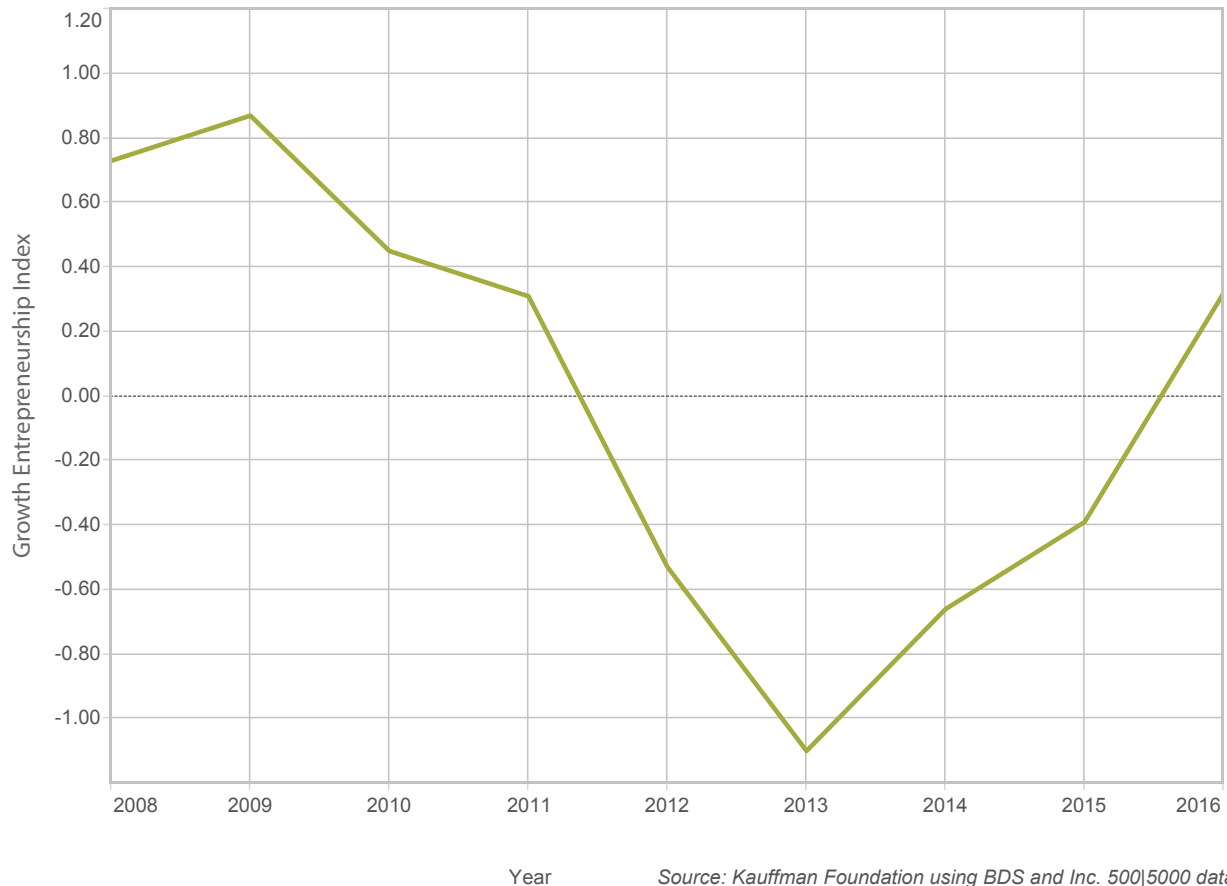
31%

### 500 or more employees

0.3%

49%

## KAUFFMAN INDEX OF GROWTH ENTREPRENEURSHIP (2008-2016)



based on “attraction,” where communities or regions recruit large companies or plants to spur economic development.

To entice companies, cities at first offered incentives to reduce a company’s operating and capital costs such as tax and utilities abatements, low cost property leases and bond revenue for construction. The justification for this strategy, Gines said, is that the long-term economic gain the relocating company provides will be greater than the cost of the incentives the company receives.

Although this practice has become common, it does have problems. Research in 2004 found that states spend billions annually on economic development incentives with limited evidence

that, on-net, they are effectively creating economic growth, Gines said.

For many communities, particularly smaller towns, researchers have characterized attraction-based development as both risky and costly. Research from Kansas City Fed Economist Kelly Edmiston suggests an alternative strategy of focusing on the growth of existing small businesses may be a more cost-productive strategy of economic development and job creation than recruitment of new businesses.

Gines contends that entrepreneurship can create economic solutions where traditional tools have come up short, especially in urban communities.

“Small businesses are called the backbone

of the U.S. economy because they create jobs, wealth and a local sense of place and community,” he said.

Entrepreneurship-based strategies, which Gines calls “grow your own” strategies, focus on supporting the development and growth of local entrepreneurs and small businesses to create sustainable and balanced economic growth at the local level.

For example, the Crossroads Arts District was once a neighborhood in disrepair in the heart of Kansas City, Mo. It’s now an enclave of small businesses, including one-of-a-kind restaurants, small tech startups, boutique shops, restaurants and other creative businesses. Instead of the city attracting large companies to boost the community’s commerce and create jobs, it fostered a locally-grown economic system that encouraged entrepreneurship and the development of small businesses that created jobs, tax revenue and provided a place where people desire to live, work and play.

## The future

The Kauffman Index of Growth Entrepreneurship indicates entrepreneurial business growth has increased out of negative numbers for the first time since the recession. Although there was a sharp increase in business startups ahead of the recession, mostly due to people trying to find alternative work, startup activity declined sharply in the recovery. Since 2014, however, the number of startups has increased steadily, with ownership of small businesses expected to reach pre-recession levels by 2017.

This trend is supported by a 2014 survey by Bentley University that suggests millennials take a different view of career success, with many of them seeking more independent and entrepreneurial business opportunities than past generations.

According to the survey, only 13 percent of respondents had career goals that involve climbing the corporate ladder while almost two-thirds, or 67 percent, said their goals involve starting their own business.

Those findings are backed by a 2016 BNP

Paribas Global Entrepreneurialism Report that surveyed 2,600 high and “ultra-high” net worth entrepreneurs ages 20 to 35 from 18 countries.

The report finds millennials discovered entrepreneurship earlier than baby boomers. Boomers started their own business at age 35, while millennials started their first business at 27. And the generation is still young, analysts say, with the percentage of startups expected to increase during the next decade.

According to a recent U.S. business owner survey, the fastest growing group of entrepreneurs in America is minority women. From 2002 to 2012, Black female entrepreneurship grew by 178 percent, Hispanic by 172 percent and Asian by 121 percent.

“This potentially is a good sign due to the changing demographics in America,” Gines said.



KEVIN WRIGHT, EDITOR

## FURTHER RESOURCES

### “Grow Your Own” e-book

by Dell Gines

[www.KansasCityFed.org/~ /media/files/publicat/community/gyo/entrepreneurship-econ-dev-local-communities.pdf](http://www.KansasCityFed.org/~ /media/files/publicat/community/gyo/entrepreneurship-econ-dev-local-communities.pdf)

### “The Role of Small and Large Businesses in Economic Development”

by Kelly Edmiston

<https://www.kansascityfed.org/publicat/econrev/pdf/2q07edmi.pdf>

COMMENTS/QUESTIONS are welcome and should be sent to [teneditors@kc.frb.org](mailto:teneditors@kc.frb.org).



## Speakers at the symposium included:

**Ulrich Bindseil**, head of Directorate General Market Operations, European Central Bank

**Agustín Carstens**, governor, Bank of Mexico

**Benoît Coeuré**, member of the Executive Board, European Central Bank

**Jean-Pierre Danthine**, president, Paris School of Economics

**Darrell Duffie**, professor, Stanford University

**Kristin J. Forbes**, professor, Massachusetts Institute of Technology

**Marvin Goodfriend**, professor, Carnegie Mellon University

**Robin Greenwood**, professor, Harvard University

**Samuel G. Hanson**, assistant professor, Harvard University

**Peter Blair Henry**, dean, Leonard N. Stern School of Business, New York University

**Arvind Krishnamurthy**, professor, Stanford University

**Randall S. Kroszner**, professor, University of Chicago

**Haruhiko Kuroda**, governor, Bank of Japan

**Marianne Nessén**, head of Monetary Policy Department, Sveriges Riksbank

**Simon Potter**, executive vice president, Markets Group, Federal Reserve Bank of New York

**Ricardo Reis**, professor, London School of Economics

**Minouche Shafik**, deputy governor, Markets and Banking, Bank of England

**Christopher A. Sims**, professor, Princeton University

**Jeremy C. Stein**, professor, Harvard University

**Laura L. Veldkamp**, professor, New York University

**Janet L. Yellen**, chair, Board of Governors of the Federal Reserve System

“As we continue to move forward with policies that strengthen vulnerable domestic and global economies, Jackson Hole provides an environment for attendees to present insights and exchange ideas about important issues facing central banks,” Kansas City Fed President Esther George said. “The success of the symposium each year is due to the contributions of those who participate.”

To read the proceedings, including papers and commentary for this year’s Economic Policy Symposium and previous symposiums, visit [KansasCityFed.org/publications/research/escp](https://www.kansascityfed.org/publications/research/escp).

## Economic Symposia

2015	Inflation Dynamics and Monetary Policy
2014	Re-Evaluating Labor Market Dynamics
2013	Global Dimensions of Unconventional Monetary Policy
2012	The Changing Policy Landscape
2011	Achieving Maximum Long-Run Growth
2010	Macroeconomic Challenges: The Decade Ahead
2009	Financial Stability and Macroeconomic Policy
2008	Maintaining Stability in a Changing Financial System
2007	Housing, Housing Finance, and Monetary Policy
2006	The New Economic Geography: Effects and Policy Implications
2005	The Greenspan Era: Lessons for the Future
2004	Global Demographic Change: Economic Impacts and Policy Challenges
2003	Monetary Policy and Uncertainty: Adapting to a Changing Economy
2002	Rethinking Stabilization Policy
2001	Economic Policy for the Information Economy
2000	Global Economic Integration: Opportunities and Challenges
1999	New Challenges for Monetary Policy
1998	Income Inequality Issues and Policy Options
1997	Maintaining Financial Stability in a Global Economy
1996	Achieving Price Stability
1995	Budget Deficits and Debt: Issues and Options
1994	Reducing Unemployment: Current Issues and Policy Options
1993	Changing Capital Markets: Implications for Monetary Policy
1992	Policies for Long-Run Economic Growth
1991	Policy Implications of Trade and Currency Zones
1990	Central Banking Issues in Emerging Market-Oriented Economies
1989	Monetary Policy Issues in the 1990s
1988	Financial Market Volatility
1987	Restructuring The Financial System
1986	Debt, Financial Stability, and Public Policy
1985	Competing in the World Marketplace: The Challenge for American Agriculture
1985	The U.S. Dollar - Recent Developments, Outlook, and Policy Options
1984	Price Stability and Public Policy
1983	Industrial Change and Public Policy
1982	Monetary Policy Issues in the 1980s
1981	Modeling Agriculture for Policy Analysis in the 1980s
1980	Future Sources of Loanable Funds for Agricultural Banks
1979	Western Water Resources: Coming Problems and the Policy Alternatives
1978	World Agricultural Trade: The Potential for Growth

# MAKING A CONNECTION

**IN FOUNDING THE FEDERAL RESERVE MORE THAN A CENTURY AGO**, Congress recognized the importance of connecting the nation's central bank to the Main Streets of America. The Federal Reserve Bank of Kansas City carries out this role through its president and its programs and activities throughout the Tenth District, and beyond. Here is a glimpse at the recent activities of President Esther L. George and the staff of the Kansas City Fed.

Kansas City Fed President Esther George (right photo) takes time for a photo with, from left, Kristie Holoch, in-coming chair of the Nebraska Bankers Association (NBA), Jerry Catlett, NBA chairman, and Richard Baier, NBA CEO, at the NBA's annual conference in July.

George, below, meets with Judi Stork, deputy bank commissioner for the state of Kansas, during the Kansas Bankers Association CEO Forum at the Broadmoor Hotel in early August in Colorado Springs, Colo.



George, above, spoke during a joint board meeting between the Kansas City Fed's Oklahoma City Branch Board and the St. Louis Fed's Little Rock Branch Board in July in Oklahoma City.



On Aug. 18, George and Ken McCauley, owner and operator of K&M Farms, Inc., spoke for a few moments during a meeting at the Agricultural Business Council of Kansas City.



Peter Barnes with the Fox Business Network interviews George on Aug. 26 during the 2016 Jackson Hole Economic Policy Symposium in Jackson Hole, Wyo. (See page 26)



George spoke with one of the attendees at the Mid-America Labor/Management Conference on July 10 in Lake Ozark, Mo.

# Building relationships ...

## Denver office hosts 2016 Tenth District State Banking Officials Conference

The Denver office of the Federal Reserve Bank of Kansas City hosted the Tenth District State Banking Commissioners meeting on Aug. 3-4 (pictured right). The goals of the conference were to enhance partnerships between state and federal regulators, and to provide attendees updates on economic, banking and regulatory issues. Kansas City Fed President Esther George spoke to the group about monetary policy and current conditions. Branch Executive Alison Felix gave an update on economic conditions in the region and several members of the Denver office's Supervision and Risk Management team provided a variety of presentations on banking and regulatory matters.



## Denver Branch partners with Operation HOPE

The Denver office hired high school intern Miles Vaughn as part of a mentoring program in partnership with Operation HOPE, a nonprofit dedicated to eradicating poverty and empowering the wealth-less. Vaughn is a junior at Overland High School in Denver. He assisted the Public Affairs Department's Money Museum and Economic Education operations.



## President George attends roundtable with the Colorado Women Corporate Directors Chapter

Kansas City Fed President Esther George led a discussion about the current U.S. economy with the Colorado Women Corporate Directors (WCD) Chapter. With more than 3,500 members who serve on over 9,500 boards in 73 chapters on six continents, WCD acts as a catalyst for thought leadership, networking and new relationships.





## Oklahoma City office participates in Elk City economic forum, tour and business roundtable

Public and Regional Affairs staff hosted an economic forum and business roundtable in August in Elk City, Okla. Chad Wilkerson, branch executive, vice president and economist at the Federal Reserve Bank of Kansas City, Oklahoma City Branch, was the keynote speaker at the forum, which was attended by 65 business leaders from across western Oklahoma. During the visit, staff toured businesses and held a roundtable with local leaders to learn more about the regional economy.



## The Cloud People returns to Oklahoma City

The Oklahoma City Branch Board of Directors, Branch management and Artist Mike Larsen welcomed the “Cloud People” to the Oklahoma City Branch’s new offices on June 2. The art, part of the “Shaman Series,” was commissioned in 1995 to commemorate the Oklahoma City bombing and was displayed in the original Oklahoma City Branch office. For the past 10 years, the paintings were located at the Federal Reserve Bank of Kansas City’s headquarters.



## Oklahoma City office the site of the Great Depression teacher workshop

Public Affairs hosted a teacher workshop in July focused on the economic lessons from the Great Depression. Educators from across the state participated in hands-on activities to apply in their classroom.



## Scottsbluff-Gering Economic Forum

The Omaha office hosted an Economic Forum Aug. 23 in Gering, Neb., with approximately 70 local business, banking and community leaders in attendance. The Kansas City Fed has a long history of hosting economic forums throughout its seven-state region. The programs are an opportunity to share insights on economic issues in the region. During the Scottsbluff-Gering Forum, Omaha Branch Executive Nathan Kauffman provided an update on Nebraska's economy, and George Kahn, vice president and economist, discussed the U.S. economy.



## DREAMBIG Academy

Omaha Branch Community Development Advisor Dell Gines spoke to high school students at the DREAMBIG Academy about his career path and role at the Federal Reserve on July 14. Hosted by the University of Nebraska, Lincoln, the DREAMBIG (Develop, Risk, Empower, Achieve, Maximize, Build, Innovate, Grow) Academy exposes upcoming high school seniors who are interested in business and diverse, low income or potential first generation college students to campus life and future career opportunities.



## Nebraska education conferences

Omaha Branch Public Affairs Specialist Nicole Connelly shared economic and financial education resources with Nebraska teachers at the Nebraska State Council for Social Studies conference in Omaha, as well as the Nebraska Career Education Conference in Kearney. The Kansas City Fed presents and exhibits at conferences throughout the Tenth Federal Reserve District to help support and strengthen its relationship with educators.

# Advisory Councils

## Unique perspectives, regional input on policy

The Federal Reserve Bank of Kansas City relies on members of its various advisory councils to offer unique perspectives and provide important contributions that help the Federal Reserve in its consideration of key policy issues. Each advisory council comprises members from various community and regional business and organizational entities that are important to the Tenth Federal Reserve District and national economies.

“It is important for the Fed to form and maintain advisory councils because it provides a forum for the Fed leadership to obtain

additional input from various stakeholder members of the effect of current lending, the flow of goods and trade, as well as the impact of economic assumptions,” said Michael Collins, who is president and CEO of Port KC, the port authority district for Kansas City, and a member of the Kansas City Fed’s Economic Advisory Council.

Economic Advisory Council (EAC) members represent business and labor from the Tenth District and meet twice a year with Kansas City Fed staff to offer insight on the regional economy.



## Advisory Council Members

### ECONOMIC ADVISORY COUNCIL

*(Established in 1985)*

**Michael Collins**, president and chief executive officer, Port KC, Kansas City, Mo.

**Katherine Gold**, President, Goldbug, Inc., Aurora, Colo.

**Ken Lackey**, chairman of the board, Nordam, Tulsa, Okla.

**John Latenser**, owner, Neff Packaging Systems, Kansas City, Kan.

**Steve Martin**, president and chief executive officer, Blue Cross Blue Shield, Omaha, Neb.

**Caleb McCaleb**, owner and president, McCaleb Homes, Edmond, Okla.

**Taylor Merritt**, chief executive officer, Merritt Aluminum Products Company, Fort Lupton, Colo.

**Jim D. Neiman**, president and chief executive officer, Neiman Enterprises, Inc., Hulett, Wyo.

**Emil Ramirez**, director, United Steelworkers District II, Independence, Mo.

**Dan Solomon**, chief risk officer, Koch Industries, Inc., Wichita, Kan.

**Pat Vincent-Collawn**, chairman, president and chief executive officer, PNM Resources, Albuquerque, N.M.

**Bridgette Williams**, deputy director, Heavy Constructors Association of Greater Kansas City, Kansas City, Mo.

### COMMUNITY DEVELOPMENT ADVISORY COUNCIL

*(Established in 2002)*

**Darla LaPointe**, chairwoman, Winnebago Tribe of Nebraska, Winnebago, Neb.

**Marie Longserre**, president and chief operating officer, Santa Fe Business Incubator, Santa Fe, N.M.

**Shelley Marquez**, senior vice president and community development manager, Wells Fargo Bank, Denver, Colo.

**Clyde McQueen**, president and chief executive officer, Full Employment Council, Kansas City, Mo.



“The Fed has access to so much data, big data,” said Katherine Gold, who is president and CEO of Goldbug, the largest children’s accessory designer and distributor in the United States, based in Colorado. “I think the EAC helps the Fed focus on economic activity and risks that big data may mask or marginalize. We bring economic realities to life.”

Gold had no background in either monetary policy or economics when she joined the EAC eight years ago. She says the council has been a two-way learning experience—she learns about monetary policy and economics from the Kansas City Fed and council members provide their knowledge of business to Fed staff.

“I really care about our customers, parents and their children,” she said. “Moves by the Fed really affect Main Street USA.”

The Bank’s Community Development Advisory Council (CDAC) also meets twice a year with Kansas City Fed staff. Members come from financial institutions, nonprofits and businesses to offer insight on economic and community development issues in the region.

“My hope is to share the perspective of the community to raise concerns facing the region and to discuss and share best practices,” said Shelley Marquez, who has been a member of the CDAC since 2010. “I also want to understand how the community development



**COMMUNITY DEPOSITORY INSTITUTIONS ADVISORY COUNCIL**

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(Established in 2011)

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**Hebert Hardwick**, chairman of the board, Merit Bank, Overland Park, Kan.

**Kyle Heckman**, president and chief executive officer, Flatirons Bank, Boulder, Colo.

**Kevin Larson**, president, CharterWest Bank, West Point, Neb.

**Patricia (Trish) Minard**, president and chief executive officer, Southwest National Bank, Wichita, Kan.

**Leo Schumacher**, chief executive officer, Lincoln Federal Savings Bank, Lincoln, Neb.



needs are being addressed in other markets and is there an opportunity to collaborate.”

Marquez is a 34-year veteran of banking and the senior vice president community development manager for a team of professionals across 17 states.

“I believe it is important to share trends, needs and issues facing the Tenth District and the impact the Federal Reserve Bank can have with key decisions and how they respond to those needs.”

Other Bank advisory councils include the Community Depository Institutions Advisory Council (CDIAC), whose members represent banks, thrift institutions and credit unions in the Tenth District. They meet twice a year to provide perspective on lending issues, the economy and other issues of interest to community depository institutions. One of its members each year represents the Tenth District at a CDIAC meeting with the Board of Governors in Washington, D.C.

Members of the Payments Advisory Group represent financial institutions in the Tenth District. They meet periodically to provide insight on developments in the U.S. payments system and advise on actions the Federal Reserve might take to ensure the system’s safety and efficiency while providing broad access. There also is the Community Advisory Council, which meets with Federal Reserve Board in Washington, D.C. Members



represent various sectors of the nation’s regional economies and offer diverse perspectives on the economic circumstances and financial services needs of consumers and communities, with a particular focus on low- and moderate-income populations. Three of the CAC members are from the Tenth District.

“Advisory councils provide tremendous insight and advice as the Federal Reserve creates and maintains key policies that promote stability and confidence in our local, regional and national economies,” said Esther George, president of the Federal Reserve Bank of Kansas City.

**Kim Withers**, president and chief executive officer, Meridian Trust Federal Credit Union, Cheyenne, Wyo.

**David Wright**, president, AMG National Trust Bank, Englewood, Colo.

**PAYMENTS ADVISORY GROUP**  
(Established in 1995)

**Scott Copeland**, executive vice president, BancFirst, Oklahoma City, Okla.

**Alan Fosler**, senior vice president and cashier, Union Bank & Trust Company, Lincoln, Neb.

**Mark Frank**, executive vice president, CoBiz Bank, Denver, Colo.

**Jane E. Haskin**, president and chief executive officer, First Bethany Bank & Trust Co., Bethany, Okla.

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**Steve Lindgren**, executive vice president and chief operating officer, Cornhusker Bank, Lincoln, Neb.

**Tim Lyons**, president, TTCU The Credit Union, Broken Arrow, Okla.

**Russell Oatman**, senior vice president, First National Bank of Omaha, Omaha, Neb.

**Suchitra Padmanabhan**, president, CBW Bank, Weir, Kan.

**Jim Reuter**, president, FirstBank Data Corporation, Lakewood, Colo.

**Bob Thurman**, chief executive officer, Credit Union of America, Wichita, Kan.

**Tamara Vande Velde**, first vice president and chief information officer, Capitol Federal Savings, Topeka, Kan.

**COMMUNITY ADVISORY COUNCIL**  
(Established in 2015)

**Patrick Dujakovich**, president, Greater Kansas City AFL-CIO, Kansas City, Mo.

**Adrienne Smith**, president and chief executive officers, New Mexico Direct Caregivers Coalition, Placitas, N.M.

**Catherine Wilson**, professor, University of Nebraska-Lincoln College of Law, Lincoln, Neb.

## Kansas City Fed volunteers support girls app camp

Carolina Banda's middle-school-aged daughter, Jessica, is always on her phone or the computer. At a weeklong day camp for girls, Jessica learned how to develop applications, or apps, similar to the ones she enjoys using in her free time.

The day camp was organized by the University of Missouri-Kansas City School of Computing and Engineering, with support from KC STEM Alliance and the Federal Reserve Bank of Kansas City.



"She likes it and has fun," Banda said. "They told her she's really good at it."

Throughout the summer, employees from the Federal Reserve Bank of Kansas City and volunteers from other area organizations mentored or judged final app projects for about 30 middle school and high school girls who attended the app camp. The camp is one way to encourage girls to eventually pursue a career in the STEM fields, which includes science, technology, engineering and math. Each week of camp, a new group of girls worked on approximately eight to 10 apps with the supervision of application development experts, such as Dawn Boydston, a Kansas City Fed employee who works in information technology.

"The reason for me being in technology today is due to people in my life encouraging me and bringing the possibilities to my attention," Boydston said. "I love to pay it forward and encourage girls to pursue technology and bring a positive message with me that they should set their sights high and that they too can be successful in a technology career."

Stephanie Stratemeier, a Kansas City Fed vice president in the information technology area, volunteered at the app camp because she wanted to share her nontraditional route into a technology role with young women who are beginning to plan their careers.

"It was a great experience to get to know them all a bit better, hear about their week and the apps they were working on," she said. "They were all really creative from thinking of practical apps to apps they thought would just be fun. We all talked about how STEM learning can be integral to really any career now and into the future."

Stratemeier appreciated the chance to share her skills with the group.

"I think we should take advantage of every opportunity we have to connect with students and be positive role models who encourage them to keep learning and keep exploring STEM education," she said.

Hazel Cherry, an energetic middle schooler who taught dance moves to her mentors during the week, liked coding and producing apps.

"I'm thinking about engineering or architecture," she said of her future career plans. "This program gave me the experience as if I was an application developer. It basically gave me a boost."

Learn more about technology careers at the Kansas City Fed by visiting [www.KansasCityFed.org/careers](http://www.KansasCityFed.org/careers).

## Summer @ the Fed program wraps up fifth year of educational programming

The Federal Reserve Bank of Kansas City recently wrapped up its fifth year of the Summer @ the Fed program, which brings graduates from the Kansas City Fed's Student Board of Directors program back to the Bank as paid interns to lead financial education programming for elementary-aged children.

This summer seven college-bound graduates of the Student Board program returned to support the eight-week program. More than 700 children were reached during programming events at the Kansas City Fed or at off-site neighborhood locations, such as the Boys and Girls Club, Upper Room, Bethel Neighborhood Center and Operation Breakthrough. The interns led all the activities, which are designed to teach children concepts related to personal finance, such as budgeting, the difference between needs and wants, and opportunity costs.

"The days are exhausting, but they're fun, too," said Mylan Gray, a sophomore at Stanford University who served as assistant director of the program. "The time flies by."

In addition to coordinating financial education programs with nonprofit organizations throughout the Kansas City metro area, the Summer @ the Fed interns participated in professional development meetings and training programs to prepare them for their careers. Employees of the Bank served as coaches and mentors to the interns.

"They taught us to always move forward, but to help others as much as possible when we do," said Wasiba Hamad, a Summer @ the Fed intern who is in her first year at Donnelly College.

Learn more about Summer @ the Fed at [www.KansasCityFed.org/education/foreducators/student-board/kc/summer-program](http://www.KansasCityFed.org/education/foreducators/student-board/kc/summer-program).



PHOTOS BY GARY BARBER



SEVEN COLLEGE-BOUND STUDENTS (ABOVE) worked as counselors in the Kansas City Fed's Summer @ the FED program, which is designed to teach children concepts about personal finance. Pictured from left are Giovanni Alvarado, Jerry Huynh, Kierra Wash, Christianna Jackson, Alex Trobough, Wasiba Hamad and Mylan Gray, who was assistant director of the program.

## Kansas City Fed's Nielsen honored with Taylor Award

Sara Nielsen, a Federal Reserve Bank of Kansas City employee in banking supervision, was one of six 2015 recipients of the William Taylor Award for Excellence in Bank Supervision in the Federal Reserve System. The award recognizes those individuals who have demonstrated sustained and extraordinary achievement and professionalism in the performance of their responsibilities.

Nielsen was recognized for her contributions to bank supervision throughout her tenure at the Bank, as well as through her leadership of Federal Reserve System information technology supervision initiatives. Most recently, she showed noteworthy leadership in the development of a program that helps implement the new cybersecurity examination program for state member banks, holding companies, and U.S. branches and agencies of foreign banking organizations with less than \$50 billion in assets. In addition to her efforts in implementing the cybersecurity examination program, she has worked to standardize the approach to assigning IT ratings at supervised institutions.

“There had been a need for a long time to have a standardized information technology work program across the Federal Reserve System to strengthen our work in conducting cybersecurity assessments,” Nielsen said. “I am so proud to have some part in standardizing information technology exams across the System.”

The award commemorates William Taylor's integrity and outstanding contributions to both the Federal Reserve and the banking system as a whole, and represents the supervision function's highest honor. The award was established in Taylor's memory after he died of a heart attack at 53. Taylor had served as director of the Division of Banking, Supervision, and Regulation for the Board of Governors of the Federal Reserve System in Washington, D.C., from 1984 to 1991. Following that, Taylor had been chairman of the Federal Deposit Insurance Corp.

Read more about the Kansas City Fed's work in banking at [www.KansasCityFed.org](http://www.KansasCityFed.org), and for more information about Bill Taylor, read *Integrity, Fairness and Resolve: Lessons from Bill Taylor and the Last Financial Crisis*, available on the Kansas City Fed's website.



SARA NIELSEN, CENTER, RECEIVED THE WILLIAM TAYLOR AWARD for her work in banking supervision. Pictured with Nielsen, from left, are Lael Brainard, a member of the Board of Governors, Nielsen's husband, Erik, Federal Reserve Chair Janet Yellen, and Kevin Moore, senior vice president of Supervision and Risk Management at the Kansas City Fed.



## Chamber recognizes Kansas City Fed as a 'Champion of Diversity'



(ABOVE) DONNA WARD, SENIOR VICE PRESIDENT AND DIRECTOR of the Kansas City Fed's Office of Women and Minority Inclusion (OMWI), above left, and Andrea Hendricks, assistant vice president and OMWI deputy director, accepted in July the Champion of Diversity Award from the Greater Kansas City Chamber of Commerce.

In July, the Federal Reserve Bank of Kansas City was awarded the Champion of Diversity award by the Greater Kansas City Chamber of Commerce and recognized for its active commitment to valuing diversity and inclusion.

"At the Bank, we are focused on ensuring everyone feels like it is their job to promote diversity and inclusion," said Kansas City Fed President Esther George in a video that was shown before the Bank accepted the award.

The award recognizes a regional business that embraces diversity in its workplace, vendor partnerships and the community. The Kansas City Fed was selected from 20 corporate applicants as this year's winner because the organization has demonstrated that diversity is core to its people, practices and partnerships. Donna Ward, senior vice president and director of the Bank's Office of Women and Minority Inclusion (OMWI), and Andrea Hendricks, assistant vice president and OMWI deputy director, accepted the award for the Bank.

"We are very honored to accept this award on behalf of our 1,700 Bank employees," Ward said. "We believe this award reflects our Bank's

commitment to diversity in people, business practices and business partnerships."

"Diversity and inclusion is central to everything we do," Hendricks said. "We want to ensure our diversity reflects the community we serve. This award allows us to tell our story."

The event included a panel discussion among representatives of local companies who spoke about challenges and best practices related to diversity and inclusion at their workplaces. Three individuals from the Kansas City area were recognized for their outstanding commitment to diversity.

"This is a great opportunity to see innovative ways that diversity and inclusion is happening around the city and celebrating the good things we do at the Bank," said Chris Constant, a Kansas City Fed employee who attended the awards event. "It's up to us to carry it forward and continue the path that we are on."

Learn more about the Kansas City Fed's commitment to diversity at [www.KansasCityFed.org/aboutus/kcfedinformation/diversity](http://www.KansasCityFed.org/aboutus/kcfedinformation/diversity).

## Register for the Kansas City Fed's Accounting & Auditing Forum

The Supervision and Risk Management Division of the Federal Reserve Bank of Kansas City is hosting its 24th annual Accounting & Auditing Forum on Nov. 8 in Denver and Nov. 9 in Kansas City, Mo. Michael Gonzalez of the Federal Reserve Board's Division of Banking Supervision and Regulation, Washington, D.C., will participate in this year's discussions. The Kansas City Fed's Paul Oseland, supervising examiner and accounting specialist, will present.

The primary goal of the forum is to share knowledge about emerging accounting pronouncements and related examination issues while enhancing communication with the Federal Reserve. About 200 bankers and accounting and auditing professionals are expected to attend.

For the Accounting & Auditing Forum agenda, visit [KansasCityFed.org](http://KansasCityFed.org). There is no charge for the event, but registration is required. Registrations will be accepted through Oct. 31. For questions, contact Lisa Aquino at 800-333-1010, extension 881-2491, or by email at [Lisa.Aquino@kc.frb.org](mailto:Lisa.Aquino@kc.frb.org).



## Bank Anniversaries

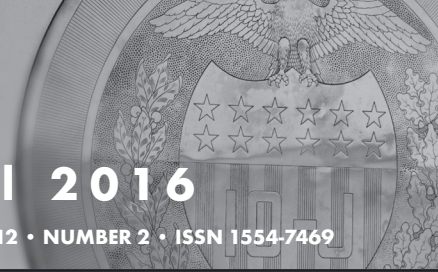
The following banks in the Tenth District are celebrating one, five, 10, 20 or more years as Federal Reserve members in October, November and December.

Bank of Versailles	Versailles	Mo.	97
First State Bank of Newcastle	Newcastle	Wyo.	86
Grant City Bank	Medford	Okla.	76
Stock Exchange Bank	Caldwell	Kan.	76
Fidelity State Bank and Trust Company	Dodge City	Kan.	73
Farmers State Bank	Pine Bluffs	Wyo.	50
Bankers' Bank of the West	Denver	Colo.	35
Citizens State Bank & Trust Company	Ellsworth	Kan.	36
Citizens Bank & Trust Company of Ardmore	Ardmore	Okla.	25
Morris State Bank	Morris	Okla.	23
First Bank of Chandler	Chandler	Okla.	23
Oregon Trail Bank	Guernsey	Wyo.	21
Cornerstone Bank	York	Neb.	10
Collegiate Peaks Bank	Buena Vista	Colo.	10
First Missouri Bank	Brookfield	Mo.	5
ANB Bank	Denver	Colo.	5
AnchorD Bank	Texhoma	Okla.	5
Charter West Bank	West Point	Neb.	1
Frazer Bank	Altus	Okla.	1



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## The Federal Reserve System

Congress created the Federal Reserve in 1913 to bring financial stability after a number of banking panics. It is the nation's third central bank. The first, established in 1791, and the second, created in 1816, were each operational for 20 years. In both cases, its charter failed to be renewed and the banks closed.

With the Federal Reserve Act, Congress sought to create a central bank the public would be more likely to support by making it "decentralized" with more local control. This new structure was designed to overcome one of the primary weaknesses of the previous central banks: public distrust of an institution that many felt could potentially be under the control of either government or special interests. The new central bank is a network of 12 regional Federal Reserve Banks, located throughout the country and under the leadership of local boards of directors, with oversight from the Board of Governors in Washington, D.C., a government agency.

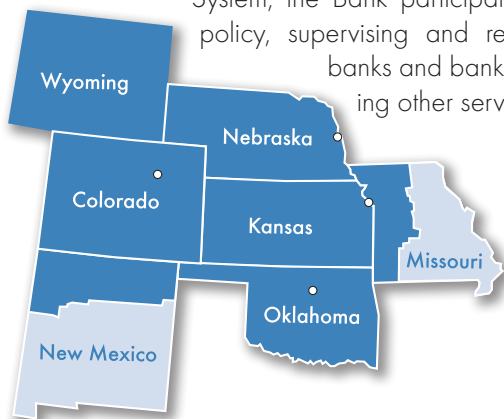
The Federal Reserve is considered to be independent within government and broadly insulated from political pressures. While members of the Board of Governors are nominated by the president of the United States and confirmed by the Senate, the Federal Reserve's regional structure, including local boards of directors and advisory councils, ensures that views from a broad spectrum of the public nationwide contribute to the central bank's deliberations.

President Woodrow Wilson signed the Federal Reserve Act on Dec. 23, 1913, and the 12 regional Federal Reserve Banks opened on Nov. 16, 1914.

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## The Federal Reserve Bank of Kansas City

The Federal Reserve Bank of Kansas City and its Branches in Denver, Oklahoma City and Omaha serve the Tenth Federal Reserve District, which encompasses Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. As a part of the Federal Reserve System, the Bank participates in setting national monetary policy, supervising and regulating numerous commercial banks and bank holding companies, and providing other services to depository institutions.



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CHANGE SERVICE REQUESTED

# Accountability and Governance

The Federal Reserve Bank of Kansas City has launched a new webpage that focuses on accountability and governance of the Federal Reserve System. The new page, available at <https://www.KansasCityFed.org/governance>, highlights the Federal Reserve System's unique structure that places the central bank firmly under government oversight but with protections designed to mitigate the risks of political manipulation.

The webpage features "**Structure, Governance, Representation: Federal Reserve Member Banks and Federal Reserve Bank Stock**," a policy paper by Bank President Esther George that provides background on the Reserve Banks' structure. In addition to George's paper, the site includes links to several other resources, including publications on the Federal Reserve's history and other materials, and a link to an updated webpage featuring George's speeches, statements and photos of her public engagement in the Tenth District.



[www.KansasCityFed.org/governance](https://www.KansasCityFed.org/governance)