

# TEN

Fall 2007

FEDERAL RESERVE BANK OF KANSAS CITY

## Inside:

Homegrown efforts

Community bank changes

Risks of new payments

Annual economic symposium

## COMMON THREADS

Desirable communities woven by those  
willing to pay more for a high quality of life

# On The Cover:



# TEN

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## **COMMON THREADS: DESIRABLE COMMUNITIES WOVEN BY THOSE WILLING TO PAY MORE FOR A HIGH QUALITY OF LIFE ..... 4**

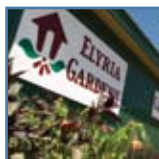
U.S. residents increasingly want to live where the weather is mild year-round, or near the beach and mountains—and they're willing to give up things to do so.

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### Practical productivity growth

**A**s part of the Federal Reserve's monetary policy mission, we regularly talk with business people from throughout the Tenth Federal Reserve District to learn about what is occurring in their specific industries and markets.

Although we continually monitor economic data, experience has taught us that a more thorough and timely understanding of current and developing economic conditions comes from talking with those involved directly in the business and industry of our District. These discussions—including meetings with our Board of Directors—may take many forms ranging from phone calls to roundtable meetings, but they are most beneficial when they happen during a site visit and we have an opportunity to observe operations first hand.

These periodic trips provide us with a wealth of information, offering a degree of insight that is not possible through other means. Standing on the factory floor, it is much easier to understand how a specific, and sometimes minor, change along the production line can greatly improve efficiency.

It is the gains in productivity we occasionally find that may be the most striking and, in many ways, the most relevant when looking more broadly at

the economy. Those who regularly follow the financial media know, almost regardless of the topic or speaker, any discussion on the economic outlook makes some reference to how much more productive we are than we were at some past time, be it last quarter or a decade ago.

Although worker productivity can be measured in terms such as output per worker, relating the data to what is happening in the real world can prove difficult. Productivity growth of 1 or 2 percent is a major development for our economy. But how, in everyday terms, is it being accomplished?

Recently, I have seen a couple of impressive examples:

- During a June visit to Cody, Wyo., officials with Cody Laboratories, a bulk pharmaceuticals lab, explained how one of their chemists has developed a new way of producing active ingredients in painkillers by recovering certain byproducts. The development has made a huge impact on their operations, increasing productivity by 50 percent.

- In July, I had the opportunity to visit Union Pacific's massive rail facilities in





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**BOARD MEMBERS of the Federal Reserve Bank of Kansas City toured the Union Pacific Bailey Yard in North Platte, Neb., where roughly 150 trains pass every 24 hours. Staff talked with Board members about capacity challenges the industry faces.**

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North Platte, Neb. Facing increasing pressure to improve efficiency amid high energy costs, UP has begun to apply NASCAR-style principles, creating what is essentially a pit crew environment for some of the train maintenance procedures. This element from one of the nation's most rapidly growing spectator sports has had a profound impact on the rail line founded in the 1800s. In some cases, repairs that once meant a railcar would be out of service for 12 days can now be completed in a matter of 15 minutes. Because of the nature of UP's business, these types of gains can have far-reaching implications. A more efficient delivery of goods and materials can help to improve the efficiency and productivity of those awaiting the shipments.

In addition to these two instances, I have seen similar innovation occurring to varying degrees during recent trips to Los Alamos, N.M.; Weatherford, Okla.; Montrose, Colo.; and Salina, Kan.

Much has been said about productivity growth in recent years, especially as it relates to technology. Although the somewhat utopian 1950s vision of a high-tech future

providing us with more leisure time has not occurred, developments such as cell phones and widespread Internet access have made us more productive. Those who travel regularly, for example, know that only a few years ago the first day back in the office after a lengthy business trip would likely be lost to catching up on missed reports and meetings. Today, thanks to technology that allows us to monitor e-mail virtually anywhere in the world, we are able to return to the office in "real time."

It is important to note, however, that while technology is a vital contributor in productivity growth, the gains are not solely the result of laptop computers or the ability to connect to a Wi-Fi system while waiting for a delayed flight to arrive. The very human factor of innovation is at the core of these gains and, in the Tenth Federal Reserve District, it is something that goes on every day.



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**Board members visited the Wild Horse Creek Ranch in Nebraska, owned by the family of Omaha Branch Board Member Jim Timmerman, left. He and ranch manager, Jack Harwager, right, discussed with Board members the unique challenges of ranching.**

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**THOMAS M. HOENIG, PRESIDENT  
FEDERAL RESERVE BANK OF KANSAS CITY**

# the fed ON THE Web



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# Common Threads

Desirable communities woven  
by those willing to pay more  
for a high quality of life



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Rebecca Bluestone moved to Santa Fe for love. Not long after graduating from Oklahoma State University, Bluestone left the family ranch for the East Coast, armed with her degree in humanities. She had always loved art, but couldn't draw very well and was told she wasn't artistic.

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**A**fter working some odd jobs, Bluestone visited New Mexico's capital city to attend a two-week tapestry weaving workshop taught by a renowned Hopi Indian artist. She fell in love with "the spiritual geography of the Southwest," and her future husband, Robert, a guitarist. Both have kept her in Santa Fe for the past 21 years.

The area "really feeds my work," she says. Bluestone's tapestries, which are displayed in museums, universities and public buildings, feature subtle color graduations and geometric designs. Her style is simple but vivid; precise yet mysterious.

Inspired by what lay outside her studio doors—green mountainsides, blue sky and red desert—Bluestone knows their livelihoods would not be the same if she and Robert lived absent of the amenities the city of about 64,200 offers them.



PHOTO BY TOBY JORRIN

REBECCA BLUESTONE IS A CONTEMPORARY ABSTRACT ARTIST whose technique is influenced by the Southwest and Native American cultures, among others. Santa Fe “really feeds my work,” Bluestone says.

“I couldn’t imagine leaving here,” she says.

Like Bluestone, U.S. residents more and more are moving to places offering a high quality of life. And they’re willing to pay more to live there, says Jordan Rappaport, a senior economist with the Federal Reserve Bank of Kansas City, who recently examined the importance of natural and man-made amenities in population growth.

“Simply put, people are willing to go where their jobs may not be as good in order to be in a more desirable place that often costs more,”

Rappaport says. “We’re richer as a society and we can care about things like living some place that we think of as nice.”

### **Trading consumption**

Centuries ago, people’s primary concern was daily survival, but today, we have more luxuries than those before us.

Rappaport’s research shows that a metro area with high amenities—such as good weather, recreation or nightlife—can grow as much as several percentage points faster per year than an area without the same qualities. Often these



areas already have a high population density.

For example, between 1950 and 2000, Miami, Orlando and Phoenix each grew by an annual average of more than 4 percent. Tampa, San Diego and Austin each grew more than 3 percent. This is more than double the annual average growth among medium and large metro areas (150,000 people or more).

“We’re willing to sacrifice some of our consumer goods to live in a nice place,” Rappaport says. “But really, it’s still a form of consumption. Rather than cars or flat-screen TVs, we’re paying to live where the winters are mild and summers are cool, or where we’re near the ocean or mountains.”

regrets even though they had to leave behind a new boat and the convertible sports car is no longer drivable year-round.

It’s the blend of metropolitan and recreation that draws people to the Mile High City, says Kristal Kraft, a real estate broker associate, who for 19 years has assisted clients relocating there, often from the coasts. The cost of living, which is lower than many coastal metro areas, also can be a consideration. But most high-amenity metros such as Denver or resort towns such as Aspen can be expensive. Regardless, a steady in-migration shows people are willing to pay to live there.

Many portions of the Tenth Federal Reserve

## “ For many, a balance between a high quality of life and low housing costs determines their ideal place to live. ”

The draw to places with perceived high quality of life is not limited to any one demographic, such as retirees migrating to warm weather or young adults seeking a vibrant city. In general, individuals implicitly are choosing to spend an increasing share of their rising wealth on quality of life.

Although the Zavoda family saw a decrease in income initially, they say they got a lot more than they gave up when they left the Fort Lauderdale area last year.

After too many sweltering Florida summers, Shawn, 36, and Arelis, 33, mentally pulled out a map to scour the country for the perfect place to relocate. They wanted an environment full of outdoor activities, but also one that was conducive to raising 1-year-old Arianna and the baby they’re expecting this fall.

Because Shawn operates a software company from home and Arelis’ career as a pediatrician is mobile, their considerations were more recreational than professional and included: snow skiing, white water rafting and hiking.

Denver topped the list, and after more than a year living there, the Zavodas have no

District, which includes western Missouri, Nebraska, Kansas, Oklahoma, Wyoming, Colorado and northern New Mexico, are more challenged when it comes to attracting new residents. According to U.S. Census data, most states in the District have grown less than the United States as a whole, which was 6.4 percent from 2000 to 2006. The two exceptions in the District are Colorado and New Mexico, which increased in population 10.5 percent and 7.5 percent, respectively.

But as homes continue to be more important to people than ever before, this region and its lower housing costs have an advantage over other areas.

“For many, a balance between a high quality of life and low housing costs determines their ideal place to live,” Rappaport says.



## Amenities vs. housing

In 2006, CNNMoney.com ranked the 10 best big cities in the United States. On the list: Colorado Springs, Austin, San Diego and ... Wichita, Kan., which came in at No. 9, just ahead of New York City.

The metro area of more than 590,000 people has no beaches or mountains, nor does it have a professional sports team or typical tourist attractions. But with low housing costs, short commutes and thousands of well-paying aerospace industry jobs, it's no surprise Wichita made the cut, says Janet Harrah, director of the Center for Economic and Business Research at Wichita State University.

"I think for most Midwestern cities, they either come for a job or to go to school," she

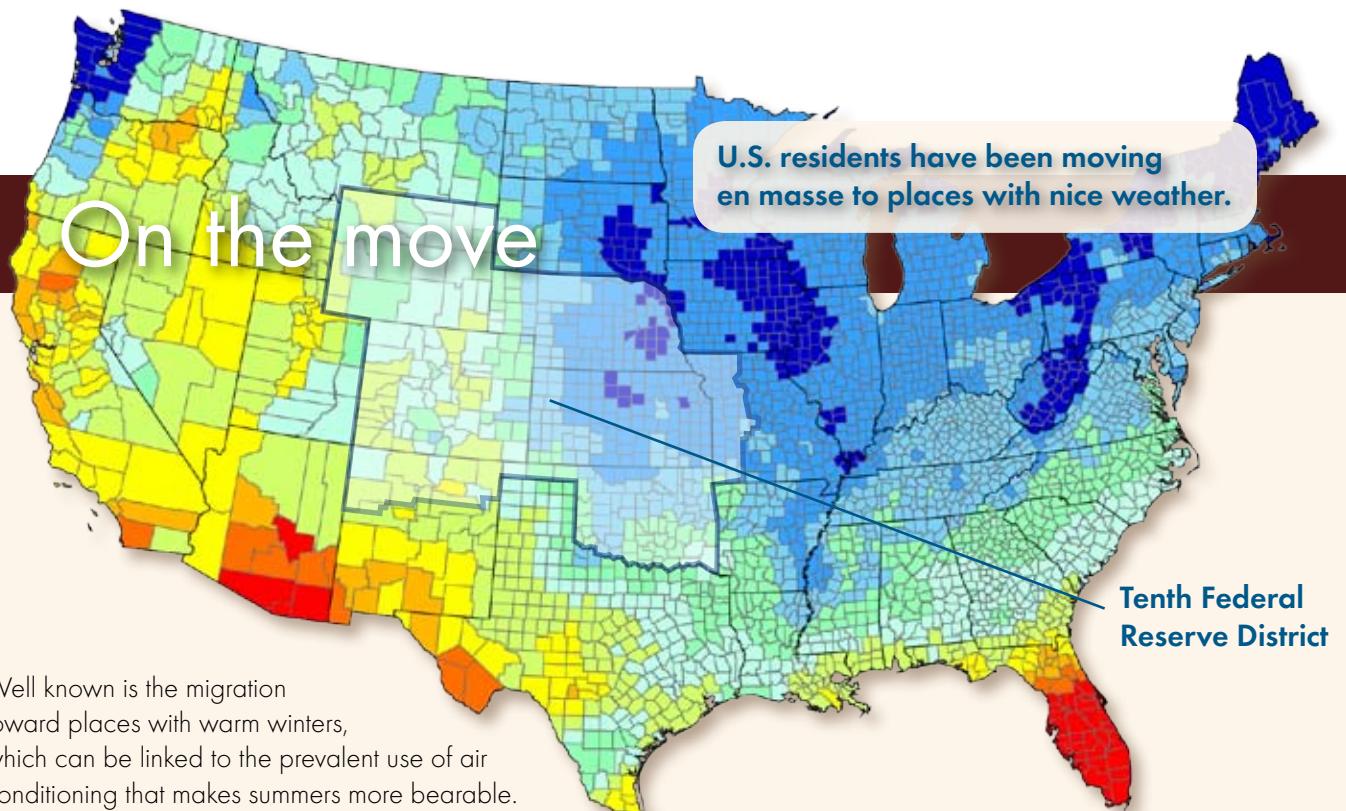
says. "What keeps people here is the quality of life."

Harrah said she moved to Wichita to attend graduate school 20 years ago, adding, "It's not that I haven't had other opportunities. I like it here, so I've stayed."

Initially attracting people to this region can be difficult, she says.

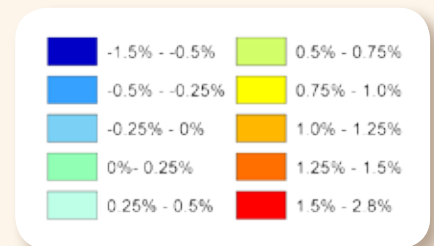
"For most Midwestern cities, it's not that they have a bad image. They have no image," Harrah says. "If you can get them to come see what we have, then the sales job is easy."

In 2005, a grassroots organization in Nebraska launched the website MoveBackToNebraska.com to "bring sharp, talented and enthusiastic people back home" by matching professionals who formerly lived



Well known is the migration toward places with warm winters, which can be linked to the prevalent use of air conditioning that makes summers more bearable. Notwithstanding the availability of this modern comfort, people also have been moving to places with cooler, less-humid summers. The movement to nice weather can't be explained solely by air conditioning, shifts in industry or by elderly migration. Instead, a large portion of weather-related moves appear to be the result of an increased value people are placing on climate. Mild winters and cool summers are being thought of as an amenity, likely due to increased wealth in general, says Jordan Rappaport, a senior economist with the Federal Reserve Bank of Kansas City.

For more information, see "Moving to nice weather," by Jordan Rappaport, at [www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN).



This map shows the likely effects of winter and summer weather on annual population growth from 1970-2000.



PHOTO BY JOSHUA LAWTON

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**“WE’RE SO EXCITED ABOUT ALL THE NATURE STUFF HERE,”** says Shawn Zavoda. He and his wife and daughter moved to Colorado from Florida to take advantage of the area’s year-round outdoor recreation, like skiing in the winter and hiking in the summer.

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in the state with employment opportunities there. The state’s population of about 1.8 million has grown just 3.3 percent—half that of the United States as a whole—from 2000 to 2006, according to U.S. Census data.

In contrast, counties with centers within 50 miles of ocean coast on average grew 0.4 percent faster per year than noncoastal locations from 1960 to 2000, according to Rappaport’s research. San Diego’s weather and coastal location contributed roughly 1 percent to its annual growth rate from 1970 to 2000. But because places with these characteristics are more expensive, people have to be willing to forgo more to live there.

However, just as people want to live in nicer places, so too do they want to live in bigger, better houses. And people are increasingly willing to give up buying more consumer goods in order to do so.

“As we’ve become wealthier in terms of consumer goods, we’ve also expanded the size of our houses,” Rappaport says. “Your ability to buy housing has become increasingly important compared to your ability to buy other tangible stuff—and that’s because we have a lot of stuff.”

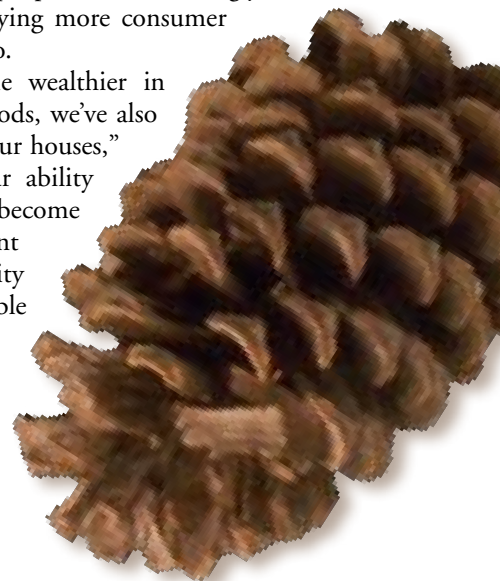




PHOTO BY TOBY JORRIN

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**SANTA FE'S natural and man-made amenities offer Robert and Rebecca Bluestone a nice lifestyle—hiking, gardening or attending cultural events in the city.**

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For those who want large homes, the Midwest may be more desirable than Manhattan and its pricey, cramped apartments. Housing costs can be as much as 20 percent of people's expenditures in large metros, Rappaport says, and upward of one-quarter in the San Francisco area.

In the Wichita metro area, the median home price in 2000 was \$82,180, according to U.S. Census data. In the New York City metro area, it was \$210,015.

"Why you'd want to live in New York

when you could live here," Harrah says, "I just don't get it."

Perhaps a sentiment shared by others. From 2000 to 2006, the Wichita metro area grew slightly faster than the New York City metro area, according to U.S. Census data.

New York City and large metros like it may be getting too crowded and expensive, Rappaport says, causing people to move elsewhere.

## **Trends**

"The high growth rates of high-amenity

cities should eventually taper off,” Rappaport says. “Areas will be overwhelmed by people who moved there and these cities will top off when they become too expensive and too congested.”

The migration to high-quality locales is strengthened if the cities are not yet crowded, possibly because people’s tastes have changed with respect to what makes a place nice or possibly because technology has made certain places better than they were previously. For example, air conditioning makes living in the desert—such as fast-growing Las Vegas—more attractive.

Another reason high-quality-of-life places may not be crowded is low productivity, meaning they are unattractive places for firms to locate.

places, is likely to continue. But the migration to these places probably will slow because of rising housing prices.

For example, the Boston metro grew just 1.4 percent from 2000 to 2006, according to U.S. Census data. Meanwhile, others such as the Phoenix and Tampa metro areas grew rapidly at 24.2 percent and 12.6 percent, respectively, during this same time period.

“These places will eventually be congested enough that people will stop moving there,” Rappaport says. “They’ll look elsewhere in search of high quality of life.”

That’s what Rebecca Bluestone did. Now she can’t imagine living in a densely populated area again.

“I don’t think I could go back to living on the coast,” she says.

**“ Not surprisingly, relatively low housing costs coupled with high quality of living is a recipe for quick growth. ”**

In contrast, a place with both high quality of life and high productivity tends to be crowded. As a result, places that combine these two positive attributes may nevertheless grow slower than average, Rappaport’s research suggests.

A city with lower productivity has a smaller population and, as a result, has lower housing prices. But if it’s a desirable place to live, people will move there more readily than somewhere with high productivity and high housing prices.

“Not surprisingly, relatively low housing costs coupled with high quality of living is a recipe for quick growth,” Rappaport says.

The high housing prices that are caused by people crowding into high-quality-of-life cities eventually discourages further migration there.

The broad-based technological progress that is making us wealthier, and in turn prompting migration to high-quality-of-life

The gridlock traffic, fast-paced life and urban landscape can’t compete with the “little sanctuary” that is her home and studio on a half-acre canyon in Santa Fe.

“I love it here.”

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**BY BRYE STEEVES, SENIOR WRITER**

**FURTHER RESOURCES**

**“MOVING TO A HIGH QUALITY OF LIFE”**  
By Jordan Rappaport  
[www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN)

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



# Changing Banking Structure

As community banks evolve, their emphasis on customer service remains

**B**usinessman Thomas Hartline (above left) was looking for just the right sized bank—one big enough to fund his loan, but small enough to know its customers by name.

For Hartline, who is based in California and recently started Navitas Utility Corporation in Eakly, just outside Oklahoma City, it also was important his bank have a strong local presence.

He chose Bank2, which met all his criteria with one other selling point: It's owned by the Chickasaw Nation. He has heritage with the tribe.

"We wanted a bank that understands the people and that is close to the people," Hartline says.

With more than \$85 million in assets, Bank2 has grown since moving to the capital city, but to customers, it may still feel like the \$7.5 million asset bank that was located in rural Davidson, Okla.

Such transitions—and subsequent growth—are not unusual. During the past few decades, tremendous changes have occurred in the U.S. banking industry and among community banks in rural areas, particularly as

they move into metropolitan markets, expand further in rural markets or add branch offices, say Jim Harvey and Ken Spong, both policy economists at the Federal Reserve Bank of Kansas City.

"As an outgrowth of changes in the industry, banking has been greatly transformed within just a few decades," Spong says.

To determine strategies that community banks are adopting, Harvey and Spong examined consolidation, merger and expansion trends in the Tenth Federal Reserve District states, which include Missouri, Nebraska, Kansas, Oklahoma, Wyoming, Colorado and New Mexico.

A commonly perceived role of community banks is to maintain relationships with customers while bringing banking services to those who might not have their financial needs met by larger institutions.

Says Hartline, "That's how I ended up picking Bank2."

## Bank expansion: Metro vs. rural

Community bank expansion has occurred in a number of ways, including acquiring or

opening offices in similar markets, opening branch offices in fast-growing areas, or moving the headquarters into another market.

“It didn’t make a lot of sense to stay there,” says Ross A. Hill, Bank2 president and CEO. “Geographic changes are prompted by business opportunities.

“I think it’s an emerging trend (to move to a metro area) because, especially in Oklahoma, that’s where the people are, that’s where the market is and that’s where the opportunity is.”

While expansion by rural community banks into metro markets is a growing trend, the number of rural banks that have done so is still relatively small. There are six times as many institutions in the District operating solely within rural markets compared to the number of rural banks that have established a

and a broader customer base.”

Harvey and Spong looked at banks and banking organizations operating in the District’s states that had less than \$500 million in assets at the end of 2006. This size of bank typically is focused on providing community banking services.

Some of their findings include:

**Location and structure:** The vast majority of these community banks have the same rural or metro market focus, including 421 banks that now operate solely within rural markets. However, 102 rural banks were operating branches in metro markets in 2006, and 10 others moved their main office into a metro area between 2000 and 2006.

Rural banks that switched their head office to a metro area or have metro branches reached

## “ Geographic changes are prompted by business opportunities. ”

significant metro presence.

One such institution is the family-owned Security State Bank in Basin, Wyo., which has expanded since 2000. Relaxed interstate banking laws made branching possible; population growth presented the opportunity, says President Ron Boyd.

“We’re in a booming little economy here,” Boyd says. “Everywhere (in Wyoming) has more banks.”

Security State has opened branches in nearby towns with significant growth, such as Gillette, where coal mining and other industries have boosted the population. The owners want to open another branch in a similar-sized area in the next few years, Boyd says.

Harvey and Spong examined how banks, like Security State, have performed in different types of rural markets and whether some markets are more attractive than others.

“We found community banks have had some success in achieving greater growth,” Spong says. “This expansion may have also led to other benefits, such as better risk diversification

a greater average asset size in 2006 than other community banks. These banks also have grown rapidly during the past five years (more than 100 percent growth in assets for those that moved headquarters or established branches after 2000), while banks that remained in rural areas grew slower at an average rate of 23.5 percent.

**Earnings:** Rural banks that have expanded into metro markets overcame the initial adjustment costs and brought their operating incomes close to those of other community banks. Banks in rural markets with the most rapid population growth, though, still have the highest operating incomes.

**Capital:** Banks that moved headquarters or established branches in metro markets were able to fund this expansion with little, if any, decline in capital ratios.

**Loans:** Rural banks that have expanded into metro areas also have done well finding new lending business. One measure of their lending efforts—total loans as a portion of all their assets—is well above what other rural and metro community banks have achieved. Among the

banks operating entirely in rural markets, those in multiple rural markets and in faster growing markets also have more of their assets devoted to lending.

**Liquidity and core deposits:** Compared to other community banks, those that have moved headquarters or established metro branches initially appear to have been less successful in maintaining their liquidity and attracting core deposits. This outcome indicates it may be hard to quickly establish a local base of depositors in a new market, in turn forcing new entrants to make greater use of alternative funding sources that may be more expensive and not as stable.

**Efficient operations:** As startup costs decrease, rural banks expanding into metro areas are approaching or exceeding the efficiency of other metro banks.

## Banking consolidation

This community bank expansion is occurring during a time of rapid consolidation within the banking industry.

By 2006, the number of banks operating nationwide had dropped to about half of those operating in 1980. However, the number of banking offices, which includes main offices and branches, had jumped by about two-thirds, leaving customers with more convenient access, although via fewer banks.

Another major change is the significant rise in the share of all U.S. banking deposits held by the largest organizations—jumping from 17 percent in 1985 to 44 percent in 2006 for the 10 largest banking organizations, according to Harvey and Spang's research.

The dramatic increase in interstate banking is also significant. In 2006, banking organizations surprisingly held roughly the same amount of deposits in other states as they held within their home state.

Although merger activity by large banks has drawn most of the attention, the vast majority of mergers have involved community banks either as a target or as an acquirer.

A number of factors are behind these trends.

Technological change has improved communication, allowing banking organizations to



market to a broader range of customers.

Financial innovations, such as automated underwriting systems, credit scoring and securitization, allow banks to reach and fund a broader range of customers.

Banking regulations have changed to authorize unlimited statewide branching in almost all states and interstate banking on a nationwide basis.

Much of the decline in the number of banks can be attributed to separately chartered banks being converted to branches of other banks. In some cases, these conversions involved multibank organizations using liberalized branching laws to convert their banks into a single branching network. Others were from acquisitions of existing or failing banks (nearly 1,600 banks failed since 1980). These consolidation trends are even more remarkable given that nearly 5,000 new banks opened since 1980, Spang says.

Banking consolidation and the decline of banks in the District are similar to nationwide changes—a sign that banking organizations in the District are also responding to the adoption of more liberal branching laws and other expansion incentives, Harvey says.

One notable difference in the District: The number of banking offices jumped 126 percent from 1980 to 2006. This increase greatly exceeded the pace nationwide and generally can be attributed to the easing of restrictive





branching laws in many District states.

“A significant part of the banking population in the District appears to be operating under a much different structure now than several decades ago,” Harvey says.

Others, though, have continued under their traditional framework and still grow, such as Thunder Bank. Located in Sylvan Grove with a branch in nearby Hunter, it serves an 80-mile vicinity in north central Kansas.

“We’ve been very successful,” says Mark Obermueller, president and CEO. “We’re able to grow without being located in a metropolitan area.”

It would take too much capital to move into a larger market, he says, adding that Thunder Bank’s profits are agriculture-driven. It is also able to make significant home and commercial loans.

“The bank has grown a lot in the last few years,” Obermueller says. “It’s working for us.”

## Future movement

“Overall, our analysis suggests that rural banks moving into metropolitan markets are now matching, or close to matching, the performance of other metropolitan and rural banks while generating higher loan and asset growth,” Spong says.

Harvey and Spong’s research suggests banks with multimarket operations are likely to achieve greater size, higher growth rates and

expanded lending opportunities.

They caution that banks expanding into multiple markets may have begun with more financial resources on average than banks that didn’t expand. Expanding banks may have had more previous success as well. Both would provide the incentive and ability to expand while other banks may not be in a position to move into new markets.

“Consolidation and rural bank expansion seem certain to continue,” Spong says. “Expansion will clearly depend on both the opportunities that arise and the growth of individual markets.”

Many small rural banks operate in slower growing markets, and a number of these banks may seek to expand or merge with other banks to take advantage of opportunities in faster growing markets. The amount of future consolidation thus will depend on the continued growth of metro markets, the emergence of other areas of growth and other factors as well.

Harvey and Spong acknowledge it will be important for community bankers to construct sound growth strategies and provide the appropriate financial and managerial resources.

“This will help ensure community bankers direct resources to where they are most needed,” Harvey says, “while bringing financial services to customers seeking that community banking relationship.”

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BY BRYE STEEVES, SENIOR WRITER

## FURTHER RESOURCES

### “THE CHANGING BANKING STRUCTURE: WHAT EXPANSION STRATEGIES ARE COMMUNITY BANKS ADOPTING?”

By James Harvey and Kenneth Spong  
[www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN)

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



# Homemade

**Economic development efforts focus on locals**



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It's not unusual to see bikers, farmers and tourists dining alongside each other at the Elyria Canning Company restaurant, munching on bruschetta burgers, savoring triple squash soup or attacking chocolate bread pudding.

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**T**he more unlikely sight may be the establishment itself, with its dining, catering and canning business; adjacent gardens; 10 greenhouses; and, well, not much else for miles. Named after the town in central Nebraska where it sits, the busy restaurant's capacity nearly equals the town's population of 54.

"We're upscale dining in the middle of nowhere," says Roy Farrens, owner and chef, who prepares all menu items using fresh ingredients his family grows. "This was my thesis in culinary school 20 years ago. ... I finally got the courage to do it."

And, some enticement from Valley County Economic Development.

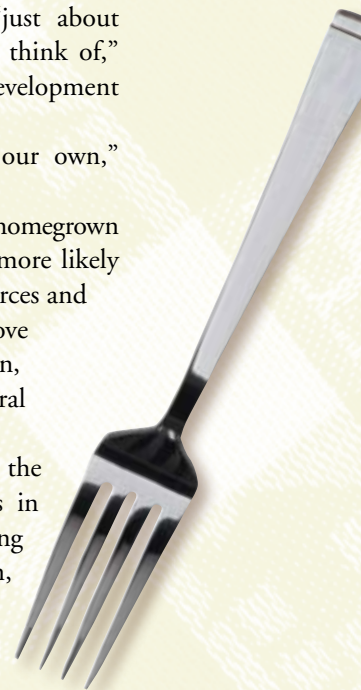
Prompted by a decline in the county's population in recent years, the organization now distributes proceeds from a new 1 percent

sales tax to businesses in the form of low-interest loans and grants. Other offers include reduced taxes, cheap land and "just about every financial incentive we could think of," says Nancy Glaubke, business development coordinator.

"We're focusing on growing our own," she says.

Contrary to popular belief, this homegrown economic development strategy is more likely to be successful than focusing resources and efforts on luring large firms to move into a community, says Kelly Edmiston, a senior economist at the Federal Reserve Bank of Kansas City.

Edmiston recently explored the role of small and large businesses in economic development, researching traditional recruitment, job creation,





LISA FARRENS, RIGHT, WITH DAUGHTER, and husband, Roy, recently opened the Elyria Canning Company restaurant in rural Nebraska. Roy cooks with the fresh ingredients from Lisa's garden; she also tends to the adjacent greenhouses where customers can shop. The couple's eight children often help out.

job quality and innovation.

"Recruiting large firms is often costly, both in direct expenditures and lost opportunities for other forms of economic development," Edmiston says. "In many cases, communities could arguably receive greater returns by investing the same resources to create a more conducive environment for their existing businesses, both large and small."

Many regional communities, such as in Valley County, Neb., and Boulder, Colo., believe in this approach—developing an attractive environment for workers and their families as well as other incentives important to a strong business climate.

"The quality of life is so good here," Glaubke says. "They can live here and still work here. They don't have to have a large corporation to come in here to (be able to) work."

That, Glaubke says, is what keeps residents in Valley County and prompts others to come, and why the population is on its way back up.

## Traditional development, job creation

Research shows when comparing pay, perks and turnover, it makes sense that communities

would want to recruit large companies—and why historically they have done so.

"Simply put," Edmiston says, "large firms offer better jobs than small firms."

**Earnings:** Large firms pay higher wages than small firms, and smaller businesses are much more likely to employ low-wage workers.

**Benefits:** Employees of large companies are more likely to be offered retirement and disability benefits; life, health, dental and vision insurance; and paid holidays and vacation days.

**Stability:** As firm size increases, both voluntary and involuntary job separation decreases, which can be attributed in part to higher wages.

While large firms directly spur local economic growth through significant gains in employment and personal income, the indirect effects—the impacts on other businesses in the area—often carry the greatest economic weight, Edmiston says.

Recent studies show the location of a new large firm can hinder the growth of existing enterprises or discourage others from locating there, especially if the firm is given tax incentives and those costs are passed on to the public.

For example, the location of a new plant with 1,000 workers adds a net of only 285



workers, on average, during a five-year period. The other 715 jobs offset those not generated or retained by other firms as they would have been if the plant had not located there, according to Edmiston's research. Another study suggests the net employment impact of large firms may actually be closer to zero.

"Locating a large firm isn't bad for a community," Edmiston says, "it just may not be as beneficial in terms of employment as the community thought. Communities generally don't get what they pay for when they lure a large company."

**Positive spillovers of new large firms include:**

- links with suppliers,
- increased consumer spending,
- transfer of knowledge and
- shared pools of workers.

**Negative spillovers include:**

- constraints on the supply of labor and other inputs,
- upward pressure on wages and rents,
- congestion of infrastructure, and
- budget pressures from increased public spending without an increase in revenue (if prospective tax revenues are given as incentives).

these costs and neither community gains an advantage. The likelihood of a community using tax abatements to lure a firm increases by 41 percentage points if its neighbors are doing so.

"Because of these typically large, indirect effects and the costs of incentives and competition," Edmiston says, "economic development strategies aimed at attracting large firms are unlikely to be successful, or only so at a high cost."

Meanwhile, data show that the small business sector is a significant source of new jobs. The bulk of new jobs are generated by small firms, according to data from the U.S. Census. From 1990 to 2003, small firms (those with less than 20 employees) accounted for nearly 80 percent of new jobs. Midsize firms (20 to 499 employees) accounted for about 13 percent of the new jobs, and large firms (500 or more) accounted for about 7 percent.

These numbers are affected more strongly by relatively large gross job losses among larger firms, rather than massive job creation by smaller firms.

**“ Recruiting large firms is often costly, both in direct expenditures and lost opportunities for other forms of economic development. ”**

Costs are often substantially underestimated during the recruitment stage, he says. For example, if a city gives \$20 million in incentives to an enterprise creating 1,000 new jobs, the cost per job is \$20,000. However, if the net job impact is actually 285, the true cost per job is \$70,175.

Additionally, recruiting a firm will generate costs for infrastructure, such as roads, sewers and other public services. If a community gets into a bidding war with another community, fewer resources will be available to absorb

**A new approach**

Perhaps the most effective economic development strategy doesn't focus on just one entity but rather encourages multiple firms



to come to an area, Edmiston says. It's an environment that can be created by homegrown businesses, like in Boulder, Colo.

In an effort to preserve Boulder's identity and support local commerce, David Bolduc and Jeff Milchen started the Boulder Independent Business Alliance (BIBA) in 1998 to strengthen homegrown businesses—and the community.

With Bolduc providing the initial funding and 10 businesses signing on as members, the nonprofit was the first of its kind in the country. Today, membership is made up of more than

100 locally owned businesses, including Bolduc's bookstore he opened 35 years ago in the lively four-block pedestrian Pearl Street Mall downtown. The area is home to an eclectic mix of art galleries, shops and eateries, and a favored spot for street performers, musicians and people to mill about.

This type of environment can act as an incentive, attracting other businesses to the community.

In Ord, Neb., Valley County Economic Development—the same organization that

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**ROY FARRENS, FAR LEFT, opened a restaurant that's one-of-a-kind for the area. "You get up into the middle of Nebraska and restaurants, I hate to say it, are drab," he says. "It's steak and fried shrimp. There's nothing wrong with steak and fried shrimp, but my goal is to give customers something different ... and they really like it."**

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PHOTO BY BOB GREENSPAN

assisted the Elyria Canning Company restaurant—recently built an industrial park in its county seat, Ord.

Zane Dexter's Cornerstone Manufacturing, Inc., which produces electrical components, was the first to locate in the industrial park a few years ago. The community climate is conducive to not only working, but also living, he says.

"Ord has enough things for people," Dexter says, listing off the affordable housing, good schools, and shops and restaurants, plus the utilities, infrastructure and roads in this town of 2,269 round out the total package. "We had some nice offers from other cities. I can honestly say I would've gone somewhere else if Ord hadn't offered me what it did."

Valley County Economic Development offered Dexter some monetary incentives, similar to what it has offered other new or existing businesses there.

"If a community is focused on creating the right environment for everyone, it won't have to offer monetary incentives to anyone," Edmiston says. "But if a community is going to offer incentives, they should be broad-based and available to firms of all sizes. Communities shouldn't pick and choose who relocates there."

By creating a business climate for large and small business alike, Glaubke, of Valley County Economic Development, says, "We're helping our own and we're attracting outside business."

This shift from solely recruiting large enterprises is one many communities are taking, says Don Macke, co-founder of the Nebraska-based RUPRI Center for Rural Entrepreneurship, which supports the development of entrepreneurship through research.

Better incentives will always be somewhere else, maybe even overseas, Macke says, adding, "The attraction has gotten harder and the payoff is less. So you don't get out of the attraction game; you attract entrepreneurs."



FRED WOODS, above, and other employees at Cornerstone Manufacturing enjoy the area's working and living conditions, says company owner Zane Dexter.

Edmiston says these efforts can create jobs in the local community, but through innovation, some of the small businesses will grow rapidly, and quite possibly become industry leaders.

Cornerstone Manufacturing has more than doubled in size since opening, Dexter says. He predicts further expansion, in Ord, of course.

"They not only got me here," Dexter says, "they're also keeping me here."



BY BRYE STEEVES, SENIOR WRITER

## FURTHER RESOURCES

### "THE ROLE OF SMALL AND LARGE BUSINESSES IN ECONOMIC DEVELOPMENT"

By Kelly D. Edmiston

[www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN)

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



# HOUSING, FEDERAL RESERVE BANK of KANSAS CITY HOUSING FINANCE, JACKSON HOLE, WYOMING • AUG. 30-SEPT. 1, 2007 & MONETARY POLICY ECONOMIC POLICY SYMPOSIUM

JACKSON, WYO., – There was consensus among economists, policymakers, academics and central bankers from around the world at the Federal Reserve’s annual Jackson Hole symposium—the topic that they gathered to discuss couldn’t have been more timely: Housing.

The two-day forum is hosted by the Federal Reserve Bank of Kansas City. Wyoming is part of the Tenth Federal Reserve District, which has its headquarters in Kansas City.

Although “Housing, Housing Finance & Monetary Policy” was chosen well in advance of the subprime mortgage crisis this summer, the topic proved quite relevant, said Federal Reserve Chairman Ben Bernanke in his speech, delivered at the opening of the 31st conference during Labor Day weekend.

During the past two decades, many countries have seen remarkable changes in housing markets, including rapid home price

appreciation, rising homeownership rates and development of new mortgage finance methods, among others. This year’s symposium explored the causes of these changes and the implications for economic stability and monetary policy.

“Recently the subject of housing finance has preoccupied financial market participants and observers in the United States and around the world,” Bernanke said. “The financial turbulence we have seen has its immediate origins in the problems in the subprime mortgage market, but the effects have been felt in the broader mortgage market and in financial markets more generally, with potential consequences for the performance of the overall economy.”

Two strong themes emerged during the presentations and panel discussions: developments in mortgage finance including the growth of subprime lending, its collapse and the implications; and high housing prices



worldwide, possible causes, and monetary and credit policy implications. Each session concluded with a general discussion period for attendees to ask questions and offer comments to create dialogue.

“Throughout the years,” said Tom Hoenig, president of the Federal Reserve Bank of Kansas City, “the symposium has provided a forum for the exchange of ideas on important public policy issues such as these timely matters. We gather to take the discussion even further.”

Bernanke offered observations about the recent market developments, the economic implications, and the historical context via the evolution of housing markets and housing finance in the United States.

“Obviously if current conditions persist in mortgage markets, the demand for homes could

histories, obtained subprime loans. These borrowers paid a higher interest rate than someone with good credit would have been charged. The mortgages often started out with good “teaser” rates, but became unaffordable for some borrowers as teaser rates expired and market interest rates rose.

The U.S. homeownership rate increased from 64 percent to 69 percent during this period—an all-time high with roughly 12 million new homeowners, largely racial and ethnic minorities and lower-income households. Some have been able to pay their mortgages; others have defaulted. Many borrowers said they didn’t understand fully the terms of their loans.

The resulting sharp rise in foreclosures also has caused several major lenders to fold

**“ Obviously if current conditions persist in mortgage markets, the demand for homes could weaken further, with possible implications for the broader economy. ”**

weaken further, with possible implications for the broader economy,” Bernanke said. “We are following these developments closely.”

If credit is more difficult to obtain, consumer spending and investing can be hindered, leading to somewhat slower economic growth. The Federal Reserve also works to ensure stable financial markets, as well as respond to economic weakness from market turmoil.

“The Federal Reserve,” Bernanke says, “stands ready to take additional actions as needed to provide liquidity and promote orderly functioning markets.”

### **Subprime mortgages: Before the boom; after the bust**

The onslaught of subprime mortgage foreclosures has been ongoing since late 2006. During the years prior, would-be borrowers who were unable to qualify for traditional mortgages, usually because of weak credit

or file for bankruptcy. The impact has been felt worldwide with falling stock prices, especially in mortgage companies, and cast a dark cloud over the already slumping U.S. housing market.

As a response to the subprime mortgage meltdown and to restore confidence to the credit markets, the Federal Reserve Board on



PHOTO BY PHOTOSPIN

# 2007 SYMPOSIUM

## THE HOUSING FINANCE REVOLUTION

Authors: SUSAN M. WACHTER, *Professor*,  
University of Pennsylvania

RICHARD K. GREEN, *Professor*,  
The George Washington University

Discussant: WILLIAM R. WHITE, *Economic Adviser and  
Head of the Monetary and Economic Department*,  
Bank for International Settlements

## UNDERSTANDING RECENT TRENDS IN HOUSE PRICES AND HOMEOWNERSHIP

Author: ROBERT J. SHILLER, *Professor*,  
Yale University

Discussant: CHRISTOPHER J. MAYER, *Professor*,  
Columbia University

## HOUSING AND THE BUSINESS CYCLE

Author: EDWARD E. LEAMER, *Professor*,  
University of California, Los Angeles

Discussant: FRANK SMETS, *Deputy Director General*,  
European Central Bank

## HOUSING AND CONSUMER BEHAVIOR

Author: JOHN N. MUELLBAUER, *Professor*,  
Oxford University

Discussant: SYDNEY C. LUDVIGSON, *Professor*,  
New York University

## HOUSING AND THE MONETARY POLICY TRANSMISSION MECHANISM

Author: FREDERIC S. MISHKIN, *Governor*,  
Board of Governors of the Federal Reserve System

Discussant: JAMES D. HAMILTON, *Professor*,  
University of California, San Diego

## REMARKS BY:

**Ben S. Bernanke**, Chairman, Federal Reserve System

**Edward M. Gramlich**, Senior Fellow, Urban Institute, given by

**David W. Wilcox**, Deputy Director, Federal Reserve System

**Martin Feldstein**, President and CEO,

National Bureau of Economic Research

## HOUSING AND MONETARY POLICY PANELISTS:

**Stefan Ingves**, Governor, Sveriges Riksbank

**Kazumasa Iwata**, Deputy Governor, Bank of Japan

**John B. Taylor**, Professor, Stanford University;

Senior Fellow, Hoover Institution

To read papers from the 2007 Economic Policy  
Symposium, visit [www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN).

Aug. 17 reduced the primary credit rate at which banks and other depository institutions can borrow money from the Federal Reserve. The goal was to give incentive to borrow from the Federal Reserve and to restore liquidity to the markets. It was a move in line with the Federal Reserve's role as a lender to financial institutions, and as an authority that ensures sound central banking, Bernanke said.

"The current episode demonstrates that pronounced housing cycles are not a thing of the past," he said.

Booms and busts play a prominent role in America's economy—quite notably now in subprime mortgage lending, but historically, too, said Edward Gramlich, a former Federal Reserve governor who wrote a speech for the symposium.

While the details differ, in each cycle there are initial discoveries or breakthroughs, widespread adoption, widespread investment leading to collapsing prices and investors losing money.

"When the dust clears, there is financial carnage," Gramlich wrote in his speech, adding, "many investors (learn) to be more careful next time, but there are often the fruits of the boom still around to benefit productivity."

This boom had many causes, Gramlich wrote.

- By 1980, it was no longer illegal for lenders to offer higher-priced mortgages—if the would-be borrower's credit wasn't strong, the lender could charge higher interest rates. Mortgage denial rates fell noticeably.
- Automatic underwriting (the loan approval process done by a computer) and securitization (pooling loans and selling the interest to investors) enabled lenders to spread risks more efficiently.
- Nondiscrimination mandates gave banks incentive to offer low- and moderate-income mortgages, which many discovered to be good business.

More than half the subprime mortgage loans were made by independent lenders—



often independent mortgage brokers—without any federal supervision. Although some blamed the Federal Reserve, it did not have oversight authority.

Regardless of whether mortgage lenders are required to sign up for federal supervision or if state agencies begin supervision parallel to federal supervisors, it is most important all lenders play by the same, effective rules, Gramlich wrote.

“If we do not fix the problems,” Gramlich wrote, “we could well get a repetition of the ugly recent experience with subprime mortgages.”

It is now more than just those involved with these risky loans who are affected.

## High housing prices

During the early '90s, there were no subprime mortgages, but a number of forces were combining at that time to lead to incredible growth in home prices—a dramatic boom that has never before occurred in so many countries at one time, said Robert Shiller, a symposium presenter and Yale University professor. He

in home prices or construction activity even if there is no change in the traditional list of fundamentals.”

Symposium participant Christopher Mayer, a Columbia University professor, said there are other fundamental reasons for high home prices—low long-term interest rates lead to a heightened demand for housing to purchase, which in turn causes home prices to rise, he said.

A fall in home prices would not only affect the housing market, but likely consumer spending, too, said Oxford University Professor John Muellbauer, who concluded liberalized financing affected the housing market and consumer spending.

Historically, low-income consumers didn't have access to credit. Now, lower-income homeowners are able to more easily borrow against the credit of their homes. This stimulated spending and reduced saving.

However, if the housing market is weak in the foreseeable future because of a tightening of credit since the subprime mortgage fallout,

## “ The interaction of housing, housing finance and economic activity has for years been of central importance for understanding the behavior of the economy... ”

cited dramatic home price increases not just in the United States, but also Australia, Canada, China, Korea, Russia, the United Kingdom and others.

It's the role of consumers' psychology in the housing cycle that is the principal reason for high home prices—high expectations have sent prices soaring, Shiller said. People's opinions about long-term decisions, such as home buying, change in the short term because their long-term opinions change.

“If there are fears of war or terrorism, as we saw in the case of the 1950 boom, or fears of environmental destruction, as we saw in the case of the farmland boom of the 1970s,” Shiller said, “then there may be major changes

there will be a high number of unsold homes on the market and prices will fall, reducing overall spending.

The availability and cost of housing finance are critical determinants of how well housing markets function, said Susan Wachter, professor at the University of Pennsylvania, and Richard Green, professor at The George Washington University, both symposium presenters. If homeowners only have adjustable-rate mortgages available to them, they have to balance their long-term asset (the house) against short-term liabilities. This can expose homeowners to mortgage payment shocks and could induce economic instability.

Housing is the most important compo-



PHOTO BY ISTOCK

ment of economic recessions, and an attempt to control the business cycle needs to focus especially on residential investment, said Edward Leamer, professor at the University of California, Los Angeles.

Leamer said at the symposium that the Federal Reserve should pay more attention to real estate because, in the past, declines in home sales and subsequent reduction in new construction has been a precursor to a recession. Symposium attendees were divided on whether the turmoil in the housing market would push the country into recession.

Inflation is persistent and needs to be fought daily, but housing is different—it's the cycle that's persistent, Leamer said. The best time to fight the cycle is on the upswing, not when it has peaked, or the crash down is all the worse.

### Monetary policy, role of the Fed

Housing turmoil poses a triple threat to the economy with a slowdown in construction, less spending by consumers unable to tap into home equity and now stricter lending standards, said Martin Feldstein, president and CEO of the National Bureau of Economic Research.

While Feldstein suggested the Federal Reserve cut the federal funds rate, which is 5.25 percent, others suggested simply providing liquidity is the best central banks can do.

Federal Reserve Governor Frederic Mishkin said the Federal Reserve's next step isn't clear. It's not a central bank's job to focus on home prices more so than on the effects on overall economic activity. But, central banks should take measures to prepare for sharp reversals in housing prices to minimize the damage to the broader economy. Housing has

## Federal Reserve Bank of Kansas City Symposium Series

- 1978** World Agricultural Trade: The Potential for Growth (Kansas City)
- 1979** Western Water Resources: Coming Problems and the Policy Alternatives (Denver, Colo.)
- 1980** Future Sources of Loanable Funds for Agricultural Banks (Kansas City)
- 1981** Modeling Agriculture for Policy Analysis in the 1980s (Vail, Colo.)
- 1982** Monetary Policy Issues in the 1980s (Jackson Hole, Wyo.)\*
- 1983** Industrial Change and Public Policy
- 1984** Price Stability and Public Policy
- 1985** The U.S. Dollar—Recent Developments, Outlook and Policy Options
- 1985** Competing in the World Marketplace: The Challenge for American Agriculture (Kansas City)
- 1986** Debt, Financial Stability and Public Policy
- 1987** Restructuring the Financial System
- 1988** Financial Market Volatility
- 1989** Monetary Policy Issues in the 1990s
- 1990** Central Banking Issues in Emerging Market-Oriented Economies
- 1991** Policy Implications of Trade and Currency Zones
- 1992** Policies for Long-Run Economic Growth

significant ripple effects on employment and inflation—two areas of responsibility for the Federal Reserve.

“...The monetary authorities have the tools to limit the negative effects on the economy from a house-price decline,” Mishkin said.

In his opening remarks, Bernanke said, “It is not the responsibility of the Federal Reserve—nor would it be appropriate—to protect lenders and investors from the consequences of their financial decisions. But developments in financial markets can have broad economic effects felt by many outside the markets, and the Federal Reserve must take those effects into account when determining policy.”

What action the Fed should take in regard to the subprime mortgage meltdown also varies. It has been suggested the entire subprime market be shut down (many lenders have stopped offering adjustable rate mortgages) and lending be restricted as it once was in the early '90s. But, “that seems exactly the wrong message to take from the experience,” Gramlich wrote.

He suggests the simplest solution is to require all mortgage lenders have federal supervision, which would require federal legislation and might cause issues at the state level. It could be difficult to pass relevant legislation. He also suggests involving community groups to a larger extent in order to prevent foreclosures.

“The subprime market, for all its warts,

is a promising development, permitting low-income and minority borrowers to participate in credit markets,” Gramlich wrote. “...Our mindset should be to take what is valuable in the subprime boom and build on it, not tear it down.”

Booms and busts play a prominent role in the world economy, and always have done so historically. Such is the case with the subprime mortgage market, and its effects are felt in financial markets worldwide.

Housing, in general, plays an important role in economies. For many people, the home is the largest asset and mortgage debt is the main liability. Home finance makes up a large share of financial market activity in many countries, and is a significant portion of their gross domestic product.

“The interaction of housing, housing finance and economic activity has for years been of central importance for understanding the behavior of the economy,” Bernanke said, “and it will continue to be central to our thinking as we try to anticipate economic and financial developments.”



BY BRYE STEEVES, SENIOR WRITER

- 1993** Changing Capital Markets: Implications for Monetary Policy
- 1994** Reducing Unemployment: Current Issues and Policy Options
- 1995** Budget Deficits and Debt: Issues and Options
- 1996** Achieving Price Stability
- 1997** Maintaining Financial Stability in a Global Economy
- 1998** Income Inequality: Issues and Policy Options

- 1999** New Challenges for Monetary Policy
- 2000** Global Economic Integration: Opportunities and Challenges
- 2001** Economic Policy for the Information Economy
- 2002** Rethinking Stabilization Policy
- 2003** Monetary Policy and Uncertainty: Adapting to a Changing Economy
- 2004** Global Demographic Change: Economic Impacts and Policy Challenges

- 2005** The Greenspan Era: Lessons for the Future
- 2006** The New Economic Geography: Effects and Policy Implications
- 2007** Housing, Housing Finance & Monetary Policy

\*After the 1982 symposium, all forums were held in Jackson Hole except the second 1985 event.

# Emerging Payments

Success depends on ability to control threats, misuse

**N**ot long ago, criminals scammed hundreds of millions of dollars from Japanese pachinko parlors without ever cracking the security safeguards in place.

Instead, they worked around them.

The Japanese government and law enforcement officials designed a heavily encrypted, counterfeit-proof prepaid card for customers playing pachinko, a popular pinball-like slot machine. The cards were to be used instead of cash in an effort to curb tax evasion.

Rather than counterfeiting these cards, the fraudsters recycled used cards. Although hundreds were arrested in connection with the scam and thousands of phony cards were seized, the card sponsors' losses exceeded \$600 million. Clearly, it is a challenge to completely secure a system, especially with sizable amounts of money at stake.

"You can't anticipate every risk when

it comes to payments methods that are still emerging," says Rick Sullivan, a senior economist at the Federal Reserve Bank of Kansas City. "Fraud can infiltrate even a heavily encrypted system in unforeseen ways. But, confidence in these new payments products—and successful consumer adoption—depends on preventing misuse."

Sullivan, along with William Roberds of the Atlanta Federal Reserve Bank, and Jamie McAndrews and Michele Braun, both of the New York Federal Reserve Bank, recently authored a paper that focuses on risks associated with emerging payments methods. Their paper will be published in the New York Federal Reserve Bank's *Economic Policy Review*. As part of its mission, the Federal Reserve monitors payments methods, emerging methods and significant innovations.

The authors examined the risk issues associated with new payments types—which

in general have not been studied extensively—as well as alterations to established payments types.

“The predominant message is one of change,” Sullivan says.

Products, services, rules and technologies are all changing. So are the tools for perpetrating fraud and the techniques for mitigating them.

“Innovative payment mechanisms are making transactions cheaper and easier to carry out,” Sullivan says. “As with more traditional forms of payment, however, the ultimate success of these inventive arrangements will depend on—among many other things—their ability to control risk.”

## Emerging payments and risks

In 2000, two foreign men tapped into Internet service providers in the United States to steal credit card, bank account and other financial information from more than 50,000 individuals, according to the U.S. Department of Justice.

The men then used that information to establish e-mail addresses and associated accounts at PayPal and eBay. They acted as both the seller and winning bidder in the online auctions, paying themselves with the stolen credit cards. Eventually, the FBI was able to lure them to the United States; they were sentenced to three years in prison.

This scheme is an example of data security risks involved as an unprecedented number of new payment types are being introduced.

New payment methods are based on existing payment products, with enhancements, innovations and rules added either to address new opportunities or take advantage of expanding technology. But, there isn't a precise definition of an “emerging payment,” or when a payment method becomes “established.”

Sullivan considers paper checks, pre-authorized automated clearinghouse (ACH) transactions, wire transfers, and credit and debit cards to be established payments, while those that differ (technologically, contractually, legally or conceptually) are considered

emerging. Examples include: general-purpose prepaid cards, PayPal, ACH payments initiated via telephone, and paper checks converted to ACH payments by billers and retailers.

Sullivan and his co-authors examined emerging payment methods that carry transactions relatively low in value and had a limited number of users during their start-up phases. These payment methods do not currently pose large-scale risks because of limited adoption in the early stage of their introduction.

“All payment processes introduce risks that need to be controlled,” Sullivan says, adding that fraudsters especially seem drawn to new technologies in an attempt to exploit early weaknesses, although they also attack established systems.

Sullivan and his co-authors explored the economic concept behind risks and propose a new framework for analyzing payment innovation. The types of risk most relevant, but not limited to, emerging retail payments are:

- **operational risk** (human or technical error that disrupts clearing or settlement),
- **fraud risk** (wrongful or criminal deception),
- **illicit use risk** (includes money laundering, terrorist financing, purchase of illegal goods and services), and
- **data security risk** (form of operational risk; unauthorized data use).

Emerging payments have special risk concerns for a few reasons. They are largely or wholly electronic, which can enable rapid proliferation of fraud and operational disruptions. Additionally, these risks must be almost nonexistent to ensure a new payment method succeeds.



It may require considerable effort and expense and definitely cooperation among all players to achieve.

The novelty of these payment methods implies various problems may not be anticipated and adequate safeguards may not be in place to address them.

“While not systemic (creating a domino effect), some risks associated with emerging payments are widespread and can disrupt aspects of general commerce,” Sullivan says. “Failure to address these risks may jeopardize viability. Experience shows that all successful payment systems have learned to keep most of these risks at fairly low levels.”

## Managing risks

The amount of risk management depends crucially on the payment system participant who exerts the least effort. While this participant may determine the overall level of risk control, others with a lot at stake want a higher level of protection. This means some mechanism is necessary to give all participants the incentive to control risk.

“In general, market mechanisms seem to encourage the providers of a payment service to appropriately control their risks,” Sullivan says. “If providers fail to solve the problem, the business fails. But sometimes even this incentive is not enough.”

important role in reducing risk while monetary fines serve as deterrents.

For example, a large bank in the Midwest recently paid \$200,000 as part of a wider settlement for failure to perform due diligence on the legitimacy of customer activity.

In 2001, two companies’ telemarketing activities appeared to offer credit cards to consumers with poor credit records. The companies collected “membership fees” by having consumers read over the phone account information from their checks. The information was converted to electronic payments to the companies via the bank.

The credit cards were rarely, if ever, delivered, and customers were unknowingly signed up for other expensive programs. When customers called to complain, the companies used elaborate language to avoid repayment or cancelation. Eventually the companies were shut down and prosecuted.

The bank assisted the investigation and admitted its risk mitigation failure. For the first time, the Federal Trade Commission held a bank responsible for the deceptive practices of its customer. The bank agreed to vigorously screen prospective clients and monitor customer activities.

Mitigating risk in emerging payments has special concerns, Sullivan says. The methods’ newness implies various problems may not be

## “ Only time and monitoring will reveal whether risk can be controlled sufficiently. ”

Service providers have three broad approaches to manage various risks: pricing, which means the party bearing the risk is compensated; insurance, or an agreement about who will bear the loss; and containment, which are activities that deter or suppress fraud.

Pricing and insurance alone are not sufficient techniques; containment is the dominant means of controlling risk in payments, Sullivan says. Vigilantly monitoring participants appears to be the most effective avenue to control fraud. Penalties also have an

anticipated, or adequate safeguards may not be in place. Emerging payment methods face a learning curve when confronting these types of problems, Sullivan says.

Participants’ privacy is tricky because every type of payment requires the exchange of some information. Therefore, every successful payment system has to reach a workable compromise between collecting users’ information and preventing misuse.

Competition provides an important incentive. Consumers’ selections reflects which



payment methods best facilitate smooth, low-risk transactions.

“Only time and monitoring will reveal whether risk can be controlled sufficiently,” Sullivan says.

## Lessons learned

There are several key points for emerging payments methods to succeed:

- **Recognize the problem:** Features that add to the efficiency of new forms of payment—scalability, speed, anonymity—can also enable rapid proliferation of fraud. As information moves more easily among payment system participants, more intensive management is needed to safeguard data flow.

- **Maintain a perimeter:** All involved in legitimate payments (originators, receivers, banks, payment processors and networks) operate behind a protective barricade of security. Wrongdoers need to be kept out.

- **Trust the marketplace, but not blindly:** New payments products are immediately susceptible to operational, fraud and data security risks. Risk management responds to market incentives, though experience shows there’s a learning curve. At the same time, well-designed laws and regulations can help policymakers ensure the “public good” of confidence in the overall payment system.

“New payments products are likely exposed to fairly high levels of operational, fraud and reputation risk,” Sullivan says. “But, if a payment provider can address the problem quickly and effectively, it can stay in business. Containment is the dominant method to thwart these threats.”

Generally, market mechanisms appear to encourage providers to mitigate risks appropriately. Most providers, especially those in the private sector, have tools and incentives to manage many of these risks in part because they retain the option to exclude any party that fails to comply with a network’s safeguards. PayPal, for example, has learned through experience the techniques and tools to recognize risk and quickly correct it.

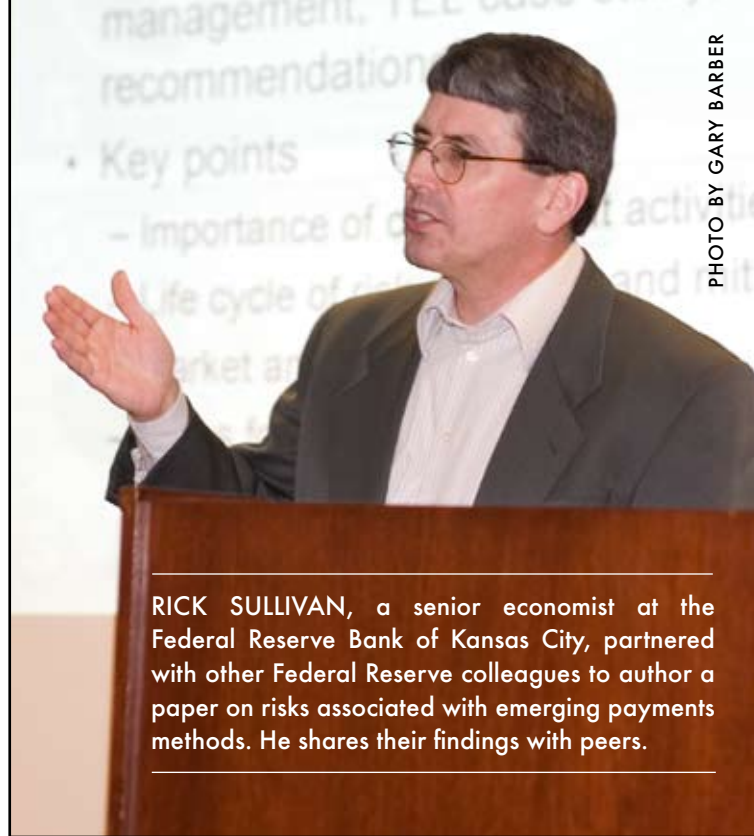


PHOTO BY GARY BARBER

RICK SULLIVAN, a senior economist at the Federal Reserve Bank of Kansas City, partnered with other Federal Reserve colleagues to author a paper on risks associated with emerging payments methods. He shares their findings with peers.

The company manages fraud by denying or restricting access and blocking those who don’t comply with its rules. Its “verified” member program protects PayPal and creates a product that’s marketed to customers.

“With emerging payments, the problems, risks and gaps in processes can be addressed,” Sullivan says, “only if the providers and the participants apply constant vigilance as more and more payments methods emerge during this exciting time for the industry.”



BY BRYE STEEVES, SENIOR WRITER

## FURTHER RESOURCES

### “UNDERSTANDING RISK MANAGEMENT IN EMERGING RETAIL PAYMENTS”

By Michele Braun, Jamie McAndrews, William Roberds and Richard Sullivan  
[www.KansasCityFed.org/TEN](http://www.KansasCityFed.org/TEN)

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

## Robert Latham **OWEN**

PHOTOS COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY

**A**mong the key figures in the creation of the Federal Reserve was a senator from one of the seven states that later became part of the Tenth Federal Reserve District.

Oklahoma Sen. Robert L. Owen was Senate sponsor of the Federal Reserve Act, co-sponsoring the bill with Virginia Congressman Carter Glass. Together, they steered the legislation to final approval and President Woodrow Wilson's signature in 1913.

### **From East to West**

Although Owen made his career in Oklahoma, he was born in Lynchburg, Va. on Feb. 2, 1856, to Robert Owen, president of the

Virginia and Tennessee Railway, and Narcissa Clark Chisholm, a woman of Native American, Scottish and English ancestry. Reflecting her own heritage, Narcissa gave her newborn son two names. In addition to Robert, the child was also given the Cherokee name Oconostota—the same name as her great-great-grandfather, who was the tribe's principal chief during the Revolutionary War.

Owen was also related to another important historical figure from the same time period. One of his grandmothers was a grandniece of George Washington—a connection that clearly meant much to Owen, who, as an adult, regularly carried a locket containing a clipping of the first president's hair. It was one of several

Washington relics that he owned.

As a 10-year-old, Owen attended school near Baltimore and later graduated from Lexington's Washington and Lee University with honors and a master's degree in 1877.

While Owen was away, his father—after losing his railroad job in a restructuring and starting a brief political career that included an election to the state senate—died abruptly for unknown reasons. The family's fortune was lost to unexplained circumstances, possibly related to the Civil War and Reconstruction. The loss resulted in Owen and his mother moving to Indian Territory, where they were entitled to tribal property.

While living in what later became Oklahoma, Owen briefly taught school at the Cherokee Orphan Asylum before studying law and gaining admittance to the Bar in 1880. In 1885, he was appointed head of the United States Union Agency for the Five Civilized Tribes.

Owen handled a series of cases involving a number of tribes. Among his more notable victories was a \$4 million U.S. Supreme Court ruling against the government related to the Cherokee's forced removal to Indian Territory, an event that became known as the Trail of Tears. He spent seven years on the case.

Owen fought other injustices he saw within the Cherokee Nation.

"These activities also won for him a reputation for integrity which later on was of incalculable value in his political career," historian Wyatt W. Belcher wrote in a paper published in the winter 1953 edition of *The Chronicles of Oklahoma*.

Owen was also involved in real estate and he owned and edited a newspaper in Vinita. He got into banking in 1890 by establishing the First National Bank of Muskogee, where he served as president until 1900.

Owen wrote about his banking experience, and how that related to his later legislative efforts, in his 1919 book, "The Federal Reserve Act: Its Origin and Principles, A Reminiscence."

"In 1890 I had established the First National Bank of Muskogee and in 1893 witnessed the

panic that took place at that time," Owen wrote. "This bank, like many other banks, lost 50 percent of its deposits within as many days because of the panic, which frightened people and caused them to withdraw their funds for hoarding throughout the United States."

The panic, Owen wrote, "demonstrated the complete instability of the financial system of America and the hazards which businessmen had to meet under a grossly defective banking system."

In 1896, Owen started working on banking reform measures designed to prevent panics like the one he had witnessed.

## The Senate

When Oklahoma was granted statehood in 1907, voters did not yet have the ability to directly elect senators. Oklahoma residents, however, were given the opportunity to vote in what was known as a preferential primary. Owen was the top vote-getter in a field of seven and, as a result, was appointed to the post by the Oklahoma legislature. With the selection, Owen was not only one of the state's first two senators, but also one of the nation's first two

**Robert L. Owen**  
United States Senator  
from Oklahoma and  
Master-Builder of the  
Federal Reserve Act  
has written

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senators of Native American descent, joining Kansan Charles Curtis, a former congressman who also became a senator in 1907.

Owen, who *The Los Angeles Times* described as “a young man of striking oratorical gifts and great popularity,” had many notable Senate accomplishments including the creation of the Senate Banking Committee, which he served as its first chairman. He was a leader in the direct election of senators and the Child Labor Act, among other issues.

The highlight of Owen’s Senate career, however, was arguably his involvement with the Federal Reserve Act.

In his 1919 book, Owen offers insight into the process, which, he writes, was subject to more than 800 amendments, many related to “language and punctuation, the changing of words back and forth, and matters of that character, which were unimportant.”

The history of the legislation dated back to the banking crisis of 1907, which prompted

give (him) a permanent place in the history of our country.”

In 1931, Owen presented the state of Oklahoma with a copy of the Act that he received from Wilson during the 1913 signing ceremony. In correspondence to then-Oklahoma Gov. William H. Murray, Owen called the document, which was printed on vellum, “the most valued relic” of his political life.

## Father of the Federal Reserve

While establishing the Federal Reserve may have been Owen’s greatest accomplishment, Belcher and others have said it was also the cause of Owen’s greatest disappointment because most of the credit went to co-sponsor Carter Glass. Glass, who had a far longer political career that included a later stint as Treasury secretary and a Senate seat, is sometimes referred to as the “father of the Federal Reserve.”

## “ The whole country owes you a debt of gratitude and admiration. ”

Congress to establish the National Monetary Commission. The Federal Reserve Act’s approval came after numerous disputes and hours of testimony on both sides of the issue.

After he signed the bill, President Woodrow Wilson praised Owen’s work in a letter to the Oklahoma senator.

“Now that the fight has come to a successful issue, may I not extend to you my most sincere and heartfelt congratulations and also tell you how sincerely I admire the way in which you have conducted a very difficult and trying piece of business?” the president wrote. “The whole country owes you a debt of gratitude and admiration. It has been a pleasure to be associated with you in so great a piece of constructive legislation.”

Treasury Secretary William G. McAdoo wrote that Owen displayed “qualities of leadership and statemanship which will forever link (Owen) with this immortal measure and

In later years, “Glass and Owen squabbled with each other very bitterly” about who was the principal author of the Federal Reserve Act, says Dr. Kenny L. Brown, chair of the Department of History and Geography at the University of Central Oklahoma and a leading expert on Owen.

Glass was especially outraged by Owen’s 1919 book about Owen’s experiences in banking and crafting the Federal Reserve Act.

Owen, meanwhile, likely was angered by a ceremony held to mark the 25th anniversary of the Federal Reserve that focused almost exclusively on Glass. The Dec. 23, 1938 event at the Federal Reserve Board of Governors building in Washington, D.C., included the unveiling of a bronze bas-relief of Glass, with his likeness appearing under the words “Defender of the Federal Reserve System.” The relief was placed on a wall opposite a similar portrait of President Wilson.

The unveiling moved Glass to tears, leaving him nearly speechless as he told attendees “my heart is too full for words.”

Accounts of the event in the nation’s major daily newspapers made no mention of Owen’s role in establishing the central bank. However, a few days later, a syndicated columnist named Ray Tucker mentioned the dedication and the ongoing feud between the two men.

According to Tucker, Owen was invited to attend the event, but “when Owen learned that Glass was to be given credit for framing and passing the law, he returned his invitation and expressed regret that he could not attend.”

Tucker’s column suggests that then-Federal Reserve Chairman Marriner Eccles, who was hoping to win the support of then-Senator Glass, had determined Glass to be the true father of the Federal Reserve.

Brown, the Oklahoma historian, says that determining who was most responsible for the act is difficult.

“Glass probably is more responsible, but not a whole lot more,” Brown says.

According to Brown, Owen and Glass finally resolved their differences after Owen penned a letter to Glass saying that it was time for the dispute to end and noting that both men were raised only a few blocks apart in the same childhood hometown of Lynchburg, Va. Both men are buried in Lynchburg’s Spring Hill Cemetery.

Owen also was recognized later by the Federal Reserve. An area near one of the Federal Reserve buildings in Washington, D.C., is known as Robert Latham Owen Park.

After retiring from the Senate in 1925, Owen practiced law in Washington, D.C. His primary interest, however, was in promoting the idea of an international alphabet based on phonetics that he hoped would make English more easily understood worldwide. He spent \$25,000 of his own money in developing an alphabet utilizing 41 symbols that the then-blind Owen described to an assistant who drew them.

“It is a means by which we can teach the English language to all the world at high speed



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**SEN. ROBERT OWEN, center, at the unveiling of his portrait in Washington, D.C., on May 9, 1942.**

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and negligible cost,” Owen told an Associated Press reporter for a July 1943 article. “It will pay its own way.”

Owen told the reporter that the effort was inspired by the Cherokee Chief Sequoia, who developed an 85-character alphabet in 1823 that enabled his tribesmen to learn to write their own language within a few weeks.

Although unsuccessful, Owen’s effort generated significant media attention.

After the death of his wife, Daisy Hester, in 1946, Owen lived the final months of his life alone as a near-invalid in an apartment near Washington’s Meridian Hill Park. After being hospitalized for several weeks with an illness and undergoing an operation, he died on July 19, 1947. He was 91.

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**BY TIM TODD, EDITOR**

# Notes

## Colorado foreclosure forum

The Federal Reserve Bank of Kansas City hosted a forum in August at its Denver Branch to discuss home mortgage foreclosures.

The discussions, which included a question-and-answer session, focused on foreclosure intervention efforts, and foreclosure loss mitigation and its prospects.

Participants included representatives from the Colorado Foreclosure Task Force, the Colorado Foreclosure Hotline, NeighborWorks' National Hotline, CHASE and Wells Fargo Banks.

"This forum gave the Fed a valuable opportunity to learn about the current state of foreclosures, the effectiveness of intervention, and most importantly, what community groups and industry experts in the area see developing," says Tom Hoenig, president of the Kansas City Fed.

## New building update

The Federal Reserve Bank of Kansas City's new headquarters is nearing completion—and its 2008 grand opening.

Construction began in the summer of 2005 on the central office for the Tenth Federal



Reserve District, which includes western Missouri, Nebraska, Kansas, Oklahoma, Wyoming, Colorado and northern New Mexico. It replaces the Fed's current Kansas City facility downtown at 925 Grand Blvd. The 85-year-old building has been sold to a private developer.

Just two miles south, the new, 620,000-square-foot facility sits on nearly 16 acres at 29th and Main streets near Penn Valley Park.

Outside, crews have attached exterior panels containing limestone and granite.

Interior stone work has begun in the lobby and exhibit area. The Kansas City Fed's seal was removed from the old building lobby floor and will be placed in the new building shortly. Work on the kitchen area, bathrooms and elevator systems continues.

Staff will move to the new building in phases, starting in February.

## Bank Anniversaries

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

Bank of Versailles	Versailles	Mo.	88
First Bank of Newcastle	Newcastle	Wyo.	77
Centennial Bank of the West	Fort Collins	Colo.	70
Farmers State Bank	Fort Morgan	Colo.	69
Grant County Bank	Medford	Okla.	67
Stock Exchange Bank	Caldwell	Kan.	67
Fidelity State B&TC	Dodge City	Kan.	64
Bank of Commerce	Wetumka	Okla.	62
First State Bank	Fairfax	Okla.	62
Farmers State Bank	Pine Bluffs	Wyo.	41
Bankers' Bank of the West	Denver	Colo.	27
Citizens State B&TC	Ellsworth	Kan.	27
First Community Bank	Emporia	Kan.	10
Peoples Bank	Lawrence	Kan.	5
Community Bank	Pleasant Hill	Mo.	1
Collegiate Peaks Bank	Buena Vista	Colo.	1
First State Bank of Pinedale	Pinedale	Wyo.	1
Nebraska Bankers' Bank	Lincoln	Neb.	1

Compiled By TEN Staff

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## The Federal Reserve System

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

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

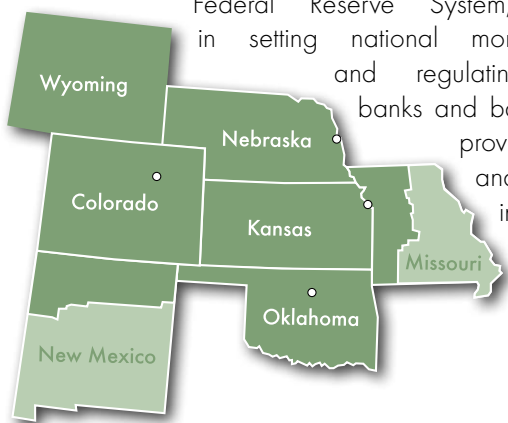
The Federal Reserve is considered to be independent within government and broadly insulated from political pressures. While members of the Board of Governors are nominated by the president of the United States and confirmed by the Senate, the Federal Reserve's regional structure, including local boards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

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



## 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 western Missouri, Nebraska, Kansas, Oklahoma, Wyoming, Colorado and northern New Mexico. 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 check processing and other services to depository institutions.



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