# TEN

FEDERAL RESERVE BANK OF KANSAS CITY

Summer 2013


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# AFTER THE STORM

## Meeting the economic needs of disaster victims

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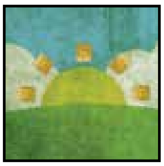








## IN EVERY ISSUE

# Are We on the Right Path?

Four years ago, I served as interim director for Bank Supervision and Regulation at the Board of Governors.

When I arrived in Washington during the summer of 2009, the fatigue was evident. Many people were frustrated trying to answer the question of how a premier regulator such as the Federal Reserve failed to prevent or at least cushion the financial crisis with its supervisory tools.

Today, we find ourselves wading through the significant, additional responsibilities Congress handed the Federal Reserve, thousands of pages of legislation and rules to implement, and dramatic changes in our supervisory regime. Federal Reserve economists now participate prominently in bank supervision to design and validate models, to create economic scenarios for stress tests and contribute independent judgments on analytical assumptions and data. And yet a nagging question continues to surface in the media, the Congress and even among policymakers: Are we on the right path?

I believe policymakers must answer this question confidently and should not declare victory even as progress is being made. There are still a few areas that I believe must be addressed to ensure the fixes are not just incrementally better, but sufficiently substantive to be durable and effective.

## From financial crisis fatigue to today

Since 2009, we've covered a lot of ground in strengthening supervision. Congress has passed massive reform legislation focused importantly on enhanced prudential standards and financial stability. The United States has a Financial Stability Oversight Council and Office of Financial Research. For the Federal Reserve, large bank supervision improvements have been the focal point.

Comprehensive Capital Analysis and Review (CCAR) and stress tests have become core components of our supervisory regime. And recently, the banking agencies have approved the new and reportedly improved Basel III framework and proposed a higher supplemental leverage ratio for the global systemically important banks. Clearly, we've done a lot; we've stepped up our game.

## Lessons from history

As I observe the efforts to shore up the financial system and its regulatory apparatus, I am reminded that history has much to offer us about the prospects for a successful regulatory response to the crisis.

Look back to the Great Depression era. The Pecora Commission and its findings resulted in the Glass-Steagall Act's separation of commercial and investment banking and the establishment of deposit insurance. Despite these significant changes, some were left uneasy that the rules could prevent future problems.

For example, a book called "Wall Street Under Oath" noted the following concern: "Under the surface of government regulation, he (Pecora) wrote, the same forces that produced the riotous speculative excesses of the 'wild bull market' of 1929 still give evidence of their existence and influence…It cannot be doubted that given a suitable opportunity they would spring back into pernicious activity."

In the 1970s, these safeguards began to erode as a result of market innovation and regulatory easing. By the summer of 1982, the failure of a community bank in my district, Penn Square Bank in Oklahoma City, set off a chain of tremors that ultimately led to a government rescue of Continental Illinois—the largest bank failure in U.S. history until the collapse of Washington Mutual in 2011, the bailout of the nine largest financial institutions in 2009 notwithstanding.

Will the steps taken to date be enough to secure a more stable financial system for the future? Professor Ed Kane would argue it's doubtful in his characterization of the cat-and-mouse game called "regulatory dialectic." That is, the pattern that looks like this: Binding regulations lead to sub-optimal outcomes for banks, their customers or their nonbank competitors. In response, these agents will engage in avoidance behaviors and look for loopholes in the regulations to gain the unexploited regulatory rents. The result is a series of repeating cycles of regulation, regulatory avoidance and re-regulation. In recent years, an even faster pace of change has been driven by improvements in information technology.

In general, the regulation/avoidance/re-regulation cycle is asymmetric in the sense that the regulation/avoidance phase tends to be shorter than the avoidance/re-regulation phase. Bankers and markets tend to adapt quickly, especially when large rents are the prize. Bankers and their competitors tend to be very efficient at adapting. In addition, the regulatory lag tends to be exacerbated by the inherent opaqueness of financial firms.

So how should we evaluate our success to date? Professor Kane might suggest that it is only a matter of time before the work of financial reform since 2010 will give way to stronger incentives to game the system. That is undoubtedly true. But we will have a better chance of shortening the regulatory response time—and thereby limiting the damage to society when the next crisis comes, as it surely will—by taking additional steps to strengthen our supervisory and regulatory framework in three areas: a strong leverage ratio, a commitment to the value of experienced and well-trained examiners, and structural alterations to the financial system that limit the safety net.

## Quantitative measures are not enough

From Basel I to I.5, to II, II.5, and now to III, as the largest banking companies got larger and more complex, a greater emphasis has been placed on capital and risk-modeling at the expense of supervision and market discipline. Today, with the banking agencies' approval of Basel III, regulators have noted the importance of higher levels and quality of capital, although the approach to capital requirements is largely the same, with the largest firms using internal

models and all others using risk weights established by regulators.

As the Bank of England's Andy Haldane highlighted in a paper presented a couple of months ago at a conference sponsored by the Federal Reserve Bank of Atlanta, the evolution of Basel capital requirements went from "a regulatory regime of constrained discretion … to one with too much unconstrained indiscretion."[1] He and others have noted the steady downward trend in risk weights and upward trend in leverage leading into the crisis. He also shows that variability in estimated probabilities of default and risk weights across banks for a given hypothetical portfolio is too large to be explained by reasonable diversity in risk models, which raises further questions about the reliability of internal models for determining regulatory capital ratios. The Basel Committee found similar results in a study of the trading book released in January and a study of the banking book released recently.[2] Other studies have found that as the result of manipulating risk weights, the average risk weights declined for 115 banks from Organisation for Economic Co-operation and Development countries after their Basel II internal models were approved.[3]

The 2012 10-K forms for the six largest bank holding companies totaled 1,900 pages, much of which is in small footnote print. I've looked at these reports and find little informational value can be gleaned. For those looking to assess capital adequacy, one survey found that more than 85 percent of 130 investors did not view risk weights as very trustworthy, while more than 60 percent said their confidence in risk weights has declined.[4] I've talked to several fixed income and equity analysts who say they don't pay any attention to risk-based capital ratios and focus instead on leverage ratios.

This suggests to me that reforming capital regulation will require a different approach if we want different outcomes. In particular, a number of studies find that simple leverage ratios do as well as or better than risk-based ratios in predicting bank failures. So I was glad to see the notice of proposed rulemaking on the higher supplemental leverage ratio for the global systemically important banks. More broadly though, policymakers should push ahead with making a strong leverage ratio a foundational and binding requirement for all financial institutions.

Secondly, just as we have committed to a multi-disciplinary approach to supervision, we should recommit to the value of a strong bank examination process. The focus on internal models and their increasing complexity has redirected much of our attention and resources to assessing models over the past few years with CCAR, stress tests, capital planning and risk management.

While more data and more specialists offer us new insights, it will not deliver better

1 Andrew Haldane, "Constraining Discretion in Bank Regulation," Federal Reserve Bank of Atlanta Conference on "Maintaining Financial Stability: Holding a Tiger by the Tail(s)," April 9, 2013.

2 Basel Committee on Banking Supervision, Regulatory Consistency Assessment Programme (RCAP), "Analysis of Risk Weighted Assets for Market Risk," BCBS 240, January 2013 (rev February 2013), and "Analysis of Risk-Weighted Assets for Credit Risk in the Banking Book," BCBS 256, July 2013.

3 Mike Mariathasan and Quarda Merrouche, "The Manipulation of Basel Risk Weights," CEPR Discussion Paper No. 9494, May 2013.

4 "Bye Bye Basel? Making Basel More Relevant," Barclays Equity Research, May 23, 2012.

supervision of large firms in the long run unless we emphasize the importance of well-trained, experienced examiners.

What makes a good supervisor? There is of course no Ph.D. in bank supervision. You build it with training, experience and judgment. You encourage healthy skepticism and getting answers to unpopular questions. You learn from experience how to cut through complexity and get to the core issues.

The Federal Reserve's credibility as a supervisor was built on the reputation of past leaders like Bill Taylor who embodied the ideals of a central banker and a bank supervisor as described by Bill McDonough, former New York Fed president: "measured, professional, impartial, and unstinting in his willingness to go the extra distance in his search for the right answers to the problems he needed to address." Although not particularly flattering, Bill Taylor described an examiner this way: "A bank examiner is someone who always looks past middle age, is wrinkled, cold, passive, noncommittal, with eyes like a codfish. Polite in contact, but at the same time unresponsive, cold, calm, damnably composed as a concrete post or a plaster of Paris cast, a human petrification … and without the charm of a friendly germ. No passion, no sense of humor. Happily—they never reproduce and all of them finally go to hell."

Bill Taylor contributed to the Federal Reserve's credibility as a supervisor during times of crisis with firm but fair leadership. He was blunt with the banking industry's influential lobbyists, telling them that "the best way to get the government out of the banking business is to keep the banking business out of the public's pocket."[5]

Examiners must be able to critically analyze information, ask the hard questions and draw sound conclusions. How focused is our supervision on assessments of risk management more broadly, such as operational and managerial risk? Are we able to judge management and the board critically and assess their attention to process, internal audit, risk appetite and risk management? These are all questions worth asking to make sure we have the appropriate balance.

Finally, I do not believe we have answered the question, to the satisfaction of the taxpayer, "have we effectively addressed too big to fail?" A recent hearing by the House Financial Services Committee examined how the Dodd-Frank Act would prevent future bailouts. The conclusions were less than reassuring.

Whether you judge this issue by size, activities or complexity, we cannot afford to "hope" that Title I (enhanced prudential standards and resolution planning) and II (orderly liquidation authority) will take care of the issue. Too readily, in my view, U.S. policymakers have dismissed proposals to restructure by limiting activities that benefit from public safety nets, to consider size limitations, or to otherwise simplify large complex firms.

In contrast, the U.K. has been more aggressive on this front. Several years ago, Bank of England Governor Mervyn King argued for separating activities, saying "There

5 A detailed account of Bill Taylor's career is available from the Kansas City Fed publication, Integrity, Fairness and Resolve: Lessons from Bill Taylor and the Last Financial Crisis.

are those who claim that such proposals are impractical. It is hard to see why. … What does seem impractical, however, are the current arrangements." Since then, of course, the U.K. commissioned the Vickers report and is in the process of implementing structural reforms. Structural solutions are also suggested in the European Union's Liikanen report.

Several such proposals have surfaced in the United States, including one by staff at the Kansas City Fed with FDIC Vice Chairman Tom Hoenig that considers altering banking activities and suggests shadow banking reforms.[6] Further study of such opportunities is surely needed.

## Conclusion

Asking "are we on the right path?" may seem an odd question to raise in the midst of volumes of new rules and considerable change in the Fed's supervision program. But it is absolutely critical that we satisfy ourselves that we can answer the question affirmatively.

As a public institution, our duty is to the American taxpayer. We are obligated to ask ourselves whether these changes have addressed the identified weaknesses that made the taxpayer and economy vulnerable to financial system collapse. Is the financial system better prepared? Perhaps. We should be cautious about accepting relative improvement as sufficient.

Instead, we should step back and ask whether the actions taken to date can sufficiently assure the public that it is shielded "from ever again having to rescue some of the largest financial institutions in times of economic stress," as Comptroller of the Currency Tom Curry said in a recent statement.

Only then can we be satisfied that we've served the public interest and that indeed we are on the right path.

Esther L. George

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

The preceding was adapted from remarks delivered at an internal Federal Reserve System meeting on regulatory policy hosted by the Federal Reserve Bank of Atlanta on July 11, 2013.

6 Thomas Hoenig and Charles Morris. "Restructuring the Banking System to Improve Safety and Soundness." May 2011. Available at https://www.kansascityfed.org/publicat/speeches/Restructuring-the-Banking-System-05-24-11.pdf.

# Broad representation, regional roots

## kansas city fed relies on directors for insight

*As designed by Congress in 1913, the Federal Reserve is an innovative blending of public and private institutions. While the Board of Governors in Washington, D.C., is a government agency with broad oversight responsibilities, there are 12 regional Federal Reserve Banks located throughout the United States that are under the direction of local Boards of Directors. In addition to oversight responsibilities for their respective Reserve Banks, the regional Fed directors serve as a critical conduit between their local communities and the nation's central bank, offering insight and counsel on the economy drawn from their own expertise and contacts.*

*This system of the independent regional Reserve Banks, which also have affiliated Branch offices, are in direct recognition of the value Americans place on limiting influence and ensuring broad representation. Prior to the Federal Reserve, the United States had made two attempts at a central bank, but large areas of the country, especially along the frontier and in the South, felt the institutions were too closely aligned with the power centers of the Northeast, and the institutions were abandoned.*

*The Tenth Federal Reserve District includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. The Kansas City Fed has three Branch offices, Denver, Oklahoma City and Omaha, in addition to its headquarters.*

*Here's a closer look at Tenth District directors who joined their boards in 2013.*

# BRIAN D. ESCH

As an Omaha Branch director, Brian Esch tries to provide the Kansas City Fed with a community banking perspective.

"While the branch board is primarily involved with economic activity of the district, I feel that I can provide perspective with staff as it relates to the bank regulatory portion of the Fed," he said.

Esch, president and CEO of McCook National Bank, is on the board of directors of McCook National Bank and MNB Insurance Services, an independent insurance agency that is a sister company of the bank. He also is head of MNB Financial Group, the bank's holding company.

Esch's job is like his title says.

"I'm charged with guiding the strategic direction of the bank," he said.

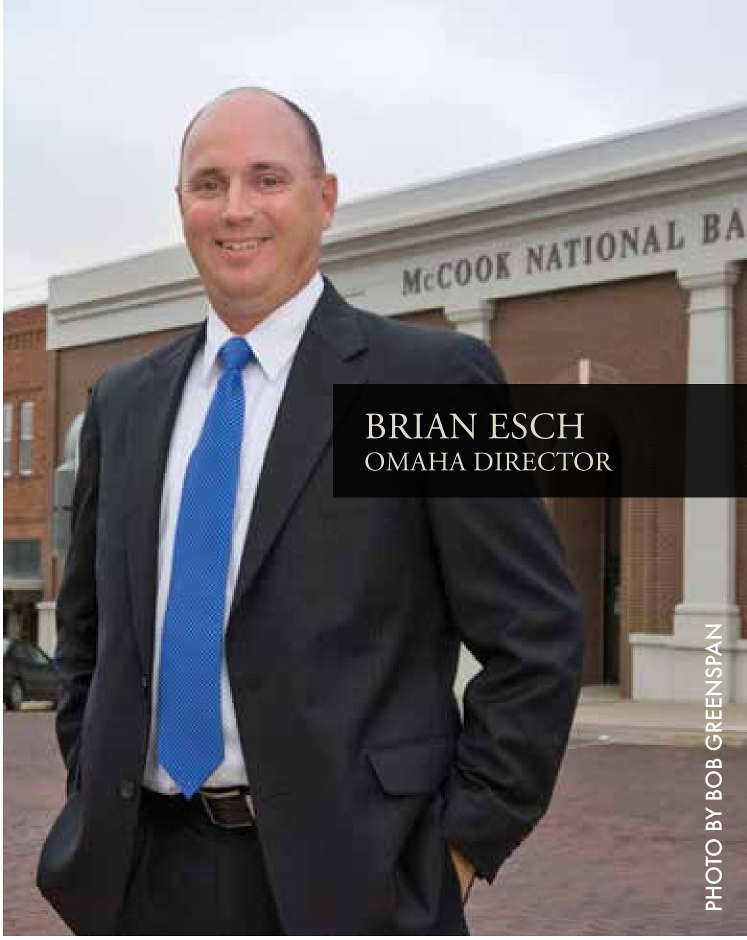
Esch accomplishes this through implementing policies and procedures and managing staff, and of particular importance, managing department heads that report to him.

Maintaining the bank's core values also is important to Esch. By doing this, the bank accomplishes its mission to help customers achieve financial success and economic security, create a place where employees can learn, grow and be fulfilled in their work, and make the communities in which employees work better places to live. This also creates an environment that benefits McCook National's shareholders—providing them a safe and sound investment.

Esch also sees the benefits of serving as a Fed director—for his bank, himself and the Fed.

"Agriculture either directly or indirectly impacts virtually all of the business which (McCook National) conducts," Esch said.

He hopes his institution can benefit from the economic data the Federal Reserve generates and that he can provide the Fed information about the state of agricultural economics in western Nebraska.




BRIAN ESCH
OMAHA DIRECTOR

PHOTO BY BOB GREENSPAN

Also, no one in the history of McCook National, which started in 1907 in McCook, Neb., and has locations in Stratton, Neb., and Burlington, Colo., has served in a role with the Kansas City Fed.

"For me, I have always grown both personally and professionally from involvement in industry and civic activities," he said. "The main reason I wanted to serve as a director was to interact with men and women that are much wiser than me. What a great opportunity in which to learn."

# LILLY MARKS

Lilly Marks has little time for extra activities. She stays active as vice president for Health Affairs at the University of Colorado and executive vice chancellor of the Anschutz Medical Campus.

But when she was asked to serve on the


PHOTO BY DAVID TEJADA

Kansas City Fed's Denver Branch Board, she appreciated the chance to work with the U.S. central bank.

"I have a business and financial background," she said. "It's a wonderful opportunity to broaden my perspective of the economy."

It also allows her to bring education and medicine to the board table.

"Healthcare is 18 percent of the gross domestic product," she said. "I have perspectives about it that I think can be of great value."

Most of her 25-year career has been in academic medicine. She served as senior associate dean of Administration and Finance at the University of Colorado School of Medicine and executive director of University Physicians Inc., prior to her current position.

Given the scope of the university and medical campus, it's not unusual that Marks spends most of her time in meetings.

"We have 17,000 employees and $2 billion budget," she said. "I deal with a lot of operational issues."

The weakness of the healthcare market is distorted, Marks said. What economists normally focus on fails to incorporate all the economic issues within the industry.

"Healthcare impacts the economy several ways—it's not just the GDP," she said.

As adult care becomes more consolidated, doctors more specialized and hospitals burdened with increasing costs, Marks says it's important to recognize healthcare's role in local, regional and national economies.

Academic medicine also continues to train health professionals and medical research strives to develop new and improved medicines, medical procedures and overall medical knowledge. The costs, however, continue to rise.

"Illness is recession resistant and patient care is recession proof," she said.

But paying for healthcare is not and neither is insurance, she said. There also are concerns about federal sequestration and state and local government budget constraints.

"I think it's very important to present all aspects of healthcare when considering the overall economy," Marks said. "I look forward to not only sharing these aspects, but learning about different facets of the economy from other directors."

## PAULA D. BRYANT-ELLIS

Paula Bryant-Ellis started her career in banking as a teller after graduating high school. She soon earned a promotion to managing the vault.

After graduating college, she worked for Resolution Trust Corp, where she established receiverships for failed savings and loans.

Her career continued its upward climb after she joined BOK Financial Mortgage Group and was selected into its credit management trainee program. She completed the program and continued to work throughout the organization in the Wealth Management, Community Development and Mortgage divisions.

Bryant-Ellis now is BOK's chief operating officer, responsible for operational support of more than 650 employees in risk management, underwriting, loan servicing, sales and servicing support, and community development. Those employees originate and service mortgage loans in 24 states.

"Exposure to so many different areas of banking really broadened my perspective," she said.

Bryant-Ellis relies on that perspective as a director on the Kansas City Fed Oklahoma City Branch Board.

"I believe we have a responsibility as bankers to understand the challenges our regulators face as they set policy," she said. "Serving as a director with the Federal Reserve is an important view inside that process."

Bryant-Ellis provides information that helps the Federal Reserve control inflation, supervise the nation's banking system and protect consumers.

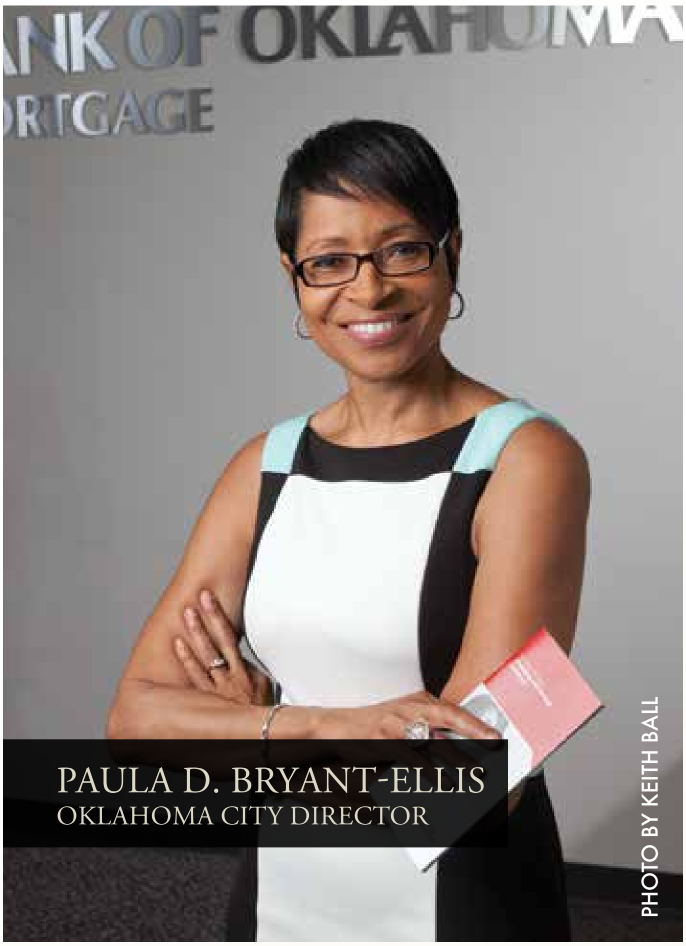
The Fed also "is responsible for maintaining the stability of the financial markets and for being the central bank for other banks and the U.S. government," she said.

On a typical day, Bryant-Ellis deals with policy issues and people management, and is a key figure in BOK's development of a new loan origination system that will affect the majority of BOK's workforce.

"The mission of our organization is to provide exceptional expertise to our customers through nationally competitive products and services delivered in a personalized and responsive manner," she said.

As a director, Bryant-Ellis also wants to help the Kansas City Fed and Federal Reserve System provide exceptional service and expertise to its constituents and continue its standing as a reputable institution.

"I think it is a privilege and honor to serve on this Board," she said.




PAULA D. BRYANT-ELLIS
OKLAHOMA CITY DIRECTOR

PHOTO BY KEITH BALL

FOR MORE INFORMATION on the Kansas City Fed's directors, including bios, visit KansasCityFed.org/aboutus/leadership.

# GOING SMART

## U.S. IMPLEMENTATION OF SMART PAYMENT CARDS ON THE HORIZON


Suppose you're on vacation in the United Kingdom and decide to buy something. You insert your credit card into a payment device, but nothing happens.

Unlike the United States, the United Kingdom uses computer-chip technology, meaning the standard American magnetic-stripe card is useless in the U.K.

Europe began its migration to embedded computer-chip cards for credit, debit and ATM in 2002, when EuroPay, MasterCard and Visa collaborated on EMV, the leading global standard for chip technology. The United Kingdom, Japan, Mexico, Canada and 80 other countries then spent the next decade transitioning to EMV-based cards.

Although the United States was an early adopter of the electronic payment card system based on the magnetic stripe, it has been slow to embrace embedded chips. Less than 1 percent of the cards issued in the United States today use embedded micro-chip technology, even though supporters say it's less susceptible to fraud than magnetic-stripe cards.

There are a number of reasons why EMV has been slow to gain acceptance in the United States. One reason U.S. merchants are reluctant to accept EMV is the expense of replacing the current system. Card issuers are concerned about issuing millions of cards to reluctant U.S. cardholders.

That reluctance may change.

Discover, American Express, Visa and MasterCard recently announced plans to switch to EMV-compliant, computer-chip payment cards starting in 2015.

## What is an EMV card?

There are two common types of EMV smart cards: contact and contactless.

The contact card, often called a chip-and-PIN card, looks like a standard plastic card, but is embedded with a special microchip that contains the same information in a standard card's magnetic stripe. Some smart cards have both a chip and a stripe.

When swiping a card, a consumer must enter a PIN to complete a purchase, similar to using a debit card. The transaction device first reads the microchip to first ensure the card is authentic. The card reader, through the chip, also verifies that the card belongs to the cardholder and the user's PIN approves the transaction.

A contactless card requires only close proximity to a card reader. Both the reader and the card have antennae, and the two


Discover, American Express, Visa and MasterCard recently announced plans to switch to EMV-compliant, computer-chip payment cards starting in 2015. The computer-chip cards will help the industry and consumers combat fraud.

communicate using radio frequencies. The frequency range is one-half inch to three inches. Most contactless cards derive power for the internal chip from this radio signal and are used for entering a building or making payments that require quick transactions without a PIN, such as a subway terminal.

Less common cards on the market are the dual-interface card, which has one chip that allows for both contact and contactless transactions, and the hybrid card, which has two chips, one with a contact interface and one with a contactless interface—the cardholder may use it for either a chip-and-PIN or a contactless transaction.

Smart cards use a process called dynamic authentication. The verification information on a chip is encrypted and each transaction is assigned a specific code. This code generating process, supporters say, significantly reduces or even prevents thieves from copying and reusing payment verification information.

The widespread use of inexpensive wireless communications made EMV technology possible. The use of wireless PIN pads and readers let customers make transactions without the card leaving their sight.

With the standard magnetic-stripe card, verification information is static, meaning it doesn't change with each transaction, and most card readers are stationary and require a customer's signature. For example: A customer at a restaurant gives the server a card, which is taken to a stationary reader out of the customer's sight. These out-of-sight transactions are when most card fraud occurs, industry experts say.

## Combating fraud

According to the Smart Card Alliance—a nonprofit association that promotes the understanding, adoption, use and widespread application of smart card technology—static, signature authentication lets criminals who get their hands on victims' credit cards make purchases immediately. It's even easier online, where a criminal only needs the account number to make purchases.

And easily available technology enables thieves to wirelessly skim transaction verification information from magnetic-stripe cards, meaning even the most cautious cardholders, those using ATM cards with PINS, may have their information stolen.

Although the incidents of payment card fraud in the United States is small in proportion to the number of daily noncash transactions, Richard J. Sullivan, an economist with the Kansas City Fed, said this immense volume of payment transactions adds up to big losses due to fraud.

U.S. cardholders used more than 1 billion debit and credit cards in 2011, making 69 billion transactions valued at more than $3.9 trillion. These payments accounted for about 50 percent of all noncash retail payments in the United States.

"Even a small fraction of that kind of volume can amount to billions of dollars in losses for banks and merchants," Sullivan wrote in his latest research, "The U.S. Adoption of Computer-Chip Payment Cards: Implications for Payment Fraud."

Year after year, payment card fraud in the United States results in billions of dollars in losses. In 2007, credit card fraud alone totaled $16 billion.

The EMV smart card system could vastly change that amount because it aims to make it more difficult for criminals to counterfeit cards, obtain stored information on the chip and make unauthorized intrusions.

"The fraudsters, phishers, hackers and pickpockets who thrive off payment card fraud may soon have their work cut out for them," Sullivan said.

Sullivan points to France, the United Kingdom and the Netherlands as examples of how the introduction of the EMV-card could diminish fraud in the United States.

France started using computer-chip cards in 1992; however, the card issuers used static data authentication. Thieves learned to reprogram the cards so any PIN would approve a transaction. France upgraded to EMV cards in 2001 and began using dynamic authentication in 2005. The move helped cut counterfeit credit card fraud and fraud on lost or stolen cards, but this doesn't mean fraudulent credit card activity disappeared.

## Not foolproof

Although some types of fraud decreased in France, Sullivan said thieves focused on the types of transactions with weaker authentication methods—orders by Internet, mail and telephone.

The Observatory for Payment Card Security, a French forum focused on the payment card system, reported that by 2010, fraud on Internet, mail and telephone transactions was the top source of payment fraud in France, and although it increased in 2011, it accounted to only 8.4 percent of the total value of all French card payments.

French authorities now encourage merchants to use 3D secure payments, which requires a cardholder to register a payment card with the issuer and creates a PIN for Internet purchases.

Although payment card fraud has declined, French authorities still battle card-present fraud. This transaction involves the card being present at a transaction. Authorities contribute the increase to thieves being able to obtain PINs for the card.

The United Kingdom also faced great loses due to fraudulent payment card transactions. The U.K. first converted to a dual payment card that had both a chip and magnetic stripe. The Netherlands followed the same transition process, and criminals in both countries took advantage by making counterfeit cards with a magnetic stripe that could be used at ATMs and with merchants that still accepted magnetic-stripe cards.

After 2008, the United Kingdom saw a steep decline in payment card fraud as the European mainland converted to EMV cards, more merchants accepted the cards and 3D authentication was implemented for Internet transactions.

The Netherlands, which took longer to make the conversion, experienced $56 million in fraud in 2011 with dual chip-stripe cards. The country has now converted to EMV cards, but still faces fraud problems because some cards still have both a chip and a stripe.

## Future fraud

Although conversions to the EMV system cut down on stolen and counterfeit card fraud in Europe, thieves still find ways to take advantage of payment card systems.

A new trend is infiltration of payment processing databases by hackers intent on capturing card and PIN information. Seven individuals were arrested in May after thieves hacked into a database for prepaid debit cards and stole $45 million from ATMs around the world.

Although fraud will be a concern, research shows that EMV-compliant cards currently are the best deterrent.

For example: if the United States' conversion to smart cards follows the same patterns as in Europe, fraud losses could decrease by 40 percent, Sullivan said.

## Implementing U.S. smart cards

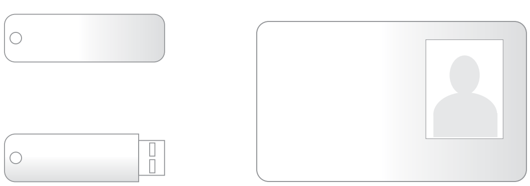
The learning curve and expense of altering the payment system have been the biggest obstacles to implementing chip technology in the United States.

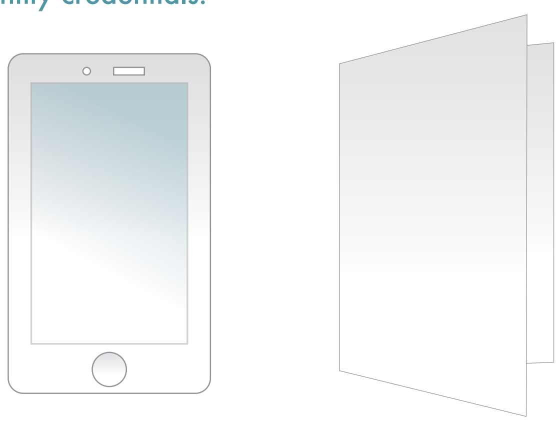
Other countries' smaller, less-complex financial systems made for easier implementation of EMV. For example: Canada's recent conversion to EMV only took agreement by the five primary financial institutions to change the entire card market.

The United States has the world's largest economy with more than 10,000 card issuers, a million merchants and 8 million point-of-sale devices that accept cards, according to the Smart Card Alliance.

### SMART TECHNOLOGY USES

Microchip technology is used in unconnected tokens, one-time password devices, USB tokens, payment cards, employee badges, SIM/UICC for cell phones, electronic passports and identity credentials.





Critics say the combination of the cost of altering the payments system and lack of consumer acceptance, means conversion to an EMV-compliant system could take longer and may not be as successful as in other countries.

Americans carry an average of four cards. Having to remember a PIN for each card may become a frustration that consumers won't accept, especially when a cardholder enters the wrong PIN and a transaction is denied and recorded as suspicious.

This possible scenario prompted Visa and MasterCard to support both a chip-and-PIN and chip-and-stripe option in the United States.

The main incentive for banks outside the United States to issue chip-and-PIN or EMV-based cards was the liability shift.

Ross Anderson, a professor of security engineering at the University of Cambridge, said in a recent interview that the EMV system instituted a higher level security, so if a PIN was used in a fraudulent purchase, the fault for a disputed transaction would fall on the customer and the merchant; while the bank would have no liability.

That shift in liability has not worked, Anderson said, and several countries have already taken action to protect consumers.

In the United States, however, the liability shift wouldn't completely work because of Regulation E.

The goal of the Regulation E is to protect individual consumers who engage in electronic fund transfers. This limits a consumer's liability for loss, theft or other unauthorized transaction to $50; if the consumer fails to notify the depository institution in a timely fashion, however, the amount may be $500 or unlimited. In 2006, U.S. card issuers bore a 59 percent share of fraudulent losses and merchants assumed the other 41 percent of liability.

Some American card companies already offer chip-and-PIN cards to American customers who frequently travel abroad or corporations that do business overseas, and some card companies offer customers a chip-and-signature option. Overseas travelers, however, occasionally report problems using chip-and-signature cards at unmanned kiosks, Traveler magazine reported.

Contactless cards also are in use in the United States, but mainly as security devices, such as for keyless entry. And the few contactless payment cards in use have limited acceptance.

Randy Vanderhoof, director of the Smart Card Alliance, said in a recent interview that businesses only make investments in wholesale system changes if there's a substantial return on investment. Recouping billions of dollars in fraud loses could be that incentive in the United States, he added.

But currently the United States does not have a comprehensive system for collecting and reporting statistics on payment fraud, Sullivan said.

"Timely information on the sources of fraud allows policymakers and the card payment industry to respond swiftly and effectively to new attacks," Sullivan wrote.

This also allows both regulators and the industry to measure the levels and sources of fraud and identify who pays the price, and how much, for the nation's fraud losses.

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**KEVIN WRIGHT,** TEN EDITOR

**FURTHER** RESOURCES

**"The U.S. Adoption of Computer-Chip Payment Cards: Implications for Payment Fraud,"**
by Richard J. Sullivan.
www.kansascityfed.org/publicat/econrev/pdf/13q1Sullivan.pdf.

**COMMENTS/QUESTIONS** are welcome and should be sent to teneditors@kc.frb.org.

# MAKING A CONNECTION

Regional Federal Reserve presidents serve in several capacities, one of which is a conduit between their Federal Reserve Districts' communities and the nation's central bank. Presidents also use their expertise to help communities outside their district. In fulfillment of her role, George made recent visits to communities throughout the Tenth District.

1 **President Esther George,** seated right, listened to an historical account of El Reno, Okla., aboard a renovated trolley. During her trip, George spoke at the Redlands Community College and toured Chesapeake Oilfield Services.

2 **George visited Ellsworth, Kan.,** where she toured Citizens State Bank and Trust Company in January before speaking at the Ellsworth Chamber of Commerce's annual meeting. Kansas City Fed Director David Brownback is president and CEO of that bank. George is pictured with Brownback, left, along with Kansas City Fed Senior Vice President Kevin Moore, in front of the bank's vault.

3 **George and St. Louis Fed President James Bullard, left, met in March with Missouri Gov. Jay Nixon,** center, in Jefferson City to discuss the regional and national roles of the Federal Reserve and the U.S. economy. Gov. Nixon was particularly interested in meeting the two presidents as Missouri is the only state with two Reserve Banks. The three are pictured here behind a silver punch bowl that once belonged to the USS Missouri, a battleship that was decommissioned in 1992.

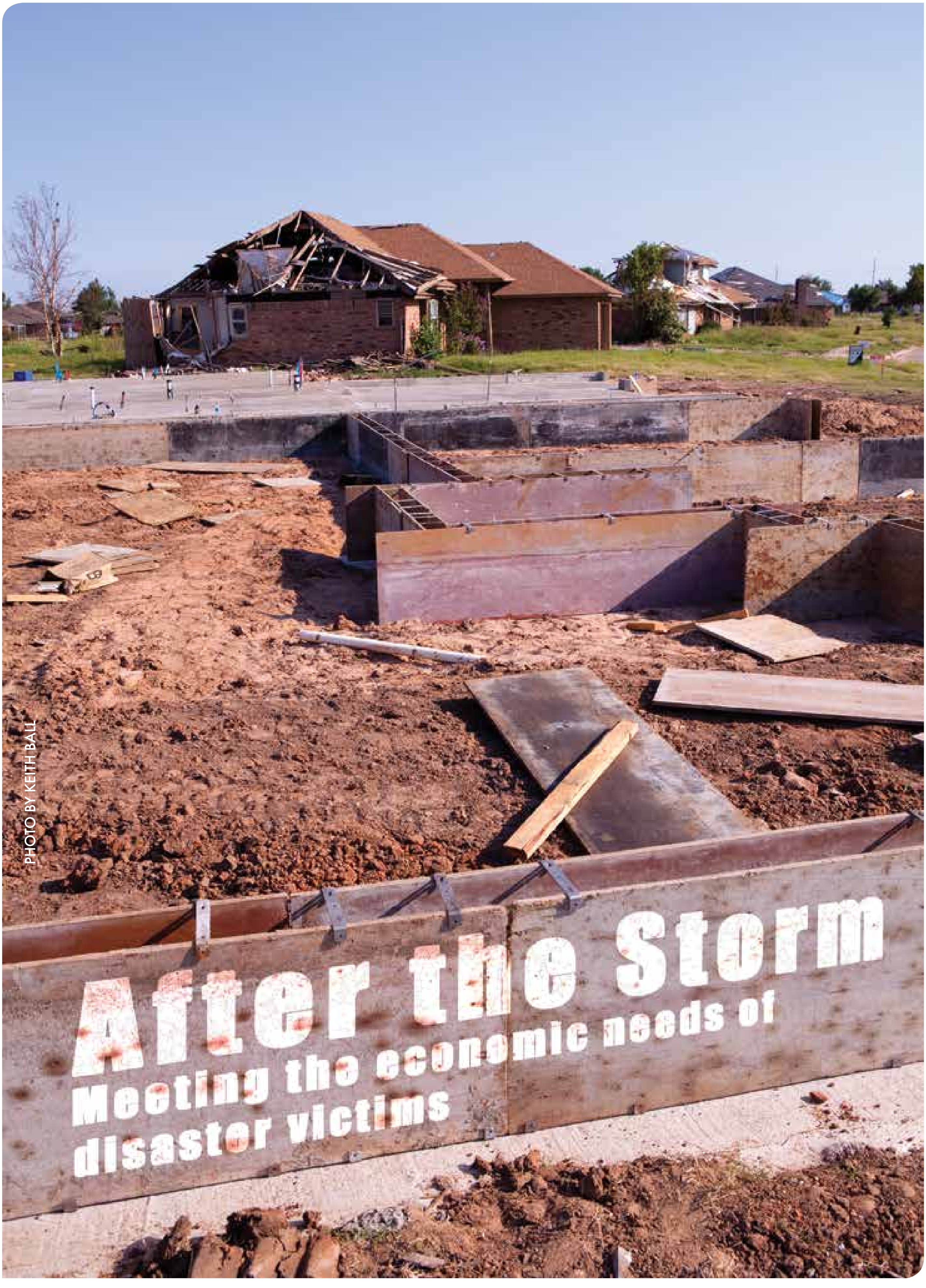
4 **George sits down to talk with University of Tulsa graduate students** after delivering her "Friends of Finance" speech to a group of university administrators and faculty and local business leaders in April.

5 **A group of local business and community leaders in April attended a luncheon at Redlands Community College,** El Reno, Okla., where George was the keynote speaker.

6 **In her February trip to the University of Nebraska-Omaha,** George spoke to an audience of business leaders, students and faculty about the effects of monetary policy on the nation's economy.

7 **In June, Richard Czoski, executive director,** gave members of the Kansas City Fed's Denver Branch board and Bank staff a tour of the Railyard of Santa Fe in Santa Fe, N.M. Pictured, from left, is Czoski, George, Kansas City Fed Denver Branch employee Kate Watkins, Denver Branch Board Chair Larissa L. Herda, Omaha Branch employee Jennifer Clark and Denver Branch Board member Anne Haines Yatskowitz. The Denver board had a remote board meeting in Santa Fe.

PHOTO COURTESY OF THE UNIVERSITY OF NEBRASKA-OMAHA



# After the Storm

## Meeting the economic needs of disaster victims

PHOTO BY KEITH BALL

Linda Roberts watched the storm unfold on television from the safety of her office at the Kansas City Fed's Oklahoma City Branch.

But her well-being didn't put her mind at ease—a tornado had touched down and made a mile-wide swath of destruction through Moore, a southern suburb of the city.

Roberts' sons lived outside of Moore, so they were safe. Roberts and another Oklahoma City Branch employee's home, however, were in the tornado's path, and "I worried about my two dogs at the sitter," Roberts said.

On May 20, an EF-5 tornado, with peak winds estimated at 210 mph, killed 23, injured 377 people and caused damage estimated at $2 billion in Moore and the surrounding area.

Instead of going home after the skies had cleared, Roberts stayed overnight with one of her sons. Fortunately, she had access to a change of clothes that she took to the dry cleaners ahead of a conference in Kansas City, and she always keeps an extra pair of heels under her desk.

"I knew it would take hours to get back into the area," Roberts said. "This time I was more matter of fact about it and decided to wait."

Roberts had a better idea of what to expect after surviving the 1999 Bridge Creek-Moore tornado. That storm killed 37 people and caused $1 billion in damage.

Two of Roberts' three sons were with her at a nearby school when that tornado, with winds estimated at 301 mph, ripped a 17-milelong path through suburban Oklahoma City, including Moore.

"It was like a war zone—eerily quiet afterward with only emergency vehicles moving around," she said.

Although her house was destroyed in 1999, she salvaged some of her family's belongings.

The same eerie feeling filled the air last May as Roberts and her sons went through streets that had been destroyed. The good news was her dogs survived, her house was still standing and the family of her coworker, Annette Phillips, who lived in Moore, was safe.

But Phillip's home was destroyed.

"My floor-to-ceiling windows were all gone and I had holes in the ceiling of every room, except the garage, but the structure was intact," Roberts said.

It was strange seeing her home still standing, she said, because the tornado leveled the homes of her neighbors.

Roberts and her family moved furniture and other belongings to the garage, but several inches of rain in the following days damaged some of those items. Rain also damaged sections of the house's interior that had been unscathed by the tornado.

"There was so much water they had to gut the entire house," she said.

Roberts, however, is philosophical about having to start over again.

"There's something inherently embedded in us that we want our stuff even if it's broken," she said. "I don't know why that is."

She pauses and adds, "It is what it is. You lose all your stuff, you get it back and then you lose it all again."

The Oklahoma City community, including employees from the Kansas City Fed, rallied around Roberts, Phillips and the residents of Moore, helping with the cleanup, providing food, necessities and temporary shelter.

"There's so much goodwill going on; it's very uplifting," Roberts said.

But it will take months, perhaps years, before Moore fully recovers.

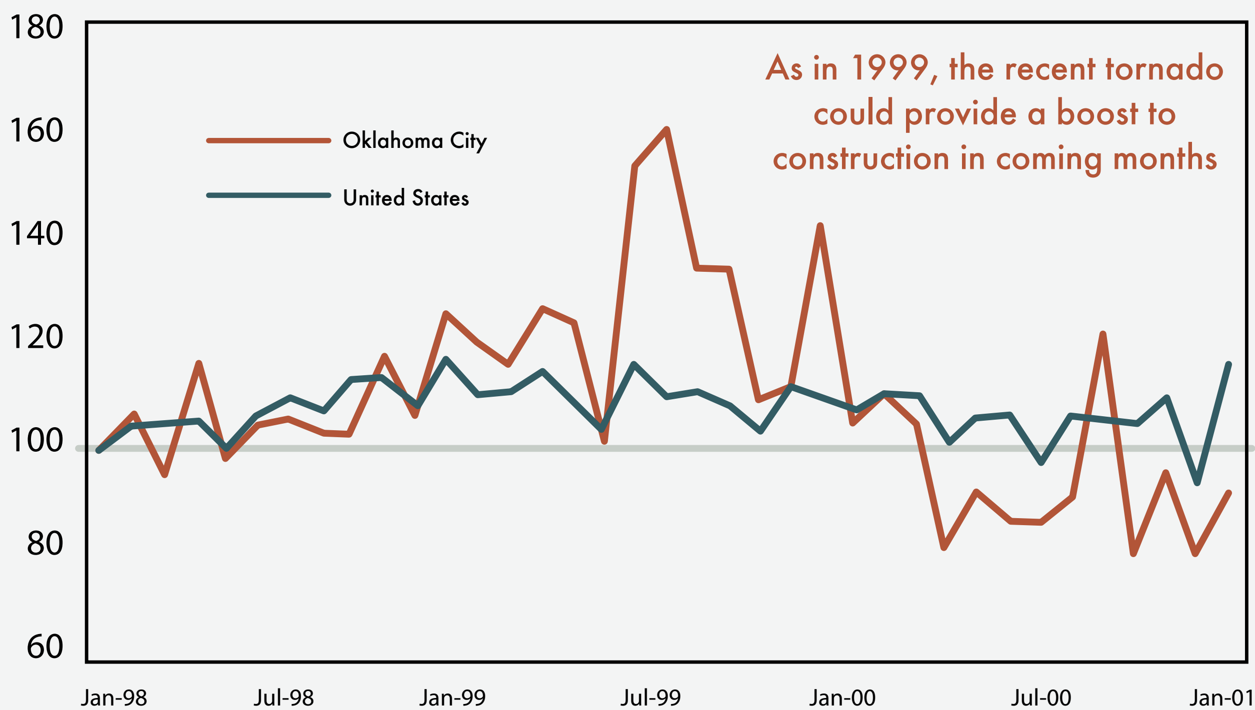
## Meeting immediate needs

Survivors of disasters have urgent needs for cash immediately after a disaster, and it was no different for central Oklahoma.

In response to the disaster, Oklahoma's State Banking Commissioner worked with

# SINGLE-FAMILY HOUSING PERMITS

seasonally adjusted




Source: Federal Reserve Bank of Kansas City the Kansas City Fed, the state Insurance Commissioner and local banks to meet local needs quickly.

The joint response underscored the value of collaboration following a disaster in helping communities get back on their feet.

Similar efforts spurred the recovery of Greensburg, Kan., after a tornado destroyed a majority of that small town on May 4, 2007, and contributes to the ongoing work in Joplin, Mo., which is still recovering from an EF-5 tornado in 2011.

Government, business and community leaders play a crucial role in a recovery and are a key reason the Community Reinvestment Act supports bank action in a "Designated Disaster Area" under the community development definitions of revitalization and stabilization.

"People need cash for lodging, food and clothes after a disaster," said Mick Thompson, Oklahoma's banking commissioner. Thompson contacted local banks, including Bank of Oklahoma, BancFirst and Arvest, to provide mobile ATMs to tornado victims. The first ATM was operational within 36 hours of the disaster.

Thompson worked with Bob Toler, assistant vice president over bank supervision at the Kansas City Fed's Oklahoma City Branch, to ensure that sufficient cash would be available to keep the ATMs stocked.

Collaboration between bankers and the Oklahoma Department of Insurance also made it possible for survivors to get insurance checks honored at local banks, even though many people had lost important pieces of identification.

BancFirst, which oversees accounts for the Moore Public Schools, worked with other banks and regulators to provide teachers with provisional credit while the school district recovered payroll data from its damaged computer servers.

First American Bank sponsored community meetings for citizens and small business owners, bringing in the Small Business Administration, the American Red Cross, the city of Moore, the Chamber of Commerce and the Oklahoma Small Business Development Center.

In addition, lenders suspended foreclosure actions and waived late fees. Wells Fargo donated $100,000 to the American Red Cross and established a mobile hub to assist customers with on-site home recovery efforts.

"This cooperation is the way things should work," Thompson said. "Local control allows us to be able to do something immediately."

## Lessons learned

The collaborative response in Moore was successful in part because of lessons learned from earlier disasters in the Federal Reserve's Tenth District. After Greensburg, regulators noted a need for emergency planning that covered a wide range of threats, including disruptions and outages to bank data systems.

A 2008 study by Kansas City Fed economists found that disaster recovery plans developed by Greensburg's three banks were important to restoring services to customers in the days immediately after the tornado.

For example, Greensburg State Bank quickly implemented a disaster recovery plan that included contracting for a temporary facility, complete with a teller counter, drive-up window, vault, two offices, a bookkeeping area and a generator.

In Joplin, bankers joined with other community leaders to begin the "renaissance" of that city, including Rebuild Joplin, a broad-based program that focuses on residential needs, said Clive Veri, regional president for Commerce Bank.

"We already had avenues of communication set up," Veri said. "So when the disaster hit, we all rolled up our sleeves and relied on those relationships to get done what needed to get done."

Besides partnering on loan funds, Commerce and other local banks counseled consumers and worked with Habitat for

PHOTO BY KEITH BALL


THIS BILLBOARD IN MOORE, OKLA., shows the spirit of the community that had a EF-5 tornado rip through their city last May.

Humanity to build houses.

Yaira Velez, a consumer affairs manager at the Kansas City Fed, explained there are many opportunities under the Community Reinvestment Act for bankers to assist their customers following a disaster. Velez listed services such as mobile banking, small dollar access to capital, easing credit terms for borrowers and temporarily waiving payments and fees. Banks also can consider purchasing city bonds targeted for rebuilding infrastructure.

The key, Velez said, is being responsive to the needs of individuals, businesses and the community.

## Keeping the doors open

One of four businesses that close due to a natural disaster never reopens, according to the Insurance Institute for Home and Business Safety. So, while medical care, safety and reconstruction are often the first priorities after a disaster, restoring a community's economic vitality also is an essential long-term goal of the recovery process.

Economic development and small business support organizations, city officials, chambers of commerce and federal assistance agencies can play key roles by providing pre-disaster training and post-disaster support, and connecting businesses to credit, capital and technical assistance.

The Oklahoma Department of Commerce worked with local chambers of commerce to form the Greater Oklahoma City Back to Business Initiative. The main goal was to assess the immediate needs of the estimated 2,100 businesses within a one-mile wide path of the tornado.

The initiative created a website where business owners may request financial and technical assistance. In many cases, businesses were referred by Federal Emergency Management Agency workers to Small Business Administration Disaster Recovery Centers, where owners were able to apply for low interest loans.

The initiative echoed cooperative efforts in Joplin, Mo., where the Joplin Area Chamber of Commerce helped the Missouri Department of Economic Development promote state-wide tax incentives to spur donations to the tornado recovery of that city's businesses.

Even a year after Hurricane Katrina, one of the nation's worst disasters, a Harris International Poll reported that only one out of three business owners said they were prepared to deal with a disaster.

Natural disasters will always pose challenges for business owners. Experts, however, say economic development agencies can help business owners become better prepared, enabling a faster and stronger economic recovery for the entire community.

## The future

Roberts said she will remain in Moore.

"I'm rebuilding in that spot; insurance made that decision for me, but this is the place I chose and I'm staying," she said.

But she knows it's just a house, and the objects and items she's collected over the years are just things. Although she experienced some of the same emotions she had in 1999, May's event was different.

"We take so much for granted," she said. "It does make you appreciate what you have—friends, family, coworkers and the community."

Being able to work and perform normal daily routines has helped her through this time.

"It's a pain, but if you can bring back some normalcy into your life, it helps," she said.

Contractors plan to have Robert's house ready to move in at the end of the year. For now, she's renting part of a house from a friend that even has a small yard for her dogs.

"I've built three homes in my lifetime," she said. "I can't say this will be the last one because disasters happen all time, in all kinds of places, but I hope this is it."

**KEVIN WRIGHT,** EDITOR

Senior community development advisors Paul Wenske, Steve Shepelwich and Dell Gines provided information for this story.

**FURTHER** RESOURCES

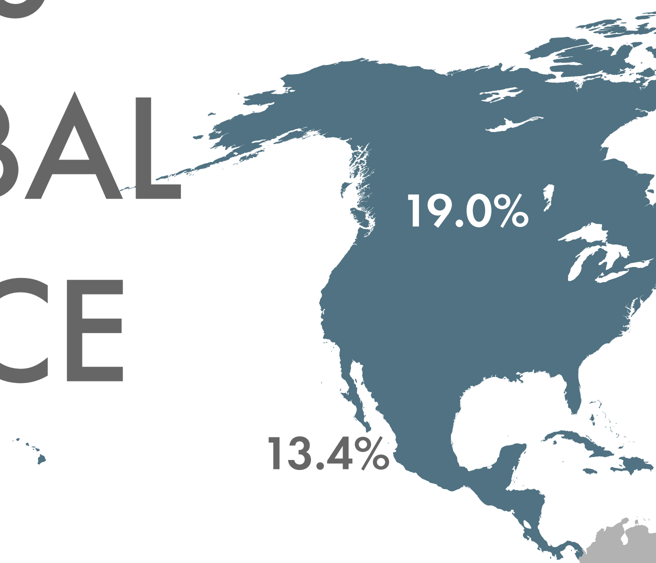
Further guidance on disaster responses and other regulation information for institutions regulated by the Federal Reserve is at: www.federalreserve.gov/bankinforeg/srletters/sr1306.htm. For more assistance, banks may contact their regulator.

To learn more about the Greater Oklahoma City Back to Business Initiative, go to: www.okcchamber.com

"Master plan: Banks can learn fron Greensburg's Recovery"
By Kenneth Spong with Eric Robbins
www.bit.ly/tenmasterplan

**COMMENTS/QUESTIONS** are welcome and should be sent to teneditors@kc.frb.org.

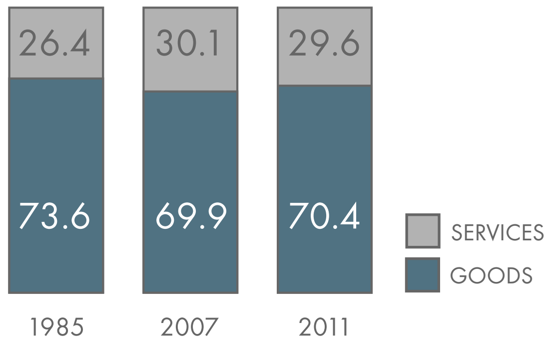
# U.S. EXPORTS IN THE GLOBAL MARKETPLACE



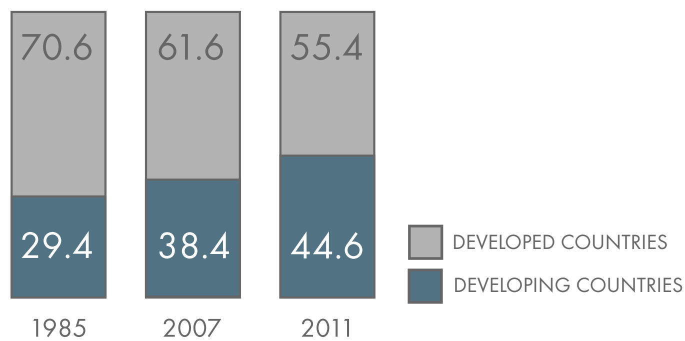

Export growth is an important source of aggregate growth in the U.S. economy. Indeed the importance of exports in contributing to U.S. economic growth has increased steadily over the past three decades, with exports nearly doubling as a share of gross domestic product.

Export growth has been championed as a key driver for the country's ongoing economic recovery. Generally speaking, exports of goods and services produced in the United States depend crucially on foreign demand. When foreign economic growth is low, foreign demand tends to be weak as people have less income to purchase U.S. goods and services. In this way, lower foreign growth may lead to less growth in U.S. exports. Kansas City Fed Economist Jun Nie and Research Associate Lisa Taylor's analysis, however, found that this relationship between U.S. export growth and foreign economic growth varies from region to region.

The United States exports both goods and services to countries throughout the world, with goods accounting for the majority of total U.S. exports.




The bulk of U.S. export goods historically has been destined for developed countries, but the share of goods exported to developing countries has increased since the 1980s.

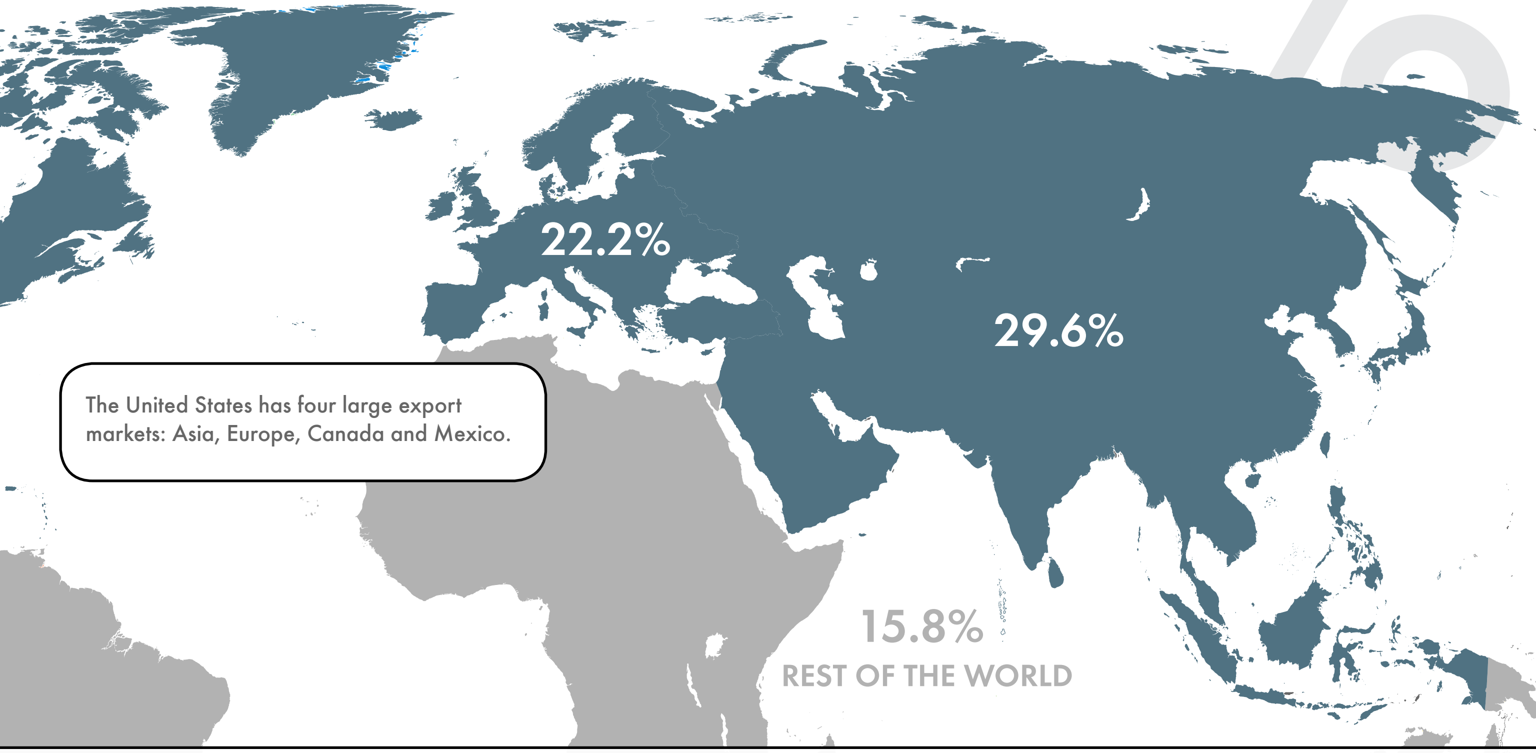



**FURTHER READING**

**"Economic Growth in Foreign Regions and U.S. Export Growth"**
Jun Nie and Lisa Taylor
www.bit.ly/jun-taylor

SOURCES: Badan Pusat Statistik, Banco Central de Reserva del Perú, Bureau of Economic Analysis, Census Bureau, Central Statistics Office (India), European Commission, Federal Reserve Board, Haver Analytics, Instituto Brasileiro de Geografia e Estatística, IMF, National Bureau of Statistics of China, Russian Federation Federal State Statistics Service, Singapore Department of Statistics, Statistical Office of the European Communities, and authors' calculations.

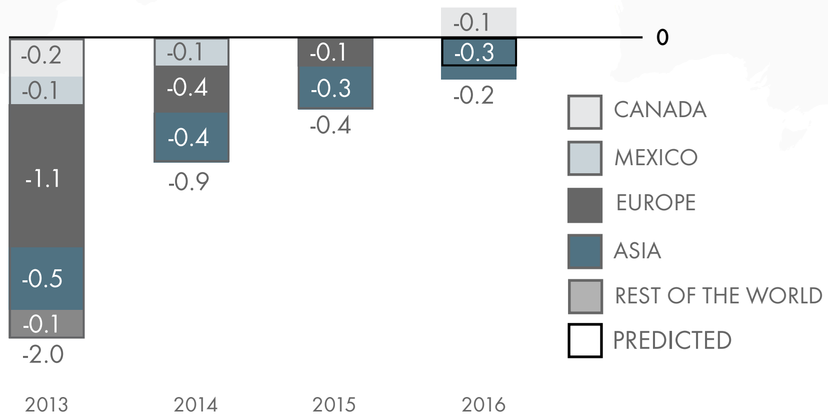
## SHARE OF U.S. EXPORT GOODS BY REGION IN 2011



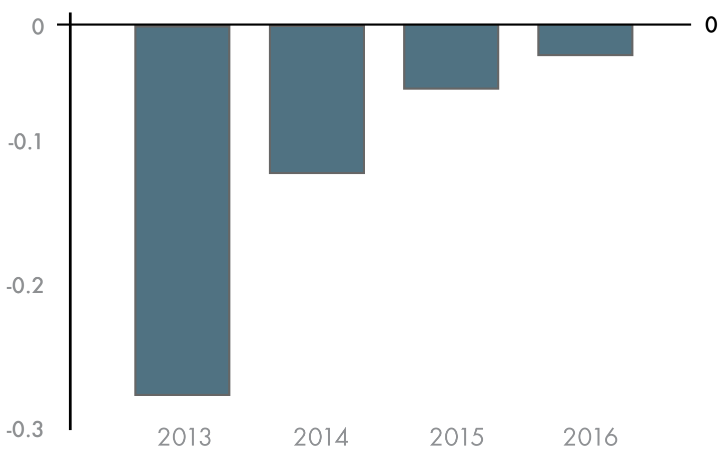

The United States has four large export markets: Asia, Europe, Canada and Mexico.

## DECOMPOSITION OF THE CHANGE IN PREDICTED U.S. EXPORT GROWTH

The analysis shows U.S. export growth is most closely associated with growth changes in Europe, followed by growth changes in Canada and Asia. The close relationship between U.S. export growth and European growth results from Europe having the largest share of world GDP and a large share of U.S. export goods.




## IMPLIED CHANGES IN U.S. REAL GDP GROWTH




The analysis also can be applied to forecast future U.S. export growth. From September 2011 to October 2012, the IMF revised downward its estimates for growth prospects across different regions. Based on these projections of slower economic growth in foreign regions, particularly in Europe and Asia, U.S. export growth is expected to be 2.0 percentage points lower in 2013 and 0.9 percentage point lower in 2014 than previously estimated. Consequently, the contribution of annual U.S. real export growth to U.S. real GDP growth is projected to be reduced by 0.4 percentage point in the 2013-14 period.

# Ag Symposium 2013 Looks at Global Agriculture

In recent years, burgeoning food and fuel demand has strained agricultural production systems. Coupled with a series of poor harvests, record low farm inventories lifted agricultural trade, farm prices, and profits to new highs, which in turn, spurred a new wave of agricultural investments.

By enhancing the productivity of agriculture and its surrounding infrastructure, these new investments could transform the competitiveness in global agricultural markets, shift world trade flows, and alter farm profitability.

The Kansas City Fed's 2013 Agricultural Symposium, The Shifting Nexus of Global Agriculture, explored how worldwide investments in agriculture could redraw the landscape of agricultural production and

*"As we go forward, prices around $5 (per bushel) will be more the norm than an exception. We are not going to have $7 corn forever, unless the world changes in very fundamental ways."*
*-Patrick Westhoff, Director, Food and Agricultural Policy Research Institute, University of Missouri*

*"Quite frankly, some of our infrastructure that's seven or eight decades old will be asked to do the same thing for the next six, seven, or eight decades… As you get inefficiencies within your infrastructure and transportation system, the costs start mounting throughout."*
*-Ken Eriksen, Senior Vice President, Informa Economics*

investigated the implications for agricultural competitiveness, trade and farm prosperity.

More than 200 people attended the symposium from July 16-17 at the Kansas City Fed's head office. The event featured several keynote speakers and discussion panels on topics that ranged from investing in agricultural infrastructure to profiting in a new policy landscape.

For more information and to view presentations and papers visit www.KansasCityFed.org/research/regionaleconomy/agriculture.cfm. Look for a summary article about the Ag Symposium in an upcoming issue of the *Main Street Economist* at www.KansasCityFed.org/publications/research.

## Keynote Speakers

Esther L. George, Kansas City Fed president

Patrick Westhoff, director, Food and Agricultural Policy Research Institute, University of Missouri

Kenneth Eriksen, senior vice president, Informa Economics

Michael Swanson, senior vice president, Wells Fargo, Inc.

Michael Boehlje, distinguished professor, Purdue University

Christopher Delgado, strategy and policy advisor, World Bank

Ray Wyse, senior director, Trading and Research, Gavilon

## Panel Participants

Grant Aldonas, principal managing director, Split Rock International

Bruce Babcock, professor, Iowa State University

Joseph Bond, managing director, NCH Capital Inc.

Chris Erickson, managing director, HighQuest Partners

Timothy Gallagher, executive vice president, Bunge North America

Paul Hammes, vice president and general manager-agricultural productions, Union Pacific Railroad

William Mott, president and founder, Agland Investment Services, Inc.

Joe Outlaw, professor, Texas A&M University

**Complete details, presentations and papers from this conference are available at the Federal Reserve Bank of Kansas City's website at *www.KansasCityFed.org*.**

# Perusing Prepaid Cards

**Michele Wulff** is a former public school educator of 30 years and a 2007 recipient of the peer award "Excellence in Teaching Economics." As an economic education coordinator with the Kansas City Fed, she works to heighten financial literacy throughout the seven states of the Tenth District.

Is your teen ready to make the move from a cash allowance to something more sophisticated for mall shopping trips and future college expenses? Do you want to give him practice in handling plastic to prepare him for the world of credit cards? Prepaid cards to the rescue! Use of these cards as a payment solution is rapidly expanding for those without access to credit or even without bank accounts. Prepaid cards offer the convenience of paying for purchases up to a certain limit, set by the dollars loaded on the cards. Using these cards keeps funds safe from loss or theft, and many cards can be tracked online or by app for balances and budgeting purposes. Prepaid cards can be useful tools to help develop smart spending habits without the fear of affecting future credit.

But watch out for a four-letter word—fees. Because banks can't charge interest on prepaid cards, as they can on credit balances, their profit comes from fees associated with card use. The Consumer Financial Protection Bureau is currently working on regulations to monitor these cards, but in the interim, many card options have fees. Here is a laundry list of fee possibilities on a prepaid card (fees noted are from Bankrate.com):

- Activation fee: paid upfront to load money onto the card; ranging from $2.95-$14.95
- Monthly maintenance fee: to continue using the card beyond the first month; ranging from $3-$9.95
- ATM fee: for quick cash; ranging from $1.50-$2.75
- Inactivity fee: if the card is unused for a month or longer; ranging from $1.95-$5.95
- Transaction fee: for each point-of-sale transaction; ranging from $.49-$2.00
- Declined transaction fee: for insufficient funds on the card; ranging from $.25-$1.95 for each declined transaction
- Customer service fee: for inquiries on balance and bill-paying features; varies with each prepaid card issuer

So how do you find a prepaid card with minimal fees for your teen's first plunge with plastic? Time for a little website exploration. Check out the 2013 Prepaid Card Survey for detailed information at www.bankrate.com/finance/banking/best-prepaid-debit-cards.aspx. This survey compares 24 prepaid cards, noting all fees, restrictions and other factors that you should be aware of before choosing a card.

Once you have the facts, think about the conveniences you'd like the card to offer. Use our "Prepaid Cards Prep" checklist on page 34 with your teen to choose features that are important to her card usage. Major conveniences to think about might include how to reload the card, so funds can be added; directly linking the card to a bank account; the amount of ATM activity expected and associated fees; and the ability to have 24/7 customer service. Use the prepaid card grid once the checklist is complete to have your teen evaluate her top card choices for the best overall option.

Now it's time for a financial teachable moment. Share the following data with your teen: Research has found that consumers spend

12 to 18 percent more when they pay with a card—credit or debit—than when they use cash. Ask them to think of reasons why this might happen. They may share ideas such as it's easier to part with cash you can't see and touch, or that the payment doesn't seem as "real" as a cash payment. Now ask your teen how this feeling could get them into financial trouble. Will they be able to reign in their impulses to blow through the cash on the card more quickly? What could they do to slow the spending process? Suggest tracking their purchases (online or on paper) to see exactly where the money goes on a weekly basis. When they see a spending splurge, tell them to backtrack and analyze their behavior. Was the splurge tied to emotions, peer group spending, or over-the-top sales? How could they prevent this impulse behavior from reoccurring? Revisit this conversation periodically so that you (and your teen) are keeping tabs on prepaid card use. Hopefully, responsible use of their prepaid card will pave the way to successful credit use as an adult.

# Financial Education Resources

The Kansas City Fed is committed to promoting economic and financial literacy and greater knowledge of the Federal Reserve's role by providing resources for teachers, students and the public. Visit our website at **KansasCityFed.org** for more information.

**Federal Reserve Resources**

Personal Finance 101 Chat on Prepaid Debit Cards
(www.stlouisfed.org/education_resources/personal-finance-101-chats/pf-10.)
Follow the conversation between two sisters as they discuss prepaid cards and checking accounts.

What You Need to Know About Payment Cards (www.philadelphiafed.org/consumer-resources/publications/what-you-need-to-know-about-payment-cards.pdf)
Describes types of payment cards and answers questions on fees, transactions, and cash advances.

Preventing Payment Card Fraud: Dos and Don'ts (www.philadelphiafed.org/consumer-resources/publications/preventing-payment-card-fraud.pdf)
Tips to keep payment cards safe as well as what to do in case of theft or fraud.

**Non-Fiction Books**

Money and Teens: Savvy Money Skills by Darby Kachut
This book gives practical suggestions to develop money skills, including payment and debit card use.
For ages 12-Adult.

Not Your Parents' Money Book: Making, Spending and Saving Your Own Money by Jean Chatzky
This book gives a grounded approach to spending and saving, with the hope of reaching kids before bad spending habits get out of control.
For ages 12-18.

# Activity: Prepaid Cards Prep

Directions: After researching prepaid card websites, complete the checklist by marking all features you feel are important in a prepaid card.

____ 1. Low overall fees

____ 2. Easy to reload cash

____ 3. Links to bank account

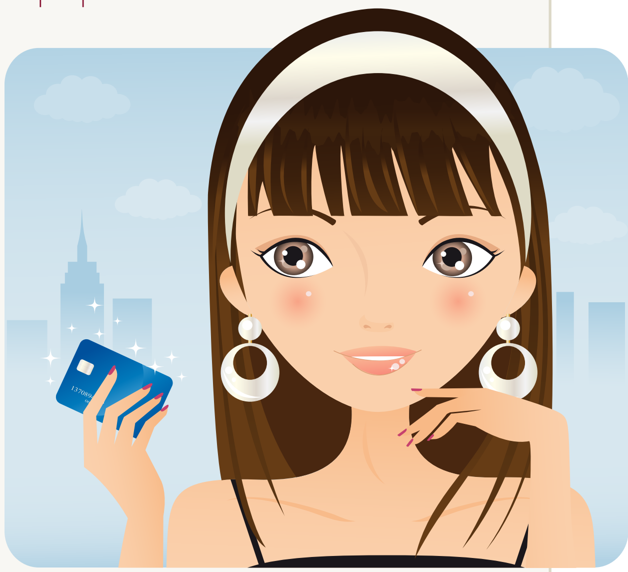
____ 4. Free balance inquiry

____ 5. Direct deposit

____ 6. Bill pay ability

____ 7. High maximum withdrawal amount

____ 8. 24/7 customer service



Now fill in the first column of the grid with four prepaid card options that include many of the features you checked. Do a final evaluation by ranking the criteria across the top row from 1 (lowest) to 4 (highest) for each card. **Add totals to find the highest ranking card as your best option.**

| Prepaid Cards | Matched the features I want in a card | Overall convenience of the card | Minimal fees associated with the card | Total |
|---|---|---|---|---|
| | | | | |
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| | | | | |

# COMING THIS FALL IN TEN

## *100 years ago…*

…this December, President Woodrow Wilson signed into law the Federal Reserve Act. The Act's sponsor in the U.S. Senate was Robert Latham Owen of Oklahoma, whose bill authorized the creation of the Federal Reserve System, the United States' third attempt to establish a central bank.

In conjunction with Federal Reserve Bank's centennial commemoration, the Kansas City Fed looks at Owen's role in both championing the formaltion of the Fed and later criticizing some of its policies after World War I. Owen's role and views are juxtaposed with developments in the economy of what is now the Federal Reserve's Tenth District.

**President Woodrow Wilson** signs the Federal Reserve Act, December 1913

**Robert L. Owen**

# Notes from around the Tenth District

## Truman coin collection restoration efforts complete

Work to restore the coin collection belonging to the Harry S. Truman Presidential Library and Museum is now complete. The collection is part of a permanent display at the Federal Reserve Bank of Kansas City's Money Museum.

The collection consists of examples of American coins produced by the U.S. Mint during every presidential adminstration.

The Kansas City Fed partnered with the Truman Library to conduct conservation work on the collection and fit all of the coins with new, custom mounts. Three specialists, Carol Aiken, the conservator for the project, and custom-mount creators Bill Mead and Robert Fuglestad, worked on the project.

"When you clean metals, you don't want to change the metal in any way," said Aiken, who used bamboo toothpicks and looked through a strong magnifying glass to clean details in the coins. "Some of the coins are works of art. They're really beautiful."

To create the custom mounts, Mead and Fuglestad measured each coin and created a mount that would blend into the displays background.

"Everything should float," Fuglestad said. "The mount should be as minimal as it can be structurally so that the object bounces out at you."

Visit the Kansas City Fed's Money Museum to see the Truman Coin Collection. www.KansasCityFed.org/MoneyMuseum


## Kansas City Fed leads effort to offer Federal Reserve System centennial merchandise

The Federal Reserve System is quickly approaching its 100-year anniversary. In support of the educational events and outreach planned for the occasion, the Federal Reserve Bank of Kansas City has created centennial merchandise.

All items, available to the public feature the centennial logo that will be used across the Federal Reserve System during the centennial commemoration. Items are for sale in the Vault, the store in the Kansas City Fed's Money Museum, or the Vault Online.

Go to www.KansasCityFed.org/MoneyMuseum/thevault/ to learn more.

## Student Board of Directors programs close with formal pinning

The Federal Reserve Bank of Kansas City's Board chairman Barb Mowry met with students who participated in the Kansas City Fed's Student Board of Directors as part of the program's closing ceremonies.

"Did they treat you well?" she asked Joshua Cole, Nahshon Thomas and Lauren Harris. "Do you have suggestions for what we could improve?"

Thomas said that he loved the program, which offers Student Board of Directors participants the opportunity to learn about personal finance and potential career opportunities, while getting a behind-the-scenes look at how the Kansas City Fed and the local economy function.

"I thought it was all-around great," he said. "At first I thought it would only be about finance, but it gave me a better sense of business."

The program reached 44 students during the academic year of 2012-2013 and included students from the Kansas City, Kan., Kansas City, Mo., Omaha, Oklahoma City and Denver public school systems. All Student Board participants have high academic achievements and plan to attend college.

To formally close the year, the Student Board members participated in pinning ceremonies at the Kansas City Fed headquarters or at one if its Branch offices in Denver, Omaha or Oklahoma City. During the ceremonies, the students were recognized for their dedication and hard work and encouraged to take the lessons they've learned with them through college and their careers.

Thomas says he has a better perspective of his future.

"I've been able to see all the options I have and how to propel myself forward in my life," he said.

Learn more about the program at www.KansasCityFed.org

Kansas City Mayor Sly James, along with Kansas City Fed Board Chair Barb Mowry and President Esther George, attended the Student Board of Directors pinning ceremony in Kansas City

## Midwest Conference draws economic educators

More than 50 educators attended the Midwest Economic Education Conference in May 23-24 at the Federal Reserve Bank of Kansas City.

The annual conference provides an opportunity for economic education council and center staff, representatives from state departments of education, curriculum supervisors and staff of the Federal Reserve to share and discuss current initiatives and topics related to economic and financial education.

This year's conference concentrated on behavioral economics and where economic education fits into the Common Core State Standards Initiative.

Mike Staten, a professor of economics at the University of Arizona, pictured right, said behavioral economics doesn't throw out the standard economic model, but improves the accuracy of its predictions by showing how people's economic decisions and choices are influenced by different factors.

Most economic education gives people conceptual tools to understand how the world works (individuals, groups, markets, economies).

"We typically measure our impact by knowledge gained, and elevation in students' ability to analyze new scenarios," Staten said.

The personal finance component of economic education focuses squarely on helping individuals to make better personal decisions and increasing their financial capability. The financial profile of American consumers, however, suggests the need for more and better skills and tools aimed at improving financial capability, Staten said.

By understanding people's financial behaviors, educators can model tools that increase a person's financial literacy, which changes that person's attitudes or beliefs toward financial situations or decisions. This change creates new incentives to act, and thus, changes behavior, which increases that person's financial capability.


**Conference attendees also concentrated on:**

- Ways to encourage economic learning in youth through games.
- How generations think differently about personal finance and how to convey financial learning principles to each generation in a way that helps people develop good financial behaviors.
- Teaching strategies to increase student engagement in reading.
- Financial education resources that complement and enhance the Common Core State Standards.

## Summer @ The Fed program returns for second year

The Federal Reserve Bank of Kansas City's summer educational program for fourth- through sixth-grade students returned for its second year. More than 600 area students participated between June and August in the Summer @ The Fed to learn about spending, the basics of banking and the importance of savings.

Summer @ The Fed lessons were taught by Kansas City Fed paid interns, who were hired as activity directors after successfully completing the Student Board of Directors Program, and passing interview requirements.

"It's a good learning experience for me to work with the kids," said Ciara May, a Summer @ The Fed activity director.

Lauren Harris said her participation as an activity director is strengthening her own understanding of economic concepts.

"You're teaching the students, but you're re-learning the material, too," she said. "Being here at the Kansas City Fed is good because it's a business environment. Everyone here helps me grow and understand more."

The activity directors led some programs at the Kansas City Fed office and other programs at local community organizations, including the Boys and Girls Club, the YMCA of Greater Kansas City, Westport Roanoke Community Center, Bethel Neighborhood Center and Operation Breakthrough.

During their internships, the activity directors also focused on their professional development, including presentation, public speaking, writing, time management and organizational skills.

Trudie Hall, the Kansas City Fed coordinator of the program, stressed the importance of teaching financial concepts to children at an early age.

"Instead of being hit with economics right before college, we reach these children early so these concepts become part of their way of thinking—as opposed to pass or fail," she said.

Hall said the success of the program wouldn't be possible without the team of motivated activity directors.

"This group has been so willing to get onboard and get in the program," she said. "For everything I've asked of them, they've stepped up."

Learn more about Summer @ The Fed at KansasCityFed.org

## Reserve System improves requirement process

Reserve requirements are a key instrument of monetary policy used by the Federal Reserve System, but they have a complex administration process. To simplify and continuously improve the reserve requirement administration process, a System workgroup formed in 2011 to address the process that had been in place for more than 30 years.

Reserve requirements are a certain percentage of customer deposits that depository institutions must maintain for the Federal Reserve System to conduct monetary policy. Depository institutions can hold reserve requirements in the form of vault cash, balances or deposits with Reserve Banks, or at a financial institution.

The existing system for administering reserve requirements needed technological modernization and didn't offer the flexibility and turnaround that depository institutions and Reserve Bank staff needed to quickly make changes. Instead of building on the existing system, the workgroup took a zero-based approach to design an improved process and system that would make administering the reserve requirements easier and less costly for both depository institutions and the Reserve Banks.

The improvements were implemented in two phases. The first, in July of 2012, eliminated the need for depository institutions to enter into a formal agreement with Reserve Banks to hold reserves beyond what was required. The second phase took effect on June 27, 2013, and established a consistent period of time that depository institutions must maintain their reserve requirement and provided flexibility for depository institutions to manage their reserves within a range.

For additional information, go to www.frbservices.org/centralbank

## 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 July, August and September.

| | | | |
|---|---|---|---|
| Uinta Bank | Mountain View | Wyo. | 93 |
| Wahoo State Bank | Wahoo | Neb. | 81 |
| Gunnison Bank and Trust Company | Gunnison | Colo. | 73 |
| Farmer's State Bank | Stanberry | Mo. | 72 |
| Union State Bank | Clay Center | Kan. | 71 |
| Bank of Holyrood | Holyrood | Kan. | 70 |
| Security State Bank | Basin | Wyo. | 65 |
| Bank of Cushing | Cushing | Okla. | 33 |
| Montrose Bank | Montrose | Colo. | 29 |
| Anadarko Bank and Trust Company | Anadarko | Okla. | 21 |
| My Bank | Belen | N.M. | 21 |
| High Plains Bank | Flagler | Colo. | 10 |
| American State Bank and Trust Company | Great Bend | Kan. | 5 |
| Jonah Bank | Casper | Wyo. | 1 |
| Rose Hill Bank | Rose Hill | Kan. | 1 |
| RSNB Bank | Rock Springs | Wyo. | 1 |
| Wyoming Bank and Trust Company | Cheyenne | Wyo. | 1 |

Spring 2013
VOLUME 9 • NUMBER 1 • ISSN 1554-7469

# 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.

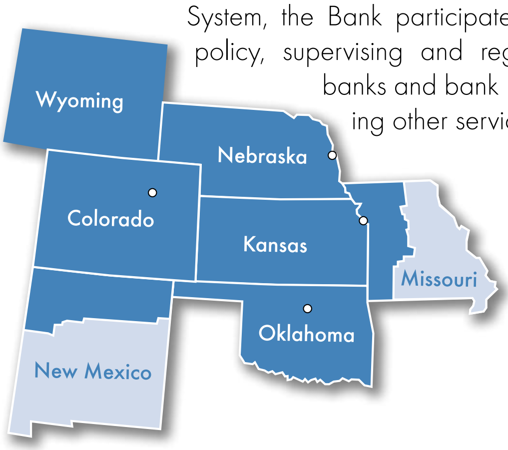
With the Federal Reserve Act, Congress sought to create a central bank the public would be more likely to support by making it "decentralized" with more local control. This new structure was designed to overcome one of the primary weaknesses of the previous central banks: public distrust of an institution 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.

# 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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**TEN** magazine is a quarterly publication of the Federal Reserve Bank of Kansas City focused on the connection between the Bank's research and the Tenth Federal Reserve District. **TEN** also features articles on the Federal Reserve's history, structure and operations.

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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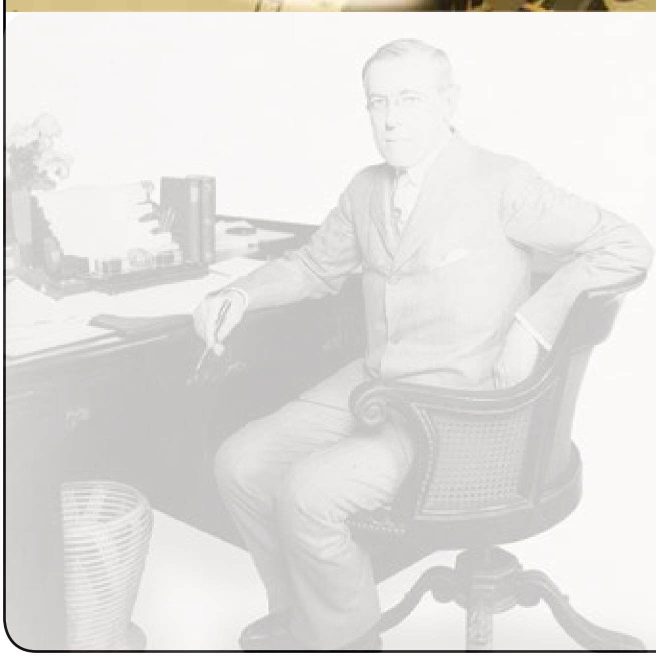

**December 2013** will mark the 100-year anniversary of the signing of the Federal Reserve Act, which created the nation's central banking system as it is known today. We invite you to learn more about us, our history, our people and how the Federal Reserve affects you at www.KansasCityFed.org.

Connect *with the* KANSAS CITY FED: