FEDERAL RESERVE BANK OF RICHMOND

FOURTH QUARTER 2024

# ECON FOCUS

## The Philanthropy Gap

### Why rural areas get less

Buy Now, Pay Later Plans

When Investors Buy Up Houses

Laura Alfaro on Supply Chains Without China

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# ECON FOCUS

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*Cover image: Patients visit Hometown Health Care in rural Sutton, W.Va. For many people in the surrounding Braxton County, the clinic is the only option for local health care.*
*Credit: Claude Worthington Benedum Foundation*

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# Zooming in on Community Colleges

Even as overall labor market conditions have normalized over the past year, employers in the skilled trades continue to report a lack of available workers. The overall supply of workers has improved, but the supply of workers *with the right skills* remains limited.

Employers are not the only parties invested in strengthening the talent pipeline. Communities recognize that to be competitive, they need a strong workforce.

One type of institution that has come up time and time again as a preferred partner in workforce development is community colleges. We at the Richmond Fed have taken a particular interest in these institutions: They partner with high schools to offer advanced learning opportunities via dual enrollment and to connect students with apprenticeships. They partner with four-year colleges to prepare students for a bachelor's degree. They help localities build a talent pipeline for an area's strategic sectors. They help employers train potential employees and current ones.

Why are community colleges so well positioned to partner on workforce development?

To start, their educational offerings often align with jobs in the skilled trades, the very segment of the labor market in which we hear the greatest imbalance. As local insiders, they know their markets well enough to tailor their offerings to local needs.

Community colleges are also accessible. Their programs tend to be shorter duration and lower cost. They offer flexibility for nontraditional students who may study part time due to work or family responsibilities.

#### AN INCOMPLETE MEASURE OF SUCCESS

This all raises the question: If community colleges play such a critical role in

workforce development, why don't they attract more support? We think it is partly because they are being evaluated on the wrong metrics.

To be clear, we at the Richmond Fed are not policy advocates in this area. We do not seek to influence enrollment, programming, or funding decisions. But given our dual mandate, we do seek to understand the forces at play in the labor market, and our data collection and analysis expertise allows us to fill information gaps. In the community college space, we saw a void, and I'm excited to share a bit about what we have been doing to fill it.

Community colleges face considerable skepticism around their effectiveness. If you look up average graduation rates, their success rate is only about 30 percent. That's about half the rate for four-year institutions.

With that context, hesitation around enrollment and funding decisions is understandable: Parents and guidance counselors may hesitate to push students in the direction of community colleges. Governments, philanthropies, and other potential funders may hesitate to invest in programming and initiatives.

But it's time to reconsider how community colleges are assessed. Community college outcomes have historically been measured with the same metric as four-year institutions — the share of first-time, full-time, degree-seeking students who finish within time and a half of expected graduation. This narrow definition of success does not account for part-time or returning students or those who take a little longer to graduate, pursue a non-degree option, or transfer to a four-year institution prior to graduation. That means community colleges are not getting credit for many of the positive outcomes they achieve.

#### A BETTER WAY TO MEASURE

In 2022, we launched our Survey of Community College Outcomes. Our intent was to produce a more comprehensive metric of community college success in our district, as well as to gather information on non-credit programs, dual enrollment, and little-understood community college offerings like wraparound services (which range from career counseling to assisting students in obtaining food and child care).

Our metric measures success across a broader span of students and counts a wider range of outcomes. We recognize that community colleges often serve a higher number of nontraditional students, so our cohort includes both full-time and part-time degree- or certificate-seeking students and all students who are enrolling at the institution for the first time. We then consider the students in that broader cohort to be successful if they transfer, persist, graduate with an associate degree, diploma, or certificate, or attain an industry-recognized credential or licensure. That's because there's more than one way for a community college

student to succeed. If an achievement benefits the student in joining or progressing in the workforce, we count it as a positive contribution.

In our initial surveys, we found that the traditional measure of success did indeed significantly undersell community college contributions — both the number of students they serve and how successful they are. For example, consider Virginia's 23 community colleges. The traditional measure put their average success rate in 2023 at a little over 36 percent. Our measure came in at just under 63 percent. For policymakers and students alike, those two very different success rates might well lead to different decisions.

At the end of the day, a community college succeeds when it provides its local area with what it needs, and those needs differ from one place to another. Our success rate takes that into account; community colleges can be equally successful while serving students in the ways most fitting to their areas. At an urban college, a high success rate might come from a high share of students transferring to a nearby four-year institution. At a rural institution, a similarly high success rate might instead come from a high share of students receiving industry-recognized certificates to work for local employers.

We've also learned more about what kinds of students are availing themselves of community college opportunities and in what ways. For instance, in our latest survey results — posted on our website last month — we found big differences in how male and female students use community colleges. Among students in credit programs in our district, roughly three in five students are female, similar to the picture among four-year undergraduates. But among the 470,000 students in non-credit community college programs, which don't show up in federal education data, a slight majority (53 percent) are male. Another notable difference between credit and non-credit programs is the students' life stages: Students in non-credit programs are far more likely to be adult learners, that is, 25 or older. More than three-quarters of non-credit students are in that group, versus only around a third of students in credit programs.

Our hope is that a measure of outcomes allowing for varied definitions of success will improve the education-to-work pipeline. If community colleges know that contributions beyond degrees will be recognized, then they may be more willing to partner with employers and local schools to tackle workforce needs. If government and private funders better understand success rates, they may be more willing to invest. If parents and students perceive better outcomes, they may be more willing to enroll.

One thing I've taken away from my years on the Federal Open Market Committee and, before then, my decades in the corporate sector is the vital importance of good data — the base of information to which judgments can be applied. It's important to education, too. I'm looking forward to seeing what results emerge from this new trove of information.

**Tom Barkin**
**President and Chief Executive Officer**

*A longer version of this essay was delivered as an address to the Virginia Education and Workforce Conference on Oct. 23, 2024.*

**OUR RELATED RESEARCH**

"First Look: The 2024 Survey of Community College Outcomes," Nov. 19, 2024

"Funding Wraparound Services at Community Colleges," Community College Insights, Oct. 24, 2024

"Preparing to Work: The Demand for Postsecondary Education and How Its Changing," *Econ Focus*, Third Quarter 2024

"Concerns for Rural Community Colleges," Community College Insights, March 28, 2024

"Dual Enrollment: An Alternative Path to College for High Schoolers," Speaking of the Economy, March 20, 2024

"Non-Credit Workforce Programs at Community Colleges," Regional Matters, Feb. 22, 2024

BY KATRINA MULLEN

# New from the Richmond Fed's Regional Matters blog

**Surekha Carpenter, Disha Dureja, and Avani Pradhan. "High and Dry: Banking Deserts Increased in the Fifth District During the Pandemic."**
U.S. bank branches have been closing for years due to a shift in customer preferences, technological advancements, and bank strategy, but the rate of closures accelerated during the COVID-19 pandemic. As a result, more communities have become "banking deserts" with poor access to physical banking locations. In the Fifth District, the growth in banking deserts was higher than in the United States as a whole; and as of 2023, North and South Carolina had the highest number of banking deserts in the district (262 census tracts and 134 tracts, respectively). While most of these bank closures occurred in middle- and upper-income suburban areas that have more access to technology (e.g., online banking), underserved areas also experienced smaller, but still large, increases in banking deserts.

**Joseph Mengedoth. "Virginia's Employment Recovery: Now and Then."**
At the outset of the COVID-19 pandemic, initial job losses in Virginia were not as large as in the United States as a whole. At the beginning of 2021, the gap had closed between the two, but by November of that year, the U.S. recovery outpaced Virginia's. Since then, however, the two have been essentially even in their post-pandemic jobs recovery. Virginia's recovery could be attributed to the state's economic structure, workforce characteristics, and strong private sector ties to the government. Additionally, people with higher levels of education are more likely to have lower unemployment rates: In 2022, Virginia's share of the working-age population (ages 25-64) with at least a bachelor's degree was nearly 7 percentage points higher than that of the nation as a whole.

**Alvaro Sánchez and Adam Scavette. "Digital Access Deficiencies in Rural Health Care Deserts: Identifying a Role for Telehealth."**
Since the COVID-19 pandemic, telehealth — defined as digital access to health care services — has become increasingly used by American patients because of its potential to reach people in rural, underserved areas. Since access to broadband and digital devices is necessary for telehealth, areas without broadband services are less likely to benefit. In the Fifth District, health professional shortage areas, or high needs areas, primarily exist in rural areas within South Carolina and southern Virginia, where only 51 percent of households use fixed wireline broadband (compared to 73 percent of households in the district overall). Fifth District households in these rural areas may have digital devices, but the device ownership gaps between those with high needs and the average household remain large for smartphones, tablets, and laptops.

**Bethany Greene and Matthew Martin. "Hurricane Helene: What We Are Learning."**
Communities in the Fifth District, especially in western North Carolina, upstate and western South Carolina, and Southwest Virginia, are grappling with Hurricane Helene's aftermath. In North Carolina, the state Department of Transportation will need to restore more than 6,900 sites of damaged roads and bridges, while the state also has to repair the washed-out portion of Interstate 40 near Tennessee. Numerous sectors — leisure, hospitality and retail; manufacturing; and banking — have also been impacted through reopening delays, lost revenue, and operations disruptions. For example, hotels and stores in Asheville, N.C., experienced increased costs and low foot traffic during the fall, normally one of the region's most important tourist seasons.

**Emily Wavering Corcoran and Anthony Tringali. "Credit Checkup: A Look at the Financing Experiences of Small Businesses in Viginia, Washington, D.C., and North Carolina."**
Every fall, the 12 Federal Reserve Banks publish a survey — the Small Business Credit Survey — to report on the credit experiences and needs of small businesses over the preceding year. In 2023, 37 percent of firms applied for a loan, line of credit, or traditional financing, which mirrored pre-pandemic levels. Within the Fifth District, Virginia, Washington, D.C., and North Carolina resembled national trends in small business health and credit-seeking experiences, but there were some notable differences. For example, compared to the United States, small businesses in Virginia were somewhat less likely to apply for traditional financing (31 percent versus 37 percent), but those that did apply were more likely to use an online lender (37 percent versus 23 percent). **EF**

# The Rise of Buy Now, Pay Later Plans

## A fast-growing alternative to credit cards encourages consumers to spend and borrow more

BY AVANI PRADHAN

Chances are, while shopping at an online retailer, you might have encountered buy now, pay later (BNPL) payment options such as Klarna or Afterpay at checkout. Maybe you've even used BNPL before — after all, smoothing out a large-haul purchase over time sounds a lot nicer than paying all at once. This relatively new form of credit differs from traditional credit cards and their revolving lines of credit through its spread-out installments, usually fixed at four. BNPL requires an initial down payment with loans typically between $50 and $1,000 and is offered through specific retailers, tying it to the purchase of a particular product. The general idea has been around for a while, sharing notable similarities with layaway — a pay-over-time payment scheme that allowed consumers to reserve an item until it was paid off in full. Layaway remained popular throughout the 20th century until it started to decline in the 1980s due to competition from credit cards.

Prior to the pandemic, BNPL was a minor part of consumer finance. It exploded in growth over the past five years. According to a Consumer Financial Protection Bureau (CFPB) Market Report, the number of BNPL loans in the United States grew more than tenfold from 16.8 million to 180 million from 2019 to 2021. In terms of the dollar volume, it went from $2 billion to $24.2 billion, with a large concentration of these loans occurring within the apparel and beauty industries.

"It was the height of the pandemic — consumers were stuck at home and willing to indulge on items," says Julian Alcazar, a senior payments specialist for the Office of the Chief Payments Executive for Federal Reserve Financial Services.

BNPL offers have remained high after the pandemic. In the June 2023 Survey of Consumer Expectations (SCE) Credit Access Survey, the New York Fed found that 64 percent of respondents were offered BNPL services when making a transaction, with nearly a third of those offered reporting use of BNPL in the past year.

This usage also tends to be repeated. In the October 2023 SCE survey, in which researchers differentiated between financially stable and financially fragile consumers through factors such as low credit scores, loan delinquency, and credit application denials, the New York Fed discovered that 72 percent of financially stable users and 89 percent of financially fragile users made purchases with BNPL more than once in a year time frame. While the vast majority financed these installments through debit, bank accounts, or prepaid cards, 10 percent of BNPL users rolled over their credit by paying with a credit card; this debt accumulation is a major area of concern for regulatory agencies such as the CFPB.

### WHY CONSUMERS AND MERCHANTS LIKE BNPL

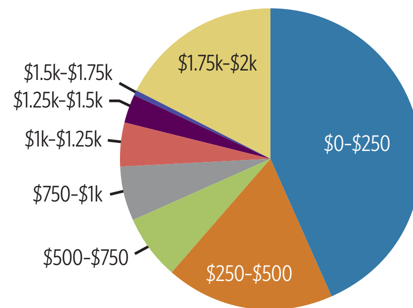
Consumers value this type of credit for a number of reasons. Terri Bradford, an advanced payments specialist at the Kansas City Fed, studied dominant consumer attitudes toward BNPL along with Alcazar in a 2021 Payments System Research Briefing. They noted that a consumer's ability to use traditional credit requires a hard credit score pull, while BNPL requires only a soft credit pull, which limits verification to factors such as credit history, age, and salary and does not impact credit scores. As a result, consumers can be approved for a BNPL loan within seconds and granted immediate possession of a service or good. "BNPL exists as an alternative to a credit card without the steps and requirements," says Bradford.

BNPL also boasts less harsh lending terms that are especially attractive to financially fragile consumers, consumers who are wary of the high interest rates attached to credit cards, and those who may simply lack access to traditional credit. Most BNPL services lend with zero interest

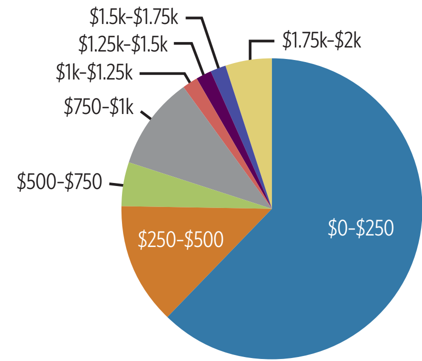
and impose minimal late fees on consumers who miss installments. According to the CFPB, the average late fee was $7 on an average loan size of $135 across major BNPL providers. Unlike with credit cards, occasional missed and late payments typically don't appear in credit histories, a comforting fact to those with poor credit experiences.

By providing a borrowing alternative to traditional credit cards, BNPL has increased financial inclusion for financially fragile consumers. The New York Fed found in its October 2023 SCE Survey that financially fragile consumers were more likely than financially stable users to state that BNPL allowed them to make a purchase they wouldn't have been able to afford otherwise. Additionally, financially fragile users showed a high probability of having a smaller average loan size of $250 or less, suggesting that they use it similarly to a credit card in making small to medium-sized purchases they can smooth over a time frame instead of paying all at the end of the month. (See chart.)

**Share of BNPL Purchases by Price — Financially Stable Consumers**




**Share of BNPL Purchases by Price — Financially Fragile Consumers**




NOTE: "Financially Fragile" includes purchasers who have a credit score below 620, were declined for a credit application in the past year, or have fallen 30 or more days delinquent on a loan in the past year. "Financially Stable" refers to all other purchasers.

SOURCES: SCE Credit Access Survey; Aidala, Felix, Daniel Mangrum, and Wilbert van der Klaauw, "How and Why Do Consumers Use 'Buy Now, Pay Later'?" Federal Reserve Bank of New York Liberty Street Economics, Feb. 14, 2024.

In terms of overall demographics, BNPL appears to be offered more frequently to female and younger consumers. BNPL usage tends to decrease with income and tends to be higher among women than men. The New York Fed did not find significant variation in BNPL usage based on age.

Smrithi Tirumalapudi, a rising senior at UNC Chapel Hill, says she appreciates the flexibility of BNPL options.

"I work a student job with extremely variable hours and have an idea of my minimum paycheck each period," she says. "When thinking about concerts or other experiences, it makes more sense for me to split that payment over four months. I'm grateful that I can spend this on entertainment. I do know students who have used BNPL for items they need, like refrigerators, but they aren't making enough in one or two paychecks to cover it."

On the merchants' end, they face many incentives to adopt BNPL as a payment option for customers. Through BNPL, merchants can reach a broader audience and expand their profit margins. According to a 2021 *Payments Journal* article, though consumers spread out their payments, merchants are still paid shortly after the purchase of a product. Affirm and Klarna reported an 85 percent increase in average order value, as well as a 20 percent repeat purchase rate in 2021.

"I would normally pay $20 for one shirt at J.Crew, but with BNPL, I can spend $20 over several weeks for three shirts — BNPL leads to larger purchases and lower cart abandonment," says Alcazar.

Tobias Berg of Frankfurt University and other economists studied these benefits through randomized controlled trials, comparing BNPL to alternative point-of-sale payment options. They discovered that merchants increased their sales by 20 percent when offering BNPL as opposed to PayPal. They also found that providing BNPL to customers with lower creditworthiness had a greater effect on sales than when it was provided to customers with higher creditworthiness. Not only does BNPL increase the quantity of a firm's products demanded by existing customers, but it also opens their offerings to entirely new customers who were not previously in their target demographic.

### RISKS OF CONSUMER HARM

Just like all other forms of credit, BNPL is not without risk. In 2021, the CFPB highlighted three major areas of consumer harm: inconsistent consumer protections, data harvesting and monetization, and debt accumulation and overextension. Since then, CFPB has sought to address some of these issues, with an interpretive ruling in May formally classifying BNPL services as credit card issuers and expanding regulation.

Minimal dispute resolution rights seemed to be the most pressing of the inconsistent consumer protections. Due to the lack of standardization in this sphere, when consumers returned or disputed a purchase, they used to have to pay remaining installments while resolution was pending. This wasn't a rare occurrence: In 2021 alone, buyers disputed or returned $1.8 billion in BNPL transactions, according to the CFPB. More than 13 percent of BNPL transactions involved a return or dispute.

Alcazar elaborates on the J.Crew example, illustrating the drawback of BNPL: "Traditionally, when returning a product, you get credit back from J.Crew within seven business days — with BNPL, there's a disconnect, as you return that shirt to J.Crew, but the credit is coming from another firm instead."

Due to the CFPB ruling, BNPL providers are now required to investigate disputes initiated by customers and pause payment requirements during the dispute process. Some

other changes include a requirement to refund canceled services, credit the refunds to consumers' accounts, and provide periodic billing statements like the ones received for traditional credit card accounts.

Other risks, such as data harvesting and monetization, remain potential future problems. BNPL providers are shifting their business strategies toward proprietary app usage — building and streamlining a digital profile of individual users' shopping preferences and behaviors. Potential harvesting and selling of this data could lead to major consequences to consumer privacy as well as market power consolidation, concentrating consumer data in the largest BNPL companies.

As a credit model, BNPL rests largely on encouraging consumers to spend and borrow more. While this can be beneficial for merchants, it spells possible risks for BNPL users, many of whom take out multiple loans in a short time frame, a behavior known as loan stacking. Researchers at Harvard Business School studied the effect of BNPL on consumer spending. They found that first-time BNPL use was associated with total spending increases of around $130 and remained elevated over a 24-week period following that first use. In terms of spillover effects, the researchers reported that BNPL use was associated with an increased likelihood of dipping into savings and incurring overdraft, nonsufficient funds, and other late fees. Due to these risks, the CFPB remains concerned with how BNPL providers' strategies center on increased consumer borrowing as overextension of loans can lead to long-term and different chains of debt that are difficult to pay back.

For researchers, both the regulatory issues associated with BNPL and the higher spending it tends to promote are of heightened concern. BNPL offers and usage tend to be heavily concentrated among vulnerable consumers with high rates of loan delinquency, high borrowing, and lower credit scores. The New York Fed found through its June 2023 SCE survey periods that those with lower credit scores are offered BNPL at a higher frequency than those with higher credit scores. In addition, BNPL users are less likely to rely on savings during economic crises: Only 42 percent of BNPL users reported that they would rely on savings when faced with a financial shock compared with 68 percent of all respondents. When the New York Fed examined this further in its October 2023 survey, it found that the financially fragile (those with a credit score below 620, who were declined for a credit application within the past year, or who recently fell delinquent on a loan) are almost three times more likely to have repeated BNPL use (five or more times) than financially stable consumers.

## QUESTIONS OF REPORTING AND SCORING

The recent changes in regulation that categorize BNPL loans as credit loans are seen by some, like Alcazar and Bradford, as a win for consumers, but they believe there is still a major gap: lack of consistent reporting to credit bureaus. Though the three major credit bureaus — TransUnion, Equifax, and Experian — plan to include BNPL loans on credit reports, there are some potential complications regarding calculations of BNPL debts.

According to Alcazar and Bradford, BNPL companies, although now recognized as credit card providers, still aren't required to offer standardized data to the major credit bureaus. Credit bureaus struggle to accurately incorporate these data into their scoring models as calculations are primarily based on monthly paychecks and credit cycles, and BNPL breaks this equation through its atypical payment cycle. Moreover, BNPL providers offer varying levels of data, making it more difficult to incorporate into traditional credit scores. Instead, credit bureaus are choosing to generate alternative BNPL credit scores, which will soon be included on credit reports and can be requested by lenders. In terms of next steps, industry leaders hope that BNPL usage can eventually be incorporated into traditional scoring models without excessively hurting consumers' credit scores. The Financial Technology Association, which includes members such as Klarna and PayPal, has said it supports efforts to modernize scoring models, expressing hope that more transparent and streamlined BNPL data reporting will allow prompt BNPL repayment data to enhance users' credit scores.

Without proper reporting and scoring, there could be a lurking debt problem where both BNPL lenders and other credit institutions are unaware of a borrower's current liabilities, according to the New York Fed. As BNPL continues to grow and branch out to different industries, moving beyond online apparel and cosmetics to everyday necessities such as groceries (with the CFPB noting a more than fourfold increase in these purchases from 2020 to 2021), Bradford believes its usage is becoming more important to monitor. Nonetheless, BNPL remains an attractive option to consumers and additional companies are entering the market, as evident with Apple's recent BNPL ventures and Cash App's acquisition of Afterpay.

Bradford suggests, "BNPL is not going anywhere. It's sort of a hybrid of layaway and credit cards — a model that has existed for a while but morphed over time. We're also seeing credit card providers adapt and gravitate toward it. BNPL may not look the exact same in the future, but fundamentally the model will still be there." **EF**

## READINGS


Aidala, Felix, Daniel Mangrum, and Wilbert van der Klaauw. "Who Uses 'Buy Now, Pay Later'?" Federal Reserve Bank of New York Liberty Street Economics, Sept. 26, 2023.

Alcazar, Julian, and Terri Bradford. "The Appeal and Proliferation of Buy Now, Pay Later: Consumer and Merchant Perspectives." Federal Reserve Bank of Kansas City Payments System Research Briefing, Nov. 10, 2021.

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Paul, Trina. "BNPL Loans Will Soon Be on Your Credit Report: Here's What You Need to Know." CNBC Select, May 6, 2024.

BY SAM LOUIS TAYLOR

# Stability for Stablecoins?

Cryptocurrencies have come a long way: From an academic idea in the 1980s to the birth of bitcoin in 2009 to their current state as a multi-trillion-dollar tradable asset class, they have become a major part of the financial system and, increasingly, an important policy issue. State and federal governments have sought to understand the risks and benefits of these often volatile assets, resulting in a patchwork of regulatory structures. One important type of cryptocurrency for which regulation has been contentious is stablecoins, whose value is pegged to an existing asset, often the dollar.

In 2021, the Treasury Department studied stablecoins and recommended that Congress act to head off concerns over systemic risk to the financial system as well as their use in enabling illicit activities. Over the last two years, there has been an effort within Congress to provide a regulatory structure for stablecoins. The House Financial Services Committee has been the most active body in these efforts. While the legislative situation is uncertain, these efforts may result in a deal before the end of the year. This complex negotiation involves a range of issues related to financial regulation, but the primary sticking points revolve around the role the Fed would take in this new oversight structure.

After beginning talks in 2022, leaders on the House Financial Services Committee staked out public legislative positions in 2023. Ranking Member Maxine Waters, D-Calif., published draft legislation in May of that year. Chair Patrick McHenry, R-N.C., was able to pass a bill through the committee in July, HR 4766, the Clarity for Payment Stablecoins Act of 2023, in a public statement of Republican priorities. That bill passed with the support of all committee Republicans and five out of 23 Democrats, with Waters in notable opposition.

McHenry's bill would largely place stablecoin oversight into the existing dual state-federal bank regulatory framework. Banks that issue stablecoins would continue to be overseen by their normal regulators, while nonbank entities would be split between the Office of the Comptroller of the Currency or the Fed depending on whether they are considered national trust banks or not, respectively. State-chartered entities would continue to be supervised by their current state regulatory agency, unless a state regulator chooses to cede its authority to federal authorities; the Fed would serve in a backup role in "exigent circumstances," the definition of which would be finalized by the Fed after passage.

The bill proposed by Waters, however, would give the Fed a larger role in regulating stablecoin issuers. Under her proposal, the Fed would have primary oversight over all federally licensed nonbank entities as well as state entities. State regulators would have a secondary role. This would be a change from the current system in which state regulators generally take the primary responsibility for supervising state-chartered institutions. Centering oversight at the Fed would, Waters argued, empower the central bank to continue its role overseeing the nation's money supply.

The question of regulatory structure is by no means the only issue in contention. Negotiations must also tackle how current banking laws and regulations, like the Bank Secrecy Act, will apply to stablecoin issuers; the types of reserves that entities must maintain to be able to issue stablecoins; and whether regulations will apply to coins issued on both public and private ledgers. Industry advocates, however, believe that the question of who will be the primary regulator is the stickiest one and could be the biggest obstacle to an agreement.

In September, Waters called for a "grand bargain" before the end of the year and, as reported by Axios, has floated a new deal to McHenry with support from the Biden administration. McHenry, who is retiring at the end of this year, has expressed his interest in addressing this issue before leaving Congress.

Even if a stablecoin deal is pushed into 2025, some in the crypto industry are optimistic about the legislative landscape. "We now have the most crypto-friendly Congress and administration coming into Washington that we've ever had," Cody Carbone, president of the Digital Chamber, told *Politico* in November. The Digital Chamber is a Washington, D.C.-based industry group that advocates for digital assets and blockchain-based technologies. Carbone speculated that "by Q2 2025, we have a stablecoin bill on [President] Trump's desk." **EF**

**OUR RELATED RESEARCH**

"How Stable Are Stablecoins?" Speaking of the Economy, Oct. 12, 2022.

"Why Stablecoins Fail: An Economist's Post-Mortem on Terra," *Economic Brief*, July 2022

"A Historical Perspective on Digital Currencies," *Economic Brief*, June 2022

"Fed Eyes Central Bank Digital Currency," *Econ Focus*, Second Quarter 2022

BY TIM SABLIK

Warsaw, Va., used grant funding from the Virginia Department of Housing and Community Development and others to transform its downtown and attract a dozen new businesses.

# The Philanthropy Gap in Rural America

## Philanthropic giving can make a big difference in small towns, if both sides can find each other

Warsaw, Va., is well positioned to welcome visitors to Virginia's Northern Neck, the northernmost of three peninsulas jutting out into the Chesapeake Bay. Travelers from Richmond and parts farther west enter the peninsula via a bridge over the Rappahannock River and quickly find themselves in Warsaw's downtown, where they are greeted by colorful storefronts and charming brick sidewalks. But just a few years ago, they would have seen something very different: abandoned buildings, cracked sidewalks that dated back to the Great Depression, and streets that regularly flooded due to poor stormwater drainage. Most would have elected to continue driving.

"Downtown Warsaw wasn't any sort of destination," says Joseph Quesenberry, Warsaw's town manager. When he took the job in 2016, the town council had already drawn up a plan to revitalize the downtown, both to improve the quality of life for residents and to capitalize on the flow of tourists to the Northern Neck.

"Perception is reality," says Quesenberry. "If you drive through a town with broken sidewalks and boarded up shops, who is going to want to live there? What business is going to invest in that place?"

For a town of less than 2,000 people, however, funding such an ambitious reconstruction purely with local tax revenue would be impossible. They needed help.

IMAGE: COURTESY OF THE TOWN OF WARSAW, VA

## UNMET NEEDS

The transformation of the United States from a largely agrarian society to a mostly suburban and urban one over the course of the 20th century is a well-known story. Today, roughly eight out of every 10 Americans live in or around a city. But despite a lower share of people, rural areas account for a disproportionate share of economic need. According to a 2023 report from the Economic Research Service of the U.S. Department of Agriculture (USDA), the United States had 318 persistently poor counties in 2021, meaning they had poverty rates equal to or greater than 20 percent for three decades or more. Nearly 85 percent of those counties were not in metropolitan areas. Another study by FSG, a global nonprofit consulting firm, found that 91 of the 100 most disadvantaged communities in the country are rural.

This concentration of need might be expected to draw the attention of philanthropic organizations. But the movement of people, business, and wealth into cities in the early part of the 20th century has also resulted in American philanthropy becoming increasingly urbanized.

"Philanthropy is a byproduct of wealth accumulation," says Andrew Crosson, CEO of Invest Appalachia, a nonprofit that provides funding and technical assistance to communities in Central Appalachia. "So, inevitably what you see is that the wealthiest places in the country have the most philanthropy."

National philanthropies headquartered in cities have tended to focus their attention on the needs immediately around them. Data on philanthropic giving are scarce, but a 2015 study by John Pender at the USDA's Economic Research Service found that rural places received only about 6 percent to 7 percent of the value of total grants from large philanthropic organizations between 2005 and 2010. This is despite the fact that they account for about 20 percent of the population (or around 25 percent in the case of the Richmond Fed's district). Andrew Dumont, a lead community development analyst at the Federal Reserve's Board of Governors, is working with researchers at USDA Rural Development to update those figures. He says the picture hasn't improved over the last decade.

"Based on our findings, I think it would be fair to say that 7 percent is probably a generous estimate of the share of philanthropy that's landing in rural communities," says Dumont. "Our preliminary research indicates that it's closer to 3 percent."

In the face of insufficient funding from private philanthropy, some rural towns have turned to the public sector. The federal government has a long history of funding nationwide rural development initiatives. For example, the Rural Electrification Administration was created in the 1930s to help oversee and finance the extension of the electrical grid to rural homes and farms. (See "Electrifying Rural America," *Econ Focus*, First Quarter 2020.) According to a 2020 report by Anthony Pipa, a senior fellow at the Brookings Institution and head of the Reimagining Rural Policy initiative, and Natalie Geismar, then of Brookings, there are more than 400 federal programs for economic and community development open to rural localities.

On the surface, this would seem to suggest a healthy level of public support. But these programs are overseen by dozens of different departments and agencies, resulting in a dizzying maze that is difficult for resource-strapped rural communities to navigate. Additionally, most of these programs are not limited to rural participants, meaning that rural applicants must compete against more densely populated urban communities. The criteria for many federal grants often favor communities with greater population density, and many programs require matching funds that may be a struggle for resource-constrained rural towns to raise.

Of the programs aimed exclusively at rural places, Pipa and Geismar found that loans outnumbered grants by a ratio of nearly 15-to-1. Large-scale projects often require multiple funding sources to complete, and grants or subsidies that don't need to be repaid are a key component for jump-starting development projects in economically distressed communities.

"Rural communities are often places where traditional market structures don't work as well," says Pipa. "Public funds and private philanthropic funds play a more important catalytic role in rural places than they might elsewhere."

Thus, in addition to being a source of funds in its own right, philanthropy can be a crucial source of the matching funds that are required by many federal grant programs. Philanthropic organizations can also provide the technical expertise and connections to help rural communities navigate the web of federal programs and complete applications. Given these opportunities, what explains the lack of philanthropic focus outside of cities?

## LACK OF CAPACITY

One of the biggest challenges rural communities face when it comes to obtaining outside financing for development projects is a lack of capacity. Few small towns have a large, dedicated staff with expertise in identifying potential funding partners and filling out lengthy grant and loan applications. It's common for rural community leaders to wear many hats. The part-time town mayor might also run a small business during the week and coach little league in the evenings and on the weekends.

"We have an administrative office of three or four people trying to handle grant writing while also running the town," says Warsaw's Quesenberry.

Headwaters Economics, a nonprofit research group focused on community development and land management, developed a rural capacity map to identify places with limited local government staff and expertise, institutional capacity, economic opportunity, and education and engagement. They found that large portions of the country, particularly rural areas, are capacity constrained. According to their most recent data from March 2024, a little more than half of the communities in the Southeast have low capacity. For such communities, grants and loans with lengthy applications and meticulous reporting requirements are effectively out of reach.

"There are some grants that I will never apply for again because they've just been so difficult to work with," says Quesenberry.

Communities that lack the capacity to apply for philanthropic grants or loans can become functionally invisible to those organizations. In a 2021 *Stanford Social Innovation*

*Review* article, Robert Atkins, Sarah Allred, and Daniel Hart of Rutgers University-Camden examined data from the New Jersey Health Initiative, a statewide grantmaking program of the Robert Wood Johnson Foundation, a leading national philanthropy focused on health equity. The New Jersey Health Initiative received applications for $34 million in grants between 2015 and 2018 and distributed more than $10 million in funding. Atkins, Allred, and Hart assigned the population of New Jersey to one of three groups. Those in the "visible, funded" group lived in areas that successfully applied for grants, while those in the "visible, unfunded" group lived in areas that applied but didn't receive funding. Lastly, the "invisible" group lived in areas that did not apply for grants. The authors found that this last group was most concentrated in economically disadvantaged, low-capacity rural communities in the state. What emerges, then, is a negative feedback loop in which rural places with the greatest need are subject to chronic underinvestment.

"There's a mindset among funders that capacity is low in rural places and the balance sheets are too small, but that's because rural communities are getting fewer resources," says Jen Giovannitti, president of the Claude Worthington Benedum Foundation, a regional philanthropic organization focused on West Virginia and Southwestern Pennsylvania.

Even for philanthropic organizations that see a need in rural places and want to respond, the lack of capacity makes providing such support more difficult. According to a 2021 report from the American Enterprise Institute, a conservative public policy think tank, "Philanthropies typically are not designed to coordinate community activities themselves." National foundations rely on the local institutions and nonprofits in communities to help direct the funds to the areas of greatest need. But in sparsely populated rural areas, those local partners may not exist, or they may be hard to find because they don't look like their urban counterparts.

Some national philanthropies are working to help fill these gaps. For example, the Benedum Foundation has provided ongoing funding to the West Virginia Community Development Hub, which was formed in 2009 to provide technical assistance, coaching, and other resources to help rural communities in West Virginia realize their development projects.

"Benedum has become known for investments in capacity building," says Giovannitti. "It's not the kind of work that most foundations find too exciting, but when you have communities that have been resource-starved for decades, you need to build capacity back up to be in a position of strength to apply for things like larger federal grants. We now have many high-achieving nonprofits in the state that have been able to grow their staff, expand their work, and draw in large federal funding. Having a philanthropic partner to help with initial capacity building is critical for achieving that success."

That said, large philanthropic organizations can face capacity constraints themselves. Reaching out to remote communities and building partnerships with local leaders, or even helping to develop that local infrastructure in the first place, all takes finite time and resources.

"There's a limit on how many communities an organization can visit, how many relationships they can develop," Dumont says. "If a grantmaker has to drive five hours to a community with 30 people to make one grant of $15,000, how many times can you do that before you run out of time and staff bandwidth?"

"There's a bias toward large population centers," agrees Invest Appalachia's Crosson. "If you want to impact the most people with a single program, you can go to one metropolitan area and reach millions of people. To reach that many people in central Appalachia, you've got to cover a lot of miles."

### COMMITTING TO A COMMUNITY

Another reason that national nonprofits might be reluctant to invest in rural places is that researchers in recent decades have questioned the effectiveness of place-based development policies. Economists studying initiatives such as enterprise zones, which offer tax incentives to attract employers to designated areas, have found mixed results. Attempting to revive a region's economy by attracting businesses may benefit one community at the expense of another, induce a race to the bottom as towns compete to offer more generous incentives to employers, and generate limited benefits to residents if most of the well-paying new jobs go to workers who move in with the employer.

Still, there are compelling reasons to invest in places. In a February 2024 *Economic Brief*, Richmond Fed Senior Economist and Policy Advisor Santiago Pinto noted that many households have ties to their community and may be unable or unwilling to move when economic conditions deteriorate. Place-based philanthropists engaged with rural communities today argue that their strong ties to place should be viewed as an asset rather than a liability.

"Appalachia is a region where people are strongly rooted to place, which gives them a commitment to the communities where they live," says Crosson.

While past place-based interventions often focused on reviving the local economy by attracting new businesses, today's community developers are taking a more holistic approach. They are interested in strengthening a community's amenities and institutions to make it a more attractive destination for visitors, residents, and businesses rather than focusing only on incentives to employers. (See "Investing in the Great Outdoors," *Econ Focus*, First/Second Quarter 2024.)

"Replacing jobs in a dying coal industry with jobs in a factory is the easiest way to get the same scale of economic development, but we don't see it as durable and we don't see it as necessarily advancing long-term community wealth building," says Crosson. "Our approach is much more focused on slow, steady, bottom-up community-based economic development."

This is another reason some philanthropic organizations may be reluctant to invest heavily in rural places: Reviving a community from the bottom up takes time. Community development practitioners who have called for greater philanthropic engagement in rural places often highlight the need for "patient capital" — a willingness on the part of funders to invest in an area over decades rather than years.

"Patient capital has to be a part of rural development because when you have places where resources have been diminishing for years, the way you overcome that is by

having partners who provide very reliable, year-over-year investment," says Benedum's Giovannitti.

She cites the example of the Center for Rural Health Development, a nonprofit that works to improve the health of rural residents in West Virginia. Some of the center's initiatives include expanding access to health care services, strengthening the rural health infrastructure, and recruiting and retaining health care providers, which is a long-standing challenge in rural places. (See "The Rural Nursing Shortage," *Econ Focus*, First Quarter 2022.) The center celebrated its 30th anniversary this year, and Benedum has been a funding partner for nearly that whole time.

"They have scaled their work and achieved really incredible outcomes over the last 30 years," says Giovannitti. "But you need to have somebody who can continually be there for you as you scale and grow, build your staff, and advance your mission."

Using donations from Benedum and others, the Center for Rural Health Development administers programs like the West Virginia Immunization Network, which works with more than 400 members to improve immunization rates across the state, and the West Virginia Rural Health Infrastructure Loan Fund, which makes competitive loans to health care providers in the state. Recipients include Charity Woods, a nurse practitioner in Sutton, W.Va., who used the loan to open Hometown Health Care in Braxton County. (See cover photograph.) For many patients, her practice is the only local option for health services.

In addition to helping address health needs, philanthropies like Benedum provide support to food banks in rural and urban places. (See "Food Banks: Lifelines to Those in Need," *Econ Focus*, Third Quarter 2024.) The Robert Wood Johnson Foundation has invested heavily in addressing rural housing needs. It made a $4 million loan to the Federation of Appalachian Housing Enterprises to fund low-interest second mortgages enabling low-income homebuyers in the Appalachian region to make down payments. And philanthropic organizations provide nonfinancial support to rural communities as well. Sharing connections with other national nonprofits or federal agencies, which are often headquartered in distant cities, can help rural leaders find the right development partners. Philanthropic organizations can also share knowledge and expertise on how to navigate and apply for various grants and loans.

The Richmond Fed has partnered with Invest Appalachia to offer the Community Investment Training program to rural leaders. Participants develop and pitch a project proposal and gain valuable feedback, as well as a $2,000 grant to help get them started. Richmond Fed staff do not participate in the fundraising for grants or the selection of grantees and participants but do assist in the training. (See "Collaborating to Improve Rural Access to Capital," *Econ Focus*, First/Second Quarter 2024.)

**COMING TOGETHER**

After formulating a plan with the help of a $35,000 grant, Warsaw applied for and received a $1 million grant from the Virginia Department of Housing and Community Development to redevelop its downtown and improve stormwater management. With the help of local business owners, the town completely transformed the facades of the buildings along its main thoroughfare and attracted a dozen new businesses even in the midst of the COVID-19 pandemic. It also acquired and demolished an abandoned shopping center, replacing it with a stormwater pond to mitigate street flooding. The pond sits at the entrance of a woodland park with walking trails that wind past more than 100 tree carvings created by a local artist.

"It took a lot of organizations, a lot of partners, a lot of blood, sweat, and tears, but we're really happy with the results," says Quesenberry. "We now have a downtown with no vacancies, our revenues are way up, and so are our tourism and visitation numbers."

During Quesenberry's eight-year tenure as town manager, Warsaw has averaged $1 million in grant funding each year. The town's current project is to rehabilitate homes throughout the community. In keeping with a holistic approach to place-based development, Quesenberry says that while the downtown revitalization was more focused on businesses, he and the town council didn't want to lose sight of the needs of residents as well. The initial funds for that project also come from a Department of Housing and Community Development grant. Although the town has worked with a mix of federal, state, and philanthropic partners, Quesenberry says that most of the grants it has received over the last eight years have been from state agencies.

"With state programs, you're typically competing with fewer applicants, and there is a larger designated pool of funds," he says.

His advice for philanthropic organizations that want to do more to help rural towns is to get on the ground and start building relationships.

"Start at the town office," he says. "Ask them: What are the day-to-day needs in the locality? How can I help?" **EF**

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BY LINDSAY LI

# Immigration and Labor Market Outcomes

**Parag Mahajan, Nicolas Morales, Kevin Shih, Mingyu Chen, and Agostina Brinatti. "The Impact of Immigration on Firms and Workers: Insights from the H-1B Lottery." Federal Reserve Bank of Richmond Working Paper No. 24-04, April 2024.**

Immigration policy is a contentious issue. Some fear that an influx of immigrants will "crowd out" natives in the labor market — that is, displace native workers by competing for the same jobs — while others claim that immigrants increase productivity by contributing new skill sets that supplement the skills of natives.

Isolating the consequences of immigration on both firm-level and individual-level outcomes is challenging, however, due to confounding factors. For instance, suppose a firm that hires foreign-born workers sees a boom in production. It's difficult to ascertain if high-skill immigrants directly caused this development or if characteristics of firms likely to attract foreign-born workers (such as larger sizes and higher productivity) made the difference.

A recent working paper by Nicolas Morales of the Richmond Fed and co-authors Parag Mahajan, Kevin Shih, Mingyu Chen, and Agostina Brinatti sought to disentangle this dynamic by using the H-1B visa program as a source of random variation in immigrant inflow. High-skilled, college-educated immigrants come to the United States primarily through this visa. Employers select and sponsor immigrants, applying for the visa on their behalf. There's an annual cap on the number of H-1B visas issued, and in 2007, for the first time since the program's inception, all regular cap applications for H-1B workers went through a lottery to determine acceptance because of high demand.

The researchers exploited this unexpected lottery as a random shock to a firm's ability to hire new immigrants. In other words, because the acceptance or rejection of a firm's 2007 H-1B application was random, the addition or non-addition of an immigrant worker is plausibly unrelated to any firm-specific characteristics that might act as confounding factors. Thus, the authors created a dataset consisting of all firms that submitted at least one application for an H-1B visa in 2007. For these firms, they obtained administrative data from the Census Bureau on measures like revenue and employment, as well as information on wages, workers' country of birth, and career trajectories of workers employed at such firms.

**Among high-paying, high-productivity firms, lottery winners hire more college-educated natives.**

With the key measure of lottery "win rate" — the fraction of a firm's applications that were successful — they ran an event study analysis. This type of research methodology explores changes in outcome variables, such as firm revenue, before and after a specific event — in this case, the H-1B lottery. Of primary interest was any differences in outcomes between firms that "win" the lottery and firms that "lose" the lottery. Importantly, the authors found that firms with more lottery success were not trending differently than firms with less lottery success before the event; thus, any differences after the event can be attributed directly to getting H-1B workers through the lottery.

At the firm level, the researchers found that lottery winners on average experienced higher employment growth, higher survival probability, and expansions in revenues and payroll. Which firms respond the most to lottery luck? For small firms, defined as firms with fewer than 10 employees, the effect was greater than average; this might indicate that small firms are constrained in their ability to hire needed talent if they lose the lottery. For large firms, defined as firms with more than 100 employees, the effect was only marginal; this might indicate that such firms have additional channels and resources for acquiring the foreign talent they seek.

Notably for the policy debate, there was no evidence of a decline in either the native college workforce or the overall native workforce for lottery-winning firms. That is, H-1B immigrants don't seem to displace native workers. In fact, among high-paying, high-productivity firms, lottery winners hire *more* college-educated natives. The authors hypothesized that these firms might be constrained by not having appropriate talent to grow the firm; upon acquiring such talent through the H-1B program, they can expand in all types of employees.

Moreover, at the individual-worker level, most incumbents at winning firms benefited from an H-1B coworker: Both non-college graduates and young college-educated natives with low tenure at the firm experienced wage gains. This observation supports the notion that immigrants tend to bring skills that complement the skills of many native workers. As firms increase their employment of immigrants, demand for native workers who work in complementary tasks is also pushed up. In general, the presence of immigrants can promote specialization that reduces their direct competition with natives. The authors noted, however, that young (under age 40) college-educated natives with high tenure at the firm did experience lower wages. In the end, though, this population comprised only about 4 percent of the workers in the sample. **EF**

BY CHARLES GERENA

# Taking a Closer Look at Housing

Housing is an important consideration as the Federal Reserve promotes price stability and maximum sustainable employment. The Richmond Fed has spent the last year and a half closely studying this sector of the economy for that reason, with a particular focus on the small towns and rural communities of its region.

Regarding the price stability side of the Fed's dual mandate, "Housing services makes up nearly a fifth of consumer spending, excluding food and energy, and can play an outsized role in inflation," notes John O'Trakoun. "Also, housing can be a major component of a household's wealth, which also can affect their spending and demand, which in turn affects inflation." The senior policy economist is among the researchers at the Richmond Fed who has directed some of his research to looking at housing markets.

As for the employment side of the Fed's mandate, imbalances in housing market supply and demand can impede the flow of labor, both on the national level and within local economies. "During the pandemic, we've heard that the unavailability of housing is one of the constraints that employers face in trying to hire workers," says O'Trakoun.

Since then, housing availability and affordability has continued to be a concern among the employers that the Richmond Fed's staff have talked to. "Prior to a few years ago, the top challenge facing local communities was broadband," says Andy Bauer, vice president and regional executive at the Richmond Fed's Baltimore branch. Now, the top issue is housing. "Communities are worried about their ability to grow — with no housing they can't attract businesses — or to keep their young people or have places for workers. People have to move away and commute to their jobs."

Given the level and persistence of employers' concerns about housing, continues Bauer, "We decided to do some research, both on the data as well as by talking with groups and individuals in the housing space, including government agencies, economic development groups, nonprofits, homebuilders, and developers."

IMAGE: ADAMKAZ/GETTY IMAGES

The key takeaway of this fact-finding was that there's a shortage of housing everywhere, says Bauer, and if housing is being built, it is for a certain price point and above. "Because of higher costs, builders are more likely to focus on higher-margin homes, which is the higher-end segment of the market. Below that price point, there is a supply issue."

Federal housing subsidies are available to families that earn 80 percent of area median income (AMI) or less, but Bauer says that the subsidies don't meet the need. Furthermore, there is an acute shortage of entry-level starter homes that are affordable to those earning between 80 and 120 percent of AMI.

A lack of buildable land has contributed to the lack of supply and higher prices, according to the Richmond Fed's analysis and interviews with its contacts on the ground. In metropolitan areas, urban neighborhoods are mostly built out and infill development can be costly, while land-use regulations may limit the amount of space available for suburban development. In more rural, non-metro areas, geography and lack of water, sewer, and road infrastructure may make housing development cost prohibitive.

Rural areas and small towns have other obstacles to building new housing, according to Sierra Stoney, formerly a senior research analyst on the Richmond Fed's Regional and Community Analysis team. There may be a lack of local workers to build homes, local banks willing to finance their construction, and developers willing to build in the first place.

So, what can the Richmond Fed do about the supply problem that it has identified? "Interest rates are a blunt tool and can't be targeted toward the housing market in particular," notes O'Trakoun, though they can influence housing demand in the short run. Instead, what the Bank can do, says O'Trakoun, is "communicate how housing market issues are affecting the overall economy, and identify opportunities for improving the policy environment, which can inform policymakers and communities."

During the Richmond Fed's conversations with stakeholders, some ideas have surfaced to make more buildable land available. These include rezoning and making other regulatory changes to attract housing development, using land banks and other tools to deal with dilapidated and abandoned properties, and investing in infrastructure.

"NIMBYism is a hindrance in many communities," says Bauer. "There are groups, however, that treat housing as part of their economic development strategy in order to get community buy-in and build a broad cross section of stakeholders to support their efforts." **EF**

BY MATTHEW WELLS

# The Fed's Dollar Liquidity Swap Lines

## During the COVID-19 pandemic, the Fed loaned billions of dollars to central banks in desperate need of them

The World Health Organization declared COVID-19 a pandemic on March 11, 2020, and fear and uncertainty permeated daily life. The global economy was not immune from the panic. Dollars were quickly becoming scarce: Global trading of the currency ground to a halt, and since dollars were about the safest asset available, those who had them were not about to part with them. On top of that, a spike in demand by those seeking the safety of dollars led to a rapid increase in price. But the dollar was the world's dominant currency and medium of exchange. Without it, banks around the world wouldn't be able to lend, and buyers and sellers of goods and services wouldn't be able to conduct transactions, crippling the economy even further.

To stabilize currency markets and to prevent a worldwide economic meltdown, the Fed acted within days of the pandemic declaration, injecting billions of dollars into the global economy through what are known as dollar swap lines. Under these programs, overseas central banks temporarily swap their own currencies for dollars, which they then loan to banks in their jurisdictions. Those banks, in turn, can lend to businesses and households, extending credit, allowing bills to be paid, and keeping economies functioning. The currencies are then swapped back at a predetermined date.

Initially, on March 15, the Fed activated already-existing swap lines with the central banks of the European Union, Japan, England, Canada, and Switzerland, all of which were originally established during the global financial crisis (GFC) a decade earlier. The dollar had appreciated 7 percent against these currencies in just the week and a half following the March 11 pandemic declaration, but they weren't the only ones that would receive cash infusions from the Fed. Four days later, on March 19, the Fed opened lines with central banks of nine additional countries. The dollar had appreciated 12 percent against those countries' currencies over that same period.

The amount of money lent was substantial. The value of swap lines on the Fed's balance sheet went from nearly zero before the pandemic to $160 billion on March 19 and leveled off at nearly $450 billion by the end of April.

The central banks involved swapped back the dollars for their own currencies, and dollar liquidity returned to normal levels by that summer. How did the process come about so quickly, and how did the Fed achieve its stated goal of providing dollar liquidity as the lender of last resort? And finally, how did the Fed decide which central banks would receive assistance?

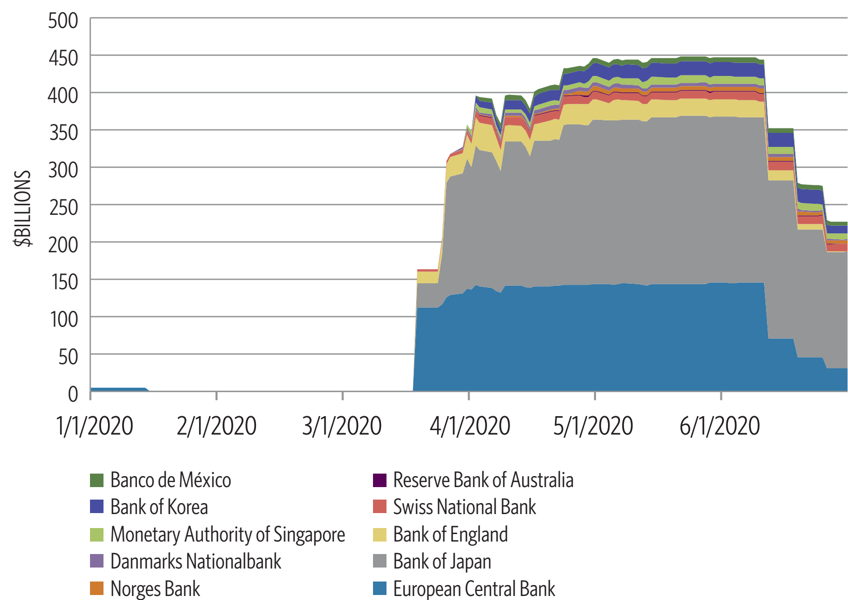
### YOU'VE COME A LONG WAY, DOLLAR

Money serves three complementary roles: a store of value, a unit of account, and a medium of exchange. In the 1980s, future Nobel laureate Paul Krugman argued that this reality fosters incentives for one currency to dominate global economic activity, and, during the post-World War II era, that currency has been the dollar. (See "Is Dollar Dominance in Doubt?" *Econ Focus*, Second Quarter 2022.) The dollar is the world's dominant reserve currency — as of 2022, dollar-denominated assets account for about 59 percent of foreign central bank and government reserves. Many other countries anchor their currency to the dollar, which gives them a stable exchange rate. Apart from continental Europe, which extensively uses the euro, most global trade is conducted in dollars; nearly $1 trillion in cash, about half of all U.S. banknotes in circulation, is overseas. Almost 90 percent of all foreign exchange transactions include the dollar as one of the currencies.

The path to dominance hasn't always been smooth. Following World War II, American dollars flowed into Europe, funding much of the continent's reconstruction. At the time, the dollar was backed by gold, but with so many dollars in circulation abroad, the United States could no longer guarantee it had enough gold reserves if holders of those dollars wanted to convert them into gold at the fixed rate of $35 per ounce. To keep the value of the dollar elevated and stable relative to gold, over the next two to three decades, the Fed would purchase foreign currency on open currency exchange markets to then purchase dollars. Efforts to defend the dollar's value would continue even after Richard Nixon abandoned the gold standard in favor of a floating exchange rate in 1971. The practice finally petered out in the mid-1990s, when questions over the legality and wisdom of the practice led most central banks in developed economies to abandon it.

The dollar's global dominance in past decades has meant that the Fed has had to act as the lender of last resort not just in crises in the United States, but also in those that spread or arise overseas. During the GFC and the eurozone debt crisis that followed, the Fed initiated bilateral dollar liquidity swap lines with several European central banks — the European Central Bank, and the

banks of Denmark, England, Sweden, Switzerland, and Norway — as well as those of Australia, Canada, Japan, South Korea, New Zealand, Brazil, Mexico, and Singapore. This was not the first time the Fed had used swap lines, but it marked a departure from the Fed's past rationale of intervening in exchange markets to influence a currency's value. Most of these lines were eventually closed as markets stabilized, although standing lines were left open with the central banks of Canada, the European Union, Switzerland, Japan, and England. These lines would come to play a crucial role a decade later during the pandemic.




NOTE: The central banks of Brazil, Canada, New Zealand, and Sweden also had dollar swap lines but did not use them.
SOURCES: Federal Reserve Bank of New York; Federal Reserve Bank of Dallas.

## A CONSEQUENCE OF DOLLAR DOMINANCE

The mechanics of the dollar swap lines are straightforward: Other countries' central banks swap their own currencies for an equivalent number of U.S. dollars from the Fed. At a predetermined date, the other central bank returns the dollars, plus interest, and the Fed then returns that currency to the other central bank at the original exchange rate. In between, these central banks lend those dollars to banks within their jurisdictions, who can then extend credit to individuals, businesses, and other banks as they see fit.

Swap lines act as a liquidity backstop when it is needed most during times of market stress. The sources of such stress can be traced to the dollar's unique role. During normal periods, central banks abroad needing to disperse dollars to banks and other financial institutions within their borders can purchase them through foreign exchange markets. Other participants in these markets include private banks and nonbank financial institutions such as money market funds, investment banks, and hedge funds based anywhere in the world. In times of economic stress, those holding dollars keep them, uncertain about the future value of any other asset; market participants holding other assets, including U.S. Treasurys, will also seek them out. As a result, during the pandemic, the swap basis spread, which is the premium these institutions pay for dollars on the foreign exchange market, widened dramatically. This was a key sign that conditions in the market were deteriorating.

While the supply of available dollars dried up quickly, businesses that operated in dollars still needed to invoice and pay for goods and services, and banks still needed to extend credit. The swap lines were a way for foreign banks to get access to dollars after markets shut down. This is much like domestic banks frequently turning to the Fed in times of stress and is "a natural consequence of the dominance of the dollar," says Ricardo Reis, an economist at the London School of Economics and a consultant in the Richmond Fed's research department. "Their absence was a hole in a global financial system where banks outside of the U.S. are using dollars very actively."

As the lender of last resort in a global economy that depended on dollars, the Fed moved quickly to open the swap lines. When, on March 15, it activated the existing lines with the five central banks that had the standing lines from a decade earlier, it lowered the interest rate it charged for the swap. The Federal Open Market Committee, or FOMC, the Fed body that sets monetary policy, made the decision in coordination with the other central banks involved. In announcing the action, it stressed that by shoring up financial markets overseas, it was also protecting the U.S. economy from deteriorating further: "The swap lines ... serve as an important liquidity backstop to ease strains in global funding markets, thereby helping to mitigate the effects of such strains on the supply of credit to households and businesses, both domestically and abroad."

These lines had no limit on the amount that the other central banks could swap, and the period of the swap was either one week or 84 days. On March 20, these central banks announced they would increase the frequency of these operations from weekly to daily, signaling to all who

needed dollars that they would not have to wait to get them.

To further enhance the system's liquidity, on March 19, the Fed reestablished temporary lines with the same nine countries that had such arrangements during the financial crisis. These banks, however, would have limits: Denmark, Norway, and New Zealand could swap up to $30 billion each, while the other six could swap up to $60 billion. Of the 14 countries with swap line arrangements with the Fed, Japan was the biggest user, swapping about $225 billion in currency. Four countries — Brazil, Canada, New Zealand, and Sweden — did not draw on their swap lines at all. (See chart.)

Most of the world's central banks did not have dollar swap line arrangements, but that did not mean they and other market actors in need of dollars were locked out of accessing them directly from the Fed. The Fed also created the Foreign and International Monetary Authorities (FIMA) Repo Facility on March 31. Instead of turning in their own currencies for dollars, central banks and other monetary authorities with accounts at the New York Fed, which provides dollar-denominated banking services to those clients, could temporarily exchange any U.S. Treasury securities they owned for dollars. The FIMA facility also ensured the ongoing smooth operations of the Treasury market by demonstrating to account holders that they could get dollars if they needed them without having to liquidate their Treasury holdings.

**WHAT RESTORED STABILITY?**

In an article from May 2020, New York Fed economists Nicola Cetorelli, Linda Goldberg, and Fabiola Ravazzolo examined whether these efforts alleviated the funding strains that arose during the early days of the COVID-19 outbreak. They found the key factor that reduced the foreign exchange swap basis spread (that is, kept the price of dollar funding from rising further) for currency pairs with standing swap lines was the announcement of daily one-week operations at swap central banks on March 20.

The announcement of daily operations, on top of the actions taken earlier that week, stopped the widening of the basis spread for countries with standing swap lines, and the researchers noted the spread started to narrow when the first settlements of daily one-week operations were completed. It appears that banks abroad, market makers, and other intermediaries needed certainty that they could access backstop dollars to lend, and that they wouldn't run out of dollars. Knowing the dollars were there in case of need alleviated those concerns and brought the premium back down to normal levels.

> **"You have to be extremely careful to ensure the central bank on the other side is willing and able to repay you all the time, so that liquidity does not become credit."**
> **— Ricardo Reis**

Ravazzolo and Goldberg also found in a December 2021 report that once funding became available through the swap lines, the dollar premium also quickly dropped in countries with temporary swap arrangements, and it later dropped for those with access to the FIMA facility but without access to the swap lines. Dallas Fed economists J. Scott Davis and Pon Sagnanert noted that when swap line activity peaked in early June, the spread had returned to prepandemic levels. Further, they noted the currencies with standing swap lines had stopped depreciating on March 19, and they regained in one week almost half of the value they had lost since the pandemic began. By early June, all swap line currencies were back at prepandemic exchange levels.

**WHO GETS A SWAP LINE?**

If swap lines brought stability back to the dollar markets of the countries that had them, why weren't they extended to every country? Reis suggests a driving factor in determining which countries received swap lines was the Fed's degree of confidence that the other side would be able to return the dollars at the operation's maturity. As a central bank, "you have to be extremely careful to ensure the central bank on the other side is willing and able to repay you all the time, so that liquidity does not become credit," he says.

This was a concern a decade earlier, as well, when the Fed activated the swap lines during the GFC. While there was no meaningful opposition on the FOMC to the idea of swap lines for the European and other western central banks, there was some concern about whether they should be extended to any emerging market economies. In the October 2008 FOMC meeting, Nathan Sheets, then-director of the Board's Division of International Finance, suggested Mexico, Brazil, Singapore, and South Korea deserved special consideration in view of their "global economic significance." Timothy Geithner, then-president of the New York Fed agreed, further pointing out that relative to the central banks of some European countries, "they actually have managed the countries' balance sheets better because they at least have a huge amount of their assets in dollars." There was still enough uncertainty, however, regarding their ability to repay the dollars at the end of the swap that the Fed insisted their agreements allow it to hold additional assets of those countries' central banks as collateral.

The committee acknowledged that by choosing some countries and excluding others, it was perhaps stigmatizing those that were left out. During the GFC, those countries most likely would have to seek assistance at the International Monetary Fund, which was establishing other lending facilities at the time. But Sheets

argued that rather than making judgments, the committee was only "ratifying perceptions [about the relative economic stability of countries], rather than creating new ones" — as they might have done if they included other emerging-market countries such as Chile, which was a specific example mentioned by several members.

This justification did not sway some who still maintained the Fed's swap line regime was unfair. Prior to the pandemic, for example, a governor of the Reserve Bank of India stated that its lack of access amounted to "virtual apartheid." Despite these sentiments, the Fed did not extend swap line operations where it didn't believe they were necessary. Former St. Louis Fed President James Bullard suggested that the FIMA Repo Facility was a "way to sidestep [the] issue" of which central banks received swap lines because any central bank or governmental monetary entity with an account could exchange Treasurys for dollars.

Even though the swap lines were restricted to a few key locations determined by the Fed, dollars still spread through the global dollar network. Once the swaps were settled and the dollars were in the hands of recipient central banks, it was up to them to look at the credit risk of all available counterparties and decide how to distribute those dollars in their jurisdictions. Importantly, however, one of those counterparties receiving dollars, such as a local bank, could be a branch of an international bank headquartered in a country that did not have swap lines or use the FIMA facility. After that local bank received the dollars from the central bank, they could then flow either to the bank's home country or anywhere else in the global financial system through either its own internal capital markets or through further lending to other banks in other dollar markets abroad.

## THE DOLLAR ISN'T GOING ANYWHERE… FOR NOW

After the flurry of central bank activity in the spring of 2020, dollar liquidity had returned to normal by early June. Since then, the swap lines have been quiet, aside from the spring of 2023, when Credit Suisse, a major international bank, collapsed in the wake of the failure of two U.S.-based banks, Silicon Valley Bank and Signature Bank. Whereas during the pandemic, banks were reluctant to lend because dollars were scarce, in this situation, banks were hesitant to lend because they were unsure about the credit profile and solvency of their counterparties. As was the case in the GFC and the pandemic, the central banks of Canada, England, Japan, Switzerland, and Europe worked with the Fed to restore confidence and dollar liquidity.

The dollar swap lines, while crucial to the global economy, are not the only ones. Currently, there are about 175 central bank swap lines active around the world linking various central banks to each other. There is a strong regional network in Europe involving both the euro and Swiss franc, and the Japanese yen is also widely distributed around the world. China alone has swap lines with 41 countries and a limit of over $550 billion. Perhaps as evidence of its long-term ambition to have the renminbi supplant the dollar as the world's dominant currency, many of the Chinese swap lines have been established to assist what it views as partner countries in need of assistance. Observers note, however, that while swap lines are important because they make a currency much more available than it would otherwise be, it will need other elements to fall into place, as it requires getting businesses to align their various costs and revenue sources in that currency, which itself is costly and takes time. In the meantime, the dollar remains the safest bet — and asset — available.

The Great Depression made it clear that financial crises do not remain isolated. The Bretton Woods regime was created with that awareness in mind, and its institutions — including the dominance of the dollar — were designed to allow the central banks of the world to manage those crises as they appeared. While the United States has benefitted from the dollar's position in that regime, the Fed, as its central bank, has also felt obligated to act as the lender of last resort to mitigate the potentially devastating effects that can accompany systemic market failures. **EF**

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BY TIM SABLIK

# When Uncle Sam Watched Rosie's Kids

## To support women working on the homefront in World War II, the U.S. government funded a temporary nationwide child care program

One of the most enduring images of the American homefront during World War II is a poster created by Pittsburgh artist J. Howard Miller in 1942 for Westinghouse Electric Corporation. It depicts a woman in a blue work shirt and red bandana flexing her arm and exclaiming, "We Can Do It!" Although the image was less well-known at the time than a similar painting by Norman Rockwell for the *Saturday Evening Post*, Miller's poster has since become the one most associated with the "Rosie the Riveter" campaign to encourage more women to enter the wartime workforce.

Once the United States entered the war in late 1941, the country needed to mobilize both the personnel and the materials to fight a war on two fronts. While American men reported to training camps and shipped off overseas, government officials called upon women to support the production of tanks, planes, ships, munitions, and other supplies at home. According to a 1953 report from the U.S. Department of Labor's Women's Bureau, nearly half of all single women were already in the workforce prior to the war. But the labor force participation rate for married women was much lower — around 15 percent. For policymakers hoping to ramp up war production, the report's authors observed, "Married women constituted the country's greatest labor reserve."

Many of these married women were also mothers, so bringing them into the workforce meant grappling with the issue of child care. During a 1943 hearing before the Senate Committee on Education and Labor, witnesses shared stories of children locked in cars or chained to trailers while mothers were at work. Factories reported an increase in absenteeism on Saturdays when schools were closed. Others expressed concerns about rising juvenile delinquency among school-age children left to their own devices after school and during the summer.

Children participate in story hour at a child care center in New Britain, Conn. The center opened in September 1942 for children ages 2 through 5 whose mothers engaged in the war effort.

IMAGE: LIBRARY OF CONGRESS, PRINTS & PHOTOGRAPHS DIVISION, FSA/OWI COLLECTION, LC-DIG-FSA-8D31617

Efforts to address these concerns would bump up against social norms opposed to working mothers as well as disagreements and infighting among federal agencies. The solution that eventually emerged was America's first, and to date only, nationwide, universal child care program.

### NORMS VERSUS NEEDS

Before the Industrial Revolution, most people worked at or near their homes, on farms or producing homemade goods to sell in local markets. In her acceptance lecture for the 2023 Nobel Prize in economics, Harvard University economist Claudia Goldin explained that this home-based economy allowed mothers, who have historically been responsible for most child rearing duties, to both work and watch after their children. Once the United States industrialized and work shifted from homes to factories, married women's participation in the labor

**Children of unemployed miners at the Jere WPA nursery in Scott's Run, W.Va. in 1937.**

IMAGE: NATIONAL ARCHIVES, PHOTO NO. 69-RP-103

force fell. According to Goldin, less than 10 percent of married women in the 1920s reported working outside of their home. Many in society strongly believed that the best place for young children was at home with their mothers. This convention was reinforced by firms through the adoption of "marriage bars" — policies to not hire married women and fire single women workers who got married.

Because so few mothers participated in the formal economy, there was little need to formulate a national child care plan. The United States' entry into World War I saw women drawn into the labor force in greater numbers, but most of these new entrants were young and unmarried. The Women's Committee, part of the Council of National Defense established by Congress in 1916 to coordinate production and other resources on the homefront in support of the war effort, discussed the need to care for children caught up in the disruptions of war. But any nurseries that were created to support wartime working mothers were funded and staffed locally.

Debates about child care for working mothers resurfaced with the outbreak of World War II. Anticipating that mothers might be called to support wartime production, the Children's Bureau (which was then part of the Department of Labor and today is part of the Department of Health and Human Services) convened a conference in Washington, D.C., on July 31, 1941. The event brought together federal, state, and local representatives to discuss how to support working mothers and their children during the war.

In attendance at that conference were representatives from the Work Projects Administration (WPA), one of the New Deal agencies established during the Great Depression. As part of its efforts to combat widespread unemployment, the WPA had dipped its toes into child care. Then called the Works Progress Administration, the WPA funded an emergency nursery program that consisted of nearly 1,500 schools by the end of the 1930s. This care wasn't universal. It was open only to young children (ages 2-4) of low-income and unemployed families. It also wasn't intended to boost female labor force participation by caring for the children of working moms. The primary goal of the program was to provide employment for teachers displaced by the Depression.

Despite the federal government's involvement in child care through this past experience, there was still significant resistance early in the war to expanding such services. When the Children's Bureau released its recommendations from the conference in February 1942, it noted that "the committee is unanimous in its belief that mothers of preschool children and especially of those under 2 years of age *should not be encouraged* to seek employment; children of these ages should in general be cared for by their mothers in their homes." (Emphasis in original.)

## A HISTORICAL ACCIDENT

Despite these reservations, the federal agencies overseeing the homefront would change their minds after the United States entered the war. The path to establishing a child care program, however, was far from straight. In 1940, Congress passed the National Defense Housing Act, known as the Lanham Act. The law was aimed at expediting the construction of housing in communities that might see a surge in population due to wartime production. In June 1941, a month before the Children's Bureau's conference, Congress amended the law to authorize support for "any facility necessary for carrying on community life substantially expanded by the national-defense program."

Such facilities included schools, utilities such as water and sewer, and hospitals. Child care wasn't mentioned. According to a 1994 *Polity* article by Susan Riley, then a Ph.D. candidate in political science at the University of California, Berkeley, Federal Works Agency (FWA) administrators held discussions with members of Congress and the White House throughout late 1941 and early 1942 about the possibility of using Lanham Act funds for child care. Finally, in August 1942, the House

Committee on Public Buildings and Grounds agreed that the FWA could use the funds for that purpose. This recognition took place "*without* official congressional debate, *without* passage of legislation specifically authorizing child care, and *without* appropriations of funds directly for that purpose," wrote Riley. (Emphasis in original.)

"So, the first large-scale attempt at universal preschool is kind of a historical accident," says Joseph Ferrie, an economic historian at Northwestern University. "It's the result of a deal, rather than anything actually written in legislation."

Around the same time, Congress and the president were taking other steps to meet child care needs. In July 1942, Congress appropriated $6 million to fund the WPA nurseries in wartime production areas. That same month, President Franklin Roosevelt allocated $400,000 from the Presidential Emergency fund to support states in expanding school programs to care for the children of working mothers. These measures were short-lived, however, and the Lanham Act would, after fits and starts, become the main source of funding for wartime child care.

The Lanham program's rollout was beset by infighting among agencies, with leaders of the Children's Bureau and the Office of Education vying to strip control from the FWA, arguing that they were better suited to overseeing a child care program. In early 1943, they worked with the Senate to introduce the War-Area Child Care Act, which would have reorganized the Lanham child care program under their control. The bill passed in the Senate but failed to be taken up in the House. President Roosevelt put an end to the infighting in August 1943, placing control of the program firmly in the FWA's hands. The prior month, Congress had also appropriated funds for the Lanham Act to be used for community facilities such as child care centers. The FWA's work could now truly begin.

## THE LANHAM CENTERS TAKE SHAPE

As war production ramped up and unemployment fell, Depression-era public works programs like the WPA were dissolved. As the parent agency of the WPA, the FWA managed to secure funding through the Lanham Act for 1,150 WPA nurseries by 1943. Florence Kerr, who had been an administrator for the WPA and later the FWA, said in a 1963 oral history recorded by the Smithsonian Institution that saving those nurseries was "one of the first things that we looked into."

The FWA also began distributing grants through the Lanham Act for the establishment of new centers. According to a 2017 article in the *Journal of Labor Economics* by Chris Herbst of Arizona State University, communities in "war impact areas" could apply for Lanham funds to build and maintain child care facilities, train and pay teachers, and cover operating expenses. War impact areas were those involved in the production of any goods essential to the war effort as well as agriculture. To qualify, communities had to demonstrate that they lacked the resources to meet the increased demand for child care on their own.

Initially, grants issued by the FWA were intended to cover 50 percent of costs, with the local community picking up the rest of the tab. In practice, however, federal subsidies ended up covering closer to two-thirds of the costs. Local funds largely consisted of fees raised from participating parents. The FWA capped such fees at 50 cents per child per day (equivalent to about $9 today), raising the cap to 75 cents in 1945 (about $13 in today's dollars). This money was mostly used to cover the cost of food served to children in the centers. Moreover, although mothers working in the war industry were the target beneficiaries, there's no indication that nonworking parents were excluded from using Lanham centers.

"While this program existed to enable mothers to contribute to the nation's war production effort, there was nothing in the legislation that explicitly required employment," says Herbst.

Lanham nurseries provided care for children from ages 2 to 5, while child care centers looked after school-age children before and after school and during the summer. Consistent with the Children's Bureau's recommendations, few if any Lanham facilities provided care for children under the age of 2, despite expressed demand from working mothers with young children. According to Herbst, it was typical for preschool children to spend 12 hours per day at the nurseries. When school was in session, older children might spend a few hours before and after school. The availability of care also varied according to local need. In communities with factories operating 24 hours per day, centers were open at night.

To get the program up and running quickly, FWA administrators rented and reused existing buildings and relied on schoolteachers for staff. Federal agencies created a training program for Lanham teachers and volunteers, and some cities partnered with local universities to create their own training. Federal guidelines recommended keeping classrooms small, with a 10:1 student-to-teacher ratio, and Herbst found that most centers followed this recommendation. Students were served lunch, a snack, and even dinner in cases where centers were open late. That said, quality varied, as the FWA left operations largely up to the discretion of local administrators. In his article, Herbst cited the example of a center in Baltimore that had 80 children in one room with one bathroom, and those children had to cross a highway to reach the playground.

Every state except New Mexico received funding for child care through the Lanham Act, as well as Hawaii and Alaska (which were not yet states) and Washington, D.C. According to the program's first report in August 1943, there were 1,726 centers operating with nearly 50,000 children

enrolled. The program reached its peak in July 1944, a month after Allied troops landed in Normandy, with 3,102 centers and just shy of 130,000 children enrolled. Nearly two-thirds of the children served by the program were preschool age. In its 1953 report, the Women's Bureau estimated that about 550,000 to 600,000 children received care from a Lanham center at some point during the war

## END OF THE WAR AND LASTING LEGACY

Did the Lanham centers bring more mothers into the wartime workforce? In his article, Herbst found that female employment increased more in areas that received Lanham grants compared to those that didn't. But in a recent National Bureau of Economic Research working paper with Goldin and Claudia Olivetti of Dartmouth College, Ferrie found that, in practice, the program didn't draw many new female workers into the labor force because most Lanham centers were established in places that already had high female labor force participation rates.

That said, Ferrie notes that policymakers didn't know when the war would end. Even after the Germans surrendered in 1945, war production and the Lanham program didn't slow down. There was still the Pacific theater to contend with. Ferrie cites his father as an example of this continued wartime mentality. He shipped off to the European theater in 1944 and, after the German surrender, returned to base in the United States to begin training for the invasion of Japan.

"It's at that point that policymakers realize that they have this program in place that's going to allow them to continue to draw even more women into the workforce, particularly women who hadn't yet left the home because they have young kids," says Ferrie.

That need never came, however, as the Japanese surrendered on Aug. 15, 1945, and World War II ended. After that, the FWA moved swiftly to unwind the Lanham child care program. The agency had reminded states at the beginning of the year that federal support for the centers was contingent on the war. If they wished to keep them open beyond that, states and localities would need to pick up the full tab. True to their word, just three days after the Japanese surrendered, FWA officials announced that federal funding for Lanham centers would end by October 1945 at the latest.

"The legislation was very clear about the funding for these child care programs. It was never meant to live a life after the war," says Herbst. "This was seen as a war expedient necessary to support women contributing to the nation's war effort. Once the war ended, the expectation was that these programs would go away, men would come back home and fill the jobs they had prior to the war, and women would resume their domestic responsibilities."

The rapid wind-down sparked a large outcry from Lanham communities, however. The FWA was flooded with letters and petitions from 26 states and Washington, D.C., urging officials to maintain funding at least until soldiers had returned home, as many mothers still needed to work to support their families. This outcry was loudest in California, which was home to several major war production facilities and which, as of August 1945, had nearly a quarter of all children enrolled in Lanham centers. FWA officials acquiesced to these demands and extended funding for the centers through February 1946. But despite the program's popularity, its fate was sealed. Members of Congress wanted to quickly return to normalcy after the war, and many feared a surge in unemployment as soldiers returned home. Under the prevailing norms of the time, women were expected to step out of the workforce to make room for the men.

Today, the long-term benefits of early childhood education are well established, thanks to the work of economists like James Heckman of the University of Chicago. Both Herbst and Ferrie found lasting positive effects on children who grew up in areas with Lanham centers, including generally improved outcomes in high school and higher earnings in adulthood.

Federal involvement in child care since World War II has tended to focus on specific groups, such as the Head Start program that serves children from birth to age 5 from low-income families. Present-day policymakers who have called for a more universal child care program sometimes cite the Lanham Act as an example. But just as opinions about the government's involvement in child care differed in the 1940s, similar debates continue today, nearly 80 years after the Lanham program ended. **EF**

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# Laura Alfaro

## On global supply chains, sentiment about trade, and what to learn from Latin America

**Laura Alfaro wanted to be an economist since she was a young girl in Costa Rica. That she went from studying economics in college in her native country to a professorship at Harvard Business School is a reflection, she says, that she's a bit *necia* — foolishly stubborn. Even more important: "I had the bliss of ignorance. To both of my parents, I could be anything, and I believed it. I didn't know women didn't get Ph.D.s in economics in Costa Rica; I thought it was normal."**

**In 1996, while Alfaro was in her doctoral program in economics at the University of California, Los Angeles, she had an early exposure to the significance of trade and foreign investment: Intel announced plans for a major investment in her small country, its population then around 3.5 million. Work was soon underway on a $300 million manufacturing complex there, with direct employment for 2,000 workers and untold indirect jobs. Intel's presence in Costa Rica — which continues today — helped shape Alfaro's research interest in global supply chains and trade in general. Lately, she has been looking at, among other things, a major shift in supply chains away from China, a trend that she has labeled the "Great Reallocation."**

**Alfaro stepped into a decidedly nonacademic job in 2010, taking a leave of absence from Harvard to become a cabinet minister: Costa Rica's minister of national planning and economic policy, a role that largely combines the functions of the U.S. Treasury secretary, Office of Management and Budget director, and Council of Economic Advisers chair regarding economic strategy and policy coordination. After two years, she returned to Harvard, mainly because she would otherwise lose tenure (the university generally limits leaves of absence to two years).**

**In addition to global supply chains, her research has explored foreign direct investment, exchange rates, capital controls, and sovereign debt. Her work has been published in numerous top journals, including the *American Economic Review*, the *Review of Economic Studies*, the *Journal of Political Economy*, and the *Journal of Financial Economics*.**

**David A. Price interviewed Alfaro by videoconference in September.**

IMAGE: COURTESY SUSAN YOUNG

**EF: You've studied the economies of Latin America extensively, and you've served as cabinet minister for economic policy in Costa Rica. What lessons do you think Americans should take from Latin American economic experiences?**

**Alfaro:** I'll give two positive lessons and one negative. On the positive side: As you know, Latin America went through several crises in the 1980s and 1990s. Most of the countries actually have learned from past mistakes. From these crises, they have created more resiliency, to the point that no Latin American country of this subset — I'm thinking Mexico, Brazil, Chile — has had a financial crisis. This is due to more flexible exchange rate regimes, better regulated financial markets, and some other reforms.

We used to have bank failures and that's why a crisis was so devastating. But this has not been the case in these countries, even in the global financial crisis. Some firms went bankrupt and there were some other bad things that happened, but it was not a systemic financial crisis. That's a positive lesson.

I'm not including Argentina; I'm not including Ecuador. Those are a little bit different.

The other positive lesson comes from my country. We have had a long history now of trying to get along with the environment. We have protected 25 percent of our country, and most of our energy is renewable. And I think we have managed to make this into a successful economic proposition. Many people come for tourism and enjoy our national parks. So I do think saving the planet and making money are compatible.

On the negative side, I don't see the United States paying attention to unsustainable fiscal debt. Politicians have been

just offering to spend money and this at some point comes back to roost. One does start to worry.

It is true that the United States has advantages. It's the biggest economy in the world; it has its own currency, which is the reserve currency. So we tend to assume that it can go on forever — that when the end of the world comes, U.S. sovereign debt will be around along with the cockroaches. But it is not endless. I would argue that it would be good if the United States learned from Latin America that populism doesn't pay off. Try not to copy us.

**EF: In your work, you've described what you call a "Great Reallocation" in global supply chains — a reallocation away from China. Did the pandemic bring this about?**

**Alfaro:** This is a paper that I wrote with Davin Chor for the Jackson Hole Symposium in 2023. We documented this great reallocation of supply chains. The countries that have gained the most are Mexico, Vietnam, what we call high-income Asia — namely, Singapore and South Korea — and middle-income Asia — India and Thailand.

But what our regressions and research show is that what brought this about was not the pandemic, it was the 2017 tariffs. It is a reallocation pushed by policy.

The pandemic situation is interesting because during the pandemic, a lot of companies were thinking of reallocating, but a lot of the network of supply was in China. I think during the pandemic we had a view that trade was a problem behind a lot of supply chain issues. I'm actually of the opposite view: Trade saved us. After a certain period of the pandemic, there was infinite demand, apparently, in the United States; everyone wanted furniture and computers and toys and so on. It would have been impossible to deal with the demand, the goods demand, that we observed during the pandemic without our trade with China. So, if anything, the pandemic slowed down the great reallocation.

**EF: How will this reallocation affect the U.S. economy?**

**Alfaro:** The reallocation is still going. From 2017 to 2022, the lost market share of China in U.S. imports was close to 5 percentage points. In 2017, the share of imports from China was 22 percent; in 2022, it was 17 percent. If you go to 2023, it was 13 percent or 14 percent. So it has continued. This has been on the back of tremendous growth in the U.S. I want to underscore, also, the tremendous growth of global trade during this period from the U.S. point of view. So it's not a move away from trade; it's just a move away from China's trade.

"We tend to assume that it can go on forever — that when the end of the world comes, U.S. sovereign debt will be around along with the cockroaches. But it is not endless. I would argue that it would be good if the United States learned from Latin America that populism doesn't pay off. Try not to copy us."

We also looked for evidence of reshoring — operations coming back here — and near-shoring. We did find that a lot is coming to Canada and Mexico, so near-shoring is happening. But for reshoring to the U.S., the evidence is not clear. One has to wait because it takes time for investment to materialize. It's early to say.

**EF: In trying to build more resilient supply chains, are companies embracing more vertical integration — that is, producing more key inputs in-house?**

**Alfaro:** More than one-third of trade in the United States is intrafirm trade, that is, within the boundaries of the firm. People tend to forget this. Some of the main players in trade are multinationals importing and exporting to themselves.

Whether the firms are responding with more integration, the data that we're using on this study doesn't allow me to tell you. But I will be able to tell you in a year or so because I got access to the confidential census data on foreign direct investment, the BEA data, and that's precisely what we're studying.

**EF: Does the just-in-time type of supply model have a role here?**

**Alfaro:** Everything has trade-offs. It's interesting that the Japanese firms, which are the ones that started just-in-time, actually did better with supply in the pandemic. They just have better relations with their suppliers. If you want to do just-in-time, you need to be flexible, and a lot of that flexibility comes from having better relations with your suppliers. If you adopt some management tool, you need to think about the whole process. These Japanese firms were not the ones that got into big trouble, it was the U.S. ones.

An alternative is to stockpile, but what companies will tell you regarding the pandemic period is that no one would have stockpiled that amount. Once the shock happened, most firms thought it would be like the global financial crisis — it would be a demand problem. For example, car companies thought people wouldn't demand as many cars, and so they just didn't order. There is a sequential nature to this. If you don't order the chip, which takes months to build, then you're months behind. And these chips are not so easy to substitute.

But then all the stimulus came. All of a sudden, everyone was buying cars and computers and electronics and houses.

**EF: On the subject of supply shortages, China has a strong role in the global supply of rare earth elements, from cerium to ytterbium. Why is that significant? Is it significant?**

**Alfaro:** Rare earth elements have the property that, to simplify, they make things smaller, faster, and lighter. And these are the characteristics of everything we use now. In the 1980s, we liked the bigger TV, the bigger stereo. But in this era, we tend to like things smaller and lighter. And when you make things lighter, like EVs, they use less energy. Rare earth elements are also used in catalytic converters, lasers, and MRI machines, among other products.

There are reasons why a lot of the mining and refining happens in China. One is geological. Rare earth elements are not rare; they are just very expensive to mine depending on your geological conditions.

The United States is full of rare earth elements. But they are harder to mine here. If, let's say, they're in the Rocky Mountains, you need to destroy the Rocky Mountains. Whereas in China, some are relatively easy to mine because the site may be just bluffs and sand. You just don't get that much, so there's also a lot of labor involved.

It just so happens that China had some that were relatively easy to mine labor-wise, but then also eventually they achieved economies of scale in processing, which also makes the price go down.

Some rare earth elements, and again there are different types, have byproducts that may be environmentally more complicated. The Europeans at some point decided they didn't want to deal with that. So China then took it.

The U.S. has a mine in California, the Mountain Pass Rare Earth Mine, which closed in 2002. It has since reopened. But the Chinese now have an advantage in terms of economies of scale, which means that the price is very low. So it's uncertain what will happen.

I've found these issues interesting to look at because it turns out there's a technical side that can be tricky to work through but also fascinating. Unfortunately, the last time I took chemistry was in high school. The most helpful books on this subject go deep into the chemical properties of the element and how you mine them. Now I have a periodic table on my wall to help me get through the books. My students always ask about it because they find it puzzling that I have one.

## Laura Alfaro

**PRESENT POSITION**

Warren Alpert Professor of Business Administration, Harvard Business School

**SELECTED PAST POSITIONS**

Minister of National Planning and Economic Policy, Costa Rica (2010–2012)

**SELECTED ADDITIONAL AFFILIATIONS**

Research Associate, National Bureau of Economic Research; Nonresident Fellow, Brookings Institution; Visiting Scholar, Bank of England

**EDUCATION**

Ph.D. (1999), University of California, Los Angeles; Licenciatura (1994), Pontificia Universidad Católica de Chile; B.A. (1992), Universidad de Costa Rica

**EF: You've done something unusual for an economist: You looked at Americans' reactions when they're exposed to positive or negative information about trade and jobs. What did you find?**

**Alfaro:** There seems to be a backlash against globalization, but it's in rich countries. People think it's global, but it's not. It's Brexit; it's the United States. I did this work with Davin Chor and Maggie Chen. I did it for a couple of reasons.

First, in many ways, I feel like a product of globalization. I'm from Costa Rica, studied in Costa Rica, came to the U.S. My husband is Brazilian. We go back and forth. We are the outcome, if you will, of the 1990s globalization era. I have seen my country in many ways benefit from that era. Intel opened up land in Costa Rica.

Even though there have been some undesired effects, I do think the U.S. has always had the tools to deal with them. The U.S. has always had the capacity to redistribute. I think a lot is because the education system in the U.S. is not working as well and we never talk about it. The knowledge of math in the U.S., sometimes you're shocked that the U.S. is not doing more to improve it. The U.S. worries about Olympic medals in sports, but they don't worry about math.

So that was one motivation. The other one was, to be honest, a very arrogant economist view. We were thinking that what's going on is people have not been explained the benefits of globalization. They're exposed to all these 10-second tweets, comments, Instagram, TikTok, whatever, and they're just not getting the knowledge of what's going on. And so in an arrogant way, we thought we would teach them. That was the objective of the paper: Let's give people facts about trade to see if we convince them that trade is good.

And what are these facts? The U.S. has never seen the level of employment it has seen during globalization. If you look at the number of employed people in the U.S. in the last 20 years, U.S. unemployment is low, and the U.S. keeps employing people. So we gave these facts. We also showed the fact that the price of goods has come down. To keep it simple, we showed them the price of computers, the nominal price. We didn't even go into real and nominal. The nominal price of computers has gone down. And of clothes. We also showed them that with tariffs, prices went up.

Unsurprisingly, if you tell them there was a loss of manufacturing jobs, people go against trade. But even if you tell them everything positive — it created more jobs, it lowered prices, tariffs increase prices — the process still made them more against trade. And these were randomized experiments. So we did this for five years, because we were thinking no, we did something wrong the first time. But the outcomes were very stable.

And so we went and asked people: I just told you trade was good, why are you still against trade? What we found is that people cannot differentiate trade from a link with China and jobs. It doesn't matter what you tell them, it instantly triggers an association with China. So we walked away a little bit more humble because our models are not models that deal with national security. And that's a concern that they mentioned. We economists should probably try to think more about how to incorporate national security concerns.

Our conclusion is that if we do want people to support trade — and as I said, I do think trade has benefits, and we do need to do things to improve redistribution, retooling, reskilling — if we want people to be open to it, we need to address the concerns about the particular bilateral interaction with China. Perhaps that reallocation is one way to deal with it. Let's try to trade a little bit more with Vietnam and some other countries.

However, in our own work what we have found is that even as the U.S. has directly imported less from China, the main trade partners of the U.S. are importing more from China. Mexico is importing more. Europe is importing more. And Vietnam is importing more. So even though directly the U.S. is diminishing the exposure, indirectly the exposure might still be there. Therefore, one still needs to worry because people eventually may also note that the relation is indirect, given the concerns of the bilateral relationship with China.

**EF: In what ways do you think attitudes about trade are likely to change?**

**Alfaro:** I don't think they will get better. The tariffs were put in place under President Trump, but President Biden didn't get rid of them. If anything, there were more subsidies via the Inflation Reduction Act and the CHIPS Act. If you pick up the newspaper, it's a contest among politicians as to who does more.

**EF: You've been on the faculty at Harvard Business School for 25 years. What's the biggest difference there between now and when you started?**

**Alfaro:** The environment in many ways is different. The biggest change is that I came to HBS during the globalization era and that's over politically for the time being.

At the same time, our teaching has become more global. There's no doubt. When I started, I was the one writing the global cases [case-study articles for courses]. I was, at one point, doing the first case on the Asian financial crisis, the first case on the Latin American crisis. I wrote a case on the U.S. current account deficit that still gets taught.

Now talking about other countries is normal. It's the way HBS does things. We are a global center, so we have become global. I would say more diverse, but HBS has always been very diverse. We always have had people from many countries and walks of life. But topics have changed just because life has changed. Global considerations are part of the way companies do business.

On a personal level, the biggest difference is I'm older. When I started, I was the same age as the average student. I'm starting to see my students now as though I'm their parent. For the case method, that has some advantages because it gives you a little bit more authority since one has lived through more.

**EF: Has the role of elite business schools in the U.S. economy changed during that time?**

**Alfaro:** HBS has always been a little bit different because we have always taught this course that is called BGIE — Business, Government, and the International Economy. And we have always told students they need to care about the macro trends and they need to have an understanding of politics. It's not because students may want to go into government, although some do. It's because they need to understand the processes that bring about taxes, tariffs, and so forth. And so we always did that.

I think that has always been a difference of HBS from other programs, because HBS has always had a general management type of view: We assume you will become the CEO, and these are the things you need to understand.

So I don't think that the role of HBS has changed. It just has become more visible that students need to have a view on these macrotrends, from politics and geopolitics to economics to society. **EF**


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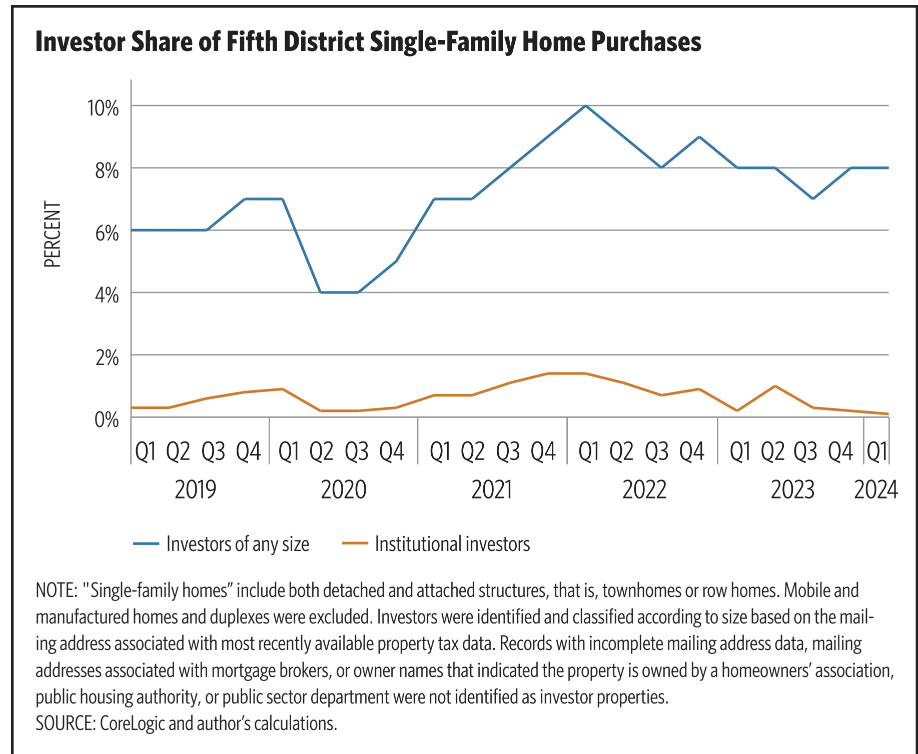
BY SIERRA STONEY

# The Roles of Single-Family Housing Investors, Big and Small, in the Fifth District

Single-family investors have received more public scrutiny over the past several years as their share of overall home purchases has grown while housing was becoming less affordable due to a national supply crunch. Institutional investors have especially been capturing headlines recently, as homes have become more expensive since 2020 due to increased demand and dwindling supply. But this type of investor has only been active in single-family markets in large numbers over the past 15 years; most single-family investment home purchases are still made by smaller investors. And while institutional investors focus their attention on major cities, smaller investors are active everywhere. What roles do large and small investors play in local housing markets across Fifth District communities?




**Investor Share of Fifth District Single-Family Home Purchases**

NOTE: "Single-family homes" include both detached and attached structures, that is, townhomes or row homes. Mobile and manufactured homes and duplexes were excluded. Investors were identified and classified according to size based on the mailing address associated with most recently available property tax data. Records with incomplete mailing address data, mailing addresses associated with mortgage brokers, or owner names that indicated the property is owned by a homeowners' association, public housing authority, or public sector department were not identified as investor properties.
SOURCE: CoreLogic and author's calculations.

### WHO ARE SINGLE FAMILY INVESTORS?

Taking a broad view, any individual or company that purchases a single-family home for a reason other than personal use is a single-family investor. Narrower definitions significantly underestimate the number of investor purchases. For example, since 2019, the share of single-family homes purchased by investors of any size in the Fifth District was six times greater, on average, than the share purchased by institutional investors — defined as investors who own 1,000 homes or more. (See chart.)

Within the Fifth District, we used the most recently available property tax data to identify single-family investors as property owners who own at least five single-family homes. Overall, 6.9 percent of single-family homes are owned by investors. The District of Columbia has the smallest share of investor-owned single-family homes (2.3 percent), and North Carolina has the largest (8.8 percent). Corporate investors owned between 45 and 65 percent of all investor-owned, single-family homes in the Fifth District, with individual investors accounting for the remainder.

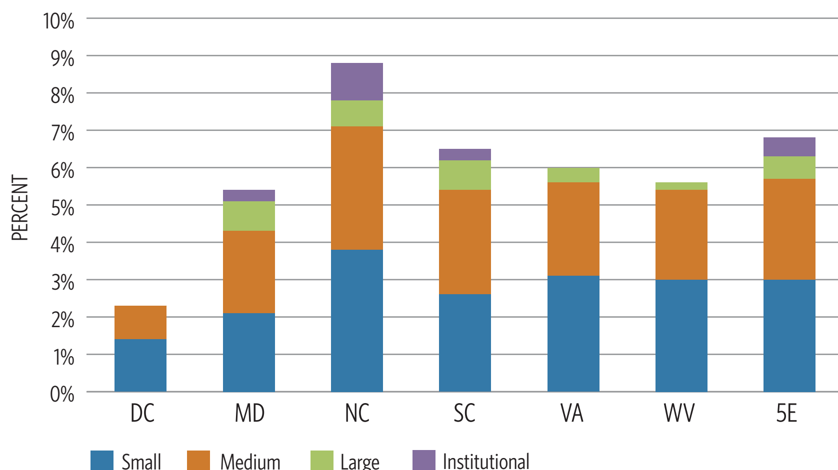
Further distinguishing between single-family investors in terms of the number of properties they own provides insight into different types of investors. Individual investors, such as mom and pop landlords and individual short-term rental hosts, tend to own a smaller number of properties. The number of properties owned by a given corporate investor varies significantly, since corporate investors range from companies that own a small number of single-family rentals locally to institutional investors. Either directly or through subsidiaries, an institutional investor will own thousands of properties nationwide.

For our analysis, we categorized Fifth District investors based on the number of properties they owned:

- Small investors: 5 – 10 properties.
- Medium investors: 10 – 100 properties.
- Large investors: 101 – 1,000 properties.
- Institutional investors: more than 1,000 properties.

In every state and the District of Columbia, the majority of investor-owned single-family homes are owned by small and medium investors. Small investors, in particular, own more than half of the investor-owned

**Share of Single-Family Homes Owned by Investors, by Investor Size**




NOTE: "Single-family homes" include both detached and attached structures, that is, townhomes or row homes. Mobile and manufactured homes and duplexes were excluded. Investors were identified and classified according to size based on the mailing address associated with the property tax record. Records with incomplete mailing address data, mailing addresses associated with mortgage brokers, or owner names that indicated the property is owned by a homeowners' association, public housing authority, or public sector department were not identified as investor properties.
SOURCE: CoreLogic and author's calculations.

properties in the District of Columbia, Virginia, and West Virginia. Institutional investors own a larger share of single-family homes in North Carolina than in other Fifth District jurisdictions, accounting for 12 percent of investor-owned single-family homes in the state. (See chart.)

**THE GEOGRAPHY OF SINGLE-FAMILY INVESTORS**

Different types of single-family home investors tend to have different patterns in where they invest. Institutional investors limit their single-family purchases to a few major metropolitan areas, while individual and smaller corporate investors are present across a wider number of communities.

Institutional investors prefer major metropolitan areas, in part because the housing market indicators used to make purchasing decisions are more easily available in large markets. A 2022 National Association of Realtors study found that institutional buyers are attracted to counties with growing demand for both rental and ownership homes. Specifically, counties with elevated shares of investor purchases were characterized by relatively strong home and rent price growth, high in-migration rates, and high income levels. Under these conditions, investors can expect single-family homes to reliably generate returns via income from rent and property value appreciation over time.

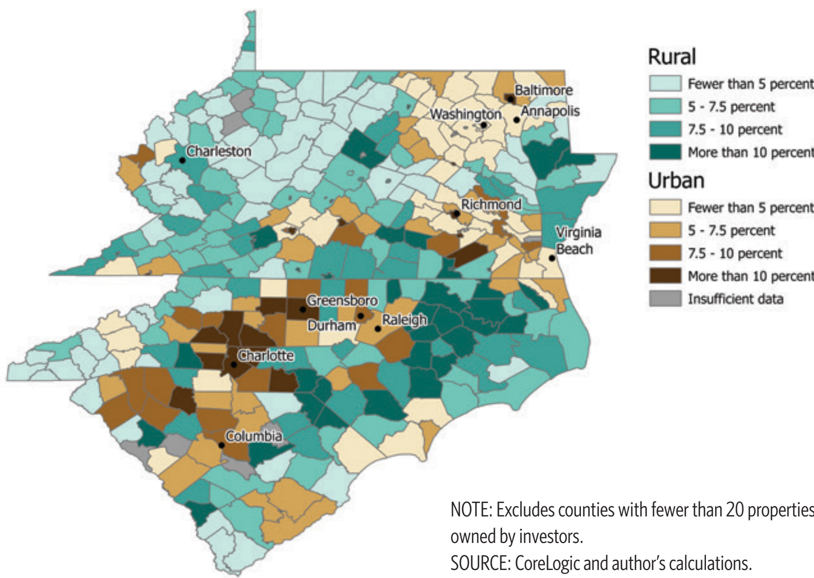
Within the Fifth District, large and institutional investors have been disproportionately active in the Charlotte, N.C., metropolitan statistical area (MSA). Across the 10 counties that make up the Charlotte MSA, 3.9 percent of all single-family homes are owned by large and institutional investors, compared to only 1.1 percent in the Fifth District overall. Institutional investors specifically own high shares of single-family properties in Mecklenburg County (where the city of Charlotte is located) and neighboring Cabarrus County — 4.2 percent and 4.9 percent, respectively.

In contrast, researchers have found that smaller corporate investors tend to purchase single-family homes in the same metropolitan area as their headquarters. Investing locally gives these investors a greater ability to closely track housing market conditions for communities where they are investing, making them less reliant on large-scale indicators. From an operational standpoint, smaller corporate investors find it easier to establish and maintain relationships with local partner organizations, such as contractors to renovate or maintain the properties they acquire or local property management firms to manage scattered-site rentals.

Adding individual investors and smaller corporate entities to the analysis reveals that single-family investors are present in the vast majority of Fifth District counties. Urban counties with relatively high shares of investor-owned single-family homes are located around Charlotte and Greensboro, N.C. Clusters of rural counties with relatively high shares of investor-owned single-family homes are located in the Inner Coastal Plain region of North Carolina. Several additional rural counties with high shares of investor-owned single-family properties are located throughout Maryland, Virginia, and South Carolina. (See map.)

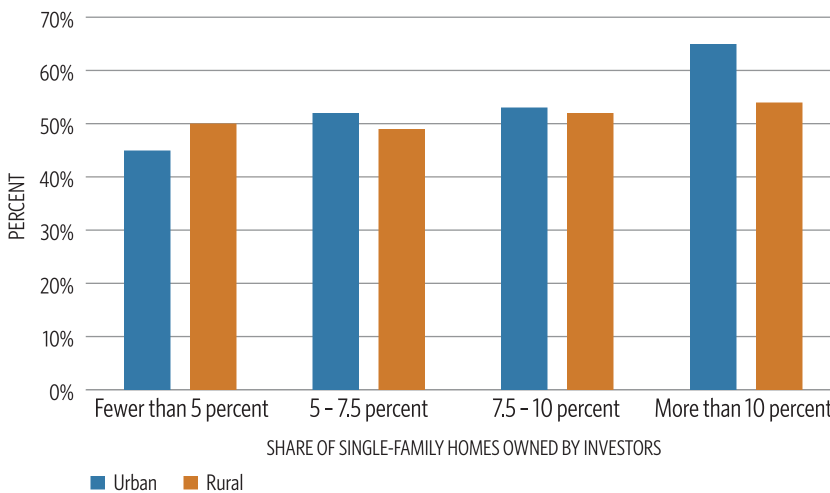
Within a county, investors concentrate their attention on certain neighborhoods. In a 2022 report, Emily Dowdall and Ira Goldstein of the Reinvestment Fund and Bruce Katz and Benjamin Preis of Drexel University identified common characteristics of neighborhoods with elevated shares of single-family home purchases by corporate investors. Using data on local real estate market conditions from Reinvestment Fund's Market Value Analyses in Philadelphia, Pa., Jacksonville, Fla., and Richmond, Va., they found stronger investor activity in communities with relatively distressed housing markets and higher shares of Black or Hispanic residents. Investors are attracted to places with

**Share of Single-Family Homes Owned by Investors, by County**




NOTE: Excludes counties with fewer than 20 properties owned by investors.
SOURCE: CoreLogic and author's calculations.

**Average Share of Single-Family Home Price Change, by Level of Investor Ownership, July 2019-July 2024**




NOTE: Excludes counties with fewer than 20 properties owned by investors.
SOURCES: CoreLogic, Zillow Home Value Index, and author's calculations.

relatively low sale prices, high mortgage denial rates, and high residential vacancy rates. Purchasing homes in these markets especially provides investors with opportunities to realize capital gains when they resell a home after renovations.

## HOW INVESTORS INFLUENCE HOUSING MARKETS

Depending on investors' intentions and local conditions, investors can introduce both benefits and challenges to local housing markets. Researchers have explored how investors influence housing prices and affordability.

House purchases by investors naturally increase housing demand, which corresponds to growth in median home sales prices. In some cases, this can benefit neighboring homeowners by contributing to appreciation of their home's value. For example, in a 2023 article, Rohan Ganduri of Emory University and Steven Chong Xiao and Serena Wenjing Xiao of the University of Texas at Dallas found that bulk sales of foreclosed single-family homes to investors by government-sponsored enterprises positively affected sales prices of nearby homes. The study focused specifically on sales made through the Federal Housing Finance Agency's Real Estate Owned (REO)-to-Rental program, which targeted metropolitan communities with large shares of REO properties. These findings demonstrate how investor activity can stabilize housing prices in distressed markets, which helps protect the value of neighboring homeowners' equity.

Within the Fifth District, the share of single-family homes that are investor-owned appears to be weakly correlated with recent single-family home price growth. Among urban counties, the average price growth rate for a typical single-family home between July 2019 and July 2024 increased as the level of investor ownership increased. Rural counties do not show the same consistent relationship: Home prices grew more rapidly in counties with the smallest share of investor-owned single-family homes compared to the subsequent category. (See chart.)

On the other hand, price growth makes homeownership less affordable to homebuyers. Research by Carlos Garriga of the St. Louis Fed, Pedro Gete of IE University, and Athena Tsouderou of University of Miami, which included small and medium corporate investors, found that MSAs with more investor activity experienced greater median home price growth. They then grouped home sales into low, middle, and high price tiers

to assess how investors affect these subsets of the housing market. The price growth associated with investor activity was more pronounced among low-priced homes, meaning investor purchases erode affordability for entry-level homes especially.

At the same time, first-time homebuyers are also more likely to find themselves in direct competition with investors for homes in the bottom price tier. Investor purchases consistently account for a larger share of low-priced single-family home sales than mid- or high-priced sales. Because they can either afford an all-cash purchase or have more cash on hand for a down payment, investor offers often look more attractive compared to homebuyer offers. Investors who can make all-cash offers are also less sensitive to mortgage rate increases, which allows them to acquire low-priced properties when prospective homebuyers postpone their housing search in response to high interest rates.

## HOW INVESTORS INFLUENCE NEIGHBORHOODS

While purchasing homes affects local housing markets, what investors do with the homes they own can change neighborhood characteristics for better or worse. Their actions directly affect housing quality and availability.

Investors often improve the homes they purchase, which adds to the quality of a neighborhood's housing stock. In extreme cases, rehabilitating homes that have significantly fallen into disrepair can add properties back into the supply of viable homes and decrease housing vacancy rates. Many homebuyers would lack the financial resources to invest in substantial repairs immediately after purchasing a property in this way. Yet investor spending on home improvement is not unequivocally positive. Investors focused on realizing quick returns by flipping a home might focus on cosmetic improvements to increase the home's value while overlooking more critical underlying repair needs. Regardless of the investor's intentions, investing in improving a property directly improves its market value and contributes to home price increases more generally.

Because some investors purchase single-family homes from owner-occupants and convert them to rentals, neighborhoods with high levels of investor activity experience both declining homeownership rates and a declining number of homeowners overall. Although investor ownership precludes prospective owner-occupants from acquiring these homes, *long-term* rentals remain part of the local housing supply — just in the rental market instead of the ownership market. These homes are still being used as a primary residence and help meet growing demand for single-family rentals. In contrast, investors who convert homes to *short-term* rentals remove them from the housing supply altogether by instead using them as lodging.

Having a mix of owner- and renter-occupied homes makes communities accessible to households in different stages of their lives. Single-family rentals are essential for this purpose in places where multifamily properties are either not permitted or infeasible. Rural communities especially rely on single-family rentals to provide housing opportunities for households that are not able to purchase a home. Within the Fifth District, more than half of rural renters live in single-family homes, compared to just over a third of urban renters.

Researchers have found evidence, however, that renters might be exposed to greater housing security and well-being risks with corporate investor landlords. For example, Elora Raymond and Richard Duckworth of the Atlanta Fed and their co-authors found in a 2016 discussion paper that corporate investors in Fulton County, Ga., with more than 15 single-family rental properties were more likely to file eviction notices, even after controlling for property and neighborhood characteristics. In a 2019 article, Adam Travis — a sociologist at Harvard University — found that single-family rentals owned by corporate investors in Milwaukee, Wis., were more likely to be in disrepair. This often happens when investors expect greater returns from rental income than from home value appreciation.

## POLICY RESPONSES

Throughout the Fifth District, public and community-based organizations have built policy strategies to mitigate housing challenges associated with investor activity.

In communities where first-time homebuyers compete with investors for low-priced homes, down payment and closing cost assistance allow homebuyers to make more attractive offers. In addition to giving homebuyers more of an edge from the seller's perspective, these resources may lower the homebuyer's monthly mortgage payment by reducing the amount of financing needed. Down payment and closing cost assistance programs are offered by federal, state, and local governments, nonprofits, and even some financial institutions. For example, income-qualified Virginians are eligible for down payment and closing cost assistance grants through Virginia Housing — the state's housing finance agency. Homebuyers are allowed to pair these grants with other programs, such as the Virginia Department of Housing and Community Development's HOMEownership Down Payment and Closing Cost Assistance program which offers flexible gap financing for income-qualified first-time homebuyers.

Nonprofits that acquire homes for resale to income-qualified homebuyers also help connect homebuyers who would have trouble competing with investors for affordable homeownership opportunities. In the Richmond area, Maggie Walker Community Land Trust (MWCLT) acquires and rehabilitates existing homes, which are then sold to income-qualified homebuyers.

The community land trust model, where MWCLT retains ownership of the land on which the home is built in trust, allows the homes to be sold at affordable prices in perpetuity. They focus on creating affordable homeownership opportunities in neighborhoods experiencing gentrification and rapid price appreciation, and work directly with first-time homebuyers to prepare them for all aspects of homeownership.

To complement the market-rate single-family rentals made available by investor landlords, some Fifth District nonprofits provide single-family rental housing affordable for low- and moderate-income households. Self-Help Credit Union is a community development financial institution, or CDFI, headquartered in North Carolina with a real estate development arm. In late 2019, it acquired a portfolio of 58 scattered-site residential properties in Rocky Mount, N.C. — a rural community located east of Raleigh. Existing homes were either renovated or demolished depending on their condition, and vacant lots were developed into either single-family or two- to four-unit structures. Several homes were made available for sale to income-qualified homebuyers, but the majority are single-family rentals managed by a local property management partner.

Local governments can protect and support tenants living in investor-owned homes through policy. Ensuring that tenants are aware of their rights and how to access local resources for resolving conflicts with their landlords makes it more likely that tenants will seek assistance before problems escalate. In an article earlier this year, Ben Horowitz and Libby Starling of the Minneapolis Fed argued that maintaining local rental registries creates greater transparency in the single-family rental market and keeps investor landlords accountable. For corporate investors, registries can also collect information on who is responsible for paying damages if the property owner is found liable.

## CONCLUSION

While institutional investors own single-family homes in a handful of counties throughout the Fifth District, small- and medium-sized investors are active in every county where data are available. Investors can benefit local housing markets if they rehabilitate distressed properties or create single-family rental opportunities. However, not all investors will choose to substantially improve the properties they own or allow them to be used as primary residences, which limits positive neighborhood effects. Regardless, research has demonstrated that investor activity tends to exacerbate affordability and availability challenges for prospective homebuyers, especially those in the market for relatively low-priced homes. Throughout the Fifth District, government and nonprofits are implementing strategies to help mitigate challenges related to investor activity. **EF**


# REGIONAL ECONOMIC SNAPSHOT

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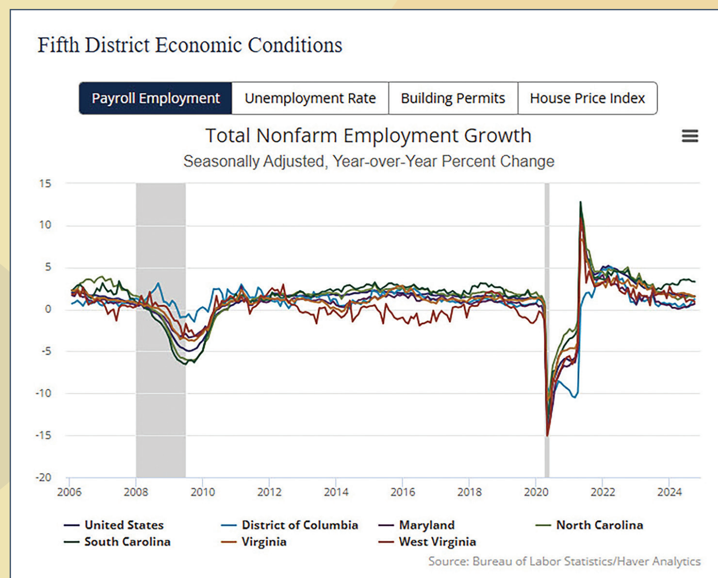

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BY ANNA KOVNER

# Banks and the Commercial Real Estate Challenge

Even though years have passed since the major disruptions of the COVID-19 pandemic, it's clear that demand has been hard hit for some types of commercial real estate — especially downtown office buildings. Researchers at the Richmond Fed surveyed employers in March and found that more than a third expect employees to be on site three days a week or fewer. Asset values have adjusted accordingly to this change in demand. One measure of these price declines comes from publicly traded office real estate investment trusts (REITs), where values have fallen by more than 30 percent since early 2022.

Changes in demand for office space are not the only challenge. All types of commercial real estate, or CRE — including multifamily housing, retail, industrial properties, and hotels — have been hurt by the one-two punch of higher operating expenses and higher interest rates. Unlike residential real estate, where most mortgages are fixed rate (thanks in part to federal policies that favor homeownership), commercial real estate mortgages are commonly floating rate, meaning that interest expenses have grown substantially with the increase in interest rates. Higher inflation for building materials and services has also hit the cash flows of most commercial property managers.

To be sure, not everything is going badly for this sector. The U.S. economy has been strong and resilient. This means a strong reservoir of demand for all types of commercial activities, ranging from hotels to rental housing. Properties evolve as demand evolves, with renovations leading to new lives for office and commercial spaces.

The question for monetary policymakers and bank supervisors is this: Will CRE losses ricochet through the U.S. economy? Historically, real estate losses have amplified economic downturns, for example in New England in the 1990s. Declines in asset prices can be amplified beyond real estate when financial institutions such as banks cut back their loan supply in response to losses on bad loans and when foreclosures lead to fire sales of properties. Thus, regulators use capital requirements and supervision to ensure the safety and soundness of banks in the face of losses. This should ensure that banks have enough capital to withstand losses from CRE loans and continue to lend. Moreover, banks themselves have already responded to challenges by reducing the supply of CRE lending. The Fed looked at this in July and found that a significant net share of banks reported tightening lending standards for all types of CRE loans.

Still, in some particularly levered buildings, it is likely that debt holders, including banks, will also experience losses. Since the average loan-to-value ratio is typically below 60 percent, however, even if office real estate values fall by more than 30 percent, equity owners will likely bear most of these losses. (See "Out of the Office, Into a Financial Crisis?" *Econ Focus*, Second Quarter 2023.)

**An important confluence of risks emerges as profit margins at smaller banks are pressured by depositors demanding higher rates just as these same banks are particularly exposed to CRE.**

One way to measure the overall risk in the banking system is through top-down stress testing models, such as the CLASS model. These models stress banks on paper by assuming bad economic scenarios and seeing how much capital banks would have to support lending. Updates of these models that account for losses on long-duration assets from higher interest rates show an increasing number of banks with strained capital under stress.

But all real estate is local, so it's important to consider potential losses and their amplification at the bank level rather than in aggregate. For example, we saw with Silicon Valley Bank that some banks can be outliers in terms of their exposure to risk assets and the vulnerability of their deposits. In this regard, bank size matters: Nonfarm nonresidential CRE mortgages tend to be a small share of total assets held by banks overall but a larger share of total assets of smaller banks. Thus, an important confluence of risks emerges as profit margins at smaller banks are pressured by depositors demanding higher rates just as these same banks are particularly exposed to CRE.

In summary, while the post-COVID-19 economic environment has been throwing some tough punches at CRE, the knockout doesn't seem to be here. As the U.S. economy comes into better balance, risks from CRE are mitigated by strong economic growth. For now, CRE represents one more challenge for bank-dependent borrowers and CRE-lending banks. Yet there are clearly storm clouds on the horizon and supervisors will be carefully monitoring risks in bank portfolios. Careful credit risk analysis has always been key to sound banks and their ability to supply credit. **EF**

***Anna Kovner is executive vice president and director of research at the Federal Reserve Bank of Richmond.***

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