

# TEN

FEDERAL RESERVE BANK OF KANSAS CITY

Fall 2017

## Inside:

**A path to a faster U.S. payments system**

**The effects of lifting the U.S. oil exports ban**

**Consumer confidence and FOMC price stability**

## ALONG FOR THE RIDE

← TRACKING THE SHARING ECONOMY'S IMPACT ON GDP →





PHOTO BY GARY BARBER

# On The Cover:

# TEN

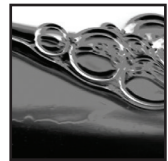
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**ALONG FOR THE RIDE**  
Tracking the sharing economy's impact on GDP ..... 16

Economic data may underestimate the contributions of the sharing economy to the national output because the instruments used to measure economic activity have difficulty tracking these industries.

On the cover: Chris Reichert drives part time for Uber and Lyft. Photo by Gary Barber.

## FEATURES



**FLOWING CRUDE**  
The effects of lifting the ban on U.S. oil exports..... 6  
A look at the effects of lifting the 40-year ban on U.S. oil exports in 2015.



**ANCHORS (NOT) AWEIGH**  
Is there a relationship between consumer's longer-term inflation expectations and confidence in the FOMC? ..... 8  
In an environment where inflation levels have fallen below the Federal Reserve's target, Kansas City Fed economists wanted to know if the decline in expectations signaled a loss of confidence in the Federal Open Market Committee's (FOMC) ability to achieve its mandate for price stability.



**THE U.S. PATH TO FASTER, SECURE PAYMENTS**  
Task forces forge forward with plans for modernization..... 12  
The Federal Reserve has been working with two task forces the past two years to realize a vision for a U.S. payment system that is faster, ubiquitous, broadly inclusive, safe, highly secure and efficient by 2020.

## IN EVERY ISSUE

- 1**    **PRESIDENT'S MESSAGE**
- 26**   **MAKING A CONNECTION**
- 32**   **NOTES**



## Fed Balance Sheet 101

**T**he Federal Reserve's balance sheet—and what it means when policymakers talk about its normalization—has received much attention lately. Large-scale asset purchases (LSAPs), better known as quantitative easing, or QE, have transformed the Fed's balance sheet and sparked active debate, both within and outside the Federal Open Market Committee (FOMC), about the costs and benefits of this unconventional monetary policy that was deployed during and after the financial crisis. Given the juncture we are at in the process of normalizing monetary policy, now is a useful time to revisit these issues based on what we know—and what we have yet to learn—about using the Federal Reserve's balance sheet in this way.

Because the majority of my regional contacts are neither central bankers nor economists, I hope to provide a basic foundation for understanding this headline issue. I'll begin my comments with a primer on the nature of the Federal Reserve's assets and liabilities. Then, I will describe how the Fed's balance sheet changed starting in 2008 based on FOMC decisions to make credit easier and provide more accommodation to the economy. Finally, I'll discuss some of the key issues policymakers are considering today and what I see as possible implications.

### Inside the numbers

Understanding the Fed's balance sheet requires some understanding of the Federal Reserve System structure designed in 1913 by Congress. The Fed consists of a government agency in Washington, D.C., known as the Federal Reserve Board of Governors, and 12 separately-incorporated, nationally-chartered Reserve Banks. When we talk about the Federal

Reserve's balance sheet today, we are actually referring to the combined balance sheets of the 12 individual regional Federal Reserve Banks.

This balance sheet is audited annually by an independent audit firm, currently KPMG, and is made available to the public on the Board of Governors of the Federal Reserve System's website:


[www.federalreserve.gov](http://www.federalreserve.gov). Also on this website are unaudited quarterly financial reports that include the combined balance sheet. And each week, generally late on Thursday afternoon, changes to the Fed's balance sheet are published on the website in the H.4.1 statistical release, known as "Factors Affecting Reserve Balances."

The current \$4.5 trillion balance sheet certainly stands out. The Fed's assets primarily include a securities portfolio of System Open Market Account holdings. The Fed's liabilities primarily consist of Federal Reserve notes in circulation and depository institution deposits.<sup>1</sup> What is unique about the Fed's balance sheet is its ability to expand and shrink as needed to facilitate the conduct of monetary policy in response to economic conditions. Conventional monetary policy involves the buying and selling of securities. At the conclusion of each FOMC policy meeting, a directive is communicated to the Federal Reserve's open market desk, which

<sup>1</sup>Additional details on the composition of assets and liabilities in the Fed's combined balance sheet at March 31, 2017, can be found in the unaudited quarterly financial report, available online at: <https://www.federalreserve.gov/aboutthefed/files/quarterly-report-20170331.pdf>.







is based at the New York Fed. This directive also is communicated publicly in the FOMC's post-meeting statement, which is heavily covered by the financial press.

In the case of a conventional policy tightening, the Fed's open market desk will sell securities. The funds received from those sales will then be removed from circulation, reducing the overall amount of available reserves in the banking system. The resulting smaller pool of reserves from which to lend increases the cost of borrowing—or to put it more clearly, interest rates move higher. If the FOMC decides to ease monetary policy, this process would work in reverse, with the Fed buying securities.

The Federal Reserve's balance sheet has grown considerably over the past decade. At nearly \$4.5 trillion, it represents almost 25 percent of the nation's gross domestic product (GDP) compared to just 6 percent of GDP in 2007. Liabilities of the Fed at that time were comprised almost entirely of currency in circulation with reserves averaging about \$10 billion. Today, reserves total more than \$2 trillion. These reserves were created by the Fed to finance the purchase of long-term Treasury and agency debt during multiple rounds of LSAPs. Although the Fed stopped its program of expansionary bond purchases in October 2014, it has continued to reinvest the returns it receives from the maturing securities. As a result, the current size and composition of the balance sheet has remained unchanged for more than 2 ½ years.

## **The shift to unconventional policy**

In the pre-crisis monetary policy framework, the Fed adjusted its holdings of Treasury securities to affect the amount of reserves in the

banking system through the process I explained earlier. Due to the low level of excess reserves banks held at that time, modest adjustments in the size of the Fed's balance sheet influenced the federal funds rate, which is the rate that banks lend their reserves to each other overnight. When this was the key mechanism to influence monetary policy, open market operations required a relatively small balance sheet with assets comprised primarily of short-term Treasuries. However, this pre-crisis framework was challenged during the global financial crisis.

In December 2008, the economic outlook deteriorated to the point that the FOMC voted to target a federal funds rate of zero to 25 basis points. Despite these extraordinarily low short-term interest rates, longer-term rates for consumers and firms remained well above zero. The combination of weakening economic conditions and effectively constrained short-term policy rates led the Federal Reserve to pursue a strategy of LSAPs to further ease monetary conditions.

By the nature of the fed funds rate, traditional monetary policy has a more substantial influence on the short-term securities market, providing a base from which yields extend across the curve. LSAPs were designed explicitly to depress yields on longer-term securities through the purchase of large quantities of assets. The initial round of purchases, which commenced in December 2008, primarily targeted mortgage-related securities in an effort to put downward pressure on mortgage rates and to help stabilize housing and financial markets. However, subsequent rounds of asset purchases included longer-term Treasury securities in a bid to ease broader financial conditions and foster overall economic activity. In these latter rounds of purchases, LSAPs evolved from a crisis response mechanism to a more general policy tool used



to promote the Federal Reserve's mandate to foster maximum sustainable employment and stable prices.

## Judging the benefits and costs of LSAPs

The use of the balance sheet as an instrument of monetary policy in this manner marked an important shift. With no experience on which to rely, the FOMC's decision to undertake balance sheet policy was not taken lightly. Arguments in favor of expanding the balance sheet focused on the notion that by depressing longer-term yields and easing credit conditions, the FOMC could provide some stimulus to support the economic recovery. On the other hand, it was recognized that there could be nontrivial costs associated with providing this experimental stimulus. These costs stemmed from the unintended consequences LSAPs could have on the economy and financial markets, and the complexities associated with employing and exiting from such unconventional policy. Ultimately, the FOMC deemed the benefits would outweigh the costs.

While it is likely premature to fully judge the extent of the benefits versus the costs of LSAPs, a consensus of research does suggest that the expansion of the Federal Reserve's balance sheet has depressed longer-term interest rates. This has eased financial conditions, although some of this effect assumes that the Federal Reserve will hold the assets it purchased for a prolonged period of time independent of economic conditions.<sup>2</sup>

Research by my staff suggests that the Fed's asset holdings continue to place downward pressure on longer-term rates today—as they were intended to do.<sup>3</sup> This effect, however, has the potential to introduce new threats to economic stability going forward. Holding

long-term rates below the level that they might otherwise move to naturally, amid improving economic fundamentals, risks creating financial imbalances. History reminds us that it may be difficult to detect such imbalances in real time and that they can only become apparent well after they manifest. Looking across a spectrum of asset classes today, from real estate to equities to corporate bonds, there is reason to remain vigilant despite the apparent tranquility in financial markets.

In addition to the potential costs associated with using LSAPs, some costs have become increasingly visible as the FOMC begins to normalize monetary policy. For example, a large balance sheet has made monetary policy more complex today than it was a decade ago. From an operational standpoint, the Federal Reserve has had to rethink its traditional approach to targeting the federal funds rate in an environment of abundant reserves. In the process, the Federal Reserve has engaged an expanded set of counterparties, which has expanded its footprint in the financial markets.

From a communications perspective, the existence of multiple policy instruments has made explaining the FOMC's monetary policy strategy to the public more complicated. With the introduction of LSAPs, the FOMC's post-meeting statements became lengthier.<sup>4</sup> These statements now include not only the traditional policy directive and relevant

<sup>2</sup>See, for example, Taeyoung Doh, "The Efficacy of Large-Scale Asset Purchases at the Zero Lower Bound," *Economic Review*, Federal Reserve Bank of Kansas City, Q2 2010. Also, *The Macro Bulletin* cited below.

<sup>3</sup>See, for example, Troy Davig and A. Lee Smith, "Forecasting the Stance of Monetary Policy under Balance Sheet Adjustments," *The Macro Bulletin*, Federal Reserve Bank of Kansas City, May 10, 2017.

<sup>4</sup>The first post-meeting public statement, issued in 1994, was a total of about 100 words. The length of policy statements in recent years has increased to average more than 600 words.



details regarding economic conditions and the outlook, but also address securities holdings acquired under the LSAPs.

## **The process of normalizing the balance sheet**

At its June 2017 meeting, the FOMC outlined its planned approach for reducing its Treasury and agency portfolio. Once initiated, the Committee intends to limit the pace at which the FOMC's portfolio is unwound by gradually decreasing its reinvestment of the principal payments received from maturing securities. Specifically, such payments will be reinvested only to the extent that they exceed preset rising caps, allowing the balance sheet to shrink in a slow and largely predictable manner.

While the “how” of balance sheet normalization has been largely established, the “when” and the “how much” remain to be determined. In terms of “when,” the FOMC has indicated it expects to begin implementing a balance sheet normalization program this year, provided the economy evolves broadly as anticipated. One reason I favor shrinking the balance sheet sooner rather than later is the observed disconnect between short-term rates and long-term rates. Despite four 25-basis-point increases in the target funds rate since December 2015, longer-term yields remain little changed.

According to the FOMC's Summary of Economic Projections, the median forecast in the so-called “dot plot” anticipates another 25-basis-point increase in the funds rate this year and three more increases next year. If further increases in the target funds rate fail to transmit to longer-term yields, the yield curve could flatten further. Such a rate environment can distort investment decisions. To the extent that reducing our asset holdings will apply

some modest upward pressure to longer-term interest rates, balance sheet normalization could promote the more typical transmission of short-term interest rate changes throughout the yield curve and ensure that all components of policy accommodation are removed in a gradual manner.

The question of “how much” the Fed's balance sheet will shrink also is an important aspect of policy normalization, but has yet to be determined. The FOMC has said that it anticipates reducing the amount of reserves, over time, to a level appreciably below that seen in recent years but larger than before the financial crisis. The ultimate size of the Fed's balance sheet will be influenced by a number of factors, including the public's demand for currency in circulation, decisions the FOMC makes about its securities portfolio and its long-run operating framework, and the economy. To improve the public's understanding of balance sheet developments, the Federal Reserve Bank of New York's public website was recently updated with projections for the long-run size of the Federal Reserve's balance sheet.<sup>5</sup>

## **Gauging the implications of balance sheet normalization**

I support the FOMC's approach to balance sheet normalization and favor initiating the process in the near future, although I would have preferred to be starting the process with a smaller balance sheet than exists today. As a voting member of the FOMC in 2013, I voted against the continuation of the asset purchase program known popularly as QE3. By then, financial markets were stable and the economy was growing. My concerns about the expansion of the Fed's balance sheet under

<sup>5</sup><http://libertystreeteconomics.newyorkfed.org/2017/07/just-released-updated-soma-portfolio-and-income-projections.html>



those conditions centered on many of the issues I've discussed. The possible unintended side effects of the ongoing asset purchases posed risks to economic and financial stability and served to unnecessarily further complicate future monetary policy. I remain reluctant to advocate for the use of LSAPs in the future outside extraordinary circumstances.

It could prove to be the case that my concerns were misplaced. Certainly today's financial markets are calm and labor markets remain robust. Recent "stress tests" suggest that the largest U.S. banks are healthy for the most part. I hope such conditions point to a path of continued, stable economic growth.

Yet, my experience reminds me that imbalances can develop in sectors outside the lens of regulators and, as we witnessed a decade ago, can unwind with little warning. The current combination of asset valuations—influenced in part by LSAPs—together with low levels of implied volatility in equity and bond markets, could be signaling broader complacency in financial markets. For example, the failure of longer-term rates to move up with short-term rates during this normalization cycle illustrates the risk for a disruptive repricing of assets as markets adjust to a more normal policy stance. The potential for such disruption highlights the essential nature of ensuring that our largest banks are indeed well capitalized and able to withstand the repercussions of a financial shock. Although often noted as higher than a decade ago, equity capital levels in these banks remain well below levels held by the nation's community banks.<sup>6</sup> Assuring strong capital is particularly critical in light of focused efforts to ease various regulatory mechanisms that are designed to offset the systemic risk these large banks pose to the nation's economy.

At the same time, the FOMC faces the unprecedented task of normalizing multiple

dimensions of policy without impeding the economic expansion. Moving too fast could excessively tighten financial conditions and slow the economy. Moving too slowly could cause a relatively tight labor market to become further stretched beyond what is sustainable in the longer run. In either case, history shows that a policy mistake can invite a recession.

## Conclusion

Even as short-term interest rates rise, monetary policy remains accommodative. Making adjustments to the Fed's sizeable balance sheet is a necessary but unfamiliar part of the FOMC's policy process. As a result, the Committee has adopted a gradual approach to its policy normalization approach. Removing accommodation in small doses, consistent with the pace of improvement in the economy's fundamentals, should allow Fed policy to evolve from fueling an economic expansion to sustaining it.

<sup>6</sup>FDIC Global Capital Index: [www.fdic.gov/about/learn/board/boenig/global.html](http://www.fdic.gov/about/learn/board/boenig/global.html)



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

## FURTHER RESOURCES

Read A. Lee Smith's research "Forecasting the Stance of Monetary Policy under Balance Sheet Adjustments" at [www.KansasCityFed.org/publications/research/mb](http://www.KansasCityFed.org/publications/research/mb)

This text is from remarks George made July 12, 2017, in Denver at a Federal Reserve Bank of Kansas City Economic Forum.

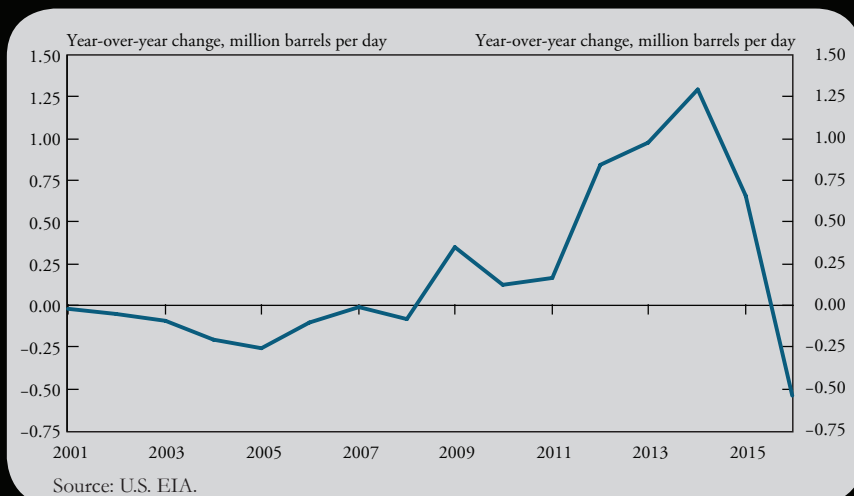
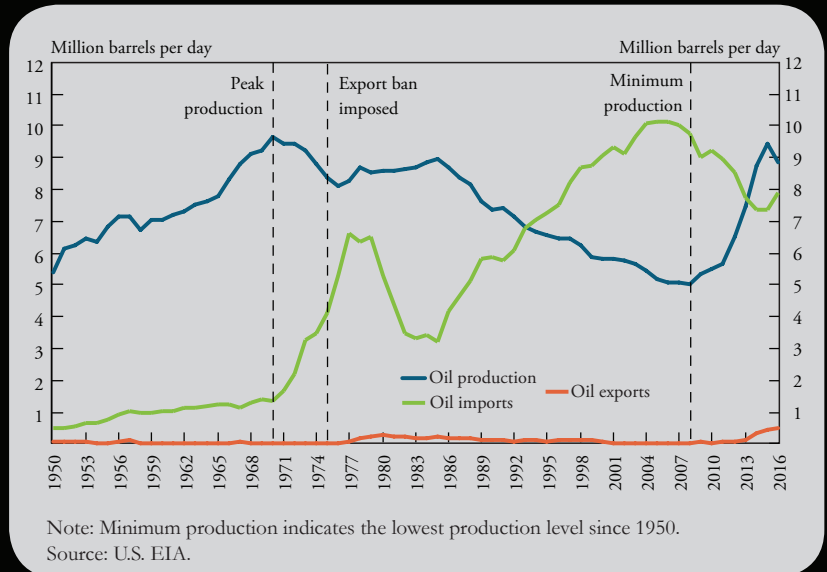
# FLOWING CRUDE

## THE EFFECTS OF LIFTING THE BAN ON U.S. OIL EXPORTS

The introduction of hydraulic fracturing and horizontal drilling has led to a dramatic increase in shale oil production that has ushered the United States from an era of oil scarcity into an era of oil abundance. As oil production increased, domestic oil producers began to look for export opportunities. However, until recently, these producers faced export restrictions due to a longstanding federal ban on most crude oil exports. The ban was lifted in 2015, causing distortions in the oil market. Kansas City Fed Economist Nida Çakir Melek and Research Associate Elena Ojeda have looked at the effects on oil production and distribution since the ban was lifted.

### BAN LIMITS U.S. EXPORTS

In the 1970s, U.S. consumption of oil was growing as production was declining. Net imports rose significantly to meet the demand; however, the Organization of Arab Petroleum Exporting Countries proclaimed an oil embargo against the United States, leading to dramatic changes in the oil market and a domestic energy crisis. In response, the United States enacted several measures, including the Energy Policy and Conservation Act of 1975—commonly known as the crude oil export ban.



### CHANGE IN U.S. OIL PRODUCTION CAUSES CHANGES IN POLICY

The recent shale boom put a spotlight on the export ban, as it contributed to an oil glut depressing domestic crude oil prices relative to international prices. Fears of persistent oil price discounts led to calls to lift the oil export ban. In December 2015, the 40-year ban was lifted.



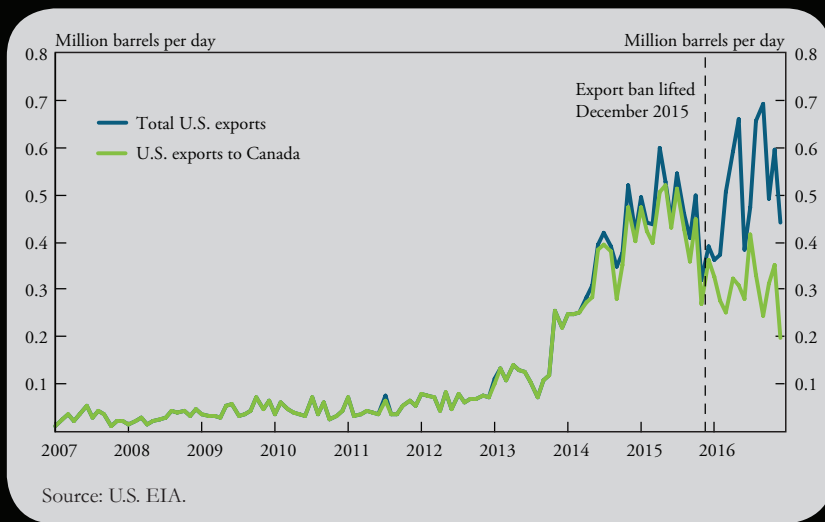
## MARKET DISTORTIONS

The shale boom dramatically increased U.S. oil production, but transportation constraints and refinery mismatch weighed on domestic prices, creating market distortions.



## GROWING U.S. EXPORTS

Although U.S. oil exports were increasing before the ban was lifted, they were flowing mainly to Canada, which was exempt from the ban. As a result, Canada reduced its imports from the rest of the world significantly. Once the ban was lifted, U.S. oil exports rose despite declining U.S. oil production and small oil price differentials, causing U.S. oil exports to go to a variety of new destinations, and Canada's oil imports from the rest of the world increased.



## CONCLUSION

Future implications of the removal of the ban will depend on the path of oil prices, domestic oil production and consumption, and technological advances. Recent forecasts suggest oil prices will increase steadily through 2020 but remain below \$80 per barrel.

## FURTHER RESOURCES

"Lifting the U.S. Crude Oil Export Ban: Prospects for Increasing Oil Market Efficiency" by Nida Çakir Melek and Elena Ojeda, [www.KansasCityFed.org/publications/research/er](http://www.KansasCityFed.org/publications/research/er).



# ANCHORS (not) AWEIGH

Is there a relationship between consumers' longer-term inflation expectations and confidence in the FOMC?

Household expectations about longer-term inflation have gradually declined in recent years. In an environment where inflation levels have fallen below the Federal Reserve's target, Federal Reserve Bank of Kansas City economists wanted to know if the decline in expectations signaled a loss of confidence in the Federal Open Market Committee's (FOMC) ability to achieve its mandate for price stability.

## Price stability

In considering the research, it is beneficial to understand what inflation expectations can mean for the economy.

In their research, economists Brent Bundick and A. Lee Smith, assistant economist Trenton Herriford and research associate Emily Pollard, looked at responses to the University of Michigan monthly surveys of households regarding their expectations for inflation over the next five to 10 years.

Expectations about future inflation offer important insight about what consumers expect over the longer term but can also have an important impact on price stability in the near term as well. Bundick notes that economists often use an analogy of inflation expectations acting as an "anchor" to prices.

"Imagine a boat with its anchor firmly planted in the underwater soil," Bundick says. "Waves may cause the boat to move around a bit, but as long as its anchor remains fixed, the boat won't drive too far away from its intended location.

"Similarly, changes in oil prices or the value of the U.S. dollar can cause some fluctuations in inflation today, but stable expectations about future inflation should help keep inflation from drifting too far from the FOMC's target."

However, when longer-term expectations become unmoored or drift, the impact can be significant in the near term because business managers forecast future business conditions when they decide how much to charge consumers for goods or services.

"If the manager expects they will have to pay significantly higher wages over the next year to retain or recruit qualified staff, they will likely choose a higher (selling) price," Bundick says.

## Declining expectations

Over the past five years, the number of households in the University of Michigan survey with high inflation expectations over the next five to 10 years has fallen while the number of households with low inflation



expectations has increased in roughly equal amounts. Meanwhile, median household inflation expectations began a consistent move lower in 2014 when oil prices plummeted. In July of that year, benchmark West Texas Intermediate crude was priced above \$106 per barrel before plummeting through the last half of the year to around \$55.<sup>1</sup>

But while oil prices stabilized, long-term inflation expectations continued to decline and have remained near historical lows. For policymakers, low inflation expectations can present a challenge. In a speech last summer, Federal Reserve Gov. Lael Brainard said that deteriorating inflation expectations below historical norms could present a risk to the inflation outlook over the next few years.<sup>2</sup>

The idea that inflation can be too low might seem counterintuitive to some. While the damage that high inflation can do to the economy and the purchasing power of consumers is well known, low inflation can also produce its own problems, Smith says, including slowing labor markets, reducing business hiring and halting wage increases.

“Low inflation can be just as problematic as high inflation,” he says. “In the extreme case

of deflation, falling prices on goods and services may cause consumers to delay purchases today in favor of waiting for prices to fall further. As a result, deflation can cause consumer spending to stall and slow the pace of economic growth.”

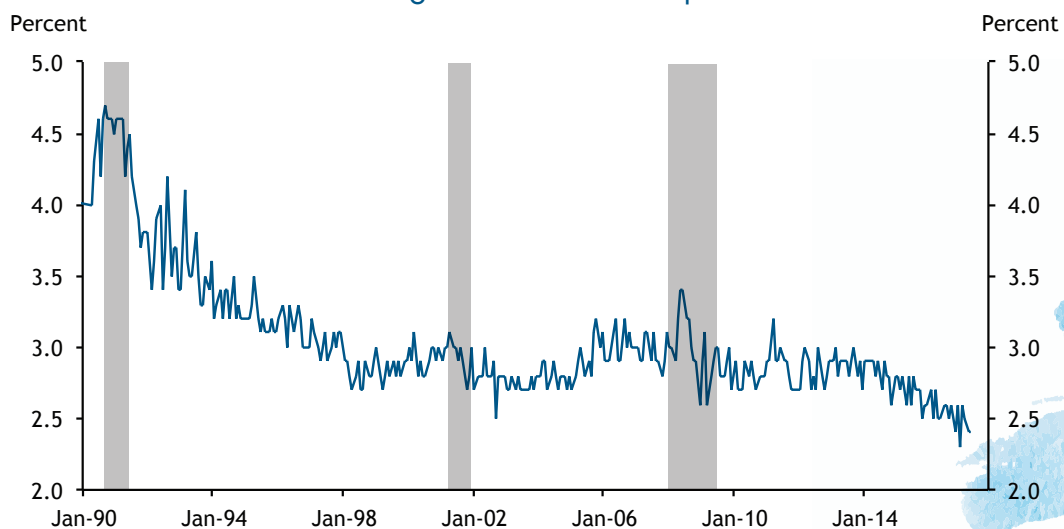
Almost one-quarter of households surveyed over the last two years expect longer-term inflation of about 1 percent. The figure is half of the FOMC’s objective of 2 percent inflation as measured by the core personal consumption expenditures price index, which excludes changes in volatile food and energy prices.

“From a central bank’s perspective, 2 percent is a bit of a sweet spot,” Smith says. “It is low enough to keep inflation from distorting economic decisions but high enough to keep deflation at bay, grease the wheels of the labor markets and provide adequate room to cut short-term interest rates as needed to stabilize the economy in the midst of an economic downturn.”

<sup>1</sup>Federal Reserve Bank of St. Louis, West Texas Intermediate Crude (WTI) – Cushing, Okla. prices <https://fred.stlouisfed.org/series/DCOILWTICO>

<sup>2</sup>Brainard, Lael. 2016. “The Economic Outlook and Implications for Monetary Policy.” [www.federalreserve.gov/newsevents/speech/brainard20160603a.htm](http://www.federalreserve.gov/newsevents/speech/brainard20160603a.htm).

### Median longer-term inflation expectations



Note: Gray bars denote National Bureau of Economic Research (NBER)-defined recession. Sources: University of Michigan and NBER (Haver Analytics).

The authors write that if the weakness in realized inflation has led some households to lower their inflation expectations, then it could signal a loss of confidence by these consumers in the FOMC's ability to meet the price stability mandate for monetary policy and its 2 percent inflation target. To explore this issue, the economists matched survey respondents' inflation expectations with their views about how policymakers have handled the economy.

Overall, despite the change in inflation expectations, the number of households that believe policymakers are doing a "good job" on inflation and the labor market has increased over the past few years. Looking at it in more detail, the researchers found that consumers with lower inflation expectations tend to believe that policymakers are doing a better job at managing unemployment and inflation than households with higher inflation expectations. Moreover, households with inflation expectations of 1 percent are more likely to approve of policymakers' handling of the economy than those with inflation expectations significantly above 2 percent.

As a result, the authors conclude, policymakers may be less concerned with the recent decline in the median household expectation for longer-run inflation because consumers with low expectations have not expressed greater dissatisfaction with the handling of the economy.

**T**

TIM TODD, CONTRIBUTING WRITER

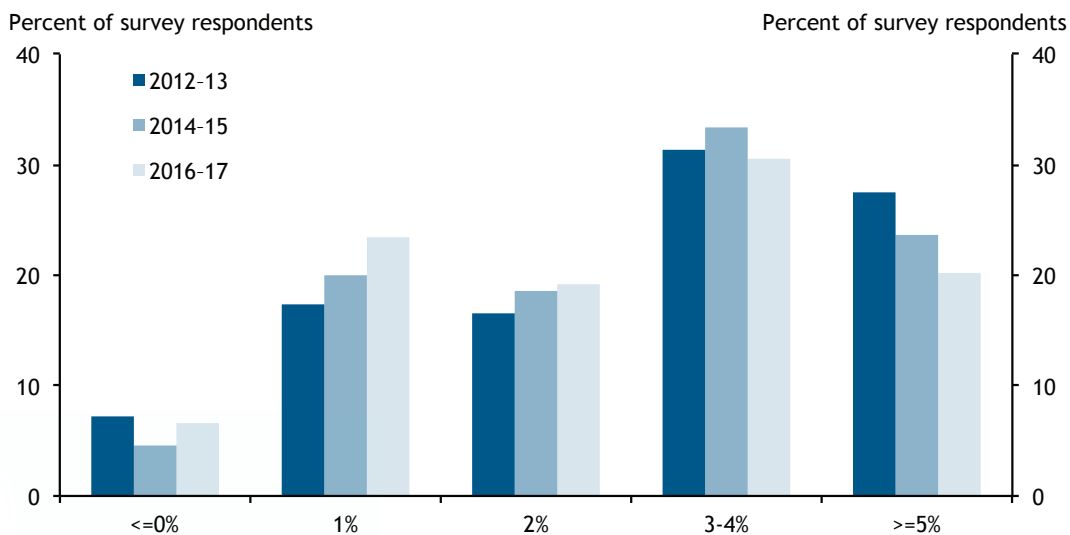
### FURTHER RESOURCES

"Does the Recent Decline in Household Longer-Term Inflation Expectations Signal a Loss of Confidence in the FOMC?"

[www.kansascityfed.org/en/publications/research/mb/articles/2017/recent-decline-household-inflation](http://www.kansascityfed.org/en/publications/research/mb/articles/2017/recent-decline-household-inflation)

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

## Household longer-term inflation expectations over time



Sources: University of Michigan and authors' calculations.



# Jay Starts a Business

Building off the Kansas City Fed's popular *Financial Fables* series, *Jay Starts a Business* takes students into the world of entrepreneurship. Focused on grades 3-6, Jay's interactive adventure allows students to choose their own path as they walk through the process of starting their own business. Through videos, interactive elements and classroom activities, *Jay Starts a Business* helps introduce students to entrepreneurship and related economic and financial concepts. To learn more about the *Financial Fables* series and the Kansas City Fed's other free educational tools for educators, bankers and consumers, visit [WWW.KANSASCITYFED.ORG/EDUCATION](http://WWW.KANSASCITYFED.ORG/EDUCATION).





# *The U.S. path to* **FASTER, SECURE PAYMENTS**

TASK FORCES FORGE FORWARD WITH PLANS FOR MODERNIZATION

Former Senior Vice President Barbara Pacheco remembers meeting an economist in 2010 who had joined the Research Department at the Federal Reserve Bank of Kansas City.

“He was from Europe and moving to the United States,” she said. “He was just getting a bank account and couldn’t understand why he couldn’t initiate a payment to anyone for anything at anytime.”

Pacheco says that’s what the Federal Reserve’s initiative to improve the U.S. payment system is all about: putting the

control of making a payment in the hands of the consumer. It’s about allowing consumers not only to pay someone at any time in a secure environment, but to know the status of their payment, their bank account and other pertinent payment information in real time.

“Why can’t we have that kind of control and convenience, to get that immediacy that technology provides us now?” said Pacheco, who has provided program management leadership for the Federal Reserve System’s payment system modernization initiative. “That was one



of the questions going into this initiative.”

Esther L. George, president and chief executive officer of the Kansas City Fed has been the leader and executive sponsor of the payments improvement initiative.

“This unprecedented collaboration has led to significant progress, but work remains to implement safe, ubiquitous and real-time retail payments and to enhance the safety, efficiency and resiliency of the U.S. payment system,” George said.

The U.S. payments system is complex, involving 13,000 financial institutions that provide traditional bank accounts and nonbank providers such as PayPal, Apple Pay and Amazon Pay that interact with consumers and businesses in providing payment services. And even with more U.S. companies implementing innovative payment methods, the economist Pacheco described, like many people who come from countries with modern payments systems, learned that the payments process in the United States is slow, costly and provides limited data on the purpose of the payment.

In early 2015, the Federal Reserve issued “Strategies for Improving the U.S. Payment System,” a paper that outlined the collective thinking of U.S. payment system stakeholders and the Federal Reserve on desired outcomes for improving the payment system. The paper outlines suggested improvements in speed, security, efficiency, cross-border payments and industry collaboration.

For the past two years, members of two task forces—more than 300 members on the Faster Payments Task Force and more than 180 on the Secure Payments Task Force, both made up of parties with a stake or interest in the payments industry—have met to establish a framework for modernizing the system.

The Faster Payments Task Force released its final report, “U.S. Path to Faster Payments Part Two,” in September. In the report, the task force is calling upon all payments stakeholders to realize the vision for a payment system in the United States that is faster, ubiquitous, broadly inclusive,

safe, highly secure and efficient by 2020.

The task force recommends a formal governance framework to develop and support faster payments solutions, as well as address evolving security threats. The Federal Reserve affirms the task forces’ recommendations in its recently released paper “Strategies for Improving the U.S. Payment System: Federal Reserve Next Steps in the Payments Improvement Journey.”

The task force and the Federal Reserve both call for the governance framework and approach to modernizing the payment system to be market driven and void of government mandates. This will rely on individuals, companies and others within the U.S. payment system to voluntarily collaborate to meet objectives by 2020.

The Federal Reserve’s paper presents refreshed strategies and describes nine new tactics the Fed will employ, in collaboration with stakeholders, to make further progress toward improving the speed, safety and

“This unprecedented collaboration has led to significant progress, but work remains to implement safe, ubiquitous and real-time retail payments and to enhance the safety, efficiency and resiliency of the U.S. payment system.”

- Esther L. George

## A MODERN U.S. PAYMENT SYSTEM IS ACHIEVABLE

Barbara S. Pacheco says the Federal Reserve System's Payments Task Force was one of the key highlights of her 35-year career, which also has included leadership responsibilities in check, card and digital payments initiatives for the Federal Reserve Bank of Kansas City and Federal Reserve System. Pacheco, a senior vice president who retired at the end of September, provided program management leadership for the Federal Reserve's payment system modernization initiative and led the Kansas City Fed's Payments System Research Department.

"The payments initiative combined a brand new and innovative way of looking at the current payments system that's never been done before," she said. "I loved being involved with all the stakeholders and seeing the many creative ideas to help improve the nation's payments system."

This creativity and willingness to improve helped push forward the initiative to modernize the payments system, Pacheco said.

"The faster payments initiative and the reports that were just issued is one stream of work or one strategy that's part of broader payments system modernization that includes safety, security and efficiency," Pacheco said. "I think this faster payments strategy has gotten the most attention because of the potential impact on consumers and businesses."

The fact that consumers and businesses already are being affected has made it urgent for the Federal Reserve to push the effort to modernize.

"In last few years, we've seen



innovations that have already changed the way consumers make transactions," Pacheco said.

These innovations were driven by technology and came in the way of person-to-person transactions such as PayPal and mobile payments like Apple Pay.

"Prior to 2012, the Fed's focus was on bank-to-bank transactions; now we're looking at it end to end, involving the entire system," Pacheco said.

The main concern going into the payments modernization initiative, however, was whether all stakeholders—including large and small businesses, emerging payments firms, card networks, payment processors, consumers and financial institutions—would be willing to participate in modernizing the payments system of one of the world's largest and most complex economies.

"It's not going to be easy, but if the participation and cooperation I've seen so far with stakeholders continues, I believe we're definitely going to see positive change in the payments system," Pacheco said.



Consumer demand for faster, secure and more convenient real-time payments is one of the driving influences behind the initiative to improve the U.S. payment system.

efficiency of the U.S. payment system.

These strategies and tactics address the following outcomes:

- Faster payments tactics include efforts to facilitate industry development of a faster payments ecosystem, as described by the Faster Payments Task Force in its final report on July 21. The Federal Reserve is chairing and facilitating an interim collaboration work group chartered by the task force to establish a governance framework and will support other collaborative faster payments work efforts.
- Federal Reserve plans also call for pursuing settlement services that address the future needs of a ubiquitous real-time retail payments environment and exploring and assessing the need, if any, for Federal Reserve engagement as a service provider, beyond providing settlement services, in the faster payments ecosystem.
- Federal Reserve work to reduce fraud risk and advance the safety, security and resiliency of the payment system will expand beyond its Secure Payments Task Force to include a comprehensive analysis of payment security vulnerabilities, potential mitigation approaches, and misalignment of incentives that may hinder progress.
- Efforts to enhance the efficiency of both domestic and cross-border payments will continue to focus on collaborating with stakeholders to better understand barriers to improvement and pursuing adoption of standards and other solutions to address them.

“My Federal Reserve colleagues and I recognize the tremendous contributions of leadership, time and effort dedicated so far to improving the nation’s payment system,” George said. “We look forward to continuing our collaboration to implement improvements that meet evolving payment needs and serve the public interest.”

**T**

KEVIN WRIGHT, EDITOR

## FURTHER RESOURCES

### Faster Payments Task Force Final Report:

<https://fasterpaymentstaskforce.org>

### The Secure Payments Task Force:

<https://fedpaymentsimprovement.org/payments-security/about-the-task-force/>

### Federal Reserve paper: “Strategies for Improving the U.S. Payment System: Federal Reserve Next Steps in the Payments Improvement Journey”

[www.federalreserve.gov/newsevents/pressreleases/files/other20170906a1.pdf](http://www.federalreserve.gov/newsevents/pressreleases/files/other20170906a1.pdf)

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



# ALONG FOR THE RIDE

TRACKING THE SHARING ECONOMY'S IMPACT ON GDP



Chris Reichert has seen a significant increase in the number of ride-share clients in the Kansas City metropolitan area.

"I used to pick up mainly business-type clients—people needing a ride to and from the airport or someone on some type of business trip," he said.

Now, his clients range from people needing a ride to and from the grocery store to young people from the suburbs traveling to the downtown entertainment district.

"Some of it is that people don't own a car, or they've been out drinking and don't want to get behind the wheel," Reichert said. "Sometimes people don't want to mess with the difficulty of downtown parking or don't like driving at night."

Reichert isn't the only ride-share driver in the United States who has seen a sharp increase in customers.

The U.S. Census Bureau, which tracks the activity of "nonemployer firms" or freelancers, shows that 2015 saw the strongest growth of ride-sharing; figures from early 2016 show no signs of that growth plateauing as the industry moves into new metropolitan areas. Ride-sharing is becoming an alternative employment avenue in the transportation industry.

"The companies are growing and tapping into new markets all the time," Reichert said. "It's definitely becoming a legitimate business that I don't see going away anytime soon."

For Reichert, ride-sharing is a seasonal job. He's a high school special education teacher and football coach in Lee's Summit, Mo. His part-time job, however, has been profitable.

He tried Uber during spring break this year, and then continued to work for the company when he was out of school this summer. He added Lyft when the state of Missouri approved the company's request to establish operations.

**"The companies are growing and tapping into new markets all the time. It's definitely becoming a legitimate business that I don't see going away anytime soon."**

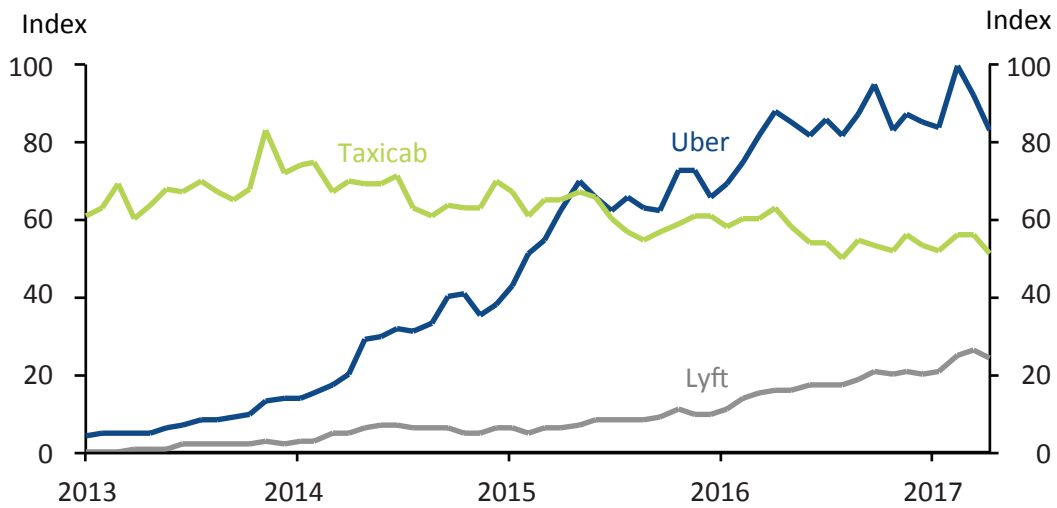
**- Chris Reichert**



PHOTO BY GARY BARBER

Chris Reichert drives for Uber and Lyft when he's on break from teaching in the Lee's Summit, Mo., School District.

## Google searches made by consumers for the major transportation platforms



"I've done around 400 rides for Uber and about 70 rides for Lyft," he said.

According to a report by SherpaShare, U.S. Uber drivers collected an average of \$13.36 per ride and Lyft drivers collected an average \$12.53 per ride in the first half of 2015. The company said it's a national average and that costs vary by city.

For example, New York can average anywhere from \$28 to \$30, while in Denver the average is \$11.

SherpaShare, a smartphone app that helps ride-share drivers track mileage and tax deductions, says fares are set in each city based on a formula using either a per mile rate or per minute rate. Fares can increase during high-demand periods. Although a gratuity is factored into the fare, passengers can tip extra.

"I could average anywhere from \$15 to \$30 in tips a night," Reichert said. And full-time drivers could collect three times that amount, he added.

It's the tax deductions that make ride-sharing a profitable endeavor, Reichert said. Ride-share drivers for Uber and Lyft use their

own vehicles, which must be a newer model and in good condition. Drivers also must be at least 23 years old, have a clean driving record and insurance, and they must pass a background check.

Drivers who make ride-sharing their living can deduct such expenses as gas, car payments, mileage and insurance payments. Because Reichert works part time, he deducts the mileage of each trip from his taxes.

Ride-share companies also provide excess liability insurance. For example, Uber and Lyft provide \$1 million in excess liability insurance per occurrence, and some drivers obtain gap insurance to cover travel between fares.

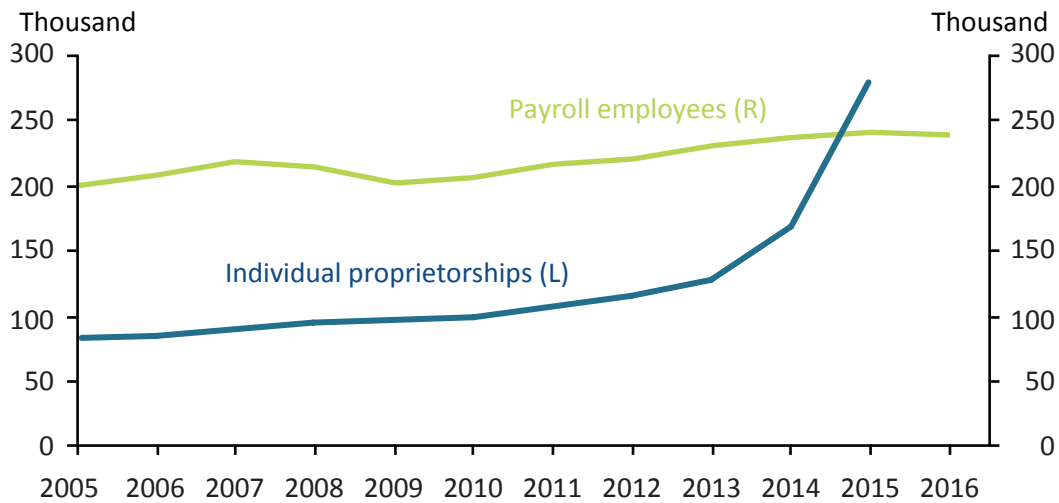
SherpaShare warns, however, to be careful about reading too much into ride-share numbers due to variables like bad weather, surge pricing, hourly guarantees and other special driver incentives that can skew the data.

### Tracking the sharing industry

Michael Redmond, an associate economist at the Federal Reserve Bank of Kansas City, says economic data may underestimate the



## Payroll employees and individual proprietorships in taxi and limousine services



contributions of the sharing economy because the instruments used to measure economic activity have difficulty tracking this industry.

In his recent research, “Waiting for a Pickup: GDP and the Sharing Economy,” Redmond says growth in gross domestic product (GDP) has consistently fallen short of expectations since the Great Recession, making it the slowest economic expansion since World War II.

Redmond’s analysis suggests that correctly tracking the sharing economy could give a more accurate picture of GDP growth and the overall economy.

“The macroeconomic importance of this finding is tempered by the still-small scale of this (sharing) activity,” Redmond says. “But as ride-sharing and other dimensions of the sharing economy take hold more broadly, capturing their contributions will become increasingly important.”

Redmond explains that conceptually, measuring the output of the sharing economy is straightforward. Ride-sharing involves peer-to-peer transactions using internet-based applications. The matching of riders

with drivers is similar to taxi services. Thus, Redmond says GDP accounting practices could measure ride-sharing as boosting the taxi services category of economic output; however, a significant portion of the economic value of the ride-sharing services appears to have gone unmeasured.

Google Trends, which measures internet searches, showed that Uber, the dominate ride-share service in the industry, grew rapidly in 2014 and continued to increase in popularity in 2015. Although Uber and even Lyft—at a lesser amount—began trending upward, GDP data showed spending on taxi services began to decline during that same period.

Redmond’s analysis shows, however, that there were measurement issues in taxi and ride-sharing services during this time. For example, between mid-2014 and mid-2015, overall rides provided by taxi services in New York City increased 17 percent while rides provided by taxi services nationally declined 12 percent. Thus, rapid growth in ride-sharing more than offset the decline in traditional taxi rides in NYC. At the same time, a Pew Research Center Survey



Both consumers and drivers of ride-sharing services can track trip mileage and estimate costs through the ride-sharing companies' apps. The apps also accommodate customers and drivers by having built-in transaction features.

showed that 15 percent of American adults reported that they used ride-sharing services during that time, which likely represents an overall boost to the broader taxi services market.

“But the data show taxicab services as a drag on real GDP growth instead, likely due to measurement errors that affect both the nominal estimate of activity in the sector and the price index used to deflate this measure,” Redmond said.

Some of the mismeasurement comes from the surveys used to track the taxi services market, Redmond says. These surveys, which show a decline in taxi services, are employer based, and don't account for ride-share drivers, who are counted as individual proprietorships rather than direct employees of a company.

To back up this view, Redmond points at data for 2014 that show stagnation in the payrolls of taxi and limousine services amid a large increase in individual proprietorships. Redmond says this shows that ride-sharing is eating away at the market share of traditional

taxi providers, which leads employer-based surveys to depress estimates of nominal taxicab service spending.

Another source of mismeasurement may result from relying on provider-specific prices to generate the price index. The price index does not take into account the decline in price from a consumer's perspective when they switch to a lower-cost provider for the same service—such as switching from a taxi to ride-sharing, Redmond says. This oversight is known as “outlet substitution bias” and is well documented within the GDP methodology.

Although GDP measurements may not fully capture the ride-sharing industry's effects on the economy, the result may have limited implications on the larger economy because the contributions of ride-sharing and other sharing services are small compared to the overall economy. For example, Uber drivers generated about \$2.5 billion in U.S. revenue in 2015, while the overall U.S. economy was \$18 trillion.

Redmond says, however, that as this

segment continues to grow, it will become increasingly important to capture sharing services' contributions to the U.S. economy.

### Why sharing services increased

Industry analysts say the popularity of sharing services has grown because they are simple to use and provide customers options that traditional industries have made more difficult to obtain or use.

For example, a room at most resort destination hotels may cost hundreds to thousands of dollars per night, depending on location and the type of accommodations. Space-sharing platforms like Airbnb and HomeAway provide a cheap and convenient alternative.

Although the other sharing services such as money-sharing (Lending Club) and space-sharing have grown more than 50 percent in the last three years, according to industry data, ride-sharing has become the dominant force in this growing industry.

**“ ... Uber drivers generated about \$2.5 billion in U.S. revenue in 2015, while the overall U.S. economy was \$18 trillion.”**

One development that has made all of this sharing work is improvement in technology, more specifically smartphone and tablet applications.

Clients can request a ride, a space or another service by using the app of the company that provides the service. For example: Each ride-share company has an app you download on your smartphone to use when you need to request transportation. A passenger uses the app to request the type of service they want and their destination. The app uses the GPS in a customer's phone to find their current location and the nearest available driver. Once a driver

is selected, the app displays the driver's name, license plate number and route. Riders are able to track the driver's location and receive a text message once they arrive. Riders can also rate drivers, providing other clients instant reviews of a driver's customer service.

Although Reichert is new to the industry as a driver, he says convenience, personal connection and lower costs have all contributed to the industry's growth.

“It puts it in the consumer's hands, at their discretion, unlike a traditional taxi service,” Reichert said.

For example, before consumers request a ride, they can get a quote by entering the pickup location and destination. The GPS on the customer's phone tracks the distance of the ride to calculate the cost. Once at the destination, the credit card the customer registered or other form of payment is automatically charged and they receive an email receipt. They can also easily split the fare with other passengers—it's all within the app.

Time will tell whether this convenience and lower costs have culminated in continued growth for the industry. U.S. Census Bureau nonemployer firm statistics for 2016 will become available in 2018. Analysts predict, however, that sharing services will have staying power and the sector will continue its overall growth. And it will contribute to other services and business in the process, and begin to have a greater impact on the national economy.

**T**

KEVIN WRIGHT, EDITOR

### FURTHER RESOURCES

“Waiting For a Pickup: GDP and the Sharing Economy,” by Michael Redmond  
[www.kansascityfed.org/publications/research/mb](http://www.kansascityfed.org/publications/research/mb)

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





# AGRICULTURAL CONSOLIDATION

## CAUSES & THE PATH FORWARD



## THE 2017 AGRICULTURAL SYMPOSIUM

The agricultural economy, both in the United States and internationally, continues to adjust to sharp drops in commodity prices and profit margins of just a few years ago. Those declines have led farm producers, agribusinesses and agricultural lenders to consider fundamental changes to their business models to maintain competitiveness, improve efficiency and position their businesses for long-term growth.

These decisions, however, require a pragmatic recognition of a new commodity-price landscape, resulting in strategic realignments and consolidation across the agricultural sector, said Nathan Kauffman, Omaha Branch executive, assistant vice president and economist, who is responsible for organizing the Symposium and leads the

Kansas City Fed's commitment to research and analysis of the agricultural economy.

Whether it's at the farm or retail level, realignment and consolidation in the industry is expected to continue for several years, said Michael Langemeier, director of cropping systems, Center for Commercial Agriculture, Purdue University.

Langemeier spoke at the Federal Reserve Bank of Kansas City's 2017 Agricultural Symposium, "Agricultural Consolidation: Causes and the Path Forward," June 13-16 at the Kansas City Fed's headquarters. Through keynote speakers and panel discussions, the symposium explored the underlying drivers of industry consolidation and potential implications for businesses, consumers and rural communities.

Langemeier said three key things will emerge from agricultural consolidation:

- We will continue to see various farm sizes in the future.
- Larger farms' production percentage in the industry will continue to increase.
- Farm consolidation will become a global phenomenon.

"When we talk about consolidation, we're talking about moving from midsize family farm category to large family farm category," Langemeier said. "Large family farms are a smaller part of the overall market, 4 percent, but have 50 percent of the production."

This is a change from two decades ago, when large farms made up a smaller percentage of the market and only one-third of farm production.

Michael Boland says consumers will drive this consolidation, because they've been given more choices than at any time in history. He adds that technology has helped create what he described as a new industrial revolution on a global scale.

"People are delaying marriage, having less children, and don't mind buying more perishable foods that they consider 'natural' or 'organic,'" said Boland, professor and director of the Food Industry Center, University of Minnesota.

Consumers are now looking at how food is produced and how it goes to market.

"Consumers want less preservatives, less GMOs, clean labels, better production," Boland added. "It's easier for large food producers to make changes and adopt faster to meet consumer demand than a smaller operation."

Changing consumer demands has altered the farming business model, said Pam Johnson, an Iowa farmer and former president of the National Corn Growers Association.

"Families aren't getting out of the farming business, they're becoming corporations," she said.

Even today's agricultural workforce has

different demands and expectations—workers are more adaptable, educated and technology driven.

"It's going to take educators, organizations and companies to learn how to do things differently to meet the demands of the new generation of ag industry workers," says Jennifer Sirangelo, president and CEO of the National 4-H Council.

Johnson says this is why the industry must continue to think globally, especially as other countries continue to consolidate their agricultural industries and become stronger in the market.

"That's why we must tell our story well and be competitive, not only in our industry but in the business market," she said.

Richard Sexton, professor of agricultural and resource economics, University of California-Davis, says that although agricultural consolidation among producers will continue to increase, consolidation is even stronger among food retailers.

This consolidation has created powerful



Damona Doye, professor, Department of Agricultural Economics, Oklahoma State University, listens to a question being asked by a member of the audience at the 2017 Agricultural Symposium.

retailers that have started to eliminate wholesalers. For example, Wal-Mart, which is now the largest food retailer in the United States with 17 percent of the market, has become its own supply chain.

“These supermarket powers put in check any power the food manufacturers may try to display in the market,” Sexton said.

Online food retailers such as Amazon, however, could cut into brick and mortar sales and force supermarket powerhouses such as Wal-Mart and Kroger to enter the online marketplace on a more aggressive scale.

Although consolidation is an outcome of technological progress, consolidation also has helped drive technological advances. As farms consolidate, they need to produce more with fewer resources. This has pushed the industry, especially in the biological digital sciences, to develop new technologies that provide breeders and growers with productivity and sustainability, said Michael Frank, senior vice president and chief commercial officer, Monsanto Co.

Consolidation, production models and technological advancements are the result of market pressures in the industry, said Bob Young, chief economist and deputy executive director of public policy, American Farm Bureau.

Buyers imposing production practices on producers, however, shouldn’t change how farmers view the market.

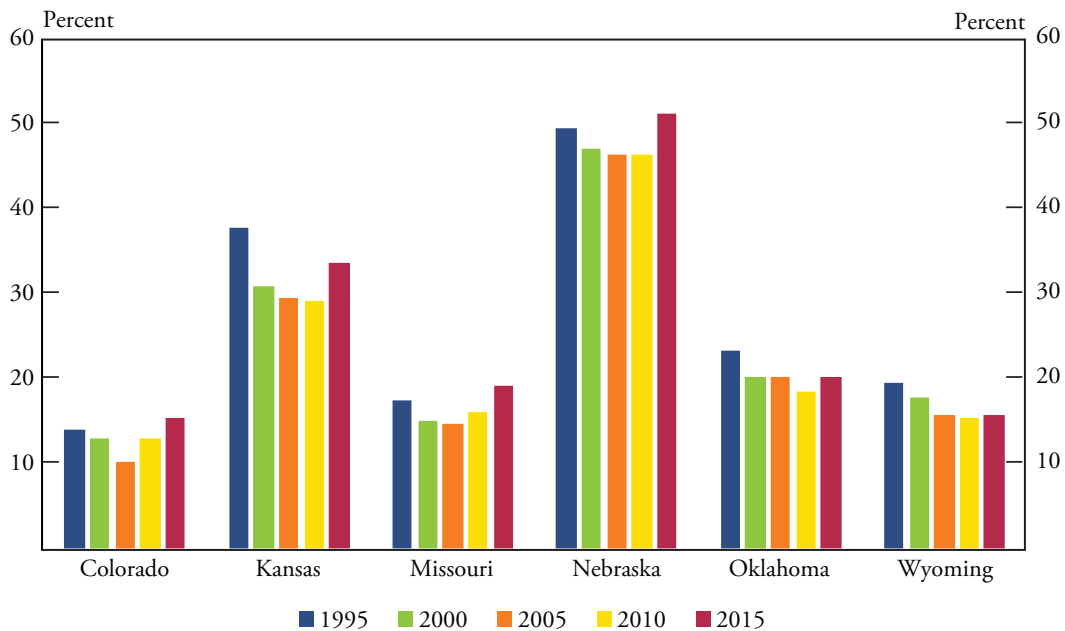
“They’re providing a service; whether they’re selling poultry or crops, it’s still driven by demand,” Young said. “We need to make sure that in the future those services remain profitable, otherwise it won’t be sustainable.”

Profitability is a growing concern among agricultural lenders, said Allen M. Featherstone, department head and professor, Department of Agricultural Economics, Kansas State University.

“There has been some erosion in agricultural lending among commercial banks in the last 10 years; however, they still hold two-thirds of all ag loans,” he said.

But lending could look differently in the future as more consolidation in the industry

## Average Agricultural Loans to Total Loans by Market Concentration



Source: FDIC.





Panelists, from left, Richard Sexton, Jeffrey Dorfman, Bob Young and Michael Frank discuss and answer questions from the audience about the economic trade-offs of agricultural consolidation across the supply chain during 2017 Agricultural Symposium.

occurs, said Damona Doye, professor, Department of Agricultural Economics, Oklahoma State University.

Doye says consolidation has begun to change the way people think about the lender-borrower environment. For example, does farm expansion make owners think the small community bank can no longer provide them the amount of credit and services they need? It also could make smaller banks reassess the risk of lending to larger, consolidated farms.

“Can lenders make fewer, bigger loans? And do they have the working capital and the amount of credit these larger producers need?” Doye asked.

So far, Doye says she has seen loan volume increasing in the industry, but some banks are diversifying their customer base away from just providing ag-related loans. They also are expanding their services, such as providing insurance, investment opportunities and other nontraditional financial services.

Robert Keil, senior vice president and chief credit officer, Dacotah Bank, says this diversification is occurring industrywide.

“Only 40 percent of the loan portfolio of the 16 largest ag banks is ag related,” he said.

The ability to be creative, adapt and grow is

key in the changing agricultural environment, whether you are a farmer, lender, processor or supplier, says James Richardson, professor of agricultural economics, Texas A&M University.

“We look at farming as manufacturing,” said Kip Tom, chairman, Tom Farms, and chairman, CereServ Inc. “We continually look and find new value-added commodities, meeting consumer demands, and managing our risks.”

Although consolidation will bring about changes in the industry, he doesn’t see it as a hindrance to production and growth.

“I’m still optimistic about agriculture,” he said.

**T**

KEVIN WRIGHT, EDITOR

## FURTHER RESOURCES

For further information on the Kansas City Fed’s Agricultural Symposium and agricultural research and information, visit [www.KansasCityFed.org/research/agriculture](http://www.KansasCityFed.org/research/agriculture)

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

## 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, nation and welcoming countries. Here is a glimpse at the recent activities of President Esther L. George and the staff of the Kansas City Fed.



At the Community Banking Conference in Kansas in July, President George took time for a photo with, from left, Mike Norris, vice president, Bankers Bank of Kansas; Bruce Schriefer, Schriefer Consulting of Wichita; Rebeca Romero Rainey, chair and CEO of Centinel Bank of Taos, N.M.; and Leonard Wolfe, chairman and president of United Bank & Trust of Marysville, Kan.

During the Urban Financial Services Coalition Conference at the Kansas City Fed in July, President George spoke with John Hope Bryant, president, founder and chair of Operation HOPE Inc. of Atlanta, which provides financial services for the working poor, the underserved and struggling middle class.







President George met with Lee R. Keith, acting commissioner of the Missouri Division of Finance, during his visit in June to the Kansas City Fed's headquarters in Kansas City, Mo.



President George spoke during a town hall meeting in August at the Kansas City Fed's headquarters. The topic was the proposed new terminal for Kansas City International Airport. Speakers joining George were Tim Cowden, president and CEO of the Kansas City Area Development Council, left, and Joe Reardon, president and CEO of the Greater Kansas City Area Chamber of Commerce.



In August, President George met with industrial association members from the greater Kansas City area to discuss current economic conditions and issues in the manufacturing sector.



# KANSAS, MISSOURI & BEYOND



President George is pictured with Rose Washington, left, chair of the Kansas City Fed's Board of Directors, and Roderick Hayes, president of the Urban Financial Services Coalition (UFSC). More than 180 professionals from 18 states were at the Kansas City Fed in late July for the three-day UFSC national summit.



President George spoke with George Akerlof, a Nobel Prize winner and economist and professor at the McCourt School of Public Policy at Georgetown University and Koshland Professor of Economics Emeritus at the University of California-Berkeley, during a University of Kansas Canadian Institute for Advanced Research gathering in June at the Kansas City Fed's headquarters.

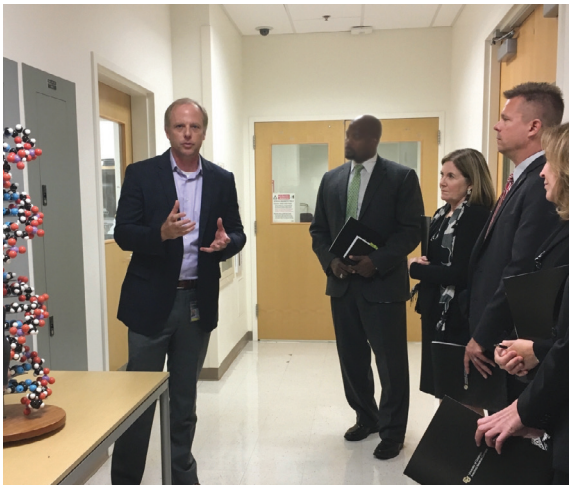


President George met with attendees of the Urban Financial Services Coalition national summit in July, which was hosted at the Kansas City Fed's headquarters in Kansas City, Mo.

# Building relationships ...



The Denver Branch participated in JA Business Week, a summer camp program that gives students, grades 9-12, a chance to explore leadership concepts and build confidence alongside more than 120 Denver business leaders. In addition to learning about budgeting, the students participated in interactive workshops on marketing and business ethics with the week culminating in a competition for designing a new product and developing a marketing plan.



President George and the members of the Denver Branch's Board of Directors toured the University of Colorado Anschutz Medical campus in July. Stops included a meeting with researchers who study the structure and function of biologically important molecules; an overview of new technology that is redefining health care delivery; and a presentation on how deep brain stimulation is being used to restore Parkinson's disease patients to full functionality.



Investment Connection events were held around the Tenth District with nonprofit organizations presenting proposals for community and economic development projects eligible under the Community Reinvestment Act to potential funders. Since 2011, Investment Connection has connected nonprofits with about \$29 million in funding at events or utilizing an online tool. For more information about the program, visit [www.kansascityfed.org/community/investmentconnection](http://www.kansascityfed.org/community/investmentconnection).





Community Affairs partnered with the Oklahoma Department of Rehabilitation Services to host students from their iJobs program in July. Students visited the Oklahoma City Branch and its exhibits, participated in Putting Your Paycheck to Work and budgeting, and activities.



Public Affairs hosted teacher workshops in June in Oklahoma City and Tulsa that focused on economic lessons throughout history. Educators from across the state participated in hands-on activities to implement in their classroom.



Public and Regional Affairs staff hosted an economic forum and business roundtable with local leaders in Hugo, Okla., to gather insight about economic conditions. Chad Wilkerson, center, Oklahoma City Branch executive, spoke at the forum, which was attended by 80 business leaders from southeastern Oklahoma. During the visit, staff toured local businesses to learn more about the regional economy.



The Oklahoma City Branch hosted Investment Connection in June to showcase proposals for community and economic development projects serving low- and moderate-income Oklahomans and their communities. Investment Connection presents proposals that are eligible for Community Reinvestment Act consideration to banks and other potential funders.





President George met Alice Dittman, retired CEO and president of Cornhusker Bank, at the Omaha Economic Forum Sept. 7. The event marked the Branch's centennial and included presentations from George and Omaha Branch Executive Nathan Kauffman.



Local business leaders joined Kansas City Fed President Esther L. George and Omaha Branch Executive Nathan Kauffman for an economic roundtable discussion Sept. 7 at the Omaha Branch.



As part of their Sept. 6 meeting in Omaha, the Community Development Advisory Council (CDAC) and Bank community development staff toured 75 North, a nonprofit that is driving the redevelopment of the Highlander neighborhood on the near north side of Omaha. The CDAC advises Bank leadership on current developments and emerging issues in community and economic development.



In late June, Omaha Branch staff visited Broken Bow, Neb., to learn about the local economy. As part of the visit, Omaha Branch Executive Nathan Kauffman and staff toured Sargent Pipe, a local manufacturing company, and met with area business, banking and community leaders for a roundtable discussion. Additional events included a program for economic development professionals and an Economic Forum.

## University representatives learn more about Kansas City Fed's values, culture

The Federal Reserve Bank of Kansas City recently hosted Campus Day at the Fed, an opportunity for faculty and staff from colleges and universities in the Kansas City Fed's recruitment area to learn more about the Bank. About 50 representatives of 22 colleges and universities attended. Among institutions represented were Creighton University, the University of Nebraska, Kansas State University and the University of Missouri-Columbia.

"Events like this are key to building our partnerships with faculty and staff as we aim to attract top talent," said Tara Schreiner, a Kansas City Fed employee in human resources.

The day's events included an overview and tour of the Kansas City Fed and a look at career opportunities; a discussion about technology at the Bank; a panel discussion with managers, recent graduates and interns; an overview of leadership at the Bank; a discussion about the Bank's commitment to diversity and inclusion; and remarks from Bank President Esther L. George.

"Throughout the day, we tell them what we are looking for, what our culture is like and what we value here at the Bank," Schreiner said.

Deatrea Rose, director of student diversity programs at Pittsburg State University, said she left the event better equipped to talk with her students about career opportunities at the Kansas City Fed.

"I enjoyed learning about the development programs, onboarding and focus on learning



PHOTO BY GARY BARBER

Kansas City Fed's Andrea Hendricks, assistant vice president, right, speaks with a university representative during Campus Day at the Fed.

new skills," she said. "This was very beneficial for us."

Ashley Motley, assistant director of the career center at Kansas State University, enjoyed learning more about the culture at the Kansas City Fed.

"To hear directly from the president about the three core values here was really helpful," she said. "I can emphasize to our students, especially those in leadership studies, how what they are learning will be applicable in a professional environment."

Find out more about careers at the Kansas City Fed at [www.KansasCityFed.org/careers](http://www.KansasCityFed.org/careers).



## Three Kansas City Fed bank examiners receive Taylor Award

The Federal Reserve Bank of Kansas City's Jim Austin, Sherry Higginbotham and Beth Windsor recently were selected as recipients of the William Taylor Award for Excellence in Bank Supervision in the Federal Reserve System. The award recognizes individuals who demonstrated sustained and extraordinary achievement and professionalism in the performance of their responsibilities.

Austin and Higginbotham were recognized for their history of outstanding contributions to community bank supervision in the Tenth District and the System, and recent extraordinary actions in supervision of a distressed state member bank. Windsor was recognized for her outstanding contributions in supporting fair lending work.

"On a day-to-day basis, examiners deal with problems at financial institutions before they surface," Kansas City Fed President Esther L. George said during a reception for the recipients. "They provide a real service and make sure the financial system is safe. This is meaningful work to the Federal Reserve System and these examiners follow a long line

of Kansas City Fed examiners who represent the best of who we are and what we do.

"I am proud, not only of how you carry out your role, but of the integrity with which you do that," she told the recipients.

The award commemorates William Taylor's integrity and 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 age 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 was chairman of the Federal Deposit Insurance Corp.

Read more about Taylor's legacy in "Integrity, Fairness and Resolve: Lessons from Bill Taylor and the Last Financial Crisis," at [www.kansascityfed.org/publications/aboutthefed](http://www.kansascityfed.org/publications/aboutthefed).



Jim Austin, left, Sherry Higginbotham, left center, and Beth Windsor, far right, had their photo taken with Kansas City Fed President Esther L. George, right center, during a reception that honored all three for receiving the William Taylor Award for Excellence in Bank Supervision.



## Employees at Kansas City Fed's Oklahoma City Branch support United Way of Central Oklahoma



Branch employees visited Martha's House, a transitional living program for homeless families through Neighborhood Services Organization (NSO). During the tour, the group learned more about NSO and its 97 years of service to the at-risk and homeless population in Oklahoma City.

The Kansas City Fed's Oklahoma City Branch typically sets the pace for the United Way of Central Oklahoma with a fundraising drive that occurs ahead of the official start of the fall campaign. Branch employees have been longtime supporters of United Way and the Oklahoma City Branch joined other major Oklahoma City organizations 10 years ago in leading the campaign as a Pacesetter organization.

"I'm proud of the Oklahoma City Branch employees and our participation as a Pacesetter organization," said Oklahoma City Branch Executive Chad Wilkerson. "It is a great example to other companies that the Fed is more than what people read about in the newspaper—that we have employees dedicated to the Oklahoma City community."

During the Pacesetter campaign, Oklahoma City Branch employees experienced first hand the impact of United Way.

"Touring a United Way agency in our community gives us a chance to see how donations to United Way make a positive impact on our neighbors who are struggling or in need," said Haley Burson, who works in Human Resources at the Oklahoma City Branch.

In 2016, Pacesetter organizations raised more than \$4.3 million to support the work of United Way and its partner organizations in central Oklahoma, where more than 75 percent of United Way's funding is raised by individuals who pledge at the workplace. Branch employees raised more than \$275 per capita through special events, payroll contributions and one-time donations for the 2017 campaign.

Learn more about the Kansas City Fed's Oklahoma City Branch at [www.KansasCityFed.org/OklahomaCity](http://www.KansasCityFed.org/OklahomaCity).

## Kansas City Fed's Student Board alumni reconnect at reception

Six classes of Student Board of Directors members recently were invited to attend a Student Board Alumni reception at the Kansas City Fed. The Student Board program was developed in 2012 as a way to invite high-achieving high school students into the Fed to learn about the economy, the role of the Reserve Banks and to develop career skills. The students, at the Kansas City headquarters and the branch offices, act as board members during the school year, attending meetings about the economy, touring local businesses and practicing their business skills. More than 150 students have participated in the program.

The alumni reception offered students from the Kansas City program a chance to reconnect and meet others who have participated in the program. Kansas City Fed President Esther L. George and other members of senior leadership greeted and welcomed the alumni.

"It was an exceptional event," said Trudie Hall, a Kansas City Fed employee who leads the Kansas City Student Board. "There were great opportunities for networking and the alumni board members seemed to enjoy the program."

Alina Crouch, a Student Board member from 2014-2015 who interned with the Kansas City Fed during the summer of 2015 with Summer @ the Fed, just completed her sophomore year at Harvard University. Through her work with Summer @ the Fed, a program that trains interns to teach elementary-school-aged children lessons related to financial education, Crouch learned she has a love of teaching.

"Through this program, I learned how to get points across to students and develop my own curriculum," Crouch said. "I learned that I want to teach subjects I'm passionate about."

Kenji Walker interned at the Kansas City

Fed in the Public Affairs Department during the past summer after participating in the 2013-2014 Student Board program. "The Bank helped me learn about the professional world," Walker said. "If it weren't for the Federal Reserve, I wouldn't have been exposed to internships and other great opportunities."

Two Kansas City Fed employees at the reception, Jared Freemon and Paula Odu, participated in the Student Board program as high school seniors. They are the first Student Board graduates to be hired by the Bank.

"I learned a lot about the Federal Reserve during the Student Board program," Odu said. "Not only its main functions, but also other aspects of the system, and there were so many possibilities."

Learn more about the Student Board of Directors program at [www.KansasCityFed.org/education/foreducators/student-board](http://www.KansasCityFed.org/education/foreducators/student-board)



PHOTO BY GARY BARBER

Kansas City Fed Student Board alumni Dajaan Hindsman, left, Alina Crouch, center, and Stacy Tran reconnect.

## Register for the Accounting and Auditing Forum

The Supervision and Risk Management Division of the Federal Reserve Bank of Kansas City is hosting its 25th annual Accounting and Auditing Forum, Nov. 8 in Kansas City, Mo., and Nov. 9 in Denver. Accounting subject-matter experts from the Federal Reserve Board's Division of Banking Supervision and Regulation in Washington, D.C., will participate in this year's discussions. From the Kansas City Fed, 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.

To register for the Accounting and Auditing Forum or view the agenda, visit [KansasCityFed.org/events](http://KansasCityFed.org/events). The event is free but registration is required. Registrations will be accepted through Oct. 30.

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

Bank of Versailles	Versailles	Mo.	98
First State Bank of Newcastle	Newcastle	Wyo.	87
Grant County Bank	Medford	Okla.	77
Stock Exchange Bank	Caldwell	Kan.	77
Fidelity State Bank and Trust Co.	Dodge City	Kan.	74
Farmers State Bank	Pine Bluffs	Wyo.	51
Bankers' Bank of the West	Denver	Colo.	37
Citizens State Bank & Trust Co.	Ellsworth	Kan.	37
Citizens Bank & Trust Co.	Ardmore	Okla.	26
Morris State Bank	Morris	Okla.	24
First Bank of Chandler	Chandler	Okla.	24
Oregon Trail Bank	Guernsey	Wyo.	23
AmeriState Bank	Atoka	Okla.	21
First Bank & Trust Co.	Minden	Neb.	10
Banker's Bank of Kansas	Wichita	Kan.	5
Lawson Bank	Lawson	Mo.	5
FNB Community Bank	Midwest City	Okla.	5
Wyoming Community Bank	Riverton	Wyo.	5
First Northeast Bank of Nebraska	Lyons	Neb.	1
Bank of Burlington	Burlington	Colo.	1
Fort Morgan State Bank	Fort Morgan	Colo.	1
First National Bank	Washington	Kan.	1
Washington 1st Bank in Hominy	Hominy	Okla.	1
First Fidelity Bank	Oklahoma City	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 Dec. 23, 1913, and the 12 regional Federal Reserve Banks opened Nov. 16, 1914.

## 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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The views and opinions expressed in **TEN** are not necessarily those of the Federal Reserve Bank of Kansas City, the Federal Reserve System, its governors, officers or representatives.

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