

TEN

FEDERAL RESERVE BANK OF KANSAS CITY

Fall 2015

Inside:

Oil prices effect on employment

Voluntary turnover increases

Responding to future food demands

Economic Policy Symposium 2015

HOUSING ON THE RISE

Millennials and baby boomers affect multifamily
and single-family housing markets





On The Cover:

TEN

F a l l 2 0 1 5

HOUSING ON THE RISE

Millennials and baby boomers affect multifamily and single-family housing markets..... 8

Some have interpreted the recent increase in young adults' multifamily occupancy as reflecting millennials' stronger preference for living in apartments relative to Generation X. Most of the increase, economists say, simply reflects a return to trend behavior. A new trend is the number of baby boomers moving from single family to multifamily homes. On the cover: Scott Rist, a real estate agent with Rist and Associates, a broker for Reece and Nichols

FEATURES



CONFIDENT ABOUT QUITTING

Voluntary turnover and labor market optimism increases 12

After many years in negative territory, recent readings of the excess quits rate suggest workers may be more optimistic about the labor market and searching for better opportunities.



AGRICULTURAL SYMPOSIUM 2015

Responding to future food demands 14

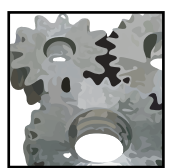
More than 1.2 billion people have joined the global economy's middle class in the last 15 years, and these new members are having a big impact on the global food supply.



OIL'S HORIZON

Employment decreases, production increases with price decline 22

In July 2014, oil prices edged downward and continued to plummet the rest of the year. At the end of April 2015, rig counts fell 49 percent and companies began layoffs; however, production remained strong.



IN THE BANK

Manufacturing Survey: Getting the data from the source 28

Since 1994, the Federal Reserve Bank of Kansas City has surveyed manufacturers in the Tenth Federal Reserve District to get timely information on regional manufacturing performance.

IN EVERY ISSUE

- 1 **PRESIDENT'S MESSAGE**
- 30 **COMMON CENTS**
- 33 **NOTES**

Weighing the Costs of Waiting

The 2008 financial crisis and deep recession required massive bailouts and aggressive, unconventional monetary policy actions to restore financial stability and economic growth. And yet, seven years later, uncertainty lingers about the durability and strength of financial reforms and of the economy itself. Clearly, the financial crisis of 2008 cast a long shadow.

In my message, I will offer my observations about the current state of the economy and why I believe the Federal Reserve should start the process of interest rate normalization sooner rather than later. I'll close with some perspectives on the state of key regulatory reforms affecting the banking industry and, in particular, the nation's community banks.

These are my own views and not those of the Federal Open Market Committee or the Federal Reserve System.

The economic outlook

In 2013, during my first voting rotation on the Federal Open Market Committee, I did not support additional stimulus in the form of a third round of asset purchases. By then, the immediate crisis had passed, the economy was slowly expanding for its third consecutive year, and monetary policy settings remained extraordinarily accommodative. At the end of my voting cycle, I fully anticipated that a return to more-normal interest rates would require a lengthy and gradual adjustment process. But, I did not imagine that in 2015 we might still have the same policy stance.

During the past five years, the U.S. economy has grown at a moderate pace each

year, labor markets have healed—albeit with scars from the recession—and inflation has remained low. This year, the economy had a slower-than-expected start. The soft GDP report for the first quarter reflected some temporary factors that held down growth but are unlikely to persist going forward. Looking ahead,

I expect the economy to resume its expansion at an above-trend growth rate through the end of the year and labor market conditions to continue improving.

Consumer spending, the largest part of our economy, will likely grow at a healthy rate in the quarters ahead due to an improving labor market, rising wealth and lower gasoline prices relative to where they were last year. Moreover, as the economy continues to heal and domestic demand continues to strengthen, businesses should have more incentives to increase capital expenditures. I also expect housing construction to provide a tailwind to growth as more adults pack up and move out of their parents' home or away from living with roommates to start their own households.

In terms of the labor market, the economy added 3 million jobs over the past year. For perspective, consider that the economy did not even add this many new jobs over a one-year period at any point during the housing bubble years. You would need to go back to the late 1990s tech-bubble era to find a period



when jobs were being added at a similar pace. In addition to the number of jobs, we are seeing better jobs. For example, workers today are flowing into more-stable employment relationships, and workers with a high-school diploma or some college are finding employment in higher-skilled occupations, something that was not occurring in the years following the crisis.

Taken together, the economic data generally point to an economy that is moving in the right direction and has consistently sustained growth over the past five years. This is not to say the economy is issue-free. There are pockets of the labor market that continue to struggle. Research shows that workers who enter the labor force during the lean years of a recession and recovery experience long-lasting scarring effects on their earning potential.

Millions of workers had difficulty finding employment and missed some experience needed to jump-start their careers, resulting in fewer skills, underdeveloped resumes and lower earnings. In addition, productivity growth, which ultimately drives living standards higher, has been notably soft in recent years. And, global economic concerns can pose unpredictable risks to our economy.

Unfortunately, although we might wish it so, monetary policy is not the proper tool to address all of these issues. The aggressive monetary actions over the past few years were intended to support economic activity, help labor markets heal and move inflation toward the Fed's target. I view the considerable progress in labor markets and the relatively steady inflation rate as encouraging. However, keeping interest rates near zero to achieve still further progress toward labor market improvement and higher inflation is risky in my view.


In a protracted period of exceptionally low rates, investors seeking out higher returns are willing to take on more risk or seek out more creative financing approaches. When the economy is expanding and rates remain low, adverse events may appear less likely or far into the future, potentially resulting in the mispricing of risk and financial assets. Waiting too long to adjust rates, as we've seen in the past, can leave policymakers with few and possibly poor options.

Finding the signal

The FOMC has been talking about its exit strategy since 2011. And since March of this year, the Committee has been emphasizing



PRESIDENT ESTHER GEORGE spoke July 9 at the Oklahoma Economic Forum in Stillwater, Okla.



that a decision to raise interest rates would be data dependent.

So, why hasn't the FOMC yet raised rates? There are of course different views on the economic data we receive and analyze that lead to legitimate, differing views about what is best for the economy. The Federal Reserve is charged with objectives that take into account employment and inflation in order to foster stable long-term growth in the economy. The FOMC is committed to pursuing those objectives, but policymakers may differ on the appropriate path to achieve these long-run goals.

Of course, the economic data we rely on can, and often does in the short run, send conflicting signals, and it is quite challenging to measure economic activity in an \$18 trillion, dynamic economy. As a result, policymakers are faced with an unclear path for moving interest rates. Those choices are all the more difficult as we must rely on backward-looking data to frame a forecast that takes into account the long lags of interest rate changes.

Under such circumstances, the Federal Reserve must be especially careful to avoid reacting to the last data point to determine policy. Instead, it should focus on longer-run trends as it seeks to understand the economy's future course and to map the best policy to assure it remains on course. The real challenge when the data disappoints is discerning whether it is due to temporary factors or an early signal that underlying momentum in the economy is changing.

Take the first quarter of this year as an example. The current estimate is that the economy contracted in the first quarter after

three quarters of relatively strong growth. While this headline number raises caution for policymakers, other factors, as I mentioned earlier, suggest the slowing is likely to be temporary. Severe winter weather and labor negotiations concerning dock workers likely took a short-lived toll on growth. At the same time, however, the economy added nearly 600,000 new jobs in the first three months of this year. So even though the economy appeared to slow a bit in the first quarter, businesses kept hiring, and the data for the second quarter suggest the economy is again expanding. Thus, in the face of consistent positive trends, delaying actions for more positive data can be unwise.

Consider as another example measures of inflation, which have been running below the Fed's stated inflation goal. Since 2012, the Federal Reserve has defined 2 percent inflation as "most consistent over the longer run with the Federal Reserve's statutory mandate" of price stability. Does inflation below 2 percent justify waiting longer to raise rates? The answer requires a deeper look at the data. Much of the decline in inflation comes from a dramatic fall in energy prices throughout the second half of 2014 and low import prices from a strong dollar. The swings in energy and food prices certainly matter for households and are an important component of the inflation measure, but sometimes it's also sensible to look at price changes that exclude these volatile goods. Along these lines, the core measure of inflation is running at 1.2 percent over the past year and has moved up to a 1.7 percent pace over the past three months. This data suggest to me that we understand why inflation has been

low, and as some temporary factors fade, it will likely move back toward the Fed's goal.

Part of our job is to look through the noise and act in the economy's long-run best interest. Separating the signal from the noise is always difficult and is usually clear only with hindsight. Because monetary policy decisions are made in real time, waiting for more data before taking an action can be a trap. More data is always on its way, and waiting for clarity too often causes decisions to be persistently postponed.

Timing is everything

The continued improvement in the labor market, combined with low and stable inflation, convince me that modestly higher short-term interest rates are appropriate. Current guideposts, or "policy rules," often used to inform monetary policy decisions also have been signaling that interest rates should be higher.

I recognize that a rate increase, however, would be the first one in nearly a decade. So I am not suggesting rates should be normalized quickly or that policy should be tight. Although the economy has improved, economic fundamentals could well mean an accommodative stance of policy is appropriate for some time. I would like to avoid the cost of waiting for more evidence and further postponing liftoff, drawing on a valuable lesson from monetary policy decisions in 2003.

At that time, the federal funds rate was held at a very low level—1 percent—because policymakers were concerned about low inflation and had postponed initiating the

tightening cycle in response. Inflation excluding food and energy in late 2003 was running at about 1.3 percent, not dissimilar from today. The unemployment rate was slightly below 6 percent, again, not dissimilar from today.

By the middle of 2004, core inflation increased to 2 percent as the unemployment rate continued to decline. A gradual tightening cycle began in June of 2004. Core inflation then moved persistently above 2 percent, and the labor market began to overheat amid one of the most historic credit bubbles in U.S. history.

Of course, many would argue that we do not face a similar buildup of leverage today and that the recovery remains fragile. Perhaps so, and perhaps this time it's different. However, economic trends and experience suggest otherwise. And we would be wise to act modestly but act now.

Progress on regulatory reforms

In addition to the lessons for monetary policy, the recent crisis taught us of the expanding challenges following from an increasingly concentrated and fragile financial system. While the largest financial institutions are meant to be engines of growth, they also pose outsized risk to the economy. With that in mind, I take note that this year marks the fifth anniversary of the signing of the Dodd-Frank Act, the law that aimed to remedy problems associated with the 2008 financial crisis and, in particular, sought to end the status of "too big to fail." While regulators have worked diligently over the past five years to implement new rules, debate about the law's various provisions continues.

Implementing rules focused on limiting certain risky activities has proved difficult. For example, the law prohibits banks from conducting proprietary trading and from investing in hedge and private equity funds. Regulators have struggled with complexity in writing this rule, and banks have lobbied heavily against it. The final rule was not approved until late 2013 and did not go into effect until April of last year. The deadline for fully complying with the rule could extend into 2017.

Another provision aimed at limiting risky activities has already been repealed. The so-called push-out rule was designed to move trading of credit default, commodity and equity swaps out of federally-insured depositories to non-insured operating affiliates. Congress reversed this part of the law last December, allowing the nation's largest banks to continue their swaps trading with the benefit of public safety nets.

Also core to the objectives of the Dodd-Frank reforms was preventing future government rescues of big banks. Recently, another round of resolution plans, referred to as living wills, was submitted to the regulators. It remains open, if not doubtful, whether a credible resolution process can be codified so as to eliminate—or even minimize—the pressure to rescue a large insolvent bank with taxpayer money.

Of course many point to the progress made in strengthening capital levels of the largest banks. Today, the 10 largest banks hold \$8 of tangible equity for every \$100 of assets, far more than the \$3 held in 2008. However, if the full value of derivatives is included in assets,

as required under international standards, the ratio of capital-to-assets is only 5 ½ percent. Compared to more than 10 percent held by the nation's community banks, further progress is needed.

Finally, a large segment of the banking industry composed of thousands of community banks faces a regulatory overlay intended for those engaged in global markets and riskier activities. Multiple bills to provide relief from certain provisions of the Dodd-Frank Act have been proposed. Most practical and promising is a proposal by FDIC Vice Chairman Tom Hoenig that focuses on calibrating regulation according to a bank's activities and complexity rather than size. I hope it is receiving serious consideration in the interest of a stronger and more-stable financial system.



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

The above message was adapted from a speech President George delivered July 9, 2015, at the Oklahoma Economic Forum in Stillwater, Okla.

MAKING A CONNECTION

REGIONAL FEDERAL RESERVE PRESIDENTS SERVE IN SEVERAL CAPACITIES, ONE OF WHICH IS AS A CONDUIT BETWEEN THE COMMUNITIES AND BUSINESS LEADERS OF THEIR FEDERAL RESERVE DISTRICTS' AND THE NATION'S CENTRAL BANK. Presidents also use their expertise to help communities outside their district. In fulfillment of her role, Kansas City Fed President Esther George made recent visits to several communities.

On May 6, Esther George spoke with Brooksley Born, an attorney and former chairperson of the Commodity Futures Trading Commission and commissioner of the Financial Crisis Inquiry Commission, backstage at the Finance and Society Conference in Washington, D.C.



Ed Malzahn, chair emeritus at The Charles Machine Works, gives George and Oklahoma City Branch Board of Directors and staff a tour of the Heritage Center and Ditch Witch Museum in July in Perry, Okla.

Photo by Jessie Blackwell

George was the keynote speaker May 30 at the bank directors conference of the Missouri Independent Bankers Association.



George met with Oklahoma State University President Burns Hargis, center, during a tour of the university's campus in July.



George pictured with Lance Fritz, left, president and CEO of Union Pacific Railroad, and Eric Butler, executive vice president of marketing and sales at Union Pacific, who is also a director at the Kansas City Fed's Omaha Branch, during a visit Sept. 9 to the railway's headquarters in Omaha, Neb.

Photo by Gary Barber

HOUSING ON THE RISE

Millennials and baby boomers affect multifamily
and single-family housing markets





raig Dietz bought a house in the Midtown area of Kansas City, Mo., six years ago. He's been renovating the place a section at a time and might consider selling in another five years. He's in no hurry, though. He likes where he lives. His neighbors range in age from millennials to Generation X to baby boomers.

"I can step outside and see everyone's porches," he said. "It's a friendly neighborhood."

The neighborhood is a mix of single-family homes and houses converted into apartments. It's the variety of people and businesses and the population density that drew Dietz to the area.

A medical doctor, Dietz's work is only a few minutes away. There also are restaurants, shops, markets and night life within the area.

"I can walk to most places within minutes," he said.

He sold the car he owned and used the money to help renovate his house. If he isn't walking, he uses Uber, a transportation network company that allows users to find rides through their mobile devices.

"I can take an Uber car for \$5 anywhere within the Midtown-Westport area, and \$6 gets me downtown," he said.

This convenience is due to resurgence in urban living, mainly young entrepreneurs moving to the area and opening up small businesses from butcher shops to restaurants that cater specialty foods. This also has created a need for more living space.

"It's amazing how many apartments are going up in the area," Dietz said.

Developers have plans to convert the former Missouri Gas Energy building on Broadway Boulevard in Midtown into apartments. Several blocks south, developers finished converting a former office building into a retail-residential complex. From the River Market downtown to the Crossroads Arts District to Westport, developers are taking advantage of the new multifamily housing demand.

The same is true for most major cities in the Tenth Federal Reserve District.

Resurgence in urban living

In the late 1960s, Omaha's Old Market was a couple of square blocks. The city was tearing down some of the industrial buildings as part of re-urbanization. A few artists moved into buildings and worked with property owners to save the area. It wasn't until the last decade, however, that Old Market has become one of the more trendy places to live in the heart of America.

Although the financial crisis slowed down development for a couple of years, since 2007, developers have renovated more buildings and constructed entirely new multifamily developments in the Old Market area. There also are newer areas such as SoMa for "south of the Market."

Denver has experienced a decade's long redevelopment of urban areas or the creation of communities that simulate urban environments, which have been in high demand with younger generations. The Highlands, LoDo, LoHi, Uptown, Capitol Hill, City Park West, Baker and Cherry Creek North are some of the areas not only millennials have moved to but older generations as well.

In most of these places, price isn't always a factor. People are looking for urban multifamily living, a place with character, walkability, and a sense of community—something they can't get in the suburbs, says Robert Mayer, a commercial real estate agent with Century 21.

These include places like Bricktown, the Plaza District and Triangle/Flatiron/Deep Deuce areas in Oklahoma City or Nob Hill, Old Town and the downtown district in Albuquerque.

The people moving to these areas like the music scenes, mom and pop stores, health food stores, organic farmers markets, fun places to hang out, things within walking distance or a bike ride, Mayer said.



CRAIG DIETZ, a medical doctor, works and lives in the Midtown area of Kansas City, Mo. He enjoys the diversity of neighborhoods and the many shops and restaurants within walking distance.

A growing trend

Jordan Rappaport, a senior economist with the Federal Reserve Bank of Kansas City, says millennial young adults—ages 20-34—have primarily driven the recent rebound in multifamily home construction, reversing their earlier swing toward single-family homes during the housing booms.

From 1980 to 2000, the share of young adults living in multifamily units steadily increased by almost 5 percentage points. The increase was due largely to young adults delaying having children and getting married.

From 2000 to 2007, young adults vacated one-half million multifamily units, thereby depressing multifamily construction. From 2007 to 2013, however, young adults reclaimed one-half million multifamily units, requiring builders to construct new ones. This swing accounts for much of the construction rebound.

Some have interpreted the recent increase in young adults' multifamily occupancy as reflecting millennials' stronger preference for

living in apartments relative to Generation X. However, most of the increase simply reflects a return to trend behavior, Rappaport said.

What is new is the number of baby boomers moving from single-family to multifamily homes. Multifamily occupancy among older adults, 50-69, increased steadily from 2000 to 2013, approximately 2.4 million people.

Older adults accounted for the entire net increase in multifamily occupancy during the first decade of the new century, but construction to meet the growing demand only rose modestly from 2007 to 2013.

New construction isn't just focused on dense urban living. Suburbs in metropolitan areas have seen an increase in new developments that offer affordable apartments, condos or townhomes within a complex of shops, restaurants and markets—what is described as convenient lifestyle living.

And young adults are still interested in traditional suburban neighborhoods.

Living in the burbs

Scott Rist, a real estate agent with Rist and Associates, a broker for Reece and Nichols, says most of his clients, who are millennials, are looking at single-family homes.

Rist (pictured on the TEN cover) works in Johnson County, Kansas, a suburb south of Kansas City, where homes can sell for less than \$100,000 to well into the millions.

Rist, 28, recently started selling real estate fulltime after working in the technology industry. Rist has plenty of experience to rely upon—his parents have sold real estate for more than 40 years in the area.

Unlike previous generations, millennials take a different approach to buying their first place.

“They view everything as an investment,” he said. Their first place, whether a single-family home, loft or condominium, is a stepping stone.

“They’re looking at it as a five-year investment as they start their careers,” he said. “They’ll later sell it and buy the home they plan to start a family in or to start the next segment of their lives.”

This doesn’t mean there’s a big resurgence of millennials in the single-family home market. Rist says many young adults have large amounts of college debt, and it isn’t easy finding a job that can help them afford paying that debt while making mortgage payments.

But for those who can afford it, they’re finding the suburbs they once wanted to leave as youths, actually has a lot to offer, Rist said.

“They’re finding that the Kansas City area is an affordable place to live compared to other big cities,” he said. “They can get more space for their money.”

Rist does have one client who’s a baby boomer.

“They’ve reached a time in their life where they’re looking at downsizing, not buying something bigger,” he said.

Older generations are moving out of suburban neighborhoods and young singles, couples and families are moving in, a sort of revitalization of a dying area, Rist said. They’re

not only looking at investing, they’re also buying convenience and community.

“You have people who want to be closer to their work or family, and living downtown can’t provide that to them,” he said.

The Census Bureau recently reported that single-family home starts rebounded this spring after a weather-related pullback in the winter, and the outlook is positive for the rest of 2015. Even so, the current rate of single-family starts remains almost two-thirds below its peak prior to the housing crisis and more than one-third below its level during the late 1990s.

“In sharp contrast, multifamily home starts have rebounded entirely from their trough during the housing crisis,” Rappaport said.

Although millennials are a larger generation than Generation X, it’s the baby boomers who will drive the future increase in multifamily occupancy. The leading edge of the baby boomers turns 70 in 2016, and the Census Bureau projects that the number of Americans ages 70 and older will increase by more than 20 million from 2015 to 2030.

Rappaport expects, in the long run, that seniors, ages 70 and above, will likely supplant young adults as the main drivers of growth in multifamily home construction.

“As the senior population swells—and more seniors downsize to multifamily units—multifamily home construction will increase strongly for many years,” Rappaport said.



KEVIN WRIGHT, EDITOR

FURTHER RESOURCES

“Millennials, Baby Boomers, and Rebounding Multifamily Home Construction,” by Jordan Rappaport, www.KansasCityFed.org/~media/files/publicat/research/macrobuletins/mb15rappaport0623.pdf

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



CONFIDENT ABOUT QUITTING: VOLUNTARY TURNOVER AND LABOR MARKET OPTIMISM

Getting an accurate picture of the labor market sometimes is difficult. For instance, how many people quit their jobs for better employment when the labor market is strong? One way to measure this is by analyzing the “quits rate” within the Job Openings and Labor Turnover Survey, referred to as JOLTS. The survey is commonly used in measuring voluntary turnover—when employees leave their jobs voluntarily. JOLTS looks at the rate from an employer perspective but lacks information about individuals’ employment status after leaving their jobs. For example, did they leave their jobs for another job, take time off before starting a new job or did they quit without any employment prospects.

José Mustre-del-Río, an economist, and William Xu, a research associate, both at the Federal Reserve Bank of Kansas City, examined the historical relationship between the JOLTS quit rate and job-to-job flows, also called J2J flows, derived from the Current Population Survey, to provide a more complete measure of voluntary turnover.

The JOLTS quit rate counts the fraction of individuals who voluntarily left employers. J2J flows measure the fraction of individuals who report working for a different employer compared with a month ago. Comparing both measurements reveals two innate trends.

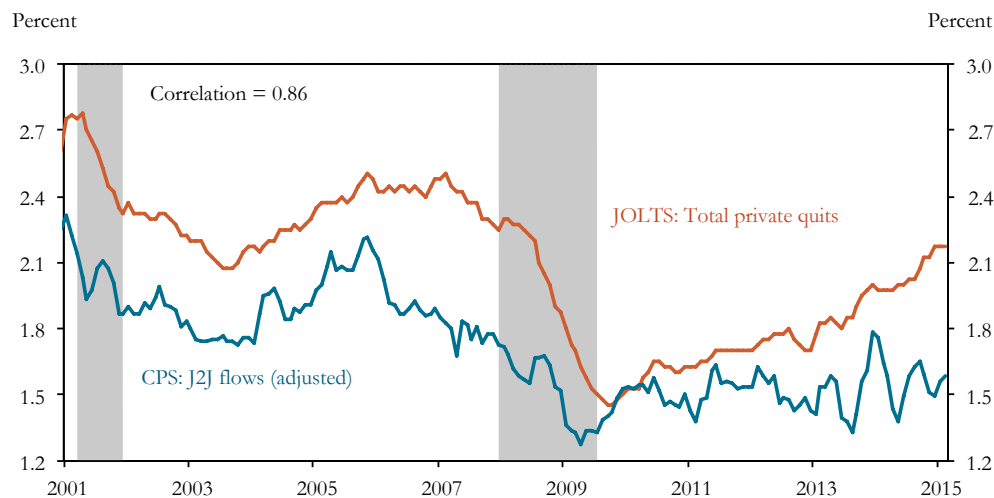


In economic booms, when job opportunities are plentiful, the quits rate is high relative to what J2J flows predict. This suggests job quitters in JOLTS are optimistic about future employment opportunities and quit without having another job or take time off before starting a new job.

In recessions, the quits rate lies below what the J2J flows predict. This suggests job quitters are cautious and likely to leave their current employer only if they have a new job. Recent data suggest job quitters are nearly as optimistic about labor market opportunities as they have been at any time in the past 15 years.



Although the measurement tools use different methods, the behavior of both measures over time is remarkably similar. For example, JOLTS excludes retirements, transfers within the same organization and separations from public jobs. J2J flows have similar restrictions, but capture individuals who report being employed in consecutive months with different employers, but may have had a short intervening spell of unemployment. Sometimes the two measures' paths converge, and though methodology differs, these differences move predictably with the business cycle.



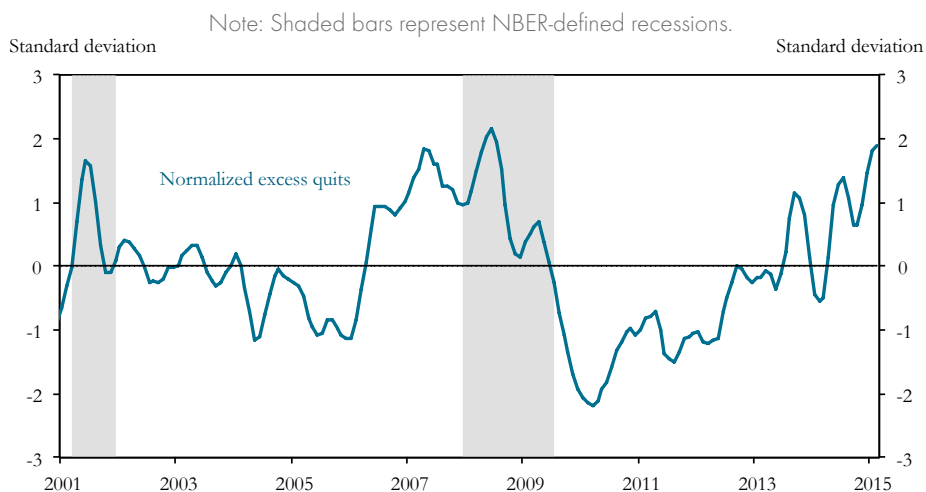
**HISTORICAL
RELATIONSHIP
BETWEEN
QUITS AND
JOB-TO-JOB
FLOWS**

Note: Shaded bars represent NBER-defined recessions.

Source: Bureau of Labor Statistics, Census Bureau, Economists calculations.

To get a better sense of the systematic variation between the two measures, Mustre-del-Río and Xu used a simple statistical technique to display the differences between the measures. They said this extracted difference can be interpreted as an “excess quits rate”—quits that are not explained by transitions from one job to another. The chart shows that the excess quits peak when the unemployment rate is low and the labor market is at its tightest and then fall rapidly during recessions before gradually recovering as the labor market improves.

**HISTORICAL
BEHAVIOR
OF
EXCESS
QUITS**



Source: Bureau of Labor Statistics, Census Bureau, Economists calculations.

After many years in negative territory, recent readings of the excess quits rate suggest workers may be more optimistic about the labor market, and therefore, quitting their jobs in search of a better opportunity.





RESPONDING TO FUTURE **FOOD** DEMANDS

AGRICULTURAL SYMPOSIUM 2016
FEDERAL RESERVE BANK OF KANSAS CITY





BRETT BEGEMANN, president and chief operating officer of Monsanto Co., spoke at the 2015 Agricultural Symposium.

More than 1.2 billion people have joined the global economy's middle class in the last 15 years. Even with an average annual income of about \$10,000, these new members of the middle class are having a big effect, according to Nathan Kauffman, Omaha Branch executive at the Federal Reserve Bank of Kansas City.

Kauffman, speaking to about 180 attendees at the 2015 Agricultural Symposium, July 14-15 at the Kansas City Fed, said a wealthier consumer, for example, is a more choosy consumer, one who, in turn, changes global food demand and environments.

Demographic trends

Most of the increase in the global middle class is in developing countries, the near-term effect of which will be a decrease in the share of consumption by wealthier countries from an estimated 64 percent to 30 percent. This doesn't mean there is a strain on production—global food supplies remain strong; however, there will be a future increase in consumer demand for specific foods and how food is produced and marketed.

Asia and Africa play a large role in the demographic change, according to Wendy Umberger, an associate professor at the University of Adelaide, Australia.

Umberger estimates there will be 2 billion more mouths to feed within a decade, especially in Asia, and says there could be a 70 percent increase in the demand for food as the middle class in emerging populations gains more disposable income.

From 1990-2012, countries such as Brazil, China and Thailand have seen significant increases in disposable income. They're not alone, Umberger said. Pakistan, India, Indonesia, Vietnam, Sri Lanka and other countries with growing urban populations have seen increases in disposable income among the middle class since the new millennium.

The level of disposable income among these countries remains well below wealthier countries, such as the United States, Germany, United Kingdom and Australia; however, the emerging middle class has begun to develop food preferences similar to consumers in wealthier countries.

Industries attempting to meet the varied demands of customers must understand

consumers' wants and purchasing needs. The changes mean consumers will place more attention on food quality and safety, production and distribution.

Consumer preferences

Today, U.S. consumers are spending more at restaurants and have cut home food expenditures over the last 60 years. This trend will continue for at least the next 10 years, said Bill Lapp, president of Advanced Economic Solutions.

"Consumers want more out of their food," he said. "Not so much in calories but in expectations of quality and how food is produced."

For instance, millennials believe they consume healthier, more expensive, more natural and less processed food than their parents. This attitude feeds into the growing trend of consumers being more mindful of how food is grown, processed and distributed.

"Sustainability is an important factor in how millennials look at food purchases," Lapp said.

One result is an increase in organic food production, which is growing faster than other agricultural sectors, but still remains a small percentage of the market.

"Millennials are willing to pay more for food products produced in a more sustainable environment than previous generations," Lapp said. "The industry is still trying to figure out what sustainability means."

Globally, consumers also are willing to pay more for food products if it fits their needs, Umberger said. Today, consumers in developing countries have more choices—from open markets to conventional grocery stores to increased online buying, she said. They've also responded favorably to the introduction of food chains such as Starbucks, Dunkin' Donuts and McDonald's, which has altered nutritional values and consumption, Umberger said.

WENDY UMBERGER, associate professor, Global Food Studies, University of Adelaide, Australia, spoke at the 2015 Agriculture Symposium about consumer food trends and how it will impact global food demands.



Photo by Gary Barber

This doesn't mean they've abandoned traditional food production, which trends toward organic food.

Jill McCluskey, a professor at Washington State University, said this is a sign of how consumers view food in relationship to their well-being. For example, younger U.S. generations identify themselves by what they eat. Foodies, aficionados and consumers wanting more from their food, have created a niche-driven food market, McCluskey added.

The result is more transparency in food production, said Bob Nolan, a senior vice president of insights and analytics for ConAgra Foods.

"The industry's attempt to figure out these changing demands is ongoing," he said.

In some instances, the attempt has led to better food products, in others, it has created consumer confusion—a particular food viewed as healthy one year may be unhealthy for someone the next. And what consumers say and do are two different things.

For example, U.S. consumers have been on a health and wellness trend the past decade, yet we're more obese as a nation, said Joshua Sosland, vice chairman of the Sosland publishing company.

"Consumers are changing, the culture is changing and it's getting more difficult to capture food trends from a marketing standpoint," Sosland said.

Domestic and global food quality

Consumers are demanding certain foods every day, 365 days a year. That's why it's important that countries other than the traditional food producers, such as the United States and Australia, continue to grow their agricultural sectors.

"We are an interconnected system globally," said Scott Portnoy, corporate vice president for Cargill Inc.

Although there have been improvements in the global food supply in terms of meeting demand and food safety, Portnoy said

there is room for improvement, especially considering how many third-world countries have inadequate food production, safety and supply systems.

One of the hurdles is that food production and safety means different things to different cultures.

Julie Caswell, a professor at the University of Massachusetts, said consumers in industrialized nations have taken great interest in food safety and quality. That interest, however, hasn't eliminated confusion among consumers.

"Consumers have to rely on others to measure the quality of their foods," she said.

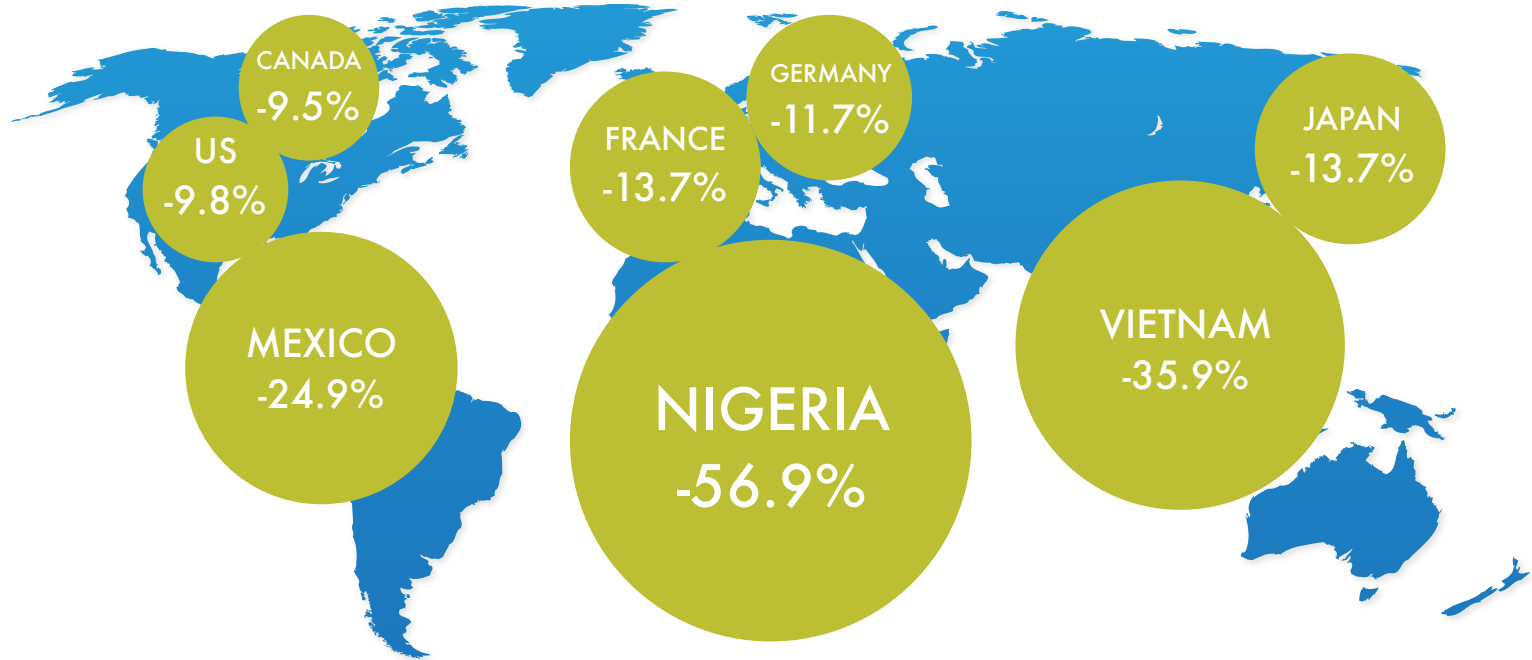
For example, how much insecticide residue is left on food products? What are the nutritional values of certain additives? Although the United States heavily regulates food quality, consumers are frustrated about who actually regulates food attributes. And in some instances, it's difficult to determine whether consumers, consumer groups, regulators or production companies influence regulatory changes.

The market around quality, however, doesn't always work according to plan because there is a lack of information about food products in general, Caswell said. That's why regulatory policy plays a large role in solving quality control issues, but sometimes the



"Consumers are changing, the culture is changing and it's getting more difficult to capture food trends from a marketing standpoint."

FOOD EXPENDITURES HAVE DECLINED SHARPLY OVER THE PAST 60 YEARS



solutions are derived from consumer perception rather than science, Caswell said.

Robert Johansson, acting chief economist for the U.S. Department of Agriculture, says the emerging issues in regulatory policy are consumer food preferences, content and safety labeling issues, and food loss and waste. Another issue is how much of food production should fall under regulators or producers' voluntary measures.

The industry is also focusing on the effect of global food demands on domestic and international production, he said.

Producing for a global market

Agriculture sits in the middle of some of the most complex problems in the world, from water conservation to feeding a growing global population. Science has helped the industry increase the quality and quantity of food, but the industry and consumers often focus on

nonscientific information when making agricultural decisions, said Brett Begemann, president and chief operating officer of Monsanto Co.

Begemann says this has created confusion about food production and safety among consumers and the industry, which he attributes to either a lack of information or bad information.

"We need to allow science to drive more of our conversations," he said.

Portnoy says the answers to issues of supply and demand, quality or sustainability may lie within several production methods, such as low-productivity organic agriculture and traditional high-yield farming.

McCluskey says production may evolve to match the growing trend of customization, where the culture and economy shift away from mainstream products and markets toward

a huge number of niches. As customization becomes more efficient and innovative, and production and distribution costs fall, there will be less need to lump products and consumers into one-size-fits-all containers, McCluskey said.

The downside in this push to customization is low productivity, whether organic or sustainable farming, she said. And the question remains of whether customization, even if consumer driven, can meet the growing global demand for food.

That's why Portnoy remains cautious because trends come and go and sometimes change in midstream. And with every trend, whether global or domestic, there are financial risks.

Financing agriculture

Gene Moses, senior strategist for the International Finance Corp., says changing consumer preferences will provide greater finance opportunities globally. But with every opportunity come risks and rewards.

Ejnar Knudsen, a managing member of AGR Partners, says record profits in agriculture—booms—are usually followed by busts. For example, the rebound in U.S. agriculture's profitability in the last five years suggested the industry had entered a new era.

Michael Boehlje, a distinguished professor at Purdue University, pointed out, however, that despite changing consumer demands, U.S. aggregate net farming income is expected to decrease 30 to 40 percent in 2015 compared to recent years.

"The wealth increases of the last five years are coming to an end," he said. "We won't have a bust, but a soft landing."

The risk is in becoming single-minded, said Michael Swanson, a senior vice president and consultant for Wells Fargo.

For example, China is the leading destination for U.S. agricultural goods. Unlike the United States' other major trade partners, China purchases more bulk grains for livestock

feed than processed foods. The risk involves the U.S. industry not being prepared for any type of disruption within China's market, which could include a slower economy and the country's middle class changing food preferences—shifting away from bulk commodities to more processed foods.

Knudsen says global consumer trends are where the demand-side risks lie. Not so much with the consumer but with the increase in global competition.

For instance, as the rising middle class has changed the demand for particular foods, Australia, Russia, Asia, South America and Eastern Europe are enhancing their production capabilities through the adoption of advanced agricultural technology and enhanced agronomic practices. This effort is challenging the United States as a global food supplier.

With this environment of increased competition, finance should focus on the resilience of global innovation, supply chains, various values of products, production and demand, changing consumer preferences and growing incomes in emerging markets, and the evolving role of global agricultural traders, Moses said.

The world is changing and the traditional ways of agricultural finance will need to meet those changing needs, Moses added.



KEVIN WRIGHT, EDITOR

FURTHER RESOURCES

For research papers and presentations from the 2015 Agriculture Symposium, go to www.KansasCityFed.org/publications/research/rscp/rscp-2015

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



INFLATION DYNAMICS & MONETARY POLICY

FEDERAL RESERVE BANK OF KANSAS CITY
JACKSON HOLE ECONOMIC POLICY SYMPOSIUM
AUGUST 27-29, 2015

Following the global financial crisis inflation has behaved unexpectedly in many countries.

Advanced economies have faced inflation rates running below targets despite aggressive monetary actions, and the international dimensions of inflation are of increasing importance. These observations make policymakers question to what extent the relationship between inflation and monetary policy has changed. Investigating this issue requires dissecting both micro- and macro-level data using novel frameworks.

More than 100 central banks, policymakers, economists and academics gathered Aug. 27-29 to discuss these issues at the Federal Reserve Bank of Kansas City's 2015 Jackson Hole Economic Policy Symposium in Jackson Hole, Wyo.

The symposium, "Inflation Dynamics and Monetary Policy," presented a range of perspectives that addressed several issues as central banks contemplate monetary policy implications for inflation dynamics.

"Jackson Hole provides an environment for attendees to present insights and exchange ideas about this important issue," Kansas City Fed President Esther George said. "Our Bank has been honored to host the symposium for 39 years."

Presenters at the symposium included:

Esther George, president and CEO
Federal Reserve Bank of Kansas City

James Poterba, professor at
Massachusetts Institute of Technology

Simon Gilchrist, professor at Boston University

Egon Zakrajsek, associate director,
monetary policy, Board of Governors
of the Federal Reserve System

Pete Klenow, professor at Stanford University

Gita Gopinath, professor at Harvard University

Charles Engel, professor at
University of Wisconsin

Thomas J. Jordan, chairman of the
governing board, Swiss Bank National

Athanasios Orphanides, professor at
Massachusetts Institute of Technology

Rodrigo Vergara, governor,
Central Bank of Chile

David Daokui Li, professor at Tsinghua University

Erica L. Groshen, commissioner,
U.S. Bureau of Labor Statistics

Jon Faust, professor at Johns Hopkins University

Eric M. Leeper, professor at Indiana University

Takatoshi Ito, professor at Columbia University

S. Boragan Aruoba, associate
professor at University of Maryland

Frank Schorfheide, professor at
University of Pennsylvania

Lucrezia Reichlin, professor at
London Business School

Mark Carney, governor, Bank of England

Vitor Constancio, vice president,
European Central Bank

Stanley Fischer, vice chairman, Board of
Governors of the Federal Reserve System

Raghuram Rajan, governor, Reserve Bank of India

To read the proceedings, including papers and commentary for this year's Economic Policy Symposium and previous symposiums, visit KansasCityFed.org/research.

Economic Symposiums

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



CLOSED

OIL'S HORIZON

Employment decreases, production increases with decline in market prices

When oil topped \$100 a barrel in June 2014, analysts indicated prices would remain as hot as the summer sun.

And why not?

The high prices were the pinnacle of a boom that began in the mid-2000s with natural gas exploration and added oil to the mix following the Great Recession. People looking for jobs after the economic crisis flocked to energy-producing states, where new technology and techniques for extracting oil and natural gas had significantly increased exploration and drilling.

A month later, however, the situation was vastly different. High prices had edged down before plummeting for the rest of the year. By January 2015, oil prices were off 50 percent and the industry reduced operations. And while rig counts were down 49 percent by the end of April 2015 from the previous year, the industry still managed to ramp up production in 2015, thanks to increased efficiencies and cost cutting.

Jason P. Brown, a senior economist with the Federal Reserve Bank of Kansas City, explained in his recent research that analysts remain uncertain about when or if oil prices will stabilize and trend upward. Economists expect this uncertainty to affect employment in energy-producing states. The effects, however, may vary by state, and may not have the same impact as in past booms and busts.

Falling prices

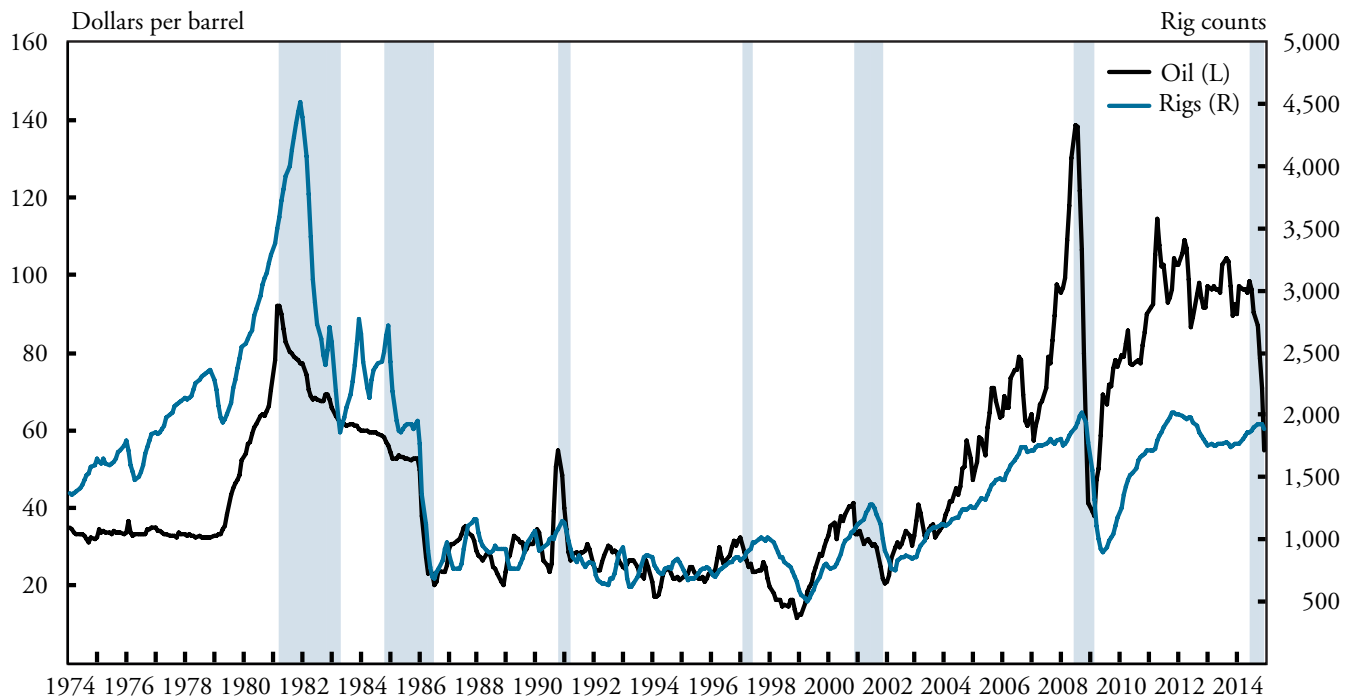
Rapid declines in oil prices are nothing new. From 1981 to 2009, crude oil prices dropped sharply six times. Chad Wilkerson, an economist and Oklahoma City Branch executive with the Kansas City Fed, analyzed those six downturns and found the decline of 1985-86 was most similar to the current drop in prices.

In 1985-86, real oil prices fell more than 50 percent, rigs declined 60 percent and the United States was not in a recession—all similar to 2014-15. In past declines, the Organization of Petroleum Exporting Countries (OPEC) often cut production to boost prices, such as in 1985, when it cut production 75 percent. Yet when prices continued to decline in 1986, Saudi Arabia abandoned the strategy and increased production. The increase in supply sent oil down to \$20 a barrel and spurred a further decline in the number of rigs.

Amid the recent price decline, OPEC said it would not cut production. Brown said OPEC may have wanted to protect its market share of global oil sales because U.S. producers had increased the supply of oil. OPEC's unwillingness to curb production shocked oil prices further and West Texas Intermediate (WTI) futures prices declined nearly 20 percent in both December 2014 and January 2015. Futures prices averaged about \$49 a barrel through March 2015, with significant reduction in rig activity, Brown said.

REAL PRICE OF OIL AND RIG COUNTS

1974 TO 2014



Note: Blue bars denote periods of oil price declines of 30 percent or higher.
Sources: Energy Information Administration and Baker Hughes.

The effect on energy producing states

Brown said when energy prices fluctuate, oil- and gas-producing states face different outcomes than the rest of the nation, which can lead to regional recessions in those states.

Those states now are less vulnerable than in past declines—relying less on the oil and gas sector for revenue and thus avoiding economic pitfalls. For example, in 1982, the average share of economic output from oil and gas extraction in energy-producing states was 17 percent. The share was higher for Wyoming and Louisiana—35 percent—compared to 4 percent for the rest of the United States.

Mark Zaback, president and CEO of Jonah Bank of Wyoming, moved to the Cowboy State in 1982, about the time domestic production and prices began to decline. The resulting economic turmoil surprised the young banker,

who had worked mainly with the agricultural industry in Nebraska.

“It took (Wyoming’s) economy 15 years to recover,” he said.

Many businesses and banks had money tied up in the energy sector and when prices continued to dive many people lost their jobs; companies and financial institutions either closed or suffered losses.

“I had customers who robbed their children’s savings just to make payroll,” Zaback said.

Many of the businesses, and individuals, who survived those lean years, including the government of Wyoming, learned from their mistakes.

“We’re much more diversified than we were back then,” Zaback said.

As oil and gas production declined in the late 1990s, the sector was just 3 percent of total output in energy-producing states. By 2012,

the average share in those states had increased to 9.5 percent, but still remained only 2 percent of total U.S. output.

Casper, Wyo., where Jonah Bank is headquartered, also is a medical industry hub, and even with falling oil prices, housing and commercial construction remains strong.

According to the July Real Estate Market Report for Natrona County, where Casper is the county seat, sales of residential real estate increased almost 8 percent from last year. Average sale prices have experienced a similar increase since February 2014.

Zaback said many businesses that provide services to the energy sector have been cautious about the most recent boom and have not leveraged themselves into trouble.

“They didn’t try to get too large, too fast this time,” he said.

Businesses also have diversified their services and don’t completely rely on the oil and gas sector for business.

This doesn’t mean the most recent drop in prices hasn’t affected the state. Rig counts are down 50 percent and there have been layoffs. Evidence of the downturn is easy to spot.

“I’ve seen a lot more trucks and boats in parking lots,” Zaback said.

Workers accustomed to six-figure incomes in the oil fields have had more disposable income, which some spent on expensive “toys” such as recreational items—trucks, boats and RVs, Zaback said. When workers lose their jobs, those items are the first ones for sale.

Although Jonah is considered an “energy” bank, only 10 percent of its portfolio is related to the industry. The bank also decided against making many retail loans for recreational items because of the volatile nature of the energy industry.

The diversification and cautious attitude of the state’s businesses doesn’t mean Wyoming won’t feel the pains of an energy slowdown. In addition to oil and gas, Wyoming is one of the nation’s largest providers of coal. Recent changes in federal and state regulations, and a downturn in coal markets have taken a toll on coal companies. One of the state’s largest coal companies, Alpha Natural Resources

Decline in U.S. energy production affects import and export trades

A decline in U.S. energy production could affect the recent decline in the country’s net-energy imports.

Craig S. Hakkio, a senior vice president and special advisor on economic policy, and Jun Nie, a senior economist, both with the Federal Reserve Bank of Kansas City, recently looked at the effects lower oil prices have had on energy production and imports.

Since 2005, horizontal drilling and hydraulic fracturing, or fracking, have changed U.S. energy production. After years of decline, U.S. energy production—crude oil, natural gas and natural gas liquids—has increased equal to peak productions set in the early 1970s.

In turn, the United States’ dependency on importing energy products has dropped significantly since 2006.

Hakkio and Nie explained that from the early 1950s through 2005, U.S. consumption of crude oil, natural gas liquids and natural gas grew while production declined, leading to a significant increase in net imports. The trend reversed after 2006, they said; consumption was flat while production increased, leading to a decline in imports.

U.S. energy exports are a different matter. The Energy Policy and Conservation Act of 1975 banned the export of most crude oil in an attempt to insulate the United States from worldwide price shocks. If this ban is lifted, the economists say, the recent increase in production will have a large effect on U.S. exports overall.

Hakkio and Nie’s forecast, however, assumes that energy production will decline by 4 percent this year, and imports will increase slightly due to the decrease in oil prices. Non-energy imports also will grow by 5.9 percent, the economists say, with overall import growth at 5.5 percent. This is above the average pace of 4.8 percent per year from 2010 to 2013.

Their forecast suggests that energy exports will increase 6.3 percent in 2015. This is significantly lower than the average pace of 20.7 percent from 2010 to 2013, reflecting the large effect an expected decline in energy production on energy exports. Non-energy exports are expected to increase 1.7 percent in 2015, which is much lower than the 2010-13 pace of 5.3 percent. Their forecast projects that total growth in exports in 2015 will be 1.9 percent, significantly below the 2010-13 average pace of 5.8 percent.

They also expect the overall trade deficit to increase to \$573 billion by the end of 2015, about 21 percent higher than its level at the end of 2014.



Photo by Matt Staver

MARK ZABACK, president and CEO of Jonah Bank of Wyoming, has experienced the effects fluctuating energy prices can have on a state's economy.

Inc., filed for bankruptcy protection Aug. 3 and one of its top executives resigned. The Virginia-based firm employs almost 8,000 people.

"We've been going so fast for so long, some of this correction (in prices) helps companies to slow down and re-evaluate," Zaback said. "Sometimes it's a good thing, as long as it doesn't last too long."

Employment in the oil sector

The unknown is how long is too long? Analysts are uncertain about how long prices will remain low and what lasting effect this reduction will have on U.S. energy companies and state and national economies.

Brown explains that employment in the oil and gas industry happens in phases. Phase one, the exploration phase, involves teams of geologists, geophysicists and engineers who examine prospective drillings sites. Procurement specialists negotiate leases with mineral owners, who receive royalties if oil and gas are extracted from their properties.

Phase two involves initial drilling,

confirming earlier estimates of the amount of oil and gas that can be extracted profitably from the area. Teams from the first phase evaluate samples and information collected from the mineral reservoir to help the company decide whether an oil or gas field can be developed.

The third phase, the development phase, is dependent on the success of phase two and produces the most jobs. The development phase also can affect businesses outside the oil and gas sector. Drilling rigs are established, roads for the fields are built, pipeline is laid, and other infrastructure is developed to make the field accessible and productive. According to Brown's research, an increase in one rig adds 28 jobs in the same month, 94 jobs after six months and 171 jobs in the long run.

The fourth phase deals with production. Rig operators extract oil or gas from fields and companies see the first revenues from product sales. Production can last a few years or several decades, depending on field's size and its costs of operation and production. Fewer workers are employed in this stage and most employment remains in the energy sector.

“Oil and gas extraction directly increases employment and the income of those working in the industry, particularly during exploration and drilling but also during production,” Brown said. “Expenditures on constructing and operating oil and gas wells may also indirectly increase demand for other goods and services such as gravel, water, concrete, vehicles, fuel, hardware, consumables, food services and housing.”

These expenditures lead to other industries producing or selling needed goods and services in an area with large-scale development and increasing employment to meet demand.

Employment during the third and fourth phases, however, is directly affected when oil prices drop. A timely and frequent measure of employment is rig counts. In the current downturn, rig counts began to fall in September 2014. The states with the largest rig counts—Texas, North Dakota and Oklahoma—had the largest predicted reduction in employment. Brown says Texas could see 82,000 fewer jobs, with losses of 17,000 in North Dakota and 16,000 in Oklahoma.

Although states with more rigs have the largest employment losses, energy states without a diversified economy feel the effects of employment loss more sharply, Brown said.

A further decline in rig counts may occur in the second half of 2015 before leveling off, Brown said. So far, oil and gas rigs combined in the United States have declined nearly 50 percent from when the oil boom reached its pinnacle. The decline in rig counts and sector employment, however, is only part of the picture.

U.S. oil production continues to climb

Despite low oil prices and market saturation, several U.S. oil firms have increased their production targets for 2015. The U.S. Energy Information Administration (EIA) said several companies have increased production and reduced costs; however, EIA doesn't expect these companies will be able to maintain production levels.

“While some U.S. producers of light tight oil might be successful in lifting output in the short-run, we expect the majority will struggle to sustain higher rates over longer periods due to steep spending curbs,” the agency said in a mid-year report.

According to the EIA, the United States produced 9.1 million barrels of crude oil a day in January. By early July, EIA estimated output had swelled to 9.6 million; the estimate in early August was 9.4 million.

Given the glut of oil in the marketplace, most analysts don't expect U.S. producers to keep up the pace, and expect a decline in production in the second half of 2015. Whether the reduction results in further job loss remains to be seen.

“If the oil and gas sector continues to become more capital intensive, total employment in energy-producing states may be less responsive to future changes in oil and gas activity depending upon the relative size of the sector in each state,” Brown said.



KEVIN WRIGHT, EDITOR

FURTHER RESOURCES

“The Response of Employment to Changes in Oil and Gas Exploration and Drilling” By Jason P. Brown www.KansasCityFed.org/~media/files/publicat/econrev/econrevarchive/2015/2q15brown.pdf.

“The Effect of the U.S. Energy Boom on the Trade Deficit” By Craig S. Hakkio and Jun Nie www.kansascityfed.org/~media/files/publicat/research/macrobulletins/mb15hakkio-nie0720.pdf.

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



Manufacturing Survey

Getting the data from the source

The best way to gauge manufacturers' recent changes in production, orders and inventories around the Tenth District is simple: just ask them.

Since 1994, the Federal Reserve Bank of Kansas City has surveyed manufacturers in the Tenth Federal Reserve District, comprised of Colorado, Kansas, northern New Mexico, western Missouri, Nebraska, Oklahoma and Wyoming.

Before the survey, timely information on regional manufacturing performance was sparse, even though it is a major force in the District's economy—accounting for 12 percent of the U.S. output (GDP) and 8.7 of the District's output and 9.2 percent of U.S. employment and 6.2 percent of District employment.

The results are a valuable source of information about the District's manufacturing sector and provide specific variables such as prices and capital spending, for which no independent regional data exist.

Along with other regional surveys, the District's results also can play a key role in assessing the state of the national manufacturing sector.

Results of the survey receive widespread coverage by regional and national media, and various economic websites.

Staff from the Oklahoma City Branch of the Kansas City Fed oversees the process, which is outlined here.



1

Every year, the Kansas City Fed purchases a list of all manufacturers in the Tenth District. Based on size, industry and location, a sample of participants is then selected for a database of manufacturers to be surveyed.

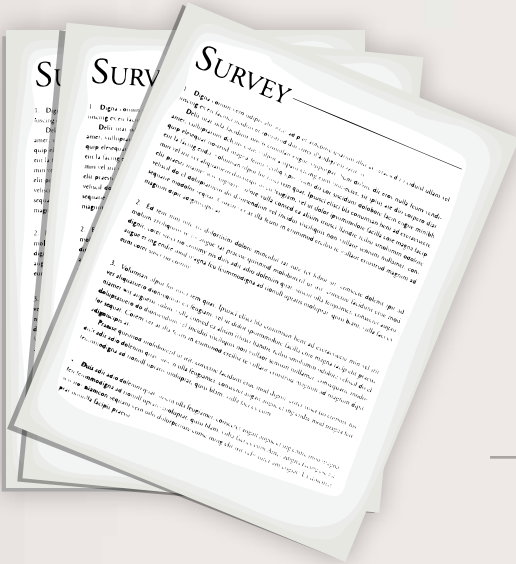
2

Manufacturing industries in the database are diverse, including food, machinery and computer producers. They range in size, from less than one hundred employees to more than 1,500, with annual sales less than \$10 million to more than \$500 million. There is a geographic representation of all seven states in the District.



3

Links to a secure online survey are emailed to the manufacturers toward the end of each month. The survey includes 13 standard questions, as well as special questions relevant to current regional or national economic trends.



4

The Bank approximately receives 100 to 120 responses each month. Survey replies, which must be submitted online within four business days or six calendar days, are tallied by a website application developed by the Bank's Center for the Advancement of Data and Research in Economics.

5

Kansas City Fed staff then creates a report, which summarizes the findings for each major question. Changes in indicators, such as production, shipments, and prices of raw materials and finished products, are recorded.



DID YOU KNOW...

- The manufacturing survey is the Kansas City Fed's primary source of timely regional information on several economic indicators, such as prices, production and capital spending.
- The Kansas City Fed is one of just five Federal Reserve Banks (Philadelphia, New York, Richmond and Dallas) that conducts manufacturing surveys.
- The first manufacturing survey conducted entirely online was in July 2001. Years prior, surveys were conducted by mail.

6

On the last Thursday of the month, the report is distributed. Results are published and analyzed by regional and national media, and various economic websites. The Bank uses the data in preparation for the pre-Federal Open Market Committee meetings. Economists use the results for research. The accumulated results also help identify the effectiveness of the survey. To see results visit www.KansasCityFed.org/research/indicatorsdata/mfg

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



Choosing a Worthy Woman for the \$10 Bill

How do you give kids the opportunity to share their opinions in a constructive way? When I taught, one of my favorite activities was asking students to give their views on current events. Our discussions touched on a variety of topics, from repairing potholes to presidential elections. When I asked for kids' opinions, they would become animated and enthusiastic as they shared their feelings. These discussions helped foster development of their critical thinking and persuasive speaking skills as they looked at different sides of the issues.

Americans currently have an opportunity to make their voices heard regarding a currency redesign. The U.S. Department of the Treasury is revamping the \$10 bill to include the portrait of a woman who was a champion for democracy. Secretary of the Treasury Jacob J. Lew would like public input on what qualities best represent democracy and which women in history displayed these qualities. The final choice will be made by the end of 2015, with the bill slated to be in circulation by the end of 2020, the 100th anniversary of the passage of women's right to vote. The only rules in the nomination process are that the woman must be deceased and must have made a significant contribution to our country's rights and freedoms. Roundtable discussions and town halls to receive input from the public are currently being conducted throughout the country. Additionally, the public can comment on the website: <https://thenew10.treasury.gov/>. They also can tweet their opinions using #TheNew10.

The currency redesign project is a great way to involve kids as researchers, learning facts and developing opinions on which woman to promote. Begin by reading a brief history of

the \$10 bill on the Treasury website. Note that Alexander Hamilton, the first Secretary of the Treasury, has been portrayed on the bill since 1929. Changes have been made to the bill's features several times for security, most recently in 2006. Next, check out the currency redesign section on the site so kids can understand why the revamp of bills is necessary. This section introduces the security measures added to bills to prevent counterfeiting. Kids will enjoy looking at the watermarks, ribbons and symbols that enhance the bills. If they show a further interest in currency production, they can go to www.moneyfactory.gov to discover how currency is produced at the Bureau of Engraving and Printing.

Once kids have a currency background, it's time for them to explore the lives of women who may be top candidates for the portrait honor. Start by discussing the term "champion for democracy." Ask what it means to be a champion, using sports analogies, such as team champions. One explanation would be that a champion is unbeaten, undefeated, or a winner. Now discuss the word democracy. If kids have trouble defining the word, ask them to look up the definition or synonyms for the word. They should find that a democracy is a government in which the people participate. Synonyms that kids should understand are freedom, equality, justice and fairness. So their task is to find the woman who best represents someone unbeaten in her quest for freedom or equality.

An easy way to begin exploring is to go to <https://pinterest.com/kansascityfed> and choose the "Woman on the \$10 Bill" board to see popular nominees. Each woman's pin leads to a website with her biography and notable accomplishments. Have them use page 32 to list

favorite nominees from the board. Tell them to read the biographies of their nominees and use the star-ranking system suggested on the page for each woman. Ask them to review their top candidates, thinking about their overall accomplishments. To make a final decision, kids may need to research further, using the additional website given on page 32. They could also survey family members and neighbors for opinions if needed. Once the final decision is made, it's time to make their opinion public by going to <https://www.kansascityfed.org/education/womanonten>. They should use the online process to complete the short survey and vote for their favorite. They can continue to check the website for updates on how the vote is trending.

If your family lives within the area of the Kansas City Fed's Kansas City or Denver Money Museum, consider visiting to cast your vote. You will be able to tour the museum and learn more about the Federal Reserve up close and personal.

Michele Wulff is a former public school educator of 30 years and a recipient of the national peer award "Excellence in Teaching Economics." As an economic education coordinator with the Kansas City Fed, she offers practical advice on how to educate young people on personal financial matters.



Financial Education Resources

The Kansas City Fed is committed to promoting economic and financial literacy and greater knowledge of the Fed's role by providing resources for teachers, students and the public. Visit our website at KansasCityFed.org for more information. The resources below are a few of many available on this subject.

FEDERAL RESERVE RESOURCES "American Currency Exhibit"

An online exhibit that explores how our country's history is closely tied with our currency. Kansas City and Denver Money Museum. For ages 6-Adult. <http://www.frbsf.org/education/teacher-resources/american-currency-exhibit>

"Coins and Currency"

A publication that shows the birth and early history of American currency and coin. For ages 6-Adult. <http://www.bostonfed.org/education/pubs/coincurr.pdf>

NON-FICTION BOOKS "If You Lived When Women Won Their Rights"

by Anne Kamma
This book tells the story of how women worked to get equal rights with men, ending with the 19th amendment to the Constitution that gave women the right to vote. For ages 7-10.

"Remember the Ladies: 100 Great American Women"

by Cheryl Harness
This book spans generations to provide an engaging look at 100 outstanding women who have helped shape our nation. For ages 8-12.

"Women of Courage"

by Margaret Truman
This book pays tribute to 12 remarkable women from the Revolutionary War to the present. For adults.



The New \$10 Bill: Which Woman Will Win?

Step 1: Use our Pinterest website at <https://pinterest.com/kansascityfed> and view the “Woman on the \$10 Bill” board to see the popular nominees for the new \$10 bill. Select four nominees from the board that you would like to read more about and list them below.

Step 2: Research each nominee using the biography linked to her pin. Rank each woman on her actions as a “champion of democracy” by awarding her one to four stars below. Survey family members or read more using the National Woman’s History Museum website <http://www.nwhm.org/education-resources/biography/biographies> to make a final decision from your top-ranked candidates.

Nominees

Circle the stars awarded

1) _____	★	★	★	★
2) _____	★	★	★	★
3) _____	★	★	★	★
4) _____	★	★	★	★

My winning woman is _____.

Step 3: Write a short paragraph giving reasons for choosing your winning woman.

Federal Reserve Bank of Kansas City representatives attend National Council of La Raza convention

Hundreds of people visited with representatives from the Federal Reserve Bank of Kansas City at the National Council of La Raza's (NCLR) national conference in July. The Kansas City Fed shared financial education and community development resources in both English and Spanish in the "Making home ownership affordable" section. NCLR, the largest national Hispanic civil rights and advocacy organization in the United States, attracted people from across the country to its annual conference.

Erika Ramirez, assistant vice president in Community Affairs, was part of a workshop with representatives from various agencies to discuss strategies to address unbanked and underbanked Hispanics. Discussion participants represented the St. Louis Fed, Center for Financial Services Corporation, Office of the Comptroller of the Currency, the United States Department of the Treasury, Consumer Financial Protection Bureau and NCLR.

"It was great for the Bank to engage in a discussion focused on improving financial education for Hispanic families and help them build wealth," she said. "We have developed best practices related to these initiatives and the forum allowed us to share those broadly."

NCLR has never before hosted its annual conference in Kansas City or any other Tenth District city.

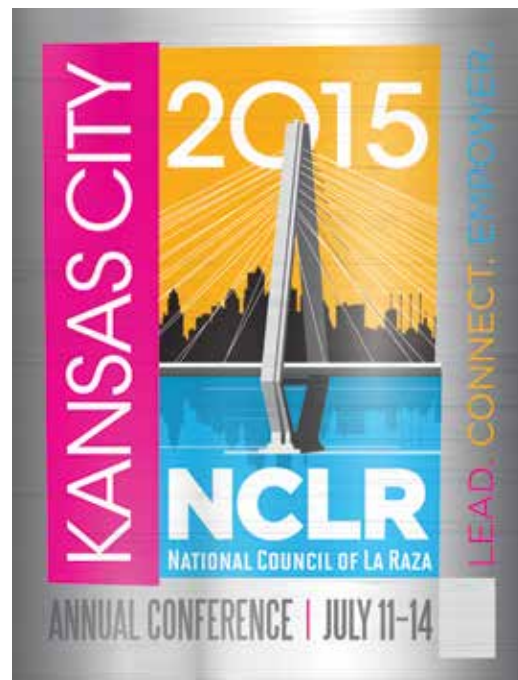
"The Bank's representation at the NCLR convention is one of many ways we reach our constituent groups to promote awareness of our free financial education resources," Ramirez said.

Year-round, Kansas City Fed representatives provide presentations related to financial education, homeownership and understanding

the importance of developing a relationship with a regulated financial institution to a wide variety of audiences throughout the Tenth District.

"This work represents a key focus of the Bank's community development function," Ramirez said. "We want to ensure that all individuals in the Tenth District—regardless of wealth, employment status or ZIP code—have the opportunity to fully participate in the economy."

Spanish-language resources on the Kansas City Fed's website can be found by searching for the term "Español."



Summer @ the Fed offers leadership opportunity to high-achieving students

As part of its educational outreach, the Federal Reserve Bank of Kansas City sponsors a Summer @ the Fed program each summer for fourth- through sixth-grade students to participate in lessons about saving and spending money wisely. One of the most unique aspects of this program is the opportunity it offers to the interns who lead the program.

Seven recent high school graduates from Kansas City, Mo., and Kansas City, Kan., public schools worked as camp counselors. Kenji Walker, a sophomore at Alabama A&M supervised the counselors. Walker participated in the Kansas City Fed's Student Board of Directors program in 2013-2014 and returned in the summer of 2014 to work as a counselor for the Summer @ the Fed program. After completing her first year at Alabama A&M, Walker was hired by the Kansas City Fed to lead the team of camp counselors. In her role, Walker coordinated summer programs hosted at the Bank and off-site at nearby locations, including Upper Room, Kidzone and Boys and Girls Clubs.

Summer @ the Fed is designed to serve low- to moderate-income elementary students and provide an avenue for them to learn about making wise spending and saving choices. While the Summer @ the Fed program was designed to serve elementary-aged students, its young leaders benefit from their participation. Walker has incorporated the lessons she teaches into her own life decisions. She earned full tuition scholarships for her participation in band and academic performance. She plans to graduate debt-free and begin her career in business management. One day, she hopes to



Counselors with the Summer @ the Fed program work with students at Emerson Elementary School in Kansas City, Kan.

open an educational institute.

“The Bank provided most, if not all, of my professional development,” Walker said. “From networking to understanding the basics of analytics—those are things I was exposed to at the Fed.”

The Summer @ the Fed team of camp counselors will attend prestigious universities in the fall, including Stanford and Harvard. Walker had the unique opportunity and challenge to serve as her team's leader and mentor.

“It was challenging in the beginning, but once I got used to working with my team, I was able to share my personal experience with college and working with Summer @ the Fed last year,” she said. “I've been able to relate my own experiences to what they are going through—I feel like I'm their guide in some ways.”

Without the opportunity she had at the Kansas City Fed to serve in a management-style role, Walker said she wouldn't have pictured herself in a supervisory position until long after college graduation.

"Until now, I didn't see it," she said. "Leadership roles on campus aren't the same. Without the exposure from the Bank, my eyes wouldn't have been open to leading as a manager in a paying job. Now I'm maximizing my leadership potential."

Trudie Hall, a Kansas City Fed staff member who leads the Summer @ the Fed program, said that Walker's experience is an example of the type of achievement the program was designed to generate.

"We have exceptionally motivated and talented students who come through as Student Board of Directors members and return to support our economic educational programming," she said. "We give them an education in working in and supporting a professional business culture. They leave with confidence, and a greater understanding of finance and the economy."

The rewards of the program are immeasurable, Hall said. More than 900 elementary school students participated in the Summer @ the Fed programs in the Kansas City Metro area this year.

"Everyone who touches the program—whether as a leader or as learner—comes away with an enriched understanding about who we are at the Kansas City Fed and what we do," Hall said. "When we talk about our commitment to economic education—this is just one of many ways we demonstrate it."

As for Walker, she looks forward to furthering her education—potentially by studying abroad. Ultimately, she will find ways to give back.

"Growing up, I knew there were so many things I wanted to be different," she said. "I'm a first-generation college student. Someday, I want to be able to contribute to success in the same community where I was raised."

Learn more about the Kansas City Fed's Student Board of Directors program at www.KansasCityFed.org/education/foreducators/student-board



Photo by Gary Barber

Kenji Walker, center, and her team of Summer @ the Fed interns support the Kansas City Fed's educational programming. Pictured clockwise from left, Rayfield Lawrence, Mylan Gray, Alina Crouch, Koya Couch, Daniel Reyes, Queen Wilkes, Walker and Kyla Owens.

Bank of Mexico governor visits the Kansas City Fed

Agustín Carstens, the governor of the Bank of Mexico, visited the Federal Reserve Bank of Kansas City's headquarters this summer as part of his visit to the region. Carstens is nearing the end of his term as the governor of Mexico's central bank and he has been a longtime attendee of the Kansas City Fed's annual Jackson Hole Economic Policy Symposium in Wyoming.

Kansas City Fed President Esther George invited Mr. Carstens to meet with Bank economists and engage with business leaders in the Tenth Federal Reserve District. George and Kansas City Fed economists, including

Director of Research Troy Davig, exchanged economic updates with the governor and his staff. To promote the governor's visit to Kansas City, the Bank partnered with the Mexican Consulate of Kansas City to host an evening program for civic, business, community and education leaders.

"With Mr. Carstens' visit, we continue to further our international banking relationships," said Erika Ramirez, assistant vice president at the Kansas City Fed. "We find it extremely valuable to meet colleagues from foreign central banks and learn about their challenges and successes."



AGUSTÍN CARSTENS, governor of the Central Bank of Mexico, right, and Alicia Palmer Kerber with The United Mexican States Consul of Mexico in Kansas City, Mo., center, visited with George and the Federal Reserve Bank of Kansas City in June.

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.	96
First State Bank of Newcastle	Newcastle	Wyo.	85
Grant City Bank	Medford	Okla.	75
Stock Exchange Bank	Caldwell	Kan.	75
Fidelity State Bank and Trust Company	Dodge City	Kan.	72
Farmers State Bank	Pine Bluffs	Wyo.	49
Bankers' Bank of the West	Denver	Colo.	35
Citizens State Bank & Trust Company	Ellsworth	Kan.	35
Citizens Bank & Trust Company of Ardmore	Ardmore	Okla.	24
Morris State Bank	Morris	Okla.	22
First Bank of Chandler	Chandler	Okla.	22
Oregon Trail Bank	Guernsey	Wyo.	21
Bank of Newman Grove	Newman Grove	Neb.	10
Firstbank	Lakewood	Colo.	5
West Plains Bank	Ainsworth	Neb.	5
Bank SNB	Stillwater	Okla.	1
First Bank of Bancroft	Bancroft	Neb.	1



Fall 2015

VOLUME 11 • NUMBER 2 • 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.

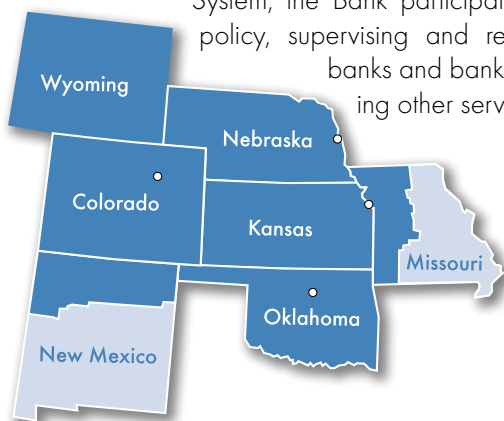
With the Federal Reserve Act, Congress sought to create a central bank the public would be more likely to support by making it "decentralized" with more local control. This new structure was designed to overcome one of the primary weaknesses of the previous central banks: public distrust of an institution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



SENIOR VICE PRESIDENT: Diane Raley

VICE PRESIDENT: Tammy Edwards

ASSISTANT VICE PRESIDENT &
PRODUCTION ADVISOR: Lowell Jones

EDITOR: Kevin Wright

ART DIRECTOR: Angela Anderson

MAGAZINE DESIGNER: Gary Barber

CONTRIBUTING WRITERS: Bill Medley,
Michele Wulff, Sarah Pope

RESEARCH CONTRIBUTORS: Jason Brown,
Jordan Rappaport, Chad Wilkerson and
José Mustre-del-Río

COVER PHOTO BY: Gary Barber

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.

TEN articles may be reprinted if the source is credited and the Public Affairs Department of the Federal Reserve Bank of Kansas City is provided with copies. Permission to photocopy is unrestricted.

For a free subscription, please visit
KansasCityFed.org/TEN
or call 816-881-2683.



Federal Reserve Bank of Kansas City
1 Memorial Drive
Kansas City, MO 64198-0001

PRSR STD
U.S. POSTAGE PAID
EUDORA, KS
PERMIT NO. 3

CHANGE SERVICE REQUESTED



Have questions about the agricultural and rural economy?

The Federal Reserve Bank of Kansas City is the Federal Reserve System's leader in agricultural economic research. Our work provides insights on agriculture and rural economies both within the seven-state region of the Tenth Federal Reserve District and nationally, including:

- Agricultural credit conditions
- Economic conditions
- Cropland values
- Food demand
- Farm income
- Related industry topics
- Loan volumes

To access this information and other ag research offered by the Kansas City Fed, go to www.KansasCityFed.org/research/agriculture.