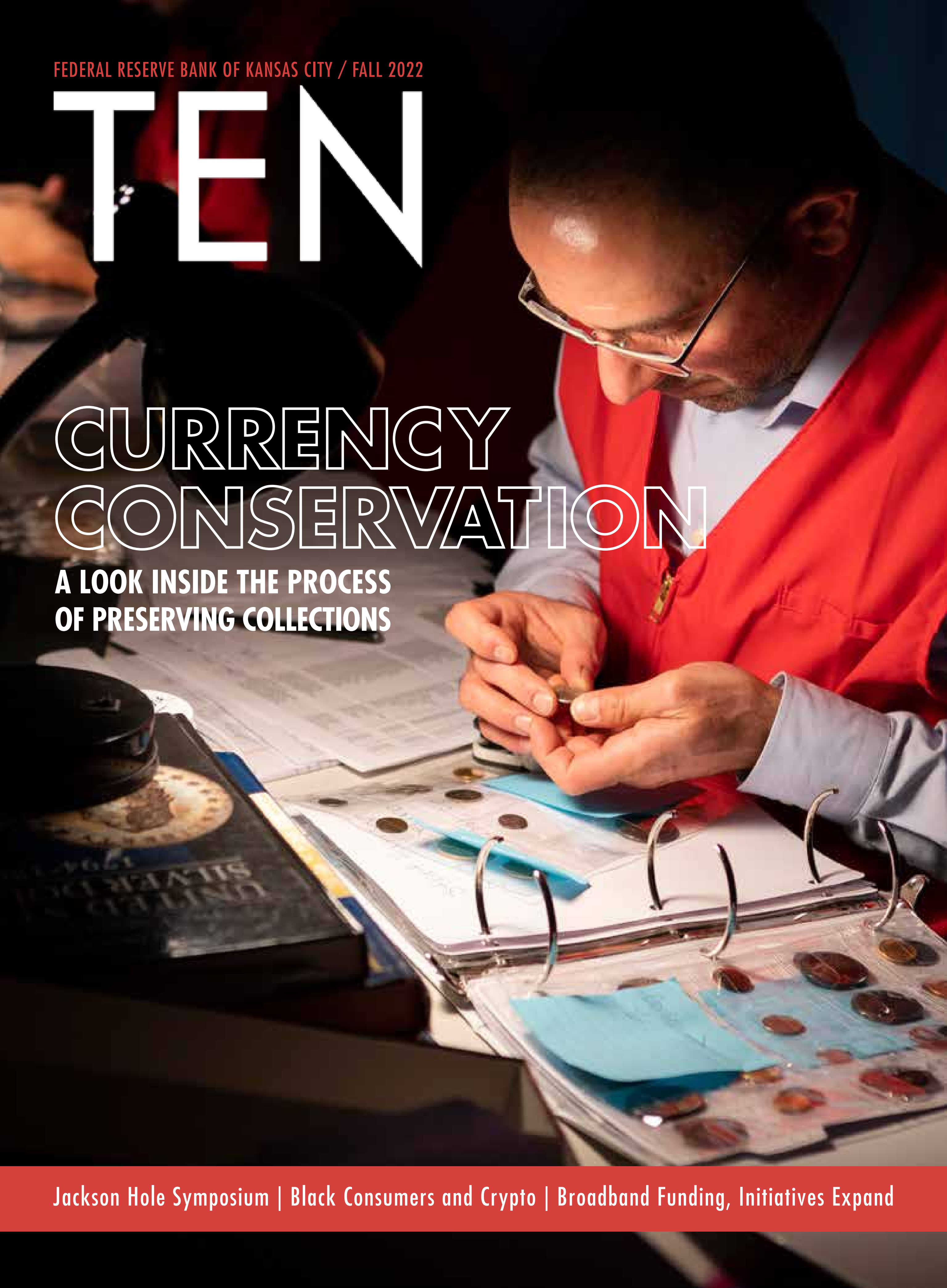
FEDERAL RESERVE BANK OF KANSAS CITY / FALL 2022

TEN

CURRENCY CONSERVATION

A LOOK INSIDE THE PROCESS OF PRESERVING COLLECTIONS



Jackson Hole Symposium | Black Consumers and Crypto | Broadband Funding, Initiatives Expand

FEDERAL RESERVE BANK OF KANSAS CITY / FALL 2022

TEN

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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 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.

Learn more about the Federal Reserve Bank of Kansas City and the history, leadership and governance of the Federal Reserve System at *KansasCityFed.org/aboutus.*

FEATURES

ON THE COVER»

Conservation experts examined the Harry S. Truman Coin Collection as well as currency in the Kansas City Fed's collection. *Photo by Gary Barber*
Design by Casey McKinley

Photo by Gary Barber

Looking back: A 40-year perspective on community banking

President George delivered these remarks in August at the Kansas Bankers Association's annual conference in Colorado Springs, Colorado.

Thank you for inviting me to join you for this year's conference. Doug Wareham and his team are key partners with the Kansas City Fed as we deliver on the Federal Reserve's core missions for monetary policy, supervision and regulation, and payment services.

The role of the banking industry in the U.S. economy has been central to my work at the Federal Reserve Bank of Kansas City for more than 40 years. From my first assignment as an examiner in 1982 to my current position as the Bank's president and CEO and member of the Federal Open Market Committee, I have witnessed dramatic changes to the financial system and the broader economic landscape. And despite this tremendous change, it remains as true today as it did in 1982 that access to credit and other reliable financial services is essential to the success of local communities, households and small businesses.

With that overarching theme, my remarks will focus on some key developments that I view as shaping the current and future community bank landscape. For example, my own Federal Reserve district, which covers the heart of the Midwest, parts of the Rocky Mountains, and the Southwest, has over the last few decades, gradually urbanized as people moved from small towns to larger, more urban centers, a trend that parallels much of the rest of the country. This population shift occurred as the District's economy became less concentrated in energy and agriculture, and moved towards service sectors and away from manufacturing.

In the face of these changes, community banks have remained a vital source of banking services for consumers and small businesses, including being a key provider of reliable capital. When I talk to business leaders from the region, I often hear stories of how community banks help support local entrepreneurs and small business owners. I also hear stories of the challenges communities face when locally based banks disappear. One business owner in our region noted that after her community's locally owned banks were acquired, she turned to lines of credit from one of the nation's largest banks with favorable terms. In the midst of a product expansion, however, the national economy turned down and the line of credit was quickly withdrawn. The experience stood in sharp contrast to the reliable access to credit and long-term relationships with a community bank that her business had enjoyed across previous business cycles.

A closer look at changes over the decades

By far, the most significant change to the community banking landscape over the past four decades has been the declining number of banks and increased concentration in the banking sector. In 1985, just three years after I began my career with the Kansas City Fed, there were about 15,000 community banks in the United States. Today, that number is less than 5,000. Similarly, the number of banks in my seven-state region has declined by more than 70 percent over that same period.

Most of the decline in the number of banks has been due to mergers and acquisitions. Although community banks still represent the vast majority of bank charters, they now account for only about 13 percent of bank assets nationally as the nation's largest banks have significantly expanded their market share of assets and deposits.[1] With a relatively rural geography, the Kansas City Fed's region still features hundreds of community banks, holding more than 60 percent of total banking assets and representing 99 percent of banks.

As the banking system has consolidated, its role in the financial system also has shifted. For example, banks have become a less important source of corporate credit. The share of business loans held by banks has declined from nearly 40 percent in 1985 to less than 25 percent today, as businesses are now more reliant on publicly issued debt and loans from non-banks. The decline in the number of banks may partly explain their reduced role in business lending, but it is not the whole story. Other factors from outside the financial sector have also contributed to these dynamics, including the country's changing demographics, increasing reliance on technology, and landmark regulatory changes.

Demographic shifts over the last four decades have significantly changed the composition of the U.S. population. Since 1980, the number of Americans 65 and older has more than doubled, and the United States has become more racially and ethnically diverse. The Hispanic population has tripled, and the U.S. population of those of Asian descent has grown five-fold, largely through immigration.

President George with Paul J. Thompson, chairman and CEO of Kansas City-based Country Club Bank, and former Kansas City Fed director, at the Kansas Bankers Association's annual conference.

These demographic shifts have changed the communities that small banks serve. Non-metro counties, where large numbers of community banks operate, have seen both slower population growth and an aging customer base. These counties are also more racially and ethnically diverse today than they were decades ago, and community banks have had to adapt and adopt new strategies for attracting customers and employees.

In addition to demographic changes, technological advancements over the last 40 years have been striking. In the financial services sector, these advancements have disaggregated many traditional banking services. Product origination, delivery methods, and customer interactions with financial institutions have all changed dramatically. Banks are also increasingly automating processes that have historically required human interaction. Although these changes have expedited account management and allowed banks to leverage more advanced modeling to manage risks, they may also have contributed to larger banks' economies of scale. Perhaps most significantly, internet and mobile banking has allowed banks to reach customers across the globe, diminishing the necessity of geographic proximity.

Technology has also fostered competition from the broader financial services sector with new entrants promising greater speed, convenience, and flexibility in delivering financial services to households and businesses. More recently, lending and payments platforms have moved outside of the banking industry altogether. Household names in the technology sector such as Amazon, Facebook, Square, and PayPal, along with a wave of fintech startups, continue to pursue cutting-edge financial services.

These technological innovations reflect customers' changing preferences for value and convenience. In particular, the demand for fast and mobile payments continues to grow, and services providing these features are being adopted at a very rapid pace.

Along with payment innovations, non-bank lenders, especially fintechs, have made significant inroads into loan markets. Business lending by fintechs has grown very rapidly in recent years. This shift could reflect changes in customers' expectations or a considered decision by banks to avoid certain risky assets. Nonetheless, the trend does suggest a move toward transactional lending forms and away from relationship-based lending. If these trends accelerate, lenders that rely heavily on technological solutions using "big-data" to reach borrowers could challenge community banks' "soft information" advantage and market share.

Finally, regulation has been an important factor shaping the evolution of banking. Across the spectrum of regulatory changes, three aspects of regulation have factored prominently: geographic deregulation, the deregulation of non-banking activities, and regulation in response to crises.

Geographic deregulation began slowly in the late 1970s before picking up rapidly in the 1980s. Ultimately, what started as localized efforts to remove barriers to entry for banks resulted in federal legislation that allowed banks to operate and branch nationwide. As a result, bank consolidation picked up considerably starting in the 1980s, mostly reflected in mergers of smaller banks as intra- and interstate restrictions were relaxed. However, geographic deregulation also enabled the largest banks to begin operating nationwide and to compete globally. As market share of the largest banks increased in key loan markets, many community banks looked to mergers for scale or saw their balance sheets become more concentrated as some business lines moved to larger competitors.[2]

Through the 1990s, as banking consolidated, the largest banks also began to engage in what were traditionally considered non-banking activities, predominately securities dealing and underwriting. While these activities had been prohibited at banks for close to 70 years under the Glass-Steagall Act, the Gramm-Leach-Bliley Act of 1999 permitted a wider array of activities at bank holding companies. In response, bank holding companies began engaging in investment banking while also maintaining access to important safety net advantages, such as deposit insurance and access to Federal Reserve services.

The deregulation of banks' activities and geographic operation produced two very different commercial banking models. Today, thousands of small community banks continue to operate in traditional business lines. At the same time, a handful of large banking organizations now operate at such scale and are so intertwined with the financial system that their failure poses systemic risks to the global economy. As revealed during the Global Financial Crisis, large banks have enjoyed some benefits from being "too big to fail."

After the financial crisis, however, the regulatory environment changed, as it often has following financial and economic crises. Regulators sought to learn from the earlier agricultural bank and Savings and Loan crises of the 1980s, as well as the Global Financial Crisis of 2007- 2009, and took steps to ensure a safer banking system after each crisis. The Dodd-Frank Act of 2010, for example, made important inroads into addressing "too big to fail" advantages—though how successful it was remains to be seen.

The regulatory responses to these crises have generally taken a one-size-fits-all approach. Regulations can be blunt instruments, failing to effectively account for the incentives and risk profiles associated with the relationship lending model of many smaller banks. As a result, community banks can bear a disproportionate burden as they implement costly compliance processes without commensurate benefits to safety and soundness or fair access to credit.

The importance of community banks

Even as new nonbank entrants become embedded in the financial services sector, the banking system continues to hold a unique role in our economy. Banks remain the primary financial firms for providing liquidity when needed, ensuring payments are readily transferable, and facilitating monetary policy implementation.

For their part, community banks continue to leverage relationship lending, with a focus on local lending and deposit-taking. Credit decisions are based on qualitative as well as quantitative aspects of a borrower's credit profile. In particular, smaller banks provide a critical source of financing for small businesses. Despite holding a fraction of the nation's banking assets, community banks underwrite a sizeable 40 percent of lending to small businesses. The strength of the relationship between community banks and small businesses was highlighted during the implementation of the Paycheck Protection Program. At a time when COVID-19 lockdowns threatened the viability of many small businesses, community banks ensured that pandemic relief funds quickly reached this segment of our economy, ultimately holding 37 percent of all outstanding PPP loans serviced by banks.[3]

Beyond lending to local businesses and households, smaller banks often serve key leadership roles in their communities. These bankers sit on the boards of local schools, hospitals, and other civic organizations, not only meeting the credit needs of their local communities, but they are also an integral part of them.

Given the importance of these attributes to local economies, the implications of an evolving financial services landscape for access to credit in rural markets, for small business, and for the overall health of Main Street should be carefully considered. Both regulators and banks will be influential in ensuring these critical financial services can continue to meet the needs of thousands of communities, safely and efficiently.

A message to regulators

Having been handed thousands and thousands of pages of legislation intended to secure the financial stability of our nation's financial system, it's a tall order to ask bank regulators to minimize regulatory and supervisory burden while promoting competition and maintaining the safety and soundness of the banking system. It is made more difficult when the business models of banks vary from small, traditional banks to global systemically important banks. Still, in the interest of meeting the range of business needs served by these institutions, I see opportunities for further calibrating the supervisory framework, taking into account the business model of small banks in three key areas: advancing risk-focused approaches to supervision, appropriately tailoring capital requirements, and providing clearer guidance around innovation and alternative business models.

Over the past four decades, the volume and complexity of the data collected from community banks has increased substantially. This data has supported both policy development and supervision. Unfortunately, the time spent on the examination of an individual community bank has not meaningfully declined as a result of this data collection. In fact, according to the Conference of State Bank Supervisors, the most recent Community Bank Sentiment Index showed that community banker sentiment toward regulatory burden is at a multi-year low and more negative than any other component. Moreover, a large majority—81 percent of respondents—expect regulatory burden will be worse in the future.[4]

> "BY FAR, THE MOST SIGNIFICANT CHANGE TO THE COMMUNITY BANKING LANDSCAPE OVER THE PAST FOUR DECADES HAS BEEN THE DECLINING NUMBER OF BANKS AND INCREASED CONCENTRATION IN THE BANKING SECTOR."

Under the Economic Growth and Regulatory Paperwork Reduction Act, regulations can be questioned for their continued effectiveness and burden. This provides an avenue to reshape the supervisory framework in way that preserves its focus on safety and soundness and fair access to credit while recognizing today's banking landscape requires a far more tailored approach.

Among these regulations, capital requirements play a particularly important role in the stability of our financial system. Here, too, ensuring that these requirements are capturing the full range of risks and avoiding unintended advantages will be necessary. The financial crisis of 2007-2008, as well as the market upheavals of March 2020, demonstrated that extreme events can and do happen. Most importantly, bank failures, particularly large bank failures, are costly. Capital requirements should reflect these heavy social costs.

Currently, the nation's largest banks hold less capital than community banks. While small banks in the United States hold a Tier 1 leverage ratio of nearly 10 percent, global systemically important banks hold just under 7 percent.[5] Imbalanced capital requirements, combined with perceived market advantages, can result in disproportionate gains for large banks and their shareholders. As a result, large banks may capture market share, thereby encouraging community banks to consolidate to compete. More work is needed in my view to tailor capital requirements across bank size and business models.

Finally, as the financial services landscape continues to evolve, regulators play an important role in providing clear expectations and timely guidance to regulated entities. The ability of smaller banks to compete and innovate as they respond to market dynamics and customer preferences will depend on such guidance, especially to evaluate investments in technology and various fintech and vendor partnerships.

A message to bankers

A more-tailored approach to regulation does not of course solve for every challenge confronting community banks, as bankers well understand. The strategies these banks pursue have long been the key determinant of their success and survival in meeting their communities' needs. Those strategies increasingly hinge on adopting new technology to meet the demands of a mobile and connected customer base and to attract talent. By doing so, bankers can lower costs, reach new customer segments—including underbanked populations—and drive new business growth.

Investments in technology can help banks meet their customers' changing needs, gain operational efficiencies, improve access to an evolving payments system, and better connect local customers to the broader economy. Adoption of instant payments settlement services, for example, offers the ability to provide new services that meet customer preferences for speed. Alongside private sector services, the Federal Reserve's implementation next year of a new retail payment rail known as FedNow will allow banks of all sizes to meet household and business demand for real-time payments. Deploying contemporary technology also can help to attract and retain a workforce with diverse skillsets. This talent can, in turn, help banks identify what is needed to compete in a connected, fast-paced world, and importantly, provide critical leadership succession.

Conclusion

The economic vitality of thousands of communities and rural geographies depends on reliable access to credit and other financial services. Over the past 40 years, much has changed in the delivery of those services, driven by demographics, technological innovation, and regulation. Over this time, community banks have continued to play an instrumental role in meeting the needs of rural places and their communities. With the right mix of strategy and innovation, and a well-calibrated regulatory approach, the community bank model can continue to be a trusted cornerstone of the U.S. financial system for thousands of households and small businesses who look to them for essential credit needs and services.

Esther L George

[1] Hanauer, Matt, Brent Lytle, Chris Summers, and Stephanie Ziadeh, "Community Banks' Ongoing Role in the U.S. Economy", Economic Review, Federal Reserve Bank of Kansas City, Second Quarter, 2021, 37-81.

[2] Regehr, Kristen, and Rajdeep Sengupta."Sectoral Loan Concentration and Bank Performance (2001-2014)." Federal Reserve Bank of Kansas City Working Paper 16-13 (2016).

[3] Marsh, W. Blake and Padma Sharma, "PPP Raised Community Bank Revenue but Lowered Profitability," Economic Bulletin, Federal Reserve Bank of Kansas City, December 2020.

[4] Conference of State Bank Supervisors, "Community Bank Sentiment Index", second quarter of 2022.

[5] Pellerin, Sabrina, "Bank Capital Analysis Semiannual Update,"Bank Capital Analysis, Federal Reserve Bank of Kansas City, May 2022.

Making a CONNECTION

In founding the Federal Reserve more than a century ago, Congress recognized the importance of connecting the nation's central bank to the Main Streets of America. The Federal Reserve Bank of Kansas City carries out this role through its president and its programs and activities across Colorado, Kansas, western Missouri, Oklahoma, Nebraska, northern New Mexico and Wyoming. Here is a glimpse at the recent activities of President Esther L. George and the staff of the Kansas City Fed.

KANSAS, MISSOURI and BEYOND »

Speaking to Independent Community Bankers of New Mexico
On July 29, President Esther George spoke to members of the Independent Community Bankers Association of New Mexico (ICBA/NM) at the group's annual meeting at Bernalillo, New Mexico. Pictured with President George are ICBA/NM board members (from left): Chris Moya, president and CEO of the organization, which is headquartered in Farmington, New Mexico; Christopher Palmer, president and CEO of Pioneer Bank, Roswell, New Mexico; Jennifer Weller, chief operations officer of Citizens Bank, Farmington, New Mexico; Alan Shettlesworth, president and CEO of Main Bank, Albuquerque; and Doug Stone, executive vice president of James Polk Stone Community Bank, Portales, New Mexico.

Fairfax Industrial Association marks 100 years
President George chatted with guests at the Fairfax Industrial Association's 100th Anniversary Luncheon in August. George provided the keynote address for the event, which was held at the Harry S. Truman Presidential Library in Independence, Missouri.

Visit to organic farm in New Mexico

During the summer, President George visited Los Poblanos Historic Inn & Organic Farm in Albuquerque. Photo above: She was joined by María Griego-Raby, a member of the Kansas City Fed's Board of Directors and chair of the Bank's presidential search committee. The farm includes 25 acres of lavender, a crop grown for its essential oil, extracted through a steam distillation process. The visit included a look at the inn's kitchen operation (Photo left).

Speaking at labor/management conference in Missouri

On July 11, President George spoke at the Mid-America Labor/Management Conference at the Lake of the Ozarks in Missouri. Pictured with President George are labor leaders (from left) Dustin Himes of Bricklayers Local 15 in the Kansas City region; Patrick A. Dujakovich, Kansas City Fed deputy board chair and president of the Greater Kansas City AFL-CIO; Lee Moore of the Service Employees International Union in Wichita; Cesar Torres of Bricklayers Local 15; and Steve Gercone of Roofers Local 20 in greater Kansas City. The event (pictured above and below) focused on key issues associated with labor-management relations.

Meeting of bankers from Montana and Wyoming

In June, President George was a keynote speaker at the Wyoming/Montana Annual Bankers Summit in Billings, Montana. Pictured with George were (from left) Scott Meier, president and CEO of the Wyoming Bankers Association, and Cary Hegreberg, president and CEO of the Montana Bankers Association.

Nebraska Bankers Association hosts annual conference

In late June, the Nebraska Bankers Association hosted the annual Central States Banking Conference in Omaha, with more than 125 attendees representing 17 states. Pictured with President George at the conference are (from left) Rose Oswald Poels, president and CEO of the Wisconsin Bankers Association, and Jenifer Waller, president and CEO of the Colorado Bankers Association.

Kansas Bankers Association leaders meet in Colorado Springs

President George delivered a keynote address at the Kansas Bankers Association's (KBA) annual CEO and Senior Management Summit and Annual Meeting in August in Colorado Springs. Pictured with George were (front, from left) Max Cook, president of the Missouri Bankers Association; Mike Ewy, former KBA chairman; Nancy Schifferdecker and Doug Wareham, KBA president, along with (back, from left) Mark Schifferdecker, KBA president-elect, Daniel Robb, American Bankers Association (ABA) chairman-elect, and Rich Wolford, ABA vice president of membership.

Tulsa's Black Wall Street History Center

President George visited Tulsa in June and toured the Greenwood Rising Black Wall Street History Center. She was accompanied by Rose Washington-Jones, chief executive officer at TEDC Creative Capital in Tulsa and a former Kansas City Fed board chair, and Tulsa philanthropist George Kaiser, president, CEO and primary owner of GBK Corporation

COLORADO, NEW MEXICO, WYOMING »

Regional Affairs team featured on Colorado NPR station

Denver Branch Research Associate Bethany Greene and Nick Sly, Denver Branch executive and assistant vice president, shared their thoughts on the Colorado economy in an Aug. 8 appearance on National Public Radio's Colorado station. During a taped interview, Greene commented on housing and employment trends, and Sly discussed supply chain issues. Audio of the interview is available in the "Colorado Matters" section at *CPR.org*.

Speaking to petroleum industry officials in Cheyenne, Wyoming

Nick Sly recently traveled to Cheyenne to talk with members of the Petroleum Association of Wyoming about national economic trends and current data.

Economic update for national meeting of state legislators and government officials

In August, Nick Sly spoke in Denver to attendees of a summit convened by the National Conference of State Legislatures. Sly shared insight on economic topics, including the supply chain and recent monetary policy actions. The event was attended by state legislators, legislative staff, government officials, educators and others interested in public policy.

OKLAHOMA »

Urban League Expungement Expo

Steven Shepelwich, lead Community Development advisor at the Oklahoma City Branch, in August partnered with the Urban League of Greater Oklahoma City on an event to assist justice-involved individuals in clearing their records and getting a fresh start in the workforce. More than 1,000 people attended the day-long event, and 764 individuals completed expungement applications.

Connecting teachers to Fed resources

At the "Back to School Bash," held in August at the Oklahoma History Center, Public Affairs staff from the Oklahoma City Branch shared Federal Reserve resources with teachers to help them prepare to return to the classroom.

Wilkerson discusses the changing economy at legislative conference

Chad Wilkerson, Oklahoma City Branch executive and vice president, spoke in July in Wichita, Kansas, at the Council of State Governments Midwestern Legislative Conference. His presentation focused on the U.S. and regional economic outlook.

NEBRASKA »

Discussing the Federal Reserve's focus on the agricultural economy

Assistant Economist Ty Kreitman spoke in early August with a group of beginning farmers and ranchers at the Omaha Branch. He shared insight on the Kansas City Fed's focus on the agricultural economy and provided an update on current economic and financial conditions in the sector.

Engaging with educators at Personal Finance Institute in Omaha

Omaha Branch executive and vice president Nate Kauffman talked with educators and answered questions about the Federal Reserve, monetary policy, and the economy at the Personal Finance Institute held at the University of Nebraska-Omaha in July. Public Affairs Specialist Nicole Downs provided an overview of resources available for teaching about economics and personal finance topics from the Federal Reserve.

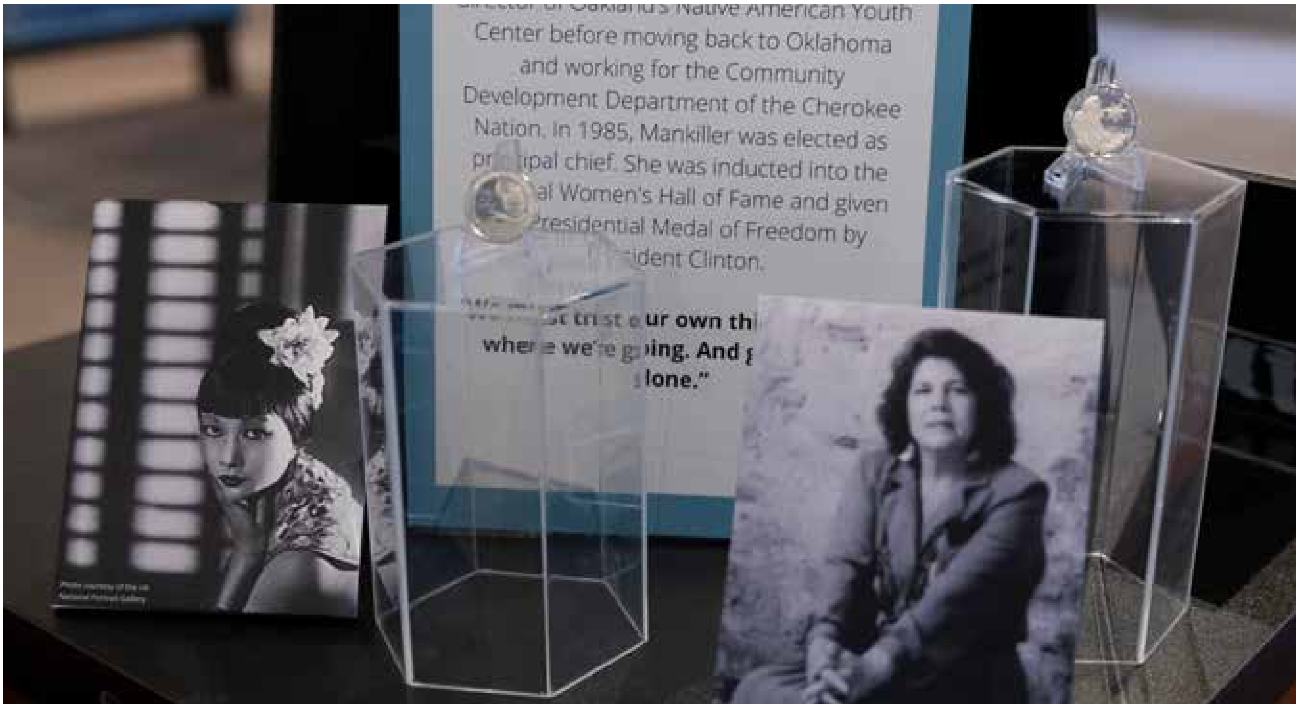
Learning about Mexican Consulate's work

In September, Nate Kauffman and Omaha Branch staff met with Guadalupe Sanchez Salazar, head consul for the Mexican Consulate in Omaha, and members of her team to learn more about the work of the consulate and discuss Nebraska's economy.

Congressional testimony on agricultural conditions

Nate Kauffman testified in July before the House Committee on Agriculture during a hearing titled "A 2022 Review of the Farm Bill: The State of Credit for Young, Beginning, and Underserved Producers." His testimony provided an overview of credit conditions in the U.S. farm sector.

Notes from around the Tenth District



Film star Anna May Wong (left) and Cherokee Nation leader Wilma Mankiller are among five women featured in the American Women Quarters Program exhibit at the Kansas City Money Museum. *Photo by Gary Barber*

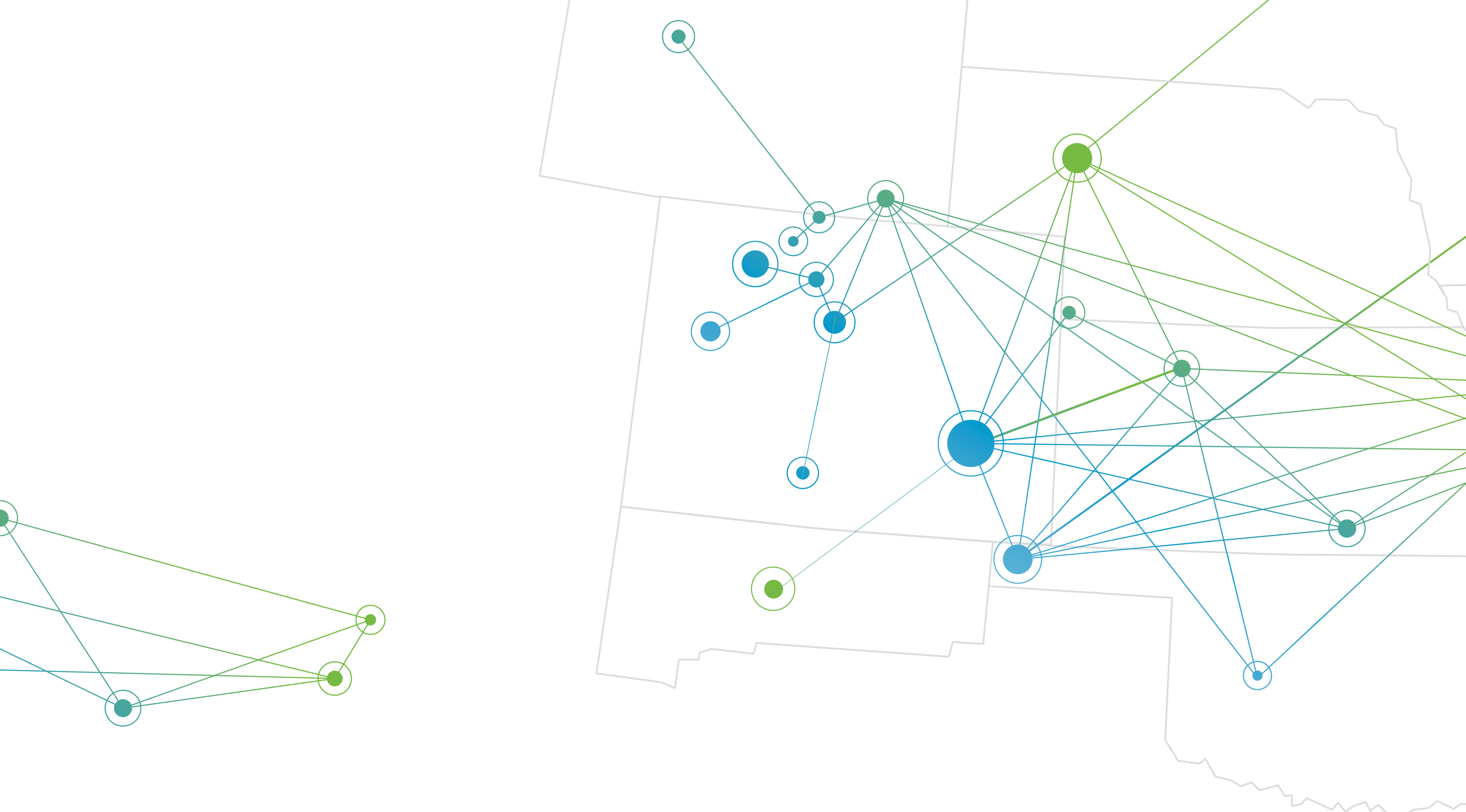
Money Museum highlighting women on the U.S. quarter

An exhibit on display through December 2022 in the Kansas City Money Museum features five women in a series of quarters issued by the U.S. Mint.

The Mint's American Women Quarters Program began this year and is a four-year initiative celebrating several women who left their marks on the country's history through leadership, innovation and cultural change. Through 2025, the Mint will issue up to five new quarter designs each year. The exhibit on display at the Kansas City Fed's headquarters showcases women in the series' first set of quarters:

- Maya Angelou, author, performer and activist
- Sally Ride, educator, physicist and first American woman in space
- Wilma Mankiller, first woman elected principal chief of the Cherokee Nation
- Nina Otero-Warren, New Mexico suffrage leader and first woman superintendent of Santa Fe public schools
- Anna May Wong, first Chinese American film star in Hollywood

FURTHER RESOURCES
Learn more at *KansasCityFed.org/moneymuseum* and *USMint.gov.*



Omaha Branch connects with counterparts in Dallas Fed's region

The Kansas City Fed's Omaha Branch staff recently joined the staffs of the El Paso and San Antonio branches of the Federal Reserve Bank of Dallas to host an informal discussion about focus areas and related topics.

Through the virtual event, Reserve Bank employees from the Kansas City and Dallas regions learned about similarities and differences between the Tenth and Eleventh Districts, specifically related to branch offices and how each office supports the mission of the Federal Reserve. Omaha Branch Executive Nate Kauffman and Roberto Coronado, senior vice president in charge of the El Paso and San Antonio branches, discussed the work conducted by each office as well as the diverse regions they serve.

Kauffman and Coronado also discussed their roles as Branch executives and economists. Kauffman has served as Omaha branch executive for 10 years. Coronado has led the El Paso Branch for 10 years and gained responsibility for the San Antonio Branch in 2021.

"We regularly visit with people in the communities we serve to learn about how business and economic conditions are evolving locally, which is especially valuable for individuals trained in economics," said Kauffman. "We take in information from others who are making decisions in the midst of those conditions, and then apply our economic training alongside our access to other data sources to better understand and answer a variety of questions."

Omaha Branch Executive Nate Kauffman and Public Affairs Specialist Nicole Connelly interacted with branch counterparts in El Paso and San Antonio.

FURTHER RESOURCES
Follow the work of the Omaha Branch at *KansasCityFed.org/omaha.*

Public participates in town hall on Kansas City Fed president's search

In July, the Kansas City Fed hosted a virtual community town hall to answer questions and update the public on the search for a successor to President and CEO Esther George, who will retire in January.

María Griego-Raby, a member of the Bank's Head Office Board of Directors and chair of the presidential search committee, discussed the search process during the town hall, moderated by Tim Todd of the Bank's Public Affairs Department. Griego-Raby said that sharing updates with the public and soliciting feedback are important elements of transparency through the search process. She also noted that diversity in the pool of candidates is vital, as are the skills, experience and knowledge needed to lead the Tenth District.

"We are actively working through the input from many stakeholders and working closely with our search firm, pressing and pushing to make sure our pool is diverse," Griego-Raby said. "We are very excited and passionate about a good search, a solid search, and we will ultimately present the best candidate possible."

After the committee selects a candidate, that person will be presented to the Fed's Board of Governors in Washington for approval.

FURTHER RESOURCES
Watch a recording of the town at *youtube.com/watch?v=ekUadmPtdWM* and learn more about the search process at *KansasCityFed.org/presidentialsearch*.

Moderator Tim Todd and Director María Griego-Raby, chair of the president's search committee.

Ask the Fed webinar program broadens its reach

Recently the Federal Reserve announced expansion of a system-wide program through which subject matter experts make presentations to bankers and their boards of directors.

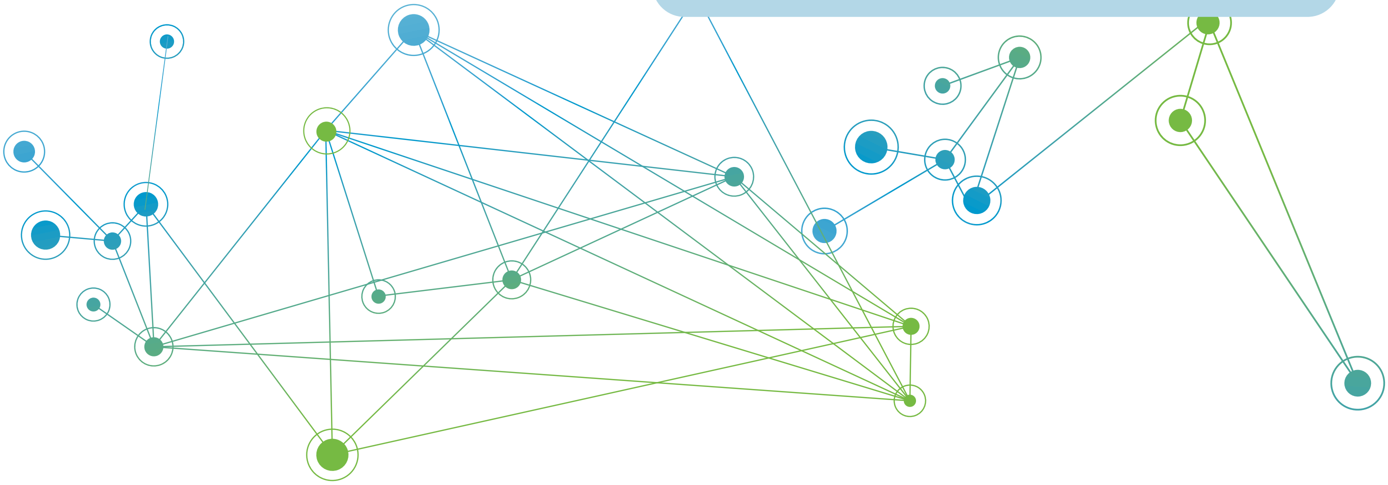
"Ask the Fed" is the Federal Reserve's premier webinar program for communicating supervisory and regulatory information to supervised institutions. The recent expansion will allow students and faculty in higher-education banking and finance programs to participate. Webinars in the program feature Fed officials and industry guest speakers who discuss significant banking and regulatory issues and answer questions from attendees.

The program, hosted by the Federal Reserve Bank of St. Louis, has specific application and registration requirements for academic institutions. To request access, institutions are asked to email the following information to questions@askthefed.org: Name of the institution, street address, city, state and the institution's email domain, such as @uca.edu. Once an institution is added to the platform, its faculty and students will be able to visit askthefed.org and register using their academic email addresses.

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.	103
First State Bank of Newcastle	Newcastle	Wyo.	92
Grant County Bank	Medford	Okla.	82
Stock Exchange Bank	Caldwell	Kan.	82
Fidelity State Bank & Trust Company	Dodge City	Kan.	79
Farmers State Bank	Pine Bluffs	Wyo.	56
Bankers' Bank of the West	Denver	Colo.	42
Citizens State Bank & Trust Co.	Ellsworth	Kan.	42
Citizens Bank & Trust Company of Ardmore	Ardmore	Okla.	31
Ameristate Bank	Atoka	Okla.	26
Bank of Western Oklahoma	Elk City	Okla.	24
Farmers State Bank	Phillipsburg	Kan.	24
Bank of Elgin	Elgin	Neb.	23
Bank of Cherokee County	Hulbert	Okla.	23
First American State Bank	Greenwood Village	Colo.	23
Farmers Bank	Ault	Colo.	21
Wyoming Community Bank	Riverton	Wyo.	10
Bankers' Bank of Kansas	Wichita	Kan.	10
FNB Community Bank	Midwest City	Okla.	10
Heartland Tri-State Bank	Elkhart	Kan.	5
First Bank of Thomas	Thomas	Okla.	5
Grand Bank	Tulsa	Okla.	1



New funding better enabling states, organizations to bridge the digital divide

by STAN AUSTIN

A surge in federal funding, supported by training and development initiatives involving the Kansas City Fed and other Reserve Banks, is helping provide affordable high-speed internet access to underserved communities and households.

As part of the Infrastructure Investment and Jobs Act, signed into law in November 2021, more than $65 billion will be made available to states, U.S. territories, local governments, community organizations and other entities to improve broadband access across the country and provide a range of digital inclusion services over the next several years. The bulk of the funding is being administered through several programs overseen by the National Telecommunications and Information Administration (NTIA). In addition to grants to states and U.S. territories, NTIA programs' wider range will support projects developed by Indian tribes, Alaska Native entities, Native Hawaiian organizations and historically Black colleges and universities.

In recent months, the Kansas City Fed and seven other Reserve Banks have been working with the National Digital Inclusion Alliance and NTIA to host a series of workshops to help government officials tasked with creating digital equity plans better understand the detailed requirements of the planning grants, said Kansas City Fed Community Development Advisor Jeremy Hegle. For example, upon receiving planning grants, recipients will have one year to develop five-year digital equity plans. One of the workshops recently was conducted in Kansas City.

"The workshops' primary objective is to ensure that states have the information needed to develop effective plans," Hegle said. "A key secondary objective is that what comes out of those workshops will help us identify our next opportunities to support the states' efforts." Grant disbursements under the NTIA's primary programs are scheduled to begin this fall.

Hegle, who leads digital equity efforts across the Tenth District, also leads the Bank in the Federal Reserve System Digital Equity Working Group. Among other work, the group provides training, data and analysis to help states establish or bolster broadband programs that ultimately would administer services enabled by the new funding. Leadership positions and roles for developing broadband plans can vary from state to state, so the Federal Reserve group's expertise is an asset.

"Some states have broadband directors and digital equity staff; some states don't," Hegle said, noting that support will be needed over the long range. "We are working to help ensure that states have the knowledge and


Photo by Getty Images

resources to create effective plans. We're not looking at this as a one-and-done."

In the areas of research and analysis, the Kansas City Fed has partnered with the Mid-America Regional Council (MARC) and KC Rising (the Civic Council of Greater Kansas City) for a study that will explore the needs for broadband access, skills and devices across a nine-county region of Missouri and Kansas.

The outline for the project, titled "Broadband and Digital Equity Investment Strategy – An Action Plan for Metropolitan Kansas City," was released in July and stated: "The role of these three organizations is not to make decisions or identify priorities on projects for applications to the two states for federal funds. Rather, they will help the many stakeholders—local governments, business and civic leaders, and community partners—identify together what would be the best collaborative investments for the region."

About the funding

Letters of intent and applications were due during the summer for two of the primary programs that are beginning grant disbursement this fall:

- Broadband, Equity, Access and Deployment (BEAD). This program provides $42.5 billion over five years to expand internet access with speeds of least 100 Megabits per second (Mbps) down and at least 20 Mbps up. These speeds are now considered essential to ensure such basic simultaneous tasks as a child participating in online learning while a parent works remotely. "A key difference between BEAD and previous federal broadband programs is how the funds are distributed," Hegle said. "Previous federal programs typically distributed funds directly to internet service providers. BEAD is instead like a block-grant program." Funds—a minimum of $100 million per eligible entity—are allocated to states, the District of Columbia and U.S. territories

- Digital Equity Act (DEA). Through DEA, $2.75 billion will be provided to ensure that all people and communities have the skills, technology and capacity to fully engage in the digital economy.

FURTHER RESOURCES

Learn more about the Federal Reserve's digital equity work at *KansasCityFed.org/community*.

<< Photo by Gary Barber

A look at the marijuana industry in states of the Tenth District

Since Colorado became the first state to open recreational marijuana stores in January 2014, the marijuana industry has continued to expand across the country, and the industry's effects have rippled through many aspects of the Tenth District economy, especially in the years immediately following legalization. In an *Economic Bulletin* available at *KansasCityFed.org/research*, Senior Policy Advisor Alison Felix and Research Associate Samantha Shampine examine the impact of this emerging industry in Tenth District states.

Q: What is the status of legalization in the Tenth District?

Marijuana is legal for medical and recreational uses in Colorado and New Mexico, while Missouri and Oklahoma have legalized medical marijuana only. This expansion might continue in the years to come. In November, Missouri voters will decide whether they want to legalize recreational marijuana. Industry advocates also collected signatures for marijuana-related ballot initiatives in Nebraska and Oklahoma, but those measures will not appear on voter ballots this year.

Q: What is the industry's effect on employment?

The marijuana industry accounts for a fairly small share of total employment in Tenth District states, with estimates ranging from less than 0.3% in Missouri to around 1.35% in Colorado. Still, new jobs in the marijuana industry in the few years following legalization can contribute substantially to total employment growth. For example, new jobs in the marijuana sector may have contributed up to 13.6 percent of total employment growth in Colorado between 2014 and 2017. However, as the industry matured in Colorado, employment gains moderated. From 2018 to 2021, new occupational licenses equated to about 3 percent of total employment gains in Colorado. Outside Colorado, the marijuana industry is much newer in the District. Thus, District employment growth in the marijuana industry may moderate in the coming years as the industry matures in other states.

Q: What is known about sales?

With perhaps the most well-established marijuana industry in the country, sales in Colorado are much higher than in other District states, totaling more than $2.2 billion in 2021. However, marijuana sales still make up less than 1% of total consumer spending in Colorado. Meanwhile, Oklahoma—a state with only medical sales—had a surprisingly large estimated $945 million in sales in 2021. Relative to other states, regulations in the marijuana industry are less stringent in Oklahoma, including the licensing of businesses and patients. About 9.3% of Oklahoma residents have a medical I.D. card enabling marijuana purchases. The card requires a physician's signature but unlike other states is not restricted to specific underlying health conditions. Business licenses also were inexpensive and relatively easy to obtain in Oklahoma, leading the state to have more retail cannabis stores than Colorado, Oregon and Washington combined and the largest number of licensed cannabis farms (more than 9,000) in the United States. However, Oklahoma legislators recently passed a moratorium on the issuance of new cannabis business licenses that is expected to remain in place through August 2024.

Q: How has the industry impacted other parts of the economy?

As the marijuana industry emerged, businesses looked to snap up industrial and retail space, and some residential realtors reported an increase in all-cash offers. According to a 2019 survey conducted by the National Association of Realtors, 23 percent of realtors located in states that had legalized both medical and recreational marijuana prior to 2016 reported that residential inventory had tightened due to all-cash purchases from the marijuana industry, but the realtors listed this factor as only one of many. In these same states, 27 percent of respondents reported that demand had increased for storefronts, 21 percent reported stronger demand for land, and 42 percent reported higher demand for warehouses. In general, the marijuana industry has tended to have sizable effects in the initial years after legalization as business is ramping up. However, the overall size of the industry relative to the broader economy has remained more moderate.

Photo by Getty Images

Q: How have state coffers benefitted from taxes?

Tax rates on marijuana vary significantly across states, with taxes typically much higher for recreational sales compared with medical sales. Among the Tenth District states, Colorado had the highest tax revenue in 2021 at more than $423 million. The marijuana industry generated almost $150 million in revenue for Oklahoma in 2021; about $50 million in revenue is projected in New Mexico's first year of recreational sales; and Missouri has collected less than $10 million since sales began. Still, tax revenue from marijuana remains a fairly small share of overall state and local government revenue.

RESEARCH SNAPSHOTS

Inflation, employment and regional conditions

Here are summaries from recent economic research published by the Kansas City Fed. Read the full publications and follow the latest analysis by Reserve Bank economists at *KansasCityFed.org/research.*

Inflation in 1972: A cautionary tale

The path of inflation over the past two years looks strikingly similar to the path observed during the 1970s, when the Federal Open Market Committee shifted its focus away from fighting inflation before price pressures were fully under control. Although policymakers in both the 1970s and today have faced extraordinary challenges, future perceptions of current policy will likely be defined primarily by the outcome of the Committee's attempts to curb inflation, rather than the circumstances surrounding it.

— Cooper Howes, July 2022 Economic Bulletin

Photo by Getty Images

Exploring households' expectations concerning future inflation

Households' expectations about future inflation can influence realized inflation. Therefore, many policymakers track median household inflation

Photos (left and right) by Getty Images

expectations. However, the median changes slowly if households learn about economic fundamentals gradually. A widening distribution of household inflation expectations might foreshadow an increase in the median. During 2021, for example, disagreement about inflation expectations rose months before the median appreciably increased.

— Andrew Glover, June 2022 Economic Bulletin

Dollar appreciation unlikely to significantly affect domestic inflation

The U.S. dollar has appreciated by more than 8 percent over the last year, raising questions about whether a strong dollar could help mitigate domestic inflationary pressures. However, because U.S. imports are almost entirely invoiced in U.S. dollars, recent appreciation in the U.S. dollar has had a negligible effect on inflation.

— Johannes Matschke and Sai A. Sattiraju, August 2022 Economic Bulletin

Slowdown in vacancies likely to coincide with higher unemployment, slower wage growth

The U.S. labor market has been unusually tight since late 2021, with record-high postings for job vacancies, rapid wage growth, and historically low unemployment rates. Some market observers have proposed that job vacancies could decline—and ease wage growth—without a commensurate increase in the unemployment rate. However, a Reserve Bank study finds that the typical relationship of declining job vacancies and higher unemployment holds even at exceptionally low levels of the unemployment rate. Further, a notable decline in job postings likely will coincide with an easing of tightness in the labor market, a higher unemployment rate, and slowing wage growth.

— Huixin Bi, Chaitri Gulati and José Mustre-del-Río, August 2022 Economic Bulletin

Nebraska economy remains sound as risks intensify

The Nebraska economy recovered quickly in 2021 but steadied through early 2022 as risks to the outlook intensified. Economic output in the state expanded robustly in 2021 alongside broad strength across many sectors and particularly strong conditions in the agricultural economy. Incomes for Nebraskans also increased in the past year, and employment throughout the state continued to grow steadily in recent months. Underlying conditions for Nebraska households and businesses were strong through the first part of 2022, and economic activity remained firm, but persistently high inflation continued to pressure the economy and remained a key risk to the outlook.

— Nate Kauffman and Ty Kreitman, July 2022 Nebraska Economist

Household financial conditions in the Rocky Mountain region

Some economic commentators suggest that strong household balance sheets may provide some relief from the strains associated with rising prices and economic uncertainty. Besides an increase in savings for some households, much of the recent strengthening in household balance sheets reflects improvements in their debt conditions. Across the Rocky Mountain region, delinquency rates were low for most households and the costs of household debts remained subdued through the beginning of 2022. More recently, however, a larger share of households began to express difficulties paying for typical expenses.

— *Nicholas Sly and Bethany Greene, July 2022 Rocky Mountain Economist*

Oklahoma ag economy diverges from surrounding states

The farm economy in Oklahoma generally has remained solid but has diverged negatively from surrounding states in the Federal Reserve's Tenth District. One reason has been the state's concentration in industries that have faced more pressure than others. For example, Oklahoma is particularly concentrated in cattle and wheat and less so in corn and soybeans than neighboring states. Corn and soybeans have typically generated larger revenue and profit margins than wheat. Also, profitability in the cattle sector has been slow to recover from the pandemic, limiting Oklahoma's ability to keep pace with the surrounding region. Moreover, drought has disproportionately affected large portions of the state.

— *Cortney Cowley, June 2022 Oklahoma Economist*

The supply and demand of agricultural loans

Credit plays a vital role in the agricultural sector, but many studies suggest that farmers are credit-constrained. Building on recent studies of loan officer opinion surveys, the Kansas City Fed estimated the changes in agricultural loan supply and demand using an unbalanced panel of 1,024 banks from the first quarter of 2002 through the second quarter of 2021. The findings show that changes in the volume of non-real-estate farm loans at commercial banks are principally driven by changes in excess demand for loans. In addition, the study demonstrates that excess loan demand is countercyclical to aggregate farm income.

— *Francisco Scott, Todd Kuethe, Ty Kreitman and David Oppedahl, July 2022 Research Working Paper*

Increased loan demand and higher interest rates may benefit ag banks

Extreme weather, geopolitical conflicts, supply chain disruptions, and rising interest rates all directly affect

Photo by Getty Images

U.S. agriculture, and these factors, in turn, might affect banks that make agricultural loans. Demand for loans from ag banks could rise following events that reduce net farm income or increase banks' ability to reprice loans, such as supply chain disruptions or higher interest rates. But competition with other banks and nonbank financial institutions might offset some of these benefits.
— Francisco Scott, July 2022 Economic Bulletin

S&L crisis: Government assistance and moral hazard

In 1989, the U.S. government ended its policy of assisting failed savings and loan institutions (S&Ls), signaling that future assistance would not be granted. This policy led stock S&Ls to shift their balance sheets toward safer assets, suggesting that credibly suspending assistance to failed institutions may lead banks to take fewer risks.
— Padma Sharma, August 2022 Economic Review

Assessing market conditions ahead of quantitative tightening

Quantitative tightening (QT)—the reduction in the Federal Reserve's balance sheet—will transfer a significant amount of Treasury and agency mortgage-backed securities to investors. Analysis by the Kansas City Fed shows that this transfer will be larger than the first endeavor with QT in 2017 and will occur at a time when financial markets are strained. Those factors suggest that this round of QT has the potential to be more disruptive compared with the benign start to the 2017 runoff. This risk rationalizes the Federal Open Market Committee's initially gradual approach to QT, especially as markets absorb the recent rapid adjustments in interest rates.
— Rajdeep Sengupta and A. Lee Smith, July 2022 Economic Bulletin

Cutting-edge methods did not improve inflation forecasting during pandemic

Although central bankers' inflation forecasts tend to be fairly accurate during normal times, they do not perform as well during downturns and periods of extreme uncertainty, such as the COVID-19 pandemic. To improve this performance gap, researchers over the last 20 years have proposed various innovations to a benchmark class of models known as "time-varying parameter models," which

Photo by Getty Images

allow the relationships between forecasting variables to change over time. However, most research on the efficacy of these innovations was conducted before the COVID-19 pandemic, leaving the question of how these "improved" models have performed during recent extreme events.
— Amaze Lusompa, July 2022 Economic Review

Attention allocation and heterogenous consumption responses

Differences in households' risk assessments help explain differences in households' consumption responses during the Great Recession. Recessions often have detrimental effects on employment as well as equity prices, forcing individuals to make decisions about how to balance risks to their labor and capital income. A Reserve Bank study examined how individuals allocate their limited attention between capital income and labor income. Among other findings, the study shows that welfare loss due to limited attention is significantly larger for households with lower wealth; allowing these households to flexibly allocate their attention can significantly reduce this welfare loss.
— Yulei Luo, Jun Nie and Penghui Yin, July 2022 Research Working Paper

ANNUAL SYMPOSIUM EXAMINES GLOBAL POLICY CHALLENGES, MARKS MILESTONES

President Esther George with San Francisco Fed President Mary C. Daly. *Photo by Lisa Jackson King*

The 2022 Jackson Hole Economic Policy Symposium, which assembled participants from 34 countries, was historically notable for several reasons.

This year's event took place August 25-27 and was titled "Reassessing Constraints on the Economy and Policy." It was the 45th annual symposium hosted by the Federal Reserve Bank of Kansas City. Starting in 1978 with an event in Kansas City, each year the Bank has invited central bankers, finance ministers, academic professionals and financial market participants from around the world. The symposium's mission is to convene presenters and discussants to examine important issues, implications and policy options facing the United States and world economies.

In addition to commemorating the 45-year milestone and addressing the prominent topic of inflation, this year's symposium marked the return to a fully in-person gathering in Jackson Hole, Wyoming, after two years of convening through largely virtual formats because of the COVID-19 pandemic. Observers and Federal Reserve officials also regarded this year's symposium as the most culturally diverse and inclusive gathering in the event's history.

About the symposium

Each year, the Kansas City Fed's Economic Research staff develops the symposium's topic and agenda in consultation with Kansas City Fed President Esther George, who has served as the event's host throughout her 11-year tenure, and Executive Vice President and Director of Research Joe Gruber.

"As we considered the topic for this year's symposium, we were mindful that central bankers face a range of challenges as they pursue their mandates in the aftermath of a global pandemic and the war in Ukraine," George said in opening remarks to attendees. "This year's theme discusses one of the central elements of the current policy environment: constraints. Strong demand and constrained supply have pushed inflation up around the world. At the same time, innovative and extraordinary policy actions taken during the pandemic, both monetary and fiscal, have renewed the conversation around what determines the constraints on policy."

Dealing with inflation

Inflation also was a key topic surrounding this year's symposium. In his annual address at the symposium, Fed Chairman Jerome Powell reasserted that the central bank will "use our tools forcefully" to fight inflation.

Women who participated in the 2022 Jackson Hole Economic Policy Symposium posed for a photo in front of the Grand Teton Mountain Range. *Photo by Lisa Jackson King*

Reporter Brian Cheung interviewed President Esther George for Yahoo! Finance. *Photo by Victoria Rosengarten*

"Price stability is the responsibility of the Federal Reserve and serves as the bedrock of our economy," Powell said. "Without price stability, the economy does not work for anyone." (See Chair Powell's speech in the Kansas City Fed's YouTube channel at *youtube.com/watch?v=vhMRynjm3CI*.)

Powell said that inflation in the 1980s provides three key lessons: That central banks have the responsibility to manage inflation, that the public's expectations play a key role, and that "we must keep at it until the job is done."

In media interviews in Jackson Hole ahead of the symposium, George also commented on the Fed's inflation responses.

"It's very important that we are clear in our communication about the destination we are headed," George said. "We have to get interest rates higher to slow down demand and bring inflation back to our target."

"AS WE CONSIDERED THE TOPIC FOR THIS YEAR'S SYMPOSIUM, WE WERE MINDFUL THAT CENTRAL BANKERS FACE A RANGE OF CHALLENGES AS THEY PURSUE THEIR MANDATES IN THE AFTERMATH OF A GLOBAL PANDEMIC AND THE WAR IN UKRAINE."

— Esther George

ECONOMIC POLICY SYMPOSIUM THROUGH THE YEARS

2022 Reassessing Constraints on the Economy and Policy
2021 Macroeconomic Policy in an Uneven Economy
2020 Navigating the Decade Ahead: Implications for Monetary Policy
2019 Challenges for Monetary Policy
2018 Changing Market Structures and Implications for Monetary Policy
2017 Fostering a Dynamic Global Economy
2016 Designing Resilient Monetary Policy Frameworks for the Future
2015 Inflation Dynamics and Monetary Policy
2014 Re-Evaluating Labor Market Dynamics
2013 Global Dimensions of Unconventional Monetary Policy
2012 The Changing Policy Landscape
2011 Achieving Maximum Long-Run Growth
2010 Macroeconomic Challenges: The Decade Ahead
2009 Financial Stability and Macroeconomic Policy
2008 Maintaining Stability in a Changing Financial System
2007 Housing, Housing Finance, and Monetary Policy
2006 The New Economic Geography: Effects and Policy Implications
2005 The Greenspan Era: Lessons for the Future
2004 Global Demographic Change: Economic Impacts and Policy Challenges
2003 Monetary Policy and Uncertainty: Adapting to a Changing Economy
2002 Rethinking Stabilization Policy
2001 Economic Policy for the Information Economy
2000 Global Economic Integration: Opportunities and Challenges
1999 New Challenges for Monetary Policy
1998 Income Inequality Issues and Policy Options
1997 Maintaining Financial Stability in a Global Economy
1996 Achieving Price Stability
1995 Budget Deficits and Debt: Issues and Options
1994 Reducing Unemployment: Current Issues and Policy Options
1993 Changing Capital Markets: Implications for Monetary Policy
1992 Policies for Long-Run Economic Growth
1991 Policy Implications of Trade and Currency Zones
1990 Central Banking Issues in Emerging Market-Oriented Economies
1989 Monetary Policy Issues in the 1990s
1988 Financial Market Volatility
1987 Restructuring the Financial System
1986 Debt, Financial Stability, and Public Policy
1985 Competing in the World Marketplace: The Challenge for American Agriculture
1985 The U.S. Dollar - Recent Developments, Outlook, and Policy Options
1984 Price Stability and Public Policy
1983 Industrial Change and Public Policy
1982 Monetary Policy Issues in the 1980's
1981 Modeling Agriculture for Policy Analysis in the 1980's
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

A sign marks the entrance to Grand Teton National Park near Jackson Hole, Wyoming. The area, in the northwest corner of the Tenth Federal Reserve District, has been the setting for the Economic Policy Symposium since the early 1980s.

New York Fed President John Williams (left), Fed Vice Chair Lael Brainard and Fed Chair Jerome Powell walked the grounds at Grand Teton National Park. *Photo by Victoria Rosengarten*

Diverse participation

Several years ago, George formed the "Women of Jackson Hole" and has worked toward more diverse participation in the overall symposium. This year, almost 30 percent of the symposium participants and more than 40 percent of the speakers were women.

In remarks welcoming attendees to the symposium, George acknowledged Fed Governor Lisa Cook, Boston Fed President Susan Collins and Dallas Fed President Lorie Logan, all of whom attended previous symposiums while serving in other roles and moved into new Federal Reserve roles in 2022. In addition, she acknowledged Fed Governor Phillip Jefferson, a first-time attendee of the Jackson Hole Symposium, who joined the Board of Governors in May.

Cook and Jefferson, respectively, are the third and fourth Black persons to serve on the Board of Governors. Collins is the first Black woman to serve as a Reserve Bank president. Symposium attendee Raphael Bostic of the Atlanta Fed is the first Black person to lead a Reserve Bank. Logan is one of five women serving as a Reserve Bank president. Lael Brainard, a Fed governor since 2014, this year became the third woman appointed to the position of vice chair.

Another notable aspect of the 2022 symposium: It was the last with George serving as host. She will retire in January 2023. The search for her successor began earlier this year.

FURTHER RESOURCES

See research papers, presentations and related material from the 2022 Economic Policy Symposium at *KansasCityFed.org/research.* Access the free book, In Late August, a history of the symposium, at *KansasCityFed.org/about-us/historical-publications.*

Inside the rise of Black consumer CRYPTOCURRENCY OWNERSHIP

by STAN AUSTIN

Photo by Getty Images

J.B. Harding III sees cryptocurrency as a pathway for Black people to overcome institutional barriers in finance and investing. But just six years ago he knew nothing about it.

Harding, who has owned holistic health businesses in St. Louis in recent years, said he was enrolled in an online course in foreign exchange trading in 2016 when he first heard an instructor mention cryptocurrency, a digital asset—such as bitcoin, Ethereum and Dogecoin—that secures transactions through cryptography and distributed ledger technology (usually blockchain). Although cryptocurrency was originally envisioned as an alternative currency or payment instrument, investment is now the main usage.

"I've always been a techy kind of person, so I got into that educator's online group and started purchasing cryptocurrencies," said Harding, 43. "Honestly, I was baffled why more people didn't know about it. It's a way for you to have more control."

Recent studies indicate that Harding's viewpoint is increasingly common among Black consumers.

In a June 2022 *Payments System Research Briefing*, Kansas City Fed Payments Specialist Terri Bradford wrote that owning cryptocurrency has become especially popular among Black consumers for reasons related to historical context, ease of entry, a decentralized structure, and the forward-looking views of younger consumers. The full research paper is available at *KansasCityFed.org/research*.

Photo by Gary Barber

> "BLACK CONSUMERS' WILLINGNESS TO GRAVITATE TO A YET UNPROVEN FINANCIAL ASSET SIGNALS THE SEVERITY OF THE WEALTH GAP, AS WELL AS THE NEED TO FIND MEANINGFUL SOLUTIONS TO ADDRESS ISSUES OF TRUST AND ACCESS TO TRADITIONAL FINANCIAL SERVICES."
>
> — Terri Bradford

The wealth gap

Bradford's study outlines how several factors help paint the picture of Black consumers' attraction to crypto. For example, surveys show that Black consumers in the United States are more likely than white consumers to own cryptocurrencies. In 2021, a Pew Research Center survey found that 18% of Black adults had invested in, traded, or used a cryptocurrency compared with 13% of white adults. Bradford pointed out that this difference between Black and white consumers' cryptocurrency ownership contrasts sharply with other traditional assets.

For example, according to the Board of Governors of the Federal Reserve System's 2019 Survey of Consumer Finances (SCF), 61% of white households owned equity investments compared with 34% of Black households—a nearly two-to-one margin.

Such disparities highlight the historical wealth gap, which plays a key part in crypto's appeal. Bradford noted that in 2019, Black households' median wealth was $24,100—less than 15 percent of white households' median wealth, which was $188,200.

"If you've been hearing that people are getting rich dealing in the crypto space and—recognizing that you might have no wealth at all or have a major gap to break through—then crypto becomes somewhat attractive to you from that standpoint," Bradford said. "So the wealth gap is the thing that really stands out."

'Generational distrust'

Another factor cited in surveys is what Bradford called "generational distrust of financial institutions" because of how Black consumers historically have been treated—from being turned down for basic home or business loans, to paying higher rates than white counterparts.

In Harding's view, cryptography can be a vehicle to direct one's financial progress without the historical obstacles.

"He who controls the money controls the power," Harding said. "Crypto is a way for us to take back some of the power. No one can come in and tell you what you can or can't do with your money."

That sentiment was echoed in Bradford's findings.

"To a certain extent, people are just kind of fed up with relationships with financial institutions, so if there are opportunities to kind of circumvent that—and the costs that go along with it—there's some attraction" to cryptocurrency, Bradford said. With crypto, "It's no longer just that loan officer's decision or that big bank's decision; it's more removed from that. It's almost, in a way, as color-blind as much as something like that could be."

Perceived stability

Another consideration in crypto's appeal is that many see it as a more financially stable and secure environment than traditional financial institutions. This is because cryptocurrencies rely on permanent, irrefutable records of ownership and a private key to access funds.

Transactions take place on the publicly distributed blockchain ledger, so anyone can look up transaction data, including where, when, and how much of a cryptocurrency was sent from a "wallet" address and how much crypto is stored in a wallet.

"This transparency and accessibility may appeal to Black consumers distrustful of traditional financial institutions and of participating in a system that may not work in their best interests," Bradford wrote in the research study.

Leveling the playing field

Black consumers might see cryptocurrency opening opportunities for a more diverse group of investors.

A study published in 2021 by the Nonpartisan and Objective Research Organization at the University of Chicago (NORC) found that 44% of cryptocurrency traders are investors of color, compared with only 35% of stock investors. Cryptocurrencies' decentralized structure potentially offers a way for anyone, including consumers without bank accounts, to access financial services. Cryptocurrency can easily be purchased with an internet connection and a computer or smartphone using apps such as PayPal, Cash App, Coinbase and Stash. Also, unlike opening an account at a traditional financial institution, creating a cryptocurrency wallet does not require identity verification or a credit check.

"Cryptography gives one independence from a centralized authority, with more security of transactions," Harding said. "This is revolutionary."

Appealing to youth

Bradford's study also highlights the likelihood that younger Black consumers—having grown up in the digital age and being more comfortable with technological solutions than previous generations—see the potential of blockchain technology even beyond its use in cryptocurrencies.

For example, Pew Research has reported that more than 50% of the Black population in the United States are millennials or younger and are embracing STEM, cybersecurity, and other digital technologies.

"The 'Web3' movement, an effort to shift the internet toward networks based on the blockchain, has created new types of investments such as nonfungible tokens (NFTs) and decentralized autonomous organizations (DAOs), with younger investors driving adoption," Bradford wrote. "Younger investors are more likely to view cryptocurrency and NFTs as legitimate growth investments and to believe that DAOs have the potential to improve the way that companies and organizations run."

Meanwhile, studies indicate that the rise in crypto participation might be influenced by cultural factors, especially when well-known individuals are involved. Black athletes, celebrities, and politicians have promoted cryptocurrencies either by accepting them as a portion of their own compensation, endorsing or investing in the cryptocurrency industry themselves, or advocating for cryptocurrency as a payment option for employees.

A recent Harris Poll that found that 58% of survey participants who had heard of cryptocurrency and 82% of current cryptocurrency traders agreed that advertisements about cryptocurrency are effective at encouraging more people to trade crypto.

Risks and regulation

Harding, who says he tries to raise cryptocurrency awareness among his circle of friends and business associates, doesn't think the crypto wave for Black consumers will fade in the foreseeable future.

"This is the wild, wild west…data is the new money," Harding said. "It's not in trinkets and gold and silver anymore; it's in data."

Even so, many government officials have called for more defined regulation of cryptocurrency to mitigate risks and protect consumers and investors.

In response to Fidelity, the nation's largest 401(k) provider, reporting that it planned to enable participants to put up to 20 percent of their retirement money into bitcoin if employers allowed it, the U.S. Labor Department issued a compliance assistance document reminding plan overseers that they are

"CRYPTO IS A WAY FOR US TO TAKE BACK SOME OF THE POWER. NO ONE CAN COME IN AND TELL YOU WHAT YOU CAN OR CAN'T DO WITH YOUR MONEY."

— J.B. Harding III

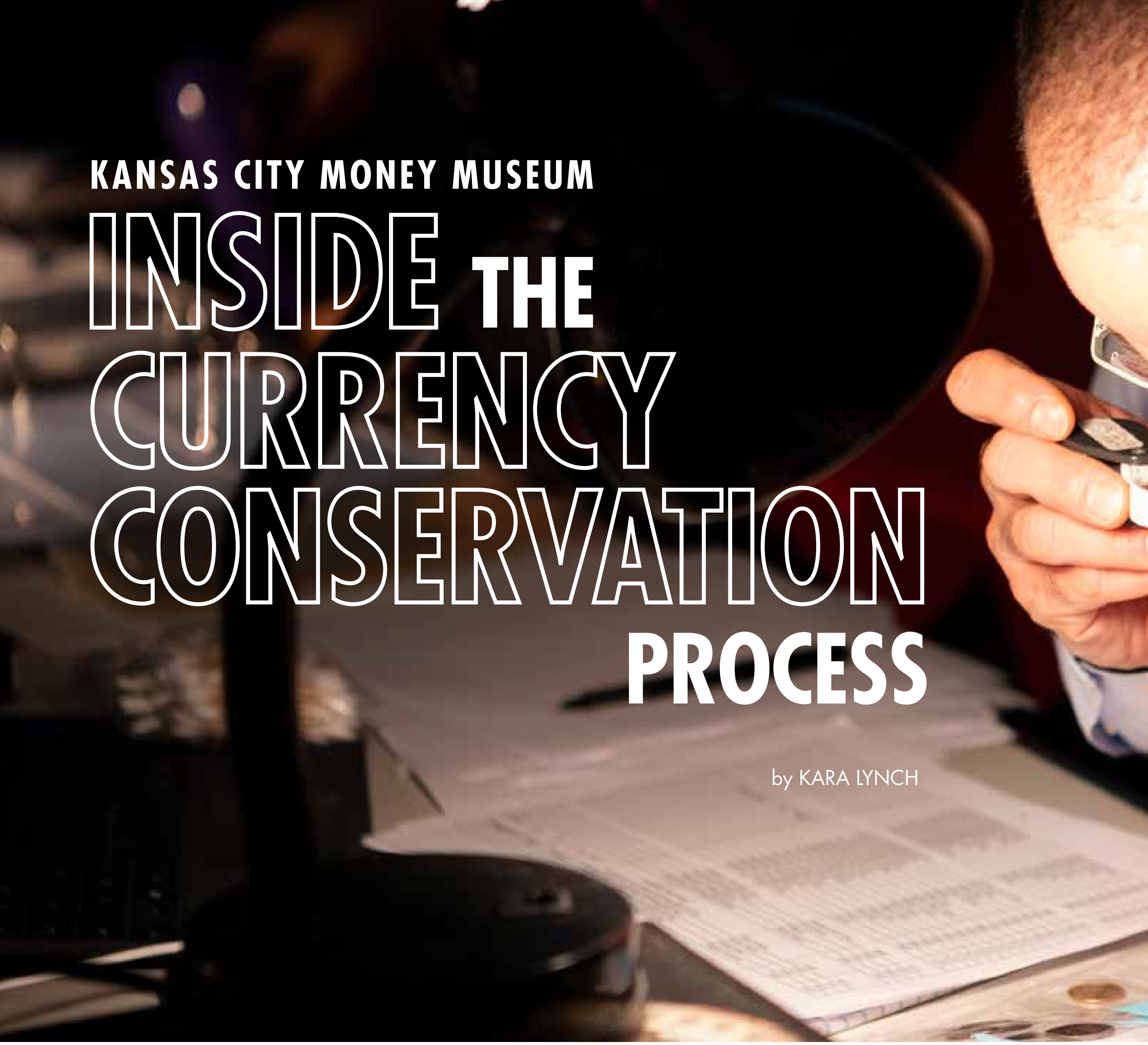
Photo by Getty Images

responsible for choosing "prudent" investment options, strongly suggesting that cryptocurrencies do not yet meet that bar. President Biden this year signed an executive order that charts the way for U.S. regulation of crypto assets, and Treasury Secretary Janet Yellen has stated that regulation should be based on risks, not technologies, to balance the improvements that digital assets can offer to the payment system with the hazards that these instruments present.

Bradford, noting that "innovation always seems to outpace regulation," concluded that while cryptocurrencies have the potential to meet Black consumers' expectations on multiple fronts, the volatile and speculative nature bears watching.

"I just think, to the extent possible, that you need to educate yourself," Bradford said. "Just be educated about it, and understand that just like any other investment, you might lose what you invested… Understand the pitfalls."

In the research paper, Bradford summarized: "The current steep sell-off of crypto assets is putting cryptocurrency risks on full display. Without the guardrails or remedies that accompany traditional financial services, cryptocurrencies are proving susceptible to some of the same pitfalls that have driven Black consumers from other financial investments. Black consumers' willingness to gravitate to a yet unproven financial asset signals the severity of the wealth gap, as well as the need to find meaningful solutions to address issues of trust and access to traditional financial services."



KANSAS CITY MONEY MUSEUM

INSIDE THE CURRENCY CONSERVATION PROCESS

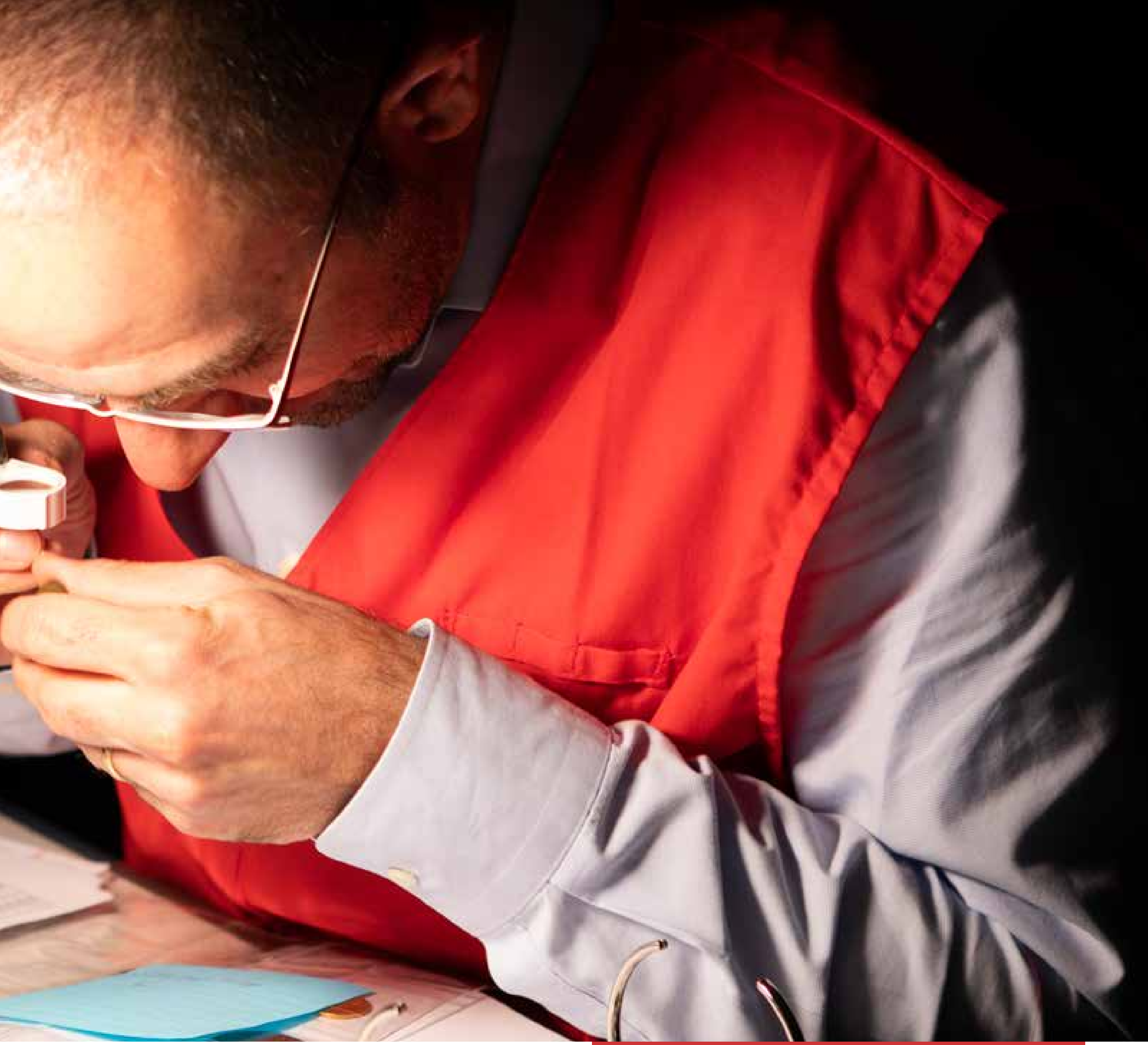
by KARA LYNCH

In May, the Kansas City Fed's Money Museum took down its longstanding Harry S. Truman Coin Collection for a multistep process of conservation and appraisal. This work is important to ensure that the Bank's collections are available for long-term viewing by museum visitors.

The one-of-its-kind coin collection—on permanent loan to the Bank from the Harry S. Truman Library and Museum—includes coins that were in circulation during each U.S. presidency, beginning with George Washington.

In addition to the conservation and appraisal of the Truman Coin Collection, experts spent two days examining the Bank's 1,300 pieces of currency, which include many foreign, antique and commemorative items in secured storage.

"As the first step in a broader vision, we wanted to do some foundational work," said Elizabeth Hartzler, museum coordinator. "We wanted to have a company come in, do any type of necessary conservation work, give a new appraisal of the collection and suggest any additional work that we should do to conserve our historical coins and currency."



(Above) Experts examined the Harry S. Truman Coin Collection as well as currency in the Kansas City Fed's collection. *Photo by Gary Barber*

The hired professionals looked not only at the Truman Coin Collection, but all of the Museum's other currency. "We have a large amount of our collection also in storage in the vault, and that's foreign, U.S., very old, new, uncut sheets, coins, medallions, and commemorative pieces," Hartzler said.

As part of the conservation work, the Bank will receive a report from the numismatists—experts in the study of coins. Such reports typically include an assessment of the collection's value, a rating of the collection, suggested additional conservation work and recommendations for displaying, saving and storing currency.

Money Museum exhibit highlights women on the U.S. quarter. Page 14

The Truman Coin Collection, which is available for the public to view at the Kansas City Money Museum, began as a gift to the former president from John Snyder, who served as Secretary of the Treasury under Truman.

When's Truman's presidency ended in 1953, he rented space on the eleventh floor of the Kansas City Fed's former headquarters at 925 Grand until 1957 while his presidential library was being built. In 1963, Snyder donated the Truman Collection to the library, where it was displayed. Unfortunately, within a few months, the entire collection was stolen. It wasn't recovered, but through coordination of 167 private donors, the collection was recreated and presented to Truman in 1967, and the library opened a new display.

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FURTHER RESOURCES
The Kansas City Money Museum is free and open to the public Monday through Friday, 9:30 to 4:00. Learn more at *KansasCityFed.org/moneymuseum*. See more photos from the conservation process at *KansasCityFed.org/ten*.

(Above) The Truman collection includes coins that were in circulation during each U.S. presidency, dating to George Washington. *Photo by Gary Barber*

(Below) Kansas City Money Museum coordinators Elizabeth Hartzler (left) and Abby Anderson removed the coins from the exhibit to prepare for the conservation work. *Photo by Gary Barber*

kcFED SOCIAL SEEN

Social media highlights of our engagement across the region.

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1 **JAMIE WAGNER @PROFJWAGS** #PFI2022 Day 1 wrapped up with friends from the @KansasCityFed. @N_Kauffman explained current monetary policy and talked about current inflation concerns. Nicole showed us teacher resources. #teachecon #personalfinance #finlit

2 **COREY CRAWFORD** For Field Trip Friday, we took the summer school students to the Money Museum, rode the streetcar around KC, ate at Penguin Park, and Culver's for ice cream. @CCMSTigers

3 **@KANSASCITYFED** How tall are you in $100 bills? Visit the $40 million wall at our #KansasCity #MoneyMuseum and find out! The museum is open this summer, Monday - Friday, 9:30 a.m. to 4:00 p.m.

4 **KCUR @KCUR** Farmland values have been rocketing up across the Midwest, for the last year and a half. On average, prices rose 25% in Nebraska, and 23% in Kansas over the last year, according to data from the Federal Reserve Bank of Kansas City.

5 **@KANSASCITYFED** We recently welcomed more than 100 4th-6th graders to the Kansas City Fed for Summer @ The Fed. Children from the Boys & Girls Clubs of Greater Kansas City, learned about saving and budgeting as well as banking, investing and inflation. #KCFed

6 **FEDERAL RESERVE BANK OF KANSAS CITY** "I had no idea you do that!" Some #OklahomaCity Branch employees and interns attended the Oklahoma Summer Social Studies Conference to help spread the word about the Kansas City Fed's free educational resources on economics and personal finance at *https://bit.ly/30vvRhF.*

GET SOCIAL»

Find us on Instagram, LinkedIn, Pinterest, Twitter and YouTube to follow Kansas City Fed activities, share your photos and post feedback.

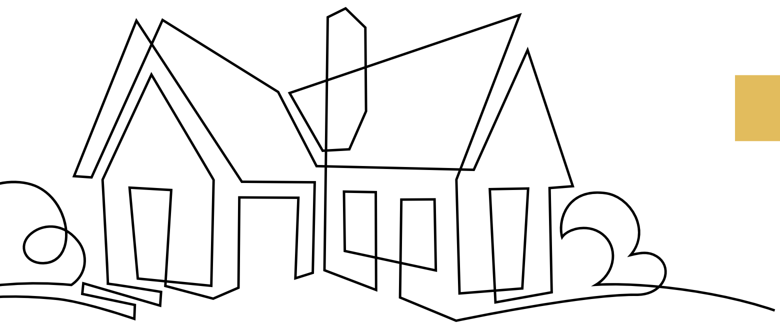
Tenth District *by the numbers*

ECONOMIC INDICATORS, FACTS AND TRENDS FROM THE SEVEN STATES

1 billion

Servings of dry beans produced per year in Nebraska, the country's No. 1 producer of Great Northern beans and the No. 2 producer of Pinto beans.

Source: Nebraska Dry Bean Commission



11th

Oklahoma City's ranking in a study of the top 50 U.S. markets for franchising opportunities.

Sources: LendingTree and the U.S. Census Bureau

11.4%

Increase in the median sales price of a detached home in the Albuquerque market in July compared with a year earlier.

Source: Greater Albuquerque Association of Realtors

$36 million

Amount that the USDA is providing to 10 Kansas biofuel producers under the Coronavirus Aid, Relief, and Economic Security (CARES) Act.

Source: U.S. Department of Agriculture

MORE ECONOMIC DATA
The Bank regularly publishes data about regional and national economic conditions at *KansasCityFed.org/research/indicatorsdata.*

$17.29

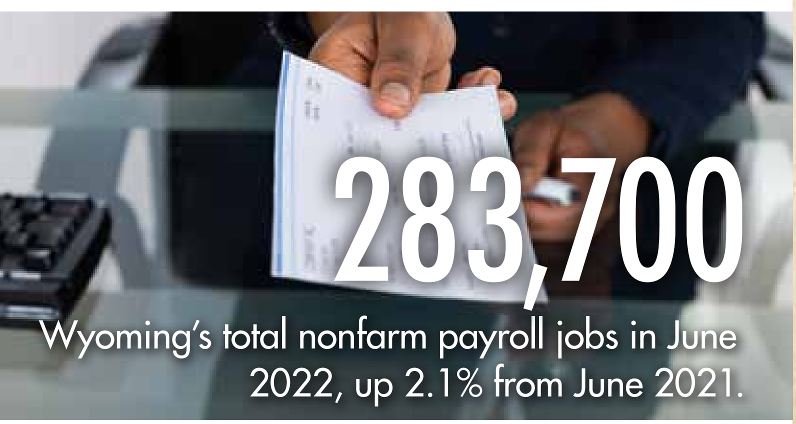
Hourly minimum wage in Denver, to take effect Jan. 1, 2023, an increase from $15.87.

Source: Denver Department of Finance

$620 million

Projected maximum economic impact of Kansas City being selected as a host city for World Cup 2026.

Sources: Boston Consulting Group and U.S. Soccer



283,700

Wyoming's total nonfarm payroll jobs in June 2022, up 2.1% from June 2021.

Sources: U.S. Bureau of Labor Statistics and Wyoming Department of Workforce Services

FROM THE VAULT

Kansas City Fed History

Incineration of unfit bills at the Bank, circa 1954. Bank archives

End of the road for currency

Disposing of "unfit" currency is a process that Federal Reserve Banks have carried out for generations. However, the methods have evolved.

As part of their core work, the Kansas City Fed and other Reserve Banks routinely process shipments of coin and currency, such as funds going to and from the member banks in the region. That currency undergoes a sorting, inspection and verification process, in part to determine whether the currency is suitable to return to circulation. Bills that are ripped, soiled, defaced or ragged from heavy use, can be deemed unfit. Ultimately they are replaced by newly printed currency, but first those unfit bills are removed from circulation and designated to be destroyed.

In the Fed's early years, the destruction process was carried out by hand, which at various times included canceling bills by punching holes, cutting them in half lengthwise and sending one half to the U.S. Treasury Department. Over the years, burning unfit bills became the standard disposal method. The Kansas City Fed began burning currency in 1953. As former Kansas City Fed vice president Barry K. Robinson wrote in a 1976 *Kansas City Star* article, the life cycle of unfit currency "culminates with the worn bills' consignment to the roaring 1,200-degree flames of the bank's currency incinerator."

This method of disposal continued at the Kansas City Fed until 1981. Today unfit bills are destroyed by shredding, and the pieces sometimes are bagged as souvenirs for visitors.

FEDERAL RESERVE BANK OF KANSAS CITY
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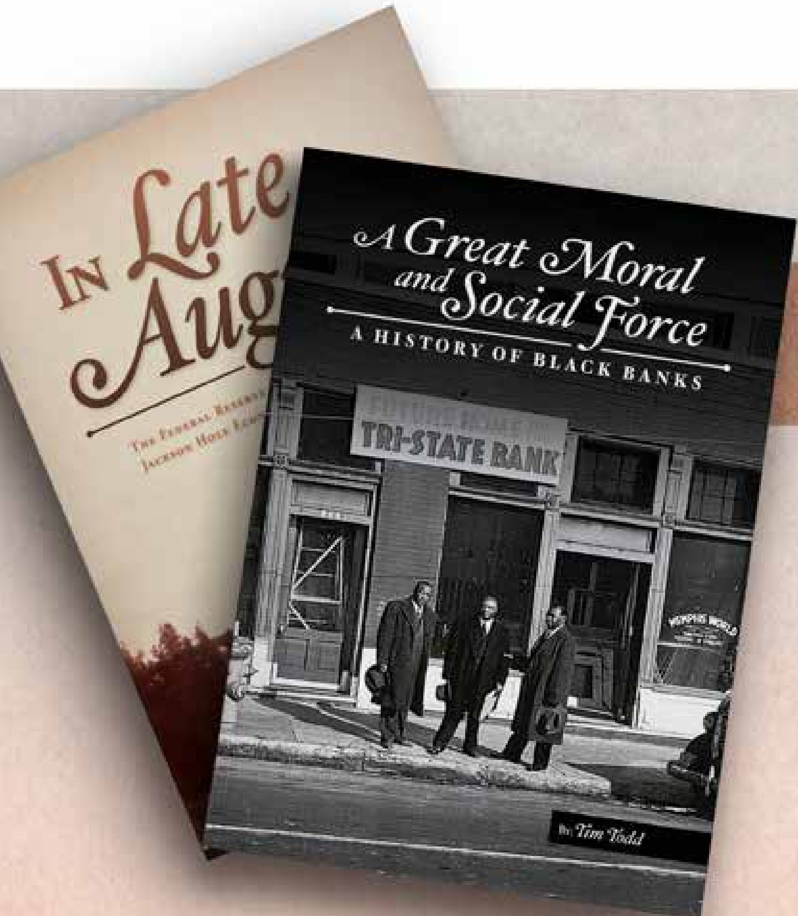

Pages of History

FREE BOOKS *from the*
Federal Reserve Bank of Kansas City

- *A Great Moral and Social Force: A History of Black Banks*
- *Let Us Put Our Money Together: The Founding of America's First Black Banks*
- *In Late August: History of the Jackson Hole Economic Policy Symposium*
- *State Banking and the Dawn of the U.S. Economy*
- *The Balance of Power: The Political Fight for an Independent Central Bank, 1790 - Present*

These books and more are accessible at
KansasCityFed.org/about-us/historical-publications