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ECON FOCUS

The Outdoor Recreation Economy

Student Loans and the Economy

Where the 2% Target Came From

Interview with Ulrike Malmendier

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FEATURES

DEPARTMENTS

Cover: Whitewater rafting on the New River, West Virginia. Credit: mountainberryphoto/iStock/Getty Images Plus.

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A Forecasting Personality Test

Contrary to most forecasts, including my own, the economy finished 2023 strong. Inflation, as measured by the personal consumption expenditures price index, came down all the way to 2.6 percent. At the same time, despite higher interest rates, global conflicts, and banking turmoil, economic growth was healthy and unemployment was near historic lows.

But early 2024 data has been a little less easy to read, with inflation elevated and consumer spending coming in softer, while the labor market has remained quite strong. So it's easy to see why people might differ on the path forward for the economy — each forecaster sees the future through his or her own lens. You likely do the same.

You might be an optimist, expecting inflation to return to our 2 percent target while the economy stays healthy. That could well happen: The extraordinary levels of post-pandemic spending have been normalizing. The painful post-COVID-19 supply chain shortages have been largely resolved. Immigration and the rebound in prime-age labor force participation have helped alleviate labor market pressures, as have productivity increases. Most measures of inflation expectations suggest that businesses and consumers have found the Fed's inflation target credible.

There are also more pessimistic cases to be made, generally falling into three camps.

You might be a demand pessimist. You might be concerned about the recent increase in consumer delinquencies and the challenges in commercial real estate. You might worry about weakness in other interest-sensitive sectors as well, like banking, residential real estate, manufacturing, and home improvement. You might note that nearly three-quarters of last year's job gains came from just three sectors — health care and social assistance, leisure and hospitality,

and government — and worry that the labor market might be nearing a turning point. Or perhaps the risk of geopolitical shocks keeps you up at night.

Alternatively, you might be an inflation pessimist. You might point to continued strong wage growth in a tight labor market. You might note consumers' continued willingness to spend; the saving rate is down to 3.6 percent versus 7.7 percent pre-pandemic, and that spending is potentially supporting higher prices. Or maybe you notice other forces that arguably have turned inflationary, from deglobalization to limited housing supply to demographics to energy transition.

Lastly, you might be a Fed pessimist. You might fear the Fed will keep rates too high for too long or normalize too quickly and allow inflation to linger. Our job isn't easy, and history teaches that most tightening cycles end poorly, though often heavily influenced by an outside event like the pandemic or the 1990 Gulf War.

What do I see?

On demand, I have to believe all of this tightening will eventually slow the economy further. After all, corporate interest payments as a percent of corporate revenues and personal interest payments as a percent of disposable personal income have only now finally gotten back in the range of 2019 levels — suggesting the full impact of higher rates is yet to come.

If the economy does cool, it doesn't need to be as painful as the Great Recession. Employers who have fought hard to recover from labor shortages tell me they are hesitant to lay people off and run the risk of being short again. And a slowdown shouldn't catch businesses by surprise; they've already slowed hiring and streamlined costs. Banks have cut back on marginal credit. In short, the economy should be less vulnerable.

On inflation, while I do hear price-setters increasingly convinced that the pandemic era of significant pricing power is behind them, the inflationary experience of the last two years has surely given them more courage to use price as a lever. (See "How the Pandemic Era Changed Price-Setting," *Econ Focus*, Fourth Quarter 2023.) So I'm still looking for the slowing in reported inflation to sustain and broaden.

Despite my concerns about demand and inflation, perhaps it is no surprise that I'm a Fed optimist, which is different than believing we are infallible. I am optimistic that keeping rates somewhat restrictive can bring inflation back to our target. While I don't see the economy overheating, the Fed knows how to respond if it does. And if the economy slows, the Fed has enough firepower to support it as necessary.

Tom Barkin
President and Chief Executive Officer

BY SIMON FARBMAN

Political Incentives for Sovereign Default

Marina Azzimonti and Nirvana Mitra. "Political Constraints and Sovereign Default." *Journal of International Money and Finance*, October 2023, vol. 137, pp. 1-25.

In some countries, actors must garner support from a wide swath of the body politic in order to enact policy. In others, national policy can be enacted by smaller and less representative groups, with the extreme of an absolute dictatorship. These differences among political systems can be summarized as the extent to which the country's policymaking is bound by "political constraints." Naturally, these constraints play a significant role in shaping government policy.

In a recent article in the *Journal of International Money and Finance*, Richmond Fed economist Marina Azzimonti and her co-author Nirvana Mitra of the Reserve Bank of India investigated the role that political constraints play in a government's decision to default on its debts. To do so, they developed a political-economy model in which representatives of different groups with veto power bargain over the nation's taxes, public spending, the level of international borrowing, and whether to default on their current obligations. They used this model to set on solid theoretical ground the intuitive negative relationship between a country's degree of political constraints and its probability of default.

The possibility of government default sets their model apart from a standard political-economic model; while many authors assume that governments will always honor their obligations, Azzimonti and Mitra sought instead to investigate the circumstances in which governments may find it optimal to instead default and exit the credit market. Their model allows for the political constraints of the model economy to vary from period to period. In each period, the "minimum winning coalition" — defined as the number of distinct representatives necessary to support a proposed policy — is allowed to change. To enact a policy beneficial to his or her constituents, a policy proposer will cobble together a proposal with as few fellow legislators as is constitutionally necessary, and to attract their support, the spoils of government are disproportionately expended on "pork" to the participating groups. Hence, the larger the current minimum winning coalition, the smaller the degree to which an unrepresentative selection of the country benefits from government decisions.

The theoretical arguments and empirical evidence amassed by Azzimonti and Mitra suggest that several distinct mechanisms exist by which tighter political constraints can reduce the risk of sovereign default.

Azzimonti and Mitra used this model to identify three distinct theoretical channels through which lower political constraints increase the probability of default. First, less constrained governments will tend to overspend, and thereby incur a larger debt burden. Indeed, the smaller a governing coalition, the greater the relative benefit to their constituents from issuing debt: Borrowed resources are distributed as largesse disproportionately to the few groups with governing representatives, but the eventual cost of repaying the loan is borne by the nation as a whole. For smaller coalitions, the personal benefit will outweigh the cost, leading to more spending, which ultimately increases the likelihood a future government will have no choice but to default.

Second, political constraints have a more direct effect on a government's decision to default. When a government defaults, the resources previously pledged to repay debt are released for the government's disposal, at the cost of temporarily exiting the international credit market. If the entire nation's well-being were to be considered, this scenario would likely not be optimal. Again, however, the released resources are not to be spread equally to all citizens, but disproportionately to those represented in the governing coalition. Hence, with a smaller minimum winning coalition, each group in it gets a larger piece of this pie, and so the benefit to a representative from defaulting is more likely to outweigh the negative consequences of the country exiting the credit market.

This ties into the third and final mechanism, a self-fulfilling prophecy of sorts. Rational international lenders are aware that less constrained governments will be more likely to default, so they demand higher prices for their debt to compensate for this risk. Hence, policymakers' behavior under loose constraints makes the debt burden less manageable, even if they are currently behaving responsibly, and thereby may make it more necessary to default in the future.

The theoretical arguments and empirical evidence amassed by Azzimonti and Mitra suggest that several distinct mechanisms exist by which tighter political constraints can reduce the risk of sovereign default. Their work suggests that tighter political constraints can reduce the degree to which a small segment of the country can overspend national resources for its own benefit, and in turn, reduce the likelihood of the significant economic and social trauma induced by a sovereign default. **EF**

BY KATRINA MULLEN

New from the Richmond Fed's Regional Matters blog

Jason Kosakow and Adam Scavette. "Are Fifth District Firms Revisiting Their Prices Less Often Amid Cooling Inflation?"
Since inflation started to accelerate in 2021 and 2022, the Richmond Fed's monthly business surveys of Fifth District firms have paid close attention to changes in firms' realized prices and their pricing expectations. Now that inflation has decelerated in the past year, slowdowns have occurred in both realized and expected price growth among those surveyed. For example, since the start of the year, expected growth rates have declined from 6 percent in early 2022 to 3.6 percent for services firms and 1.6 percent for manufacturing firms. Further, while services and manufacturing firms differ in their expectations of future price adjustments, the frequency is expected to stay above pre-COVID-19 levels, highlighting the reality of pricing uncertainty.

Adam Scavette and Sierra Latham. "Unlocking Housing Supply: What Can We Learn About Recent Construction and Permitting Patterns in Our Region?"
Land availability and regulations can help explain differences in local housing supply: Fifth District counties with relatively high housing supply growth also had relatively high permitting rates. Regulations also play a role, as areas that are more highly regulated (such as the Washington, D.C., region) tend to have lower rates of new construction, while areas that are less regulated (such as greater Charlotte, N.C.) tend to have higher rates. In Maryland, two counties have had different experiences based on development restrictions. Frederick County has a growing population and is considered large by land area; it experienced growth of permitting and new housing units above the national rate in 2021-2022. Talbot County, however, considered small by land area, experienced little to no change in population, with growth rates of permitting and new housing units well below the national rates.

Laura Dawson Ullrich and Jacob Walker. "Non-Credit Workforce Programs at Community Colleges."
Non-credit programs are shorter than for-credit programs and typically focus on skills and credentials related to specific occupational certifications, such as a short-term welding certification or a commercial driver's license. Traditional data sources do not capture information on the scale of these offerings or the outcomes of students enrolled. The Richmond Fed's 2023 Survey of Community College Outcomes extended pilot surveyed 63 colleges across the Fifth District and determined that 154,340 students were enrolled in non-credit programs. These students play an important role in the total number of community college students across the Fifth District — ranging from 76.2 percent of the student population at a small rural school in Maryland to 8.8 percent at a school in West Virginia. Overall, as more students shift to shorter-term credentials and employers become more comfortable with these credentials, better data collection will be key for employers, community colleges, and students.

Jason Kosakow and Zach Edwards. "Is Wage Growth Normalizing? What Fifth District Businesses Are Saying About Wages."
Wage growth is above pre-COVID-19 levels but has declined in recent months. Even so, looking ahead, most firms expect wage growth that is "about normal," and they anticipate a return to near pre-COVID-19 levels in the next 12 months. Moreover, mentions by survey respondents of "worker compensation," which spiked to a high above 16 percent in 2021 during the COVID-19 labor shortages, remained elevated through last year. Wage increases appear to be top of mind for many Fifth District businesses, including ones that have already increased wages to attract and retain workers. For example, one business shared in a recent survey, "Payroll inflation [put us in] the red in 2022, and we haven't gotten everything totally reconciled in 2023 ... if we raise our [prices] higher, people will just go online and buy."

Adam Scavette and Keith Waters. "Urban Marylanders Are Migrating to More Affordable and Smaller Metro Areas."
In December, Maryland's unemployment rate reached nearly 2 percent, indicating the state's tight labor market and ongoing hiring challenges amid a slow post-pandemic labor force recovery. An increasing number of Maryland residents are leaving the state entirely: In 2021 and 2022, Maryland experienced the highest net domestic out-migration in the Fifth District at -25,641, and -65,622 people, respectively. Much of the state's net domestic out-migration before the COVID-19 pandemic was from the Washington-Baltimore corridor to affordable, large metro areas. During the pandemic, however, destinations shifted toward midsized and small metros and rural areas; in 2023, migration to such areas continued to surpass 2019 levels. **EF**

BY CHARLES GERENA

Collaborating to Improve Rural Access to Capital

Small towns and rural communities play a key role in the Fifth District's economy. Not only do they make up nearly one-quarter of the region, they also have important economic ties to neighboring cities and counties.

That's why the Richmond Fed is addressing the economic health of rural areas as part of its broader mission of strengthening the economy. Working with partners on the local, regional, and national levels, the Bank's Community Development team recently launched the Rural Investment Collaborative to increase economic investment in small towns and rural communities throughout the Fifth District.

"When we spoke to rural leaders, they let us know they wanted to work together on improving access to capital," says Jason Smith, senior community development advisor at the Richmond Fed. Smith leads the Rural Investment Collaborative for the Bank. "Increased workforce training is important, but without community and economic development investment, the people who develop new skills may go to where there are resources to use them."

The Rural Investment Collaborative aims to address demand and supply issues that impede access to capital in rural areas. On the demand side, the collaborative identified a lack of expertise in applying for funds as an obstacle. "Small towns and rural communities have fewer organizations and individual leaders who have the time and skills to pursue community and economic development investments," notes Smith.

On the supply side, the collaborative recognized two issues. First, there are fewer sources of capital in small towns and rural communities. According to Smith, because many rural areas have higher percentages of low- and moderate-income people, "there are fewer local resources in the form of a tax base and philanthropic capital to help secure investments."

Second, there is a lack of coordination of capital sources for rural investment that do exist. "Money rarely comes from a single funding source for today's projects," says Jarrod Elwell, the Richmond Fed's community development regional manager for Virginia and Washington, D.C. "Instead, funding typically involves multiple sources and entities, both public and private."

For example, a subsidized housing developer told Elwell last year that one project had 23 different funding sources. Each source can have its own application process, use restrictions, and reporting requirements, so aligning the layers of this "capital stack" takes time. Elwell has learned that it can take between seven and nine years for a project in a rural area to go from conception to completion.

To improve the demand side of the capital equation, the Richmond Fed worked with Invest Appalachia to create the Community Investment Training program. The Rural Investment Collaborative's eight-member steering group and a project development workgroup selected 20 rural leaders from nonprofits and government agencies in the Fifth District to learn the basics of community development finance and expand their network. The objective is for each participant to develop and pitch a proposal for a real-life project at the end of the 12-week virtual program. To help build a coalition of local support for their projects, participants will also receive a $2,000 mini-grant from the collaborative's partners.

Richmond Fed staff did not participate in the fundraising for the grants or selecting the grantees or the participants. Instead, they relied on people on the ground like Jennifer Hudson, development director of the Williamson Health and Wellness Center in West Virginia. Hudson joined a pilot version of the training program because she wanted to gain the skills to communicate and move her ideas forward.

"It's all about relationships," describes Hudson. "I've been able to share resources and to be part of a team working to secure funding for projects that inspire us." So far, the connections she made through the training have led to support for several projects, including the reopening of a rural hospital and the launch of an indoor market and kitchen in Williamson.

To address the supply of capital in small towns and rural communities, the Richmond Fed has been bringing together leaders with expertise in community development financing. In May 2023, the Bank gathered practitioners, funders, and researchers from organizations including Harvest Foundation, United Way of Southwest Virginia, Invest Appalachia, Claude Worthington Benedum Foundation, Brookings Institution, Bloomberg Philanthropies, and the Annie E. Casey Foundation. This group helped develop a work plan for a new capital development workgroup within the Rural Investment Collaborative.

The workgroup members met this past February. Led by Elwell, they began to develop research questions and resources for rural leaders. Ultimately, their work will help inform decision-makers about the challenges, opportunities, and promising practices related to improving capital access for small towns and rural communities. **EF**

BY SAM LOUIS TAYLOR

Will *Chevron* Keep its Stripes?

Following the will of Congress is often a complicated endeavor for regulators, especially when lawmakers leave aspects of a regulatory law unclear. That uncertainty often leads to litigation. But how should courts determine if an administrative agency has gone outside the bounds of the law when designing regulations? This is an important question for regulators, like the Fed, that have been charged with implementing laws passed by Congress.

In the 1984 landmark case *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* the court established a process to determine whether an agency has acted properly in creating a regulation in the face of legislative uncertainty. This concept, commonly referred to as *Chevron* deference, has been a critical legal concept that has governed how courts oversee the regulatory process for the past 40 years. In January, the Supreme Court heard arguments in two cases that could overturn *Chevron* and set out new expectations for how agencies should implement laws passed by Congress.

In *Chevron*, the Supreme Court established a two-part test to determine the lawfulness of a regulation. First, when a regulation is being challenged, a court will determine if Congress has spoken clearly on the matter. "If the intent of Congress is clear, that is the end of the matter." But if Congress does not clearly state how it wants a statute to be implemented, then courts should defer to an agency's interpretation of the statue that is within its administration so long as it is a "permissible construction" of the law. The court based this deference on three reasons: ambiguity in a statute amounts to an implicit delegation of authority by Congress to an agency to resolve outstanding questions of implementation; an agency has greater subject matter expertise than courts to resolve this ambiguity; and an executive branch agency is a better venue for reconciling "competing political interests" than the courts because the president has greater political accountability.

In the 1984 landmark case *Chevron U.S.A., Inc.* v. *Natural Resources Defense Council, Inc.* the court established a process to determine whether an agency has acted properly in creating a regulation in the face of legislative uncertainty. This concept, commonly referred to as *Chevron* deference, has been a critical legal concept that has governed how courts oversee the regulatory process for the past 40 years.

The Supreme Court has combined two cases in its current term, *Relentless, Inc. v. Department of Commerce* and *Loper Bright Enterprises v. Raimondo*, in which two herring fishing companies have challenged a rule from the National Marine Fisheries Service that requires the industry to pay for on-board observers to monitor federal conservation efforts. Lower courts cited *Chevron* in rejecting the companies' challenges. The petitioners have asked the Supreme Court to overrule *Chevron* or at least significantly curtail the deference given to agency determinations.

What would be the impact of ruling against the government in these cases? Legal scholars have predicted that agencies could become more constrained in their interpretations of statutes and more hesitant to create regulations in response to new and emerging issues without going to Congress for more authority. Experts have also observed that Congress would need to clearly state its intent when drafting laws or be willing to come back and tackle new issues as they arise. There are also predictions that regulations would more often be challenged in court because agencies could not count on judicial deference to their interpretations of statutes.

There are many in the political and legal sphere who see these potential changes as a feature, not a drawback, of overturning *Chevron*. In an amicus brief led by Sen. Ted Cruz, R-Texas, Republican members of Congress have argued that *Chevron* has inappropriately expanded the role of agencies into policymaking, a power reserved for Congress.

"Over time, it's proven to be a harmful precedent because it shifts decision making away from democratically elected members of Congress to the permanent members of the bureaucracy," the Republican members of Congress argued.

Others have argued that Congress purposefully provided agencies with leeway to respond to new threats that it could not have anticipated. A brief filed by Sen. Sheldon Whitehouse, D-R.I., on behalf of a group of Senate Democrats stated, "As industries grew more complex, Congress delegated some regulatory authority to administrative agencies. *Chevron* deference has been an important element in this endeavor, allowing Congress to rely on agency capacity and subject matter expertise to help carry out Congress's broad policy objectives."

Regulators and other interested parties will be following the ruling closely to better understand the limits courts are likely to impose on the way agencies operate in the future. **EF**

The Virginia Capital Trail spans almost 52 miles from Richmond, Va., to Jamestown, Va. In 2018-2019, visitors to the trail spent an estimated $6.1 million in the state.

Investing in the Great Outdoors

Some rural and small-town communities see potential for outdoor recreation to reinvigorate their economies

BY TIM SABLIK

While the appeal of Mother Nature has always been self-evident to enthusiasts, the COVID-19 pandemic brought in new converts. Once it became clear that the virus spread less easily in open spaces, and with many indoor options shut down, outdoor recreation became a compelling option for anyone looking to escape their home or apartment in 2020.

In addition to visiting state parks and trails in record numbers, many Americans moved from cities to suburbs, small towns, and rural places in search of more open spaces. According to a March 2023 report from Harvard University's Joint Center for Housing Studies, change-of-address requests through the U.S. Postal Service were 22 percent higher in March 2020 compared to a year earlier, and 14 percent higher in April 2020 than in April 2019. States that gained from domestic migration in 2020-2021 included places with desirable climates and outdoor recreation opportunities, such as the Sun Belt and the Mountain West.

Even before 2020, there was evidence that natural amenities and the general quality of life in a community were important factors in people's decisions to visit or move to a place. Many believe that the pandemic and the rise in remote work has reduced the importance of proximity to employers when choosing where to live, making a place's outdoor amenities even more significant. But is investing in outdoor recreation a good strategy for a community's long-term economic growth?

UNTAPPED POTENTIAL

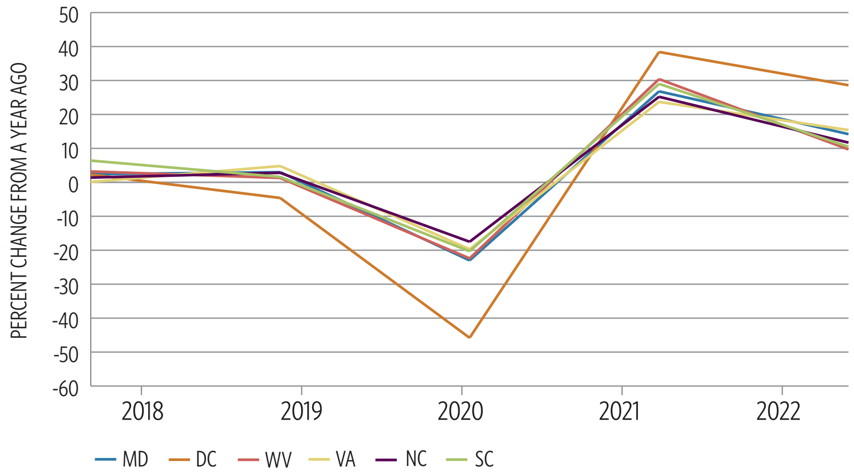
In 2022, according to the U.S. Bureau of Economic Analysis (BEA), the value added from the outdoor recreation economy accounted for 2.2 percent — $563.7 billion — of the U.S. gross domestic product (GDP). Compared to the economy as a whole, the outdoor recreation sector experienced rapid growth in recent years. Inflation-adjusted, or real, GDP for the outdoor recreation sector increased 4.8 percent in 2022 (the latest data available), down from an astonishing 22.7 percent growth in 2021 but still greater than the overall U.S. economy's growth of 1.9 percent.

The BEA divides the outdoor recreation economy into three broad categories: conventional activities, which includes things like cycling, boating, and hiking; other activities, such as gardening or outdoor concerts; and supporting

IMAGE: JESS PETERS

Outdoor Recreation Economy Growth in the Post-Pandemic Era

GDP Value Added in Fifth District States



NOTE: Statistics isolate the economic activity associated with outdoor recreation spending and production in a state's economy.
SOURCE: U.S. Bureau of Economic Analysis, Outdoor Recreation Satellite Account

activities, such as construction and travel and tourism. This last category accounted for nearly half of the value added from outdoor recreation in 2022 at 46 percent. A big part of that supporting activity is tourism. The arts, entertainment, recreation, accommodation, and food services industry generated about a quarter of the overall national value added by outdoor recreation, or $144.5 billion.

While some states have always attracted tourists with their outdoor offerings, the COVID-19 pandemic spurred many people to explore options closer to home. In Virginia, state parks saw roughly a million more visitors in 2020 than in 2019. That traffic has not slowed down, even as more widespread travel has opened up. According to a recent presentation to the Virginia Senate Finance and Appropriations Committee by Virginia Department of Conservation and Recreation Director Matthew Wells, the state's parks had just over 8 million visitors in 2023 compared to 6.9 million in 2019. From 2017 to 2019, outdoor recreation consistently contributed between $9 billion and $10 billion annually to the Virginia economy. In 2022, that amount grew to $11.35 billion, or 1.7 percent of the state's GDP. (See chart.)

Capturing those economic benefits, particularly from visitors, takes careful planning. Many outdoor recreation activities take place in public spaces that may be maintained through local taxes. But by their open public nature, those spaces can be accessible to non-taxpaying visitors as well.

"You need to design fiscal policies to capture some of the economic activity from visitors to invest locally in order to sustain a strategy around outdoor recreation," says Santiago Pinto, a senior economist and policy advisor at the Richmond Fed whose research includes studying regional economics.

In its Rural Economic Development Toolkit, the Outdoor Recreation Roundtable (ORR), a national business coalition that promotes outdoor recreation activities, advises communities on how to capture the value from outdoor tourism. That includes charging fees for out-of-state visitors to parks or making use of overnight lodging taxes. Communities are also encouraged to think about the entire network of businesses that could surround outdoor recreation destinations, such as restaurants, breweries, outfitters, and hotels.

"The places that have been most effective at building an outdoor recreation economy are thinking about the whole value chain," says Chris Perkins, vice president of programs at the ORR. "From the moment someone enters to pursue an outdoor recreation opportunity, they're receiving marketing about all the community amenities."

The Virginia Capital Trail, a nearly 52-mile-long paved path for walking and biking that follows the James River from Richmond to Jamestown, is one example of this approach. Along the trail, which is free to access, visitors can find restaurants, stores, restrooms, campsites, lodging, and bicycle repair stations. A 2019 economic impact study conducted by the University of Richmond in partnership with the Institute for Service Research found that visitors to the Virginia Capital Trail in 2018-2019 spent an estimated $6.1 million in the state, mostly within a 50-mile radius of the trail.

ATTRACTING NEWCOMERS

Tourism is just one important way communities can leverage the economic potential of the outdoors. Some of those visitors may turn into long-term residents.

"Tourism is the red carpet to residency," says Danny Twilley, assistant vice president of economic, community and asset development for West Virginia University's Brad and Alys Smith Outdoor Economic Development Collaborative (OEDC). Utilizing the university's intellectual and social capital, the Smith OEDC helps communities in the state leverage their outdoor assets to improve their economy and quality of life.

There are many factors that people consider when deciding where to live, including the job or business environment and the community's quality of life. Economists define quality of life by the various amenities a community offers residents and measure it by how much households are willing to pay in terms of higher housing prices or lower wages to gain access to those amenities. Some types of amenities are generated by density, such as the availability of restaurants and cultural events in densely populated cities, while outdoor amenities are naturally occurring and are often enhanced by lower population density.

In the case of rural and small towns, there is growing evidence that outdoor recreation can be a significant driver for in-migration. A 2019 paper by Headwaters Economics, a nonprofit research group focused on community development and land management, found that between 2010 and 2016, micropolitan counties (places with at least one urban area with between 10,000 and 50,000 residents) lost an average of 15.6 residents per 1,000 if their economy wasn't focused on outdoor recreation. But recreation-based micropolitan counties gained an average 21.6 residents per 1,000 over the same period. Nonrecreational rural counties lost 19.9 residents per 1,000, while recreation-based rural counties gained 1.3 residents per 1,000. (Rural counties are defined as ones that don't have an urban area with at least 10,000 residents.)

Historically, the advice for rural and small towns looking to grow has been to focus on improving the business environment to attract job-generating firms. In a recent Richmond Fed *Economic Brief*, Pinto documented that the evidence on the effectiveness of such incentives has been mixed. Place-based policies to attract firms can reduce poverty and increase employment, but they can also push existing residents out and create negative spillovers on surrounding localities.

More recently, researchers have been investigating whether investments in a community's quality of life, such as outdoor recreation, could be part of an effective and sustainable growth strategy. In a 2023 article in the *Annals of Regional Science*, Amanda Weinstein of the Center on Rural Innovation and Michael Hicks and Emily Wornell of Ball State University found that quality of life was more important to the success of micropolitan areas than the business environment. Having a higher quality of life was associated with greater population growth, higher employment, and lower poverty rates. The COVID-19 pandemic reinforced these trends, as many Americans moved from dense cities to more open spaces. (See "Paid to Relocate," *Econ Focus*, Third Quarter 2022.)

"COVID was traumatic in so many ways, but one thing it did was make us all stop what we were doing and take time to revisit what's important to us," says Andrew Williamson, director of outdoor economic and community development for the Smith OEDC. "Many people rediscovered an appreciation for being outdoors, whether it's a local park or the wilderness in the backcountry. You couple that with the ability to now live and work from anywhere, now West Virginia has a huge opportunity."

DIVERSIFYING THE LOCAL ECONOMY

For decades, West Virginia's economy has relied heavily on resource extraction, chiefly coal. Energy extraction jobs often pay very well, but the industry is subject to economic booms and busts. (See "Navigating Energy Booms and Busts," *Econ Focus*, Fourth Quarter 2018.) Now, economic development organizations like the Smith OEDC are exploring whether investments in outdoor recreation could help extraction-based communities build more diverse, less volatile economies.

"We believe that when you invest in people and you invest in place, the companies may come and go, but the people in the community will stay," says Twilley. "For me, this is the most important thing we could ever do for West Virginia, because they've seen the extraction of resources and how when companies downsize or leave, jobs leave, then people leave. Investing in community and the outdoor economy can help stabilize that trend."

Both Twilley and Williamson stress that this strategy is not a quick fix. It can take many years for investments in outdoor recreation and the surrounding community to bear fruit. A recent report from Headwaters Economics exploring the use of outdoor recreation to diversify the economy of resource-dependent communities also emphasized the importance of setting realistic expectations.

"Jobs in the resource extraction industries tend to be high-paying," Michael Tolan, the report's author, wrote. "It is not reasonable to expect outdoor recreation to 'replace' these jobs overnight."

Still, jobs in the outdoor recreation industry are growing fast. According to the latest BEA data, both outdoor recreation employment and compensation increased by a higher percentage in 2022 than the U.S. economy overall. Outdoor recreation employed nearly 5 million workers, 3.2 percent of the overall workforce, in 2022. But will the jobs and activities that support outdoor recreation necessarily facilitate the development of a dynamic and innovative local economy? That remains to be seen.

"The people who are attracted to a place because of its outdoor amenities may or may not bring entrepreneurial skills and ideas to the area," says Pinto. "Nonetheless, the resulting population inflows may create a ripple effect, stimulating the local development of outdoor-related businesses and other complementary activities and services."

WHAT DOES IT TAKE TO SUCCEED?

First and foremost, a community looking to develop its outdoor recreation economy needs to have some outdoor amenities to work with. Sometimes this can mean taking a fresh look at features that have long been there. For example, the New River Gorge in West Virginia was designated as a national river in 1978, and locals had long taken advantage of the opportunities it offered for hiking, climbing, and rafting. In 2021, it became the country's newest national park, and some saw an opportunity to do more.

Corey Lilly, a 10th generation West Virginian and outdoor enthusiast who competed professionally across the country as a skier and kayaker, returned to his hometown of Beckley to head up its office of outdoor economic development. Like many communities in the state, the city of Beckley (population of around 16,000) was known for coal mining. Its proximity to the new national park presented an opportunity to reinvent itself as an outdoor recreation destination. With Lilly's leadership, the community has launched the Beckley Outdoors plan with the goal of establishing the city as "a premier outdoor destination that celebrates southern West Virginia's Appalachian heritage."

Having a local community champion like Lilly is a necessary ingredient for building up an outdoor recreation economy, according to the ORR's Perkins.

"Ideally, they are someone who has the respect of a wide variety of stakeholders within a community," he says. "They are willing to show up to the town council or community commissioner meeting to build relationships and make the case for the project. That can't be parachuted in from the outside. It's community-level relationships that make this happen."

In addition to building local buy-in, it can also be helpful to have coordination and support at the state, regional, and national levels. Environmental conservationists and outdoor recreation advocates in Virginia joined forces to form the Our Virginia Outdoors coalition in 2021, which advocates for dedicated, consistent state funding for natural resources. Such funding would both help preserve those resources for future generations and better capitalize on the economic potential of outdoor recreation.

"Virginia has 42 state parks and 66 natural area preserves, a good portion of which are open to the public. And yet, when you look at the state budget and ask whether we are putting money toward this as a priority, the answer is a resounding 'no,'" says Mikaela Ruiz-Ramón, the public funding and policy manager for the Virginia chapter of the Nature Conservancy, a global nonprofit environmental group.

The Virginia Department of Conservation and Recreation reports that state parks alone have accumulated a roughly $300 million backlog of deferred maintenance. This includes projects like improving the accessibility of parks, repairing and modernizing campgrounds and other facilities, and maintaining trails, roads, and bridges.

"There is so much demand for programming and overnight stays at state parks that isn't met because money hasn't consistently been put in for cabins, camping facilities, and other basic utilities like electricity, plumbing, and roads in and out of the parks," says Ruiz-Ramón.

Nationally, 21 states have established offices of outdoor recreation to guide investments in outdoor resources and improve state competitiveness for funding and talent. In the Fifth District, North Carolina, Virginia, and Maryland have offices of outdoor recreation, all of them established in the past seven years. Many of these offices also work together to share best practices.

"If you're biking or paddling down a river, you're not paying attention to state lines," says Ruiz-Ramón. "It's a collaborative space because of the nature of the business."

The Confluence of States, managed by Maribel Castañeda, is a bipartisan coalition of 17 states dedicated to growing the outdoor recreation sector. North Carolina was a charter member when the coalition formed in 2018; Virginia joined in 2019, and Maryland in 2022. Members agree to support common principles around conservation and stewardship, education and workforce training, economic development, and public health and wellness.

"We're in competition with each other, but at the end of the day, we all know how important outdoor recreation is for every state," says Castañeda.

The Appalachian Regional Commission (ARC) is a federal-state partnership established in 1965 to strengthen the economy of the region, which includes all of West Virginia and parts of Maryland, Virginia, North Carolina, and South Carolina. (For more on the history of ARC, see "Connecting a Region Apart," *Econ Focus*, Second Quarter 2022.) One of ARC's current investment priorities is enhancing the regional culture and tourism of the counties it serves, including through outdoor recreation. ARC funding helped St. Paul, a former coal and railroad community in southwest Virginia with a population of under 1,000 people, develop outdoor recreation and tourism opportunities centered on the Clinch River that runs alongside its downtown.

SUSTAINABLE DEMAND?

In the case of some communities, their proximity to natural amenities for outdoor recreation can also create challenges for building the infrastructure needed to support visitors and new residents. In a 2021 report, the Urban Institute noted that rural communities situated near state or national parks often lack services such as banks, health care facilities, public libraries, schools, and transportation compared to other communities. The wide open spaces needed for outdoor recreation can limit the land available for building, which can put pressure on housing prices as a community grows. And when it comes to housing, the goals of increasing tourism and residency can be in conflict, with an influx of tourists leading to an uptick in second homes and short-term rentals that price out residents.

"Oftentimes communities are so eager to attract external investment that they try to be everything to everyone, and they forget about their core stakeholders, which are their local community and workforce," says Perkins. "It's important to plan ahead and find the right balance between bringing in people from the outside and investing locally to grow at a sustainable rate."

Communities considering reorienting their local economy around the outdoors may also wonder if the surge in demand for fresh air brought about by the pandemic will persist long enough for such a development strategy to pay off. While no one can predict the future, there are some indications that the ways we live and work have shifted in lasting ways.

The prevalence of working from home has come down from the highs seen in the spring of 2020, and workers are returning to the office, but the share of days worked from home remains well above pre-pandemic levels as many workplaces have settled into a hybrid schedule. Many parks, such as those in Virginia, continue to report record attendance. The increasing number of states establishing offices of outdoor recreation demonstrates a growing commitment to investing in natural amenities. And health care professionals are increasingly touting the mental and physical health benefits of being outside.

"Taking a walk outside has only ever made me feel better than before I started, and I think more people are recognizing the same thing," says Perkins. "That bodes well for this generation to be long-term recreation participants and advocates." **EF**

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BY MATTHEW WELLS

The Origins of the 2 Percent Inflation Target

The Fed established an explicit inflation target in 2012, but the internal debate began decades before

"The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run."

Eight times a year, the Federal Open Market Committee (FOMC) meets to conduct monetary policy, and, regardless of what actions it takes, this seemingly straightforward line has appeared in each of its post-meeting statements since September 2020. By now, many Fed watchers may take it for granted.

But the committee — the Federal Reserve Board's seven governors, the president of the New York Fed, and a rotating set of four presidents from the other Reserve Banks — has not always been so transparent and precise on this subject. For decades, it did not aim for a target inflation number; even when it appeared to settle behind the scenes on a 2 percent target in 1996, it wasn't made public and explicit until 2012 – 16 years later.

The 2012 pronouncement was the result of a decades-long deliberation, as members first raised the issue in the mid-1990s. Policy change moved slowly, however, as committee turnover brought new preferences and ideas into a dynamic economic and political environment. Along the way, the Richmond Fed's leadership played an important role in bringing these changes about, from being among the first to raise the idea of a target to providing the intellectual leadership that shaped discourse about the benefits of a public inflation target for price stability.

RAISING THE ISSUE IN THE 1990s

Price stability has long been a primary focus of the Fed, even before it was officially established as a part of the Fed's mandate in the Federal Reserve Reform Act of 1977. Despite this focus, the Fed was not always successful, and inflation would hover near or above double digits throughout the 1970s. Paul Volcker, the staunch inflation hawk who became chair of the Fed in 1979, largely succeeded in bringing inflation under control; it was down to 3.2 percent by the end of 1983. The sharp increases in interest rates he used to get there were politically unpopular and led to a deep recession, but they showed the Fed could indeed control the trajectory of inflation through monetary policy.

At the time, most policymakers did not see a need for a target inflation rate; they just knew inflation was too high. Many held that view up until the mid-1990s. Al Broaddus was president of the Richmond Fed at the time, and he agreed the rate needed to come down. More importantly, though, he also maintained the Fed's credibility rested not only in managing actual inflation, but also in its ability to shape inflation expectations. It could establish credibility through a policy of "preemption" — increasing interest rates in response to increasing inflation expectations rather than actual inflation. But on its own, such a policy wasn't necessarily sufficient for establishing long-term price stability, according to Broaddus. "Among monetary economists, there was an increasing recognition that something else was needed," he says. "So people started talking about inflation targets."

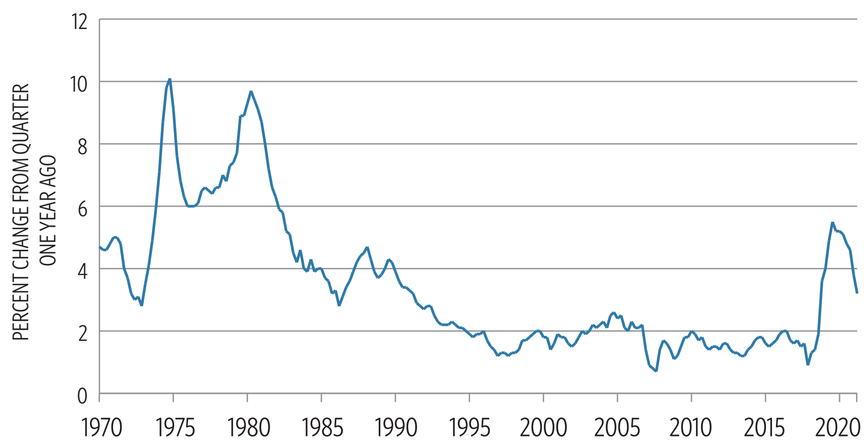
Inflation was 2.8 percent when the FOMC held its July 1994 meeting. While it had come down from higher levels, Thomas Melzer, then president of the St. Louis Fed, was still concerned that markets were uncertain about the Fed's ultimate aims, prompting him to raise the idea of a target. "If we don't make an explicit statement … that goes beyond 'we think price stability is good,'" he argued, "and get more specific in terms of a target range, then at the very least I think we have to make it clear that we consider 3 percent inflation to be unacceptable." Broaddus agreed, suggesting the committee should take the "opportunity to make our longer-term goals more explicit with respect to prices and tie ourselves down a bit." Other FOMC members were skeptical, suggesting such an idea would be difficult to put into actual policy.

A formal debate on the topic would take place in the committee the following January. Chair Alan Greenspan took over from Volcker in 1987 and tasked Broaddus with arguing for the pro-targeting position at that month's meeting; Janet Yellen, appointed a governor in August 1994, was tapped to present arguments in opposition. (Yellen became president of the San Francisco Fed in 2004, Fed chair in 2014, and Treasury secretary in 2021.)

Broaddus urged the committee to move "away from the almost purely discretionary approach to policy we have followed historically … toward an approach where the central focus would be on precommitment to a permanent

Volatility to Moderation

Core PCE Inflation over Time



SOURCE: U.S. Bureau of Economic Analysis

NOTE: Core PCE (Personal Consumption Index) is a measure of prices paid for goods and services. Core PCE eliminates prices for food and energy, which can have significant and more frequent price fluctuations.

low inflation objective." He outlined several advantages to what has come to be known as "flexible inflation targeting," including that it would allow the committee to pursue more activist policy in the short run without losing long-term credibility. For example, the FOMC might find it necessary to temporarily cut interest rates — thereby boosting inflation — to move against short-term dips in economic activity, but the public need not change its expectations if it knew inflation would return to the target in the medium to longer term. Broaddus also noted some other countries were moving in the direction of an inflation target, and the United States should also want to signal its commitment to locking in low inflation. Broaddus didn't name the countries he had in mind, but Canada and New Zealand were two that had adopted an inflation target by this time.

Yellen, who would develop a reputation as perennially the most prepared person in any room, with a thick binder of notes and her own dashboard of economic indicators, made the case that controlling the inflation rate should not be the only objective; she argued that the Fed's other legislatively mandated goal — maximum employment — was also important for a strong and stable economy. Sensing that an inflation target would lead monetary policy to prioritize inflation over employment, she suggested that if the Fed were to adopt any rule, it should pursue a hybrid one similar to those that seemed to be used by other central banks, such as the German Bundesbank, where monetary policy was adjusted on the basis of two targets: inflation and economic output. At the conclusion of the discussion, Greenspan sensed the committee was split, and no action was taken.

Eighteen months later, in July 1996, the FOMC again revisited the issue. Yellen still expressed concern about the potential adverse effects of low inflation on employment, but, in a signal that her thinking had evolved, she spoke in favor of keeping the inflation rate below 3 percent and argued they should work to eventually bring it down to 2 percent, a number that appeared to be supported by a strong majority of the committee, including Broaddus.

THE ERA OF THE IMPLICIT TARGET?

Because he believed in keeping the committee's monetary policy decisions confidential, market watchers over the course of Greenspan's nearly two decades as chair went so far as to analyze the size of his briefcase on FOMC meeting days for some sort of signal as to whether he would push for an interest rate cut. In keeping with that predisposition toward secrecy, at one point in the July 1996 discussion, after the committee seemed to settle on 2 percent, Greenspan reminded members of their obligation not to disclose any decisions it might reach regarding the inflation target. With an eye on potential political and market blowback, he warned, "I will tell you that if the 2 percent inflation figure gets out of this room, it is going to create more problems for us than I think any of you might anticipate."

Don Kohn, who served as director of the monetary affairs division at the Fed during this period, was in the room. He offers two explanations for Greenspan's reluctance to go public with the target. First, he posits Greenspan simply did not want his discretion constrained in any way when it came to possible actions he might want to take. Second, there was "an unwillingness to create an output gap to get to 2 percent" during the periods when inflation was above that, says Kohn. "If you make 2 percent public, and you're running at 2.5 percent, then the question is, 'why aren't you creating unemployment to get to 2 percent?' That's not a position anyone really wanted to be in." At that time, the FOMC saw itself as being able to bring inflation down successfully without deliberately raising unemployment in what has been described as "opportunistic disinflation;" those are disinflations caused by other forces in the economy but consolidated into place by monetary policy once they occur. After the early and mid-1990s, inflation did fall without a Fed-caused recession or seriously impinging on policy flexibility: Inflation measured by the core personal consumption expenditures (PCE) index went from between 3.5 percent and 5 percent in the late 1980s and early 1990s to largely between 1 percent and 2 percent from the mid-1990s until the late 2010s. (See chart.)

Marvin Goodfriend was Al Broaddus' primary adviser and the Richmond Fed's research director.

Prior to becoming an economist, he had spent a year trying to make it as a rock musician living in a friend's Los Angeles garage, and he had kept that musician's independent spirit, holding fast to the idea the target should be explicit and known by the public at a time when the idea was considered highly unorthodox. He had long argued for transparency regarding the Fed's goals and intentions because without it, its actions to stabilize real economic activity and financial markets were not credible and left open to misinterpretations by market and economic participants.

"Marvin was among the earliest to conclude that an inflation target would help the Fed achieve this credibility," says Broaddus. "His influence on my thinking about a target was decisive and provided the foundation of our advocacy in the FOMC." (Goodfriend later served on the faculty of Carnegie Mellon University; he passed away in 2019.)

In an October 2003 speech Ben Bernanke gave at the St. Louis Fed — he was then a little over a year into his three-year tenure as a member of the Board of Governors — he shared Goodfriend's skepticism that the public and financial markets understood the Fed's implicit inflation objective. Announcing a target, what he called the optimal long-run inflation rate (OLIR), was crucial because it "should help participants in financial markets price long-term bonds and other financial assets more efficiently; help to lower inflation risk in financial markets and in other forms of contracting; and tend to stabilize long-term inflation expectations more broadly, which in turn would make short-run stabilization policy more effective."

Bernanke also took the important step of explaining why the OLIR was 2 percent. His argument centered on the ability of policymakers to boost economic activity through interest rate cuts during periods of low inflation. Cutting rates becomes difficult when interest rates are already near zero, something known as the zero lower bound problem. He cited several studies that found 2 percent was, in his words, "the lowest inflation rate for which the risk of the funds rate hitting the lower bound appears to be 'acceptably small.'" (Prior to the public declaration of the inflation target, the funds rate did hit the zero bound during the financial crisis, and, as discussed below, this further motivated Bernanke's desire to make that formal announcement.)

THE LONG ROAD TO THE CONSENSUS STATEMENT

Bernanke would succeed Greenspan as Fed chair in 2006. He clearly held a different view than his predecessor with respect to the need for the FOMC to be transparent in its approach to inflation, but he could not act on his own. In the March 2007 FOMC meeting, Bernanke took the committee's temperature on several questions that needed to be addressed if it was going to make any changes to existing policy, including whether there should be a target or a range and any time horizon that might be involved. The exchange, however, revealed the committee was still split along these dimensions. For example, Jeffrey Lacker, who had become Richmond Fed president in 2004, favored a 1 percent inflation target with a range of plus or minus 1 percent and a clear time horizon of two years. Yellen, then president of the San Francisco Fed, favored a 1.5 percent target with a range of 1 to 2 percent, but preferred it be a long-run goal and not bound by a fixed time horizon. Still others, like Dallas Fed President Richard Fisher, opposed a target altogether, arguing that there was no evidence countries with a target performed better at managing inflation than those without a target. (Earlier studies comparing economic outcomes between countries with inflation targets — for example, New Zealand, Germany, Canada, and the United Kingdom — and those without did not show clear evidence that such policies improved economic outcomes. Later work would show that inflation targeters better managed price and inflation shocks as well as economic uncertainty.)

Despite these differences, Bernanke hoped they still might find a path forward through the Summary of Economic Projections, a quarterly compilation of each Fed governor's and Reserve Bank president's projections for a series of economic indicators such as GDP, employment, and inflation. By adding another year to participants' inflation forecasts, they might all cluster around a single number, which could serve as a substitute for an announcement of numerical specification. "The hope was, everyone will have the same forecast and then we can go home," says Lacker. "But we were all over the map. So then they added the column for the longer term after all the shocks had died out. That failed, too."

By 2009, the financial crisis had worsened. Bernanke sensed inflation was falling too quickly, which can lead to higher real interest rates. On the other hand, the potential for rising inflation prompted by the quantitative easing needed to fight the crisis worried him as well. Still, action proved elusive, as Congress voiced concerns about the need to also focus on employment, and committee turnover brought in new members who were skeptical of a targeting framework.

The committee did not discuss an inflation target between January 2009 and October 2010, when the concerns over disinflation (that is, declining inflation) evolved into worries about deflation (negative inflation). Those worries prompted Bernanke to revive the idea of a target as a possible way to enhance the forward guidance effects of the 2010 round of quantitative easing known as QE2, meaning that the target would help communicate to the public that the Fed was committed to an inflation rate higher than it was at the time. (See "The Future of Forward Guidance," *Econ Focus*, Fourth Quarter 2022.)

"The next time we do anything … I think we ought to have a framework that says, 'Here's our objective,'" he told the committee in August. "And then we say that we're trying to achieve an inflation rate … and that we are going to calibrate our purchases or sales in a way that tries to reach that target." But the committee was still divided, and the announcement of $600 billion in asset purchases after the November 2010 meeting did not include any language along those lines.

Undeterred, supporters on the FOMC still believed it was possible to get broad support for a framework. The November 2011 meeting included an expanded discussion devoted to monetary policy frameworks, and 11 of the 14 participants spoke in favor of adopting some form of a flexible inflation target. Bernanke asked Yellen to head an effort to create a statement of principles that would tackle several potentially controversial issues: identifying a numerical inflation objective, outlining how that number was consistent with the dual mandate, explaining why there would be no employment mandate, and describing how the committee thought about time horizons.

The final product of those efforts — and all those before — was the January 2012 Statement on Longer-Run Goals and Monetary Policy Strategy, which introduced the 2 percent inflation target to the public: "The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate."

To get to this point, however, the committee also needed to address the maximum employment mandate to everyone's satisfaction. In a 2020 article, Lacker recalled that the statement had to "delicately finesse the divergent philosophies of participants regarding the meaning of the term 'maximum employment' and its role in monetary policy." To do so, the statement left the term undefined but noted that it is "largely determined by nonmonetary factors that … may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment." Ultimately, this phrasing, and the entire document, was acceptable to almost all participants, as only Gov. Daniel Tarullo abstained from supporting the document.

The committee opted for the specific 2 percent target, even though many participants over the years had advocated for a range. Lacker has cited two potential explanations for this shift. First, advocates of a single numerical target — often called a "point target" — thought that a range might imply the committee was satisfied with any number within it, even if variations within the range were economically significant. Second, Lacker notes that at that time during the financial crisis, inflation was running below 2 percent. That meant that "a range wasn't as dovish as a point target," he suggests. "If we say 2 percent, that will provide more impetus for expansive policy."

In August 2020, the FOMC released an updated Statement on Longer-Run Goals and Monetary Policy Strategy that maintained the 2 percent target. It made several changes, however. (See "The Fed's New Framework," *Econ Focus*, First Quarter 2021.) Most notably, it acknowledged that inflation since 2012 had frequently been below 2 percent, and so it stated that after such periods, the committee would allow inflation to rise "moderately above 2 percent for some time," bringing the long-term average back to target. It also changed its approach to employment: Where the 2012 statement indicated that the committee would move to reduce employment if it thought it had surpassed what it viewed as "maximum" employment, the new statement indicated that it would only want to reduce employment if it was necessary to keep inflation under control. Finally, it expressed concern that with interest rates near zero at the time, future policy might be constrained by the zero lower bound, increasing downward risks to employment and inflation.

The committee will likely begin another review of its longer-term goals in the coming months. It is currently operating under the 2020 framework but is not constrained by its new features, however, as inflation in recent years approached double digits: more than "moderately" above 2 percent. Instead, it has acted to bring inflation back down to that 2 percent target.

Even during this period, long-run inflation expectations have remained anchored, rising no higher than 2.5 percent, according to the Cleveland Fed. Those expectations have their roots in the FOMC's work as far back as the 1990s, suggests Lacker. That work, bolstered by the launch in 2012 of an explicit inflation target, "was what helped over time cement expectations about inflation." **EF**

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BY MATTHEW WELLS

The End of the Student Loan Repayment Moratorium

Borrowers didn't have to make payments for three and a half years. How will they — and the economy — weather a rapidly changing student loan landscape?

"College is an investment." It's a common line in dinner table conversations about higher education. The conventional wisdom is that college will set graduates on a trajectory where they are likely to earn far more than they would have otherwise. Indeed, research from the New York Fed suggests that recent college graduates on average earn substantially more — upward of $24,000 per year more — than workers in the same age group with only a high school degree. And this wage premium for college graduates only increases over time, as it goes from about 27 percent at age 25 to 60 percent by age 55, according to Harvard University economist David Deming. Clearly, there are substantial short- and long-term financial benefits to graduating from college.

At the same time, while the price tag on higher education options can vary, the costs of attending college or graduate school have increased dramatically. As a result, student loans currently are the third-largest source of household debt, behind mortgages and car loans. Some 43.2 million Americans hold a total of $1.6 trillion in student loans — a figure nearly three times what it was around 15 years ago — with an average monthly payment of between $200 and $300. About 4.3 million of those borrowers live within the Fifth District.

When economic activity ground to a halt with the onset of the COVID-19 pandemic in March 2020, those monthly payments became difficult for many borrowers to make. To ease the strain, the CARES Act — a massive economic stimulus package signed into law by President Trump that same month — contained a moratorium on the repayment of government-held student loans, as well as on interest accrual. Payments were originally paused until September of that year, but forbearance was extended repeatedly under the Trump and Biden administrations. The moratorium was finally lifted a little more than three years later, in June 2023, as part of the debt ceiling deal negotiated between the Biden administration and the Republican majority in the House of Representatives; payments and interest accrual resumed later that fall.

EFFECTS OF THE MORATORIUM

The New York Fed has reported that about $260 billion in total loan payments were paused during the moratorium. Instead of this money going back to the government, it remained in borrowers' pockets, altering their spending and consumption habits.

In a May 2023 working paper, economists at the University of Chicago characterized the moratorium as a large economic stimulus where borrowers substituted "increased private debt for paused public debt." Specifically, they found that rather than using the money to pay down other debt, eligible borrowers (that is, those with government-held loans) spent those funds on other things, expanding their balances on credit cards, mortgages, and auto loans by an average of 3 percent, or about $1,200, compared to borrowers with private loans that did not qualify for forbearance.

Who were the borrowers taking advantage of the moratorium? As it turns out, only 18 percent of federal loan borrowers continued to pay down their loan balances during that period. All borrowers with government-held loans — regardless of loan amount, income, or family size — were granted relief. But according to a 2023 report by economists at the Federal Reserve Board and the Department of the Treasury, families with children were most likely to benefit, as more than half of families with eligible student loans had children.

Further, based on their income, families that were eligible for relief were more well off than those that were not, "likely at least partly driven by the fact that families with student loan debt tend to have more education than those without." Perhaps most notably, the economists discovered blanket forbearance was highly regressive, allowing higher-income families to save more relative to lower-income borrowers, as they tend to have higher monthly payments, "due partly to having more debt and partly to reduced eligibility for IDR [income-driven repayment] programs." (IDR plans base monthly payments on income and family size.)

These findings underscore the significant variation that exists when it comes to how much individual borrowers owe and what educational programs they pursue with

Recent guidance from the Department of Education directs its loan servicers not to report missed payments to credit bureaus.

Demonstrators in Brooklyn, N.Y., at an April 2021 rally for the cancellation of student loan debt.

IMAGE: BEN VON KLEMPERER/SHUTTERSTOCK

those loans. The median amount of a borrower's outstanding student debt in 2022 was between $20,000 and $24,999 (that is, half of borrowers owed less, while half owed more) — but the mean, or average, balance was just over $37,000 at the end of 2023, according to the Department of Education. This difference can be attributed in part to the fact that borrowing is skewed by a minority of borrowers who take on outsized loans: In 2021, 7 percent of borrowers owed over $100,000 and 16 percent owed over $60,000. As the findings above suggest, borrowers with hefty loan balances are likely those who pursue graduate or professional degrees (for example, J.D.s, M.D.s, and MBAs), and those additional degrees generally translate into higher incomes. For example, the American Bar Association and Bureau of Labor Statistics report the average education debt for a law school graduate is $130,000 and the average salary is just over $148,000.

IS TROUBLE BREWING FOR BORROWERS?

Prior to the pandemic, the delinquency rate among student loan borrowers (that is, those who missed at least one payment) was about 23 percent, according to economists at the New York Fed. One question coming out of the moratorium was what effect it would have on this number: Would borrowers who benefited from three and a half years of forbearance, and those who finished school during the pandemic and moratorium, adjust to the new reality of having to make potentially substantial monthly payments? In August 2023, the New York Fed's Household Spending Survey asked borrowers this question.

Borrowers generally expected to make their payments at the same rate as they did prior to the pandemic, but that does not mean that all borrowers expressed the same level of confidence. Indeed, the Household Spending Survey showed significant variation across different demographic groups. Female borrowers, for example, reported a 28.9 percent probability of missing a payment, more than twice the 12.5 percent probability reported by men. Borrowers with household incomes of less than $60,000 per year reported an average probability of 39 percent of missing a payment, while those in households making above that threshold had an average probability of only 14.3 percent.

Rajashri Chakrabarti is one of the New York Fed economists who conducted the survey. She notes that while women are more likely than men to miss a student loan payment, they also expect to miss non-student debt payments at a lower rate. "That may be because women first try to pay down the other kinds of debt and then student debt, whereas the men do the opposite way," she says.

Missing a payment in the current environment, however, does not carry the same consequence that it might have previously: Recent guidance from the Department of Education directs its loan servicers not to report missed payments to credit bureaus.

Further softening the blow for many borrowers, the Department of Education unveiled the SAVE (Saving on a Valuable Education) plan in the summer of 2023. Like previous IDR plans, such as REPAYE, monthly payments are based on the borrower's income and family size. But SAVE increases the income exemption from 150 percent of the poverty line — the exemption under REPAYE — to 225 percent. This change means that a single borrower who earns less than $32,805 a year, or $67,500 for a family of four, will not have to make any monthly payments. The Department of Education estimates that under SAVE, more than 1 million additional low-income borrowers will qualify for a $0 payment, including 400,000 borrowers who were previously enrolled in REPAYE and were automatically transferred to SAVE.

As for the borrowers who make over 225 percent of the poverty line, the Department of Education anticipates that they will still save at least $1,000 per year compared to what they paid under the REPAYE plan. Additionally, if borrowers make a full scheduled payment each month, they'll avoid the situation of some borrowers in prior programs whose loan balances actually grew over time as a result of interest charges. In the SAVE plan, a loan balance won't grow because of unpaid interest from the previous month. For example, if $50 in interest accrues each month and you have a $30 monthly payment, the remaining $20 would not be charged if you make your monthly payment on time. Data from the Household Spending Survey indicate the SAVE plan has widespread popularity with borrowers, as overall enrollment in an IDR plan went from 36.7 percent before the moratorium to 57.9 percent of borrowers expressing interest in enrolling after the pause.

In terms of the effect of the moratorium's end on the wider economy, the Household Spending Survey found that lifting the moratorium will likely have a small impact

President Biden has used his executive authority to cancel student debt for smaller numbers of borrowers, up to just under 4 million so far who have had about $143.6 billion in loans forgiven.

on consumption, perhaps about 0.1 percentage points lower than aggregate levels as of August 2023, right before payments restarted. This estimate is far less than initial forecasts. When it became clear the moratorium would be lifted in the spring and early summer of 2023, interest rates had gotten relatively high and the economy had slowed, leading observers to suggest the economy might experience a 0.8 percentage point drop in consumption. These concerns dissipated somewhat over time, however, as strong spending and growth continued, especially in the third quarter of 2023, when GDP growth was 5.2 percent and spending growth was 3.6 percent.

AFTER THE MORATORIUM: CANCELING DEBT

During the 2020 election, then-candidate Biden campaigned on canceling $10,000 in student debt per borrower. Travis Hornsby is a student loan consultant whose firm, Student Loan Planner, helps borrowers navigate the world of student loan repayment. He suggests that the combination of the pandemic-induced moratorium and Biden's victory led many borrowers to believe their days of loan repayment had ended, saying many were thinking, "Oh, wow! Biden won! I'm never going to have to pay these loans again!"

President Biden attempted to follow through on that campaign pledge in 2022, announcing his intention to cancel $10,000 for borrowers making under $125,000 per year ($250,000 for married couples), while Pell Grant recipients making under that same amount would have $20,000 in debt canceled. The plan would have wiped clean the debt of about 20 million people — about half of all federal loan borrowers — and the Congressional Budget Office estimated at the time it would have amounted to about $400 billion over the next 30 years that would not be going back into government coffers. This is money the federal government would have to fund otherwise, most likely by borrowing, thereby increasing the level of debt for all Americans. The U.S. Supreme Court, however, ruled in June 2023 that the administration lacked the authority to grant such broad relief, leaving borrowers to plan on resuming payments.

Unlike the blanket moratorium, the administration's cancellation plan would have granted forgiveness to those borrowers earning under a specified income cap. Such an idea may address one of the criticisms of universal loan forgiveness — that it is too regressive, disproportionately benefiting the high-income earners who might not need relief, and, at the same time, needlessly costing the government billions in lost revenue. In studying the idea of income-based eligibility, economists at the New York Fed found means testing loan forgiveness reduces costs and "drastically changes the distribution of benefits" by helping those who have the hardest time making their payments. Specifically, they showed that by forgiving $10,000 in loans to borrowers earning under $75,000 — half of the income in the Biden administration's 2022 proposal — the overall cost of such a policy would drop by almost 45 percent. But at the same time, the share of forgiven dollars going to low-income neighborhoods would go from 25 percent to 35 percent and the share going to those with delinquent loans would rise from 34 percent to 60 percent. (The Department of Education argues that even under the plan proposed in 2022, "90 percent of relief dollars [would] go to those earning less than $75,000 a year.")

Against the backdrop of the adverse ruling by the Supreme Court, President Biden has used his executive authority to cancel student debt for smaller numbers of borrowers, up to just under 4 million so far who have had about $143.6 billion in loans forgiven. Some 513,000 borrowers with a total or permanent disability have had their debt canceled, as have 1.3 million borrowers who attended colleges or universities (many for-profit) deemed to have defrauded them by misrepresenting their graduates' employment prospects. An additional 793,000 borrowers enrolled in the Public Service Loan Forgiveness program also had their loans forgiven. This program grants forgiveness to borrowers working in the public sector and nonprofits after a decade, but the program suffered from poor recordkeeping and loan servicing, as well as misinformation, which resulted in these borrowers not getting the forgiveness to which they were entitled after making that decade's worth of payments. Bureaucratic failures also kept 930,500 borrowers who had been in IDR plans that predate SAVE from receiving the relief they had earned after making payments for over 20 years, which was the original expected duration. Most recently, in February 2024, the administration announced that borrowers who originally took out $12,000 or less in loans would have the balance forgiven after as few as 10 years, impacting 153,000 borrowers holding a total of $1.2 billion.

If President Biden's 2022 loan forgiveness plan had not been struck down by the court, it would likely have carried measurable economic consequences. Thomas Lubik and Aubrey George of the Richmond Fed conducted what Lubik calls a "thought experiment" in 2022 with a set of assumptions about the plan's implementation that allowed them to assess its potential effects. They found it was likely to be inflationary, shifting the debt burden — somewhere between $330 billion and $519 billion — from borrowers to the government, adding roughly 1 percent to the existing federal debt, which at the time was $30.6 trillion. This additional burden would have to be covered by future revenues, namely higher taxation or a reduction in future spending; unless those revenues were found elsewhere, the gap would have to be covered by a reduction in the value of outstanding nominal debt. Lubik and George calculated this as a one-time price jump that translated into a monthly inflation spike as high as 1.7 percent.

Lubik says that with forgiveness now being granted to smaller groups of borrowers and spread over time, accounting for its inflationary effects is difficult to

For individuals who get relief, the benefits are obvious: They can focus on building a life unburdened by potentially vast amounts of debt.

measure. "We imagined that student loan forgiveness is a gigantic piece of additional government expenditure that has to be financed because it shows up in the budget," says Lubik. "What we're seeing now is that it's slowly phased in and the numbers are much smaller, and that would be really hard to measure."

IS LOAN FORGIVENESS THE FUTURE?

The administration has also announced additional initiatives intended to ease borrowers' debt burden. For example, for most borrowers in the SAVE plan who make over 225 percent of the poverty line, monthly payments on undergraduate loans are currently set at 10 percent of their monthly income; in July 2024, that will be reduced to 5 percent, essentially cutting monthly payments in half. Also, the American Rescue Plan Act, another COVID-19-era stimulus package passed and signed into law in 2021, exempted student loan forgiveness from being counted as taxable income, including the debt forgiven through IDRs like the SAVE plan. That provision is set to expire at the end of 2025, but President Biden's proposed 2025 budget would make it permanent, allowing any future forgiveness to also be tax exempt.

Student loan forgiveness carries its share of controversy. For individuals who get relief, the benefits are obvious: They can focus on building a life unburdened by potentially vast amounts of debt. While previous generations were able to access middle-class American life by graduating from college — thus justifying the debt incurred to do so — skyrocketing tuition costs and no guarantee of a meaningful wage bump (even for those with some graduate degrees) have created burdens that prevent many of today's graduates from doing the same. Making monthly payments has simply made buying a home, saving for retirement, or even putting money away for their own children's education too difficult. There is data to back these claims, as research from economists at the New York Fed, the University of California, Berkeley, Ohio State University, and Cornerstone Research in 2021 suggests that increasing tuition and student debt has contributed to declining homeownership rates among younger adults, as well as weaker future spending and wealth accumulation.

At the same time, however, opponents maintain freeing individuals from these debts raises issues of fairness. Taxpayers who chose not to spend as much money on their education — or pursue higher education at all — are, in effect, required to subsidize those who did. Similarly, it might be said to punish after the fact those who continued to pay down their debt during the moratorium only to see that it ultimately would have been forgiven.

Critics also note that continued forgiveness creates a series of distortions that affect the incentives of actors and institutions in the future, and, if anything, it may make it even harder to solve the broader problem of how to bring down the costs of higher education. Forgiveness can lead to higher loan amounts, as borrowers may believe that there is no reason to not borrow the maximum amount if it will be forgiven down the line. This, in turn, could translate into higher tuition rates, as colleges and universities are said to lack any incentive to keep costs down if they continue to receive government money — although research by Grey Gordon of the Richmond Fed and Aaron Hedlund of Purdue University casts doubt on whether this hypothesis is correct.

Targeted programs like the Public Service Loan Forgiveness program seem to have more broad support, although they, too, raise questions about fairness and what degrees and jobs society values. To complicate it further, careers in medicine, business, or law carry high earning potential and are respected by much of society, but workers in those fields carry the bulk of the country's student debt. If policymakers provide relief to any group, should it be to those professionals or to others who provide a valuable service but struggle to make ends meet? And if policymakers elect to pursue blanket forgiveness of student loans, why not forgive other forms of debt as well?

As the economy regains its footing and continues to grow, the question remains whether new borrowers will also benefit from future loan forgiveness initiatives and all the consequences — both positive and negative — that result.

"From an economic point of view, investment in human capital is beneficial because it increases future productive potential," says Lubik. "Based on that, you can make the argument that you want to subsidize higher education, whatever the form. The question is whether student loans are the best way to do this." **EF**

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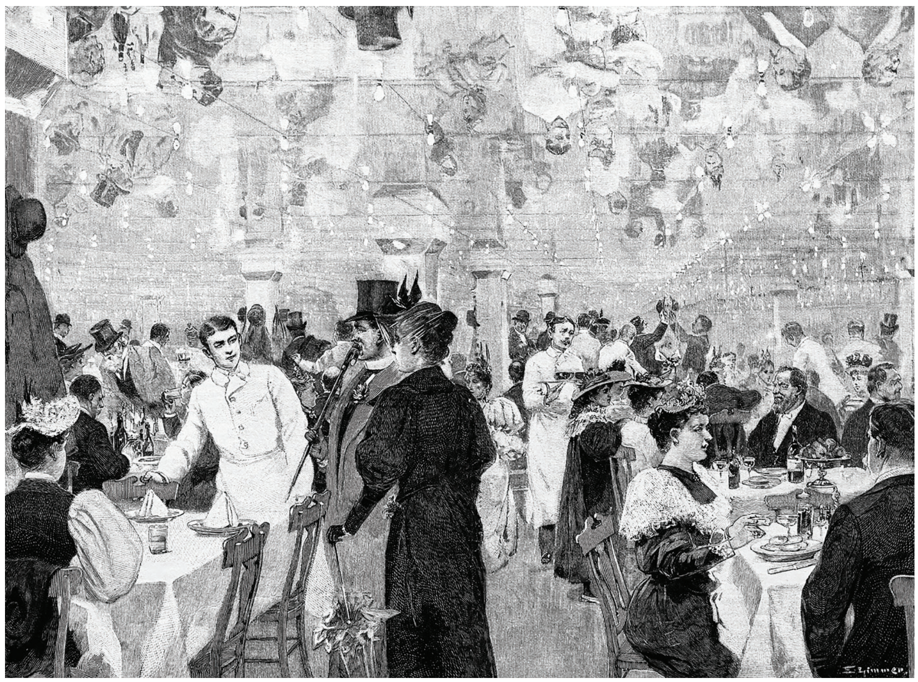
BY TIM SABLIK

Tipping: From Scourge of Democracy to American Ritual

Over the course of the 20th century, tipping went from rare and reviled to an almost uniquely American custom. We still like to complain about it.



A 19th century illustration of a restaurant in Chicago. Tipping was rare in the United States during the first half of the century but became more common after the Civil War.

IMAGE: GETTY IMAGES

If you feel like you're being asked to tip in more places lately, you aren't alone. According to a Pew Research Center survey released in November 2023, 72 percent of Americans agreed that tipping is now expected in more places than it was five years ago. Social media is filled with stories of customers being asked to tip for all sorts of transactions where that custom previously wasn't the norm: buying office furniture, going through the drive-thru, or even paying for lunch at a self-checkout.

A few factors seem to be driving this trend. A growing number of businesses have adopted more sophisticated point-of-sale payment terminals and software developed by companies such as Square and ShopKeep. Square reports that it processed 4 billion transactions in 2022. In addition to allowing small businesses to easily accept non-cash payments, these point-of-sale devices give owners the option to include a tipping prompt as part of the checkout process.

There is also some evidence that customers increased tipping during the pandemic. Michael Lynn, a professor of consumer behavior and marketing at the Cornell University School of Hotel Administration who has published more than 80 articles on tipping, found that tipping frequency declined at restaurants in 2021 and 2022, but the size of tips went up. In another study of data from Square, Lynn found that the size of tips also went up for quick-service and takeout restaurants in 2020 and 2021. Lynn and others have hypothesized that many Americans felt increased compassion for service workers during the height of the pandemic, prompting them to be more generous. This experience, coupled with the inflation of the post-pandemic recovery period, has given businesses more incentives to ask for tips.

"We're in an environment where there's pretty much full employment," says Lynn. "Businesses are competing for workers, and to do that, they need to pay well. The problem is that it's also an inflationary environment, and businesses don't want to further inflate their prices to increase pay. Tipping is a natural solution to that problem."

Even before this recent episode, the rest of the world has tended to view Americans as somewhat tip obsessed. One travel guide by Australian airline Qantas advises travelers to the United States that "in America, tipping is optional in name only." In many countries in Europe and Asia, tipping is either not the norm or the size of tips is much smaller. But it wasn't always this way. In America's early years, tipping was rare and faced intense opposition from many who called the practice un-American.

OVERSEAS ORIGIN

Historians aren't entirely sure when tipping began, but it may go as far back as the ancient Roman Empire. In his 1998 book *Tipping: An American Social*

History of Gratuities, historian Kerry Segrave placed its origin in the Middle Ages. In 16th century England, wealthy travelers who came to stay in a friend's home would give money to the host's servants. These sums of money, known as vails, were intended to compensate the servants for taking on the additional work of caring for the guests on top of their regular duties.

The custom grew quickly. Household servants came to expect and even demand vails, to the growing irritation of travelers. Segrave noted that by the 18th century, even British royalty complained about the rising cost of staying with friends because of the vails. House staff reportedly went so far as to threaten guests who refused to pay. Ungenerous guests might be met with spilled food at the dinner table or an injured horse in the stables. Some nobles reduced their travels to avoid the issue altogether, while others tried to band together to abolish the practice. Such efforts met fierce resistance. A meeting in London in 1764 to discuss the banning of vails was disrupted by servants throwing rocks through the windows of the meeting hall.

Around the same time, tipping also started to emerge in English coffeehouses. Patrons would tip waitstaff to receive better service. This may be where the word "tip" entered the English language, although there is disagreement about its etymology. One popular story is that the word came from a particular London coffeehouse frequented by English writer Samuel Johnson in the mid-1700s. Reportedly, tables in the coffeehouse had bowls with the words "To Insure Promptitude" printed on them, and patrons would drop coins in the bowls to receive better service. Tip is the abbreviation of this phrase. However, Segrave provided evidence that the word was already in use prior to the time of Johnson, calling this origin story into question.

In his book, he suggested that tip may have come from the Dutch word "tippen," which means "to tap." In this context, it referred to the sound of a patron tapping a coin against a glass to get the server's attention. Segrave also observed that the words for tip in many other languages are related to drinking. "Pourboire" in French, which means "for drink"; "trinkgeld" in German, meaning "drink money"; and "propina" in Spanish, which refers to an invitation to drink. In English, the word "tipple" means "to drink alcohol," so tip may be an abbreviation that emerged from giving gratuities to bartenders.

Whatever the origins of the word, by the late 18th century, it had become increasingly customary in England and other parts of Europe to give tips to servants in domestic and commercial settings. In the early history of the United States, however, tipping remained uncommon and was subject to intense criticism. The practice of giving vails in England was wrapped up in long-standing European class distinctions between the tipper (wealthy aristocrats) and the recipients (servants). Many Americans viewed this practice as antithetical to the country's founding egalitarian principles. A good example of this sentiment can be found in *The Itching Palm*, an anti-tipping book written by author and social activist William R. Scott in 1916.

"In an aristocracy a waiter may accept a tip and be servile without violating the ideals of the system. In the American democracy to be servile is incompatible with citizenship," wrote Scott. "Every tip given in the United States is a blow at our experiment in democracy."

Another reason why tipping may have been slow to take off in America is that, early on, the country lacked many of the commercial establishments where tipping was becoming common in Europe. Stand-alone restaurants were virtually unheard of in America before the Civil War. As Marc Mentzer, professor of human resources and organizational behavior at the University of Saskatchewan, documented in a 2013 article in the *International Journal of Management*, early American hotels were generally small and more akin to a modern bed and breakfast. They were typically run by a single proprietor with meals included in the price of lodging. Guests would eat together with the proprietor, family style. Mentzer writes that meals at inns and taverns were meant to invoke family meals at home with the proprietor as head of the household, and tipping would be unthinkable in that context. By the 20th century, however, this would all change.

TIPPING GAINS A TOEHOLD

Just as historians don't entirely agree when and where in the world tipping started, there is also disagreement about why Americans started to warm to the practice.

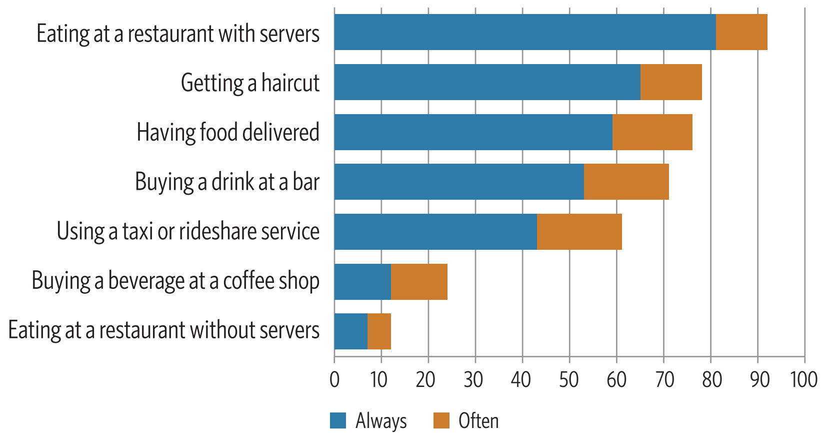
"I don't know that you can just point to one or two things," says Lynn of Cornell University. "Everything that I've read suggests that tipping really took off in this country after the Civil War. Americans traveling to Europe picked up the custom there and brought it back home with them."

Ironically, tipping began to subside in Europe as it took off in America. Segrave noted that by the early 20th century, Europeans complained that American tourists had spoiled the custom by habitually overtipping, priming tip recipients to also expect more from locals. Others have suggested that the end of slavery was an important factor. Freed slaves working service jobs were often paid low wages, making them reliant on tips. For example, the Pullman Company hired Black workers as rail car porters almost exclusively and paid them only $27.50 a month in 1915 (equivalent to about $835 in today's dollars). Investigations into the company concluded that its workers could not live on their salary without tips and, knowing this, passengers felt even more compelled to tip porters.

Tipping also began to spread to the hospitality and food service industries as those underwent changes after the Civil War. As cities grew, so did hotels. In his 2013 article, Mentzer documented how the small family meals

When Do Americans Tip?

Percentage of U.S. adults who say they always/often leave a tip when...



SOURCE: Pew Research Center, "Tipping Culture in America: Public Sees a Changed Landscape," Nov. 9, 2023.

presided over by the hotel proprietor gave way to larger dining rooms with waitstaff to accommodate the increased number of guests. Meals were still served family style and included in the price of a room (a practice known as the American plan, compared to the European plan where the cost of meals was separate from lodging). Waitstaff would distribute food to guests from serving trays, and some guests would occasionally try to tip for a better cut of meat or more food. Hotel managers largely discouraged this practice, viewing it as attempted bribery.

According to Mentzer, the start of Prohibition in 1920 changed things. Prior to that, hotels relied heavily on alcohol sales to subsidize food services and even lodging. This left hotel owners with several problems to solve. First, they needed to find a use for hotel bars. Second, they needed to find ways to reduce costs across the board to make up for lost alcohol sales.

"The idea of allowing patrons to leave some extra money for servers became very attractive to hotel owners because it reduced pressure on them to increase wages," says Mentzer. "So, hotel owners started to see tipping as a desirable thing."

Hotels also started switching from the American meal plan to the European plan to further manage costs. Bars were converted into standalone lunch counters where food was purchased a la carte. Mentzer argues that tipping came to be viewed as more acceptable in this context, since customers were no longer trying to bribe servers to get more of a shared plate; rather, they were offering something extra as thanks for their individual meal and service.

Still, tipping continued to face fierce opposition as it spread in America. Unions in the early 20th century frequently opposed the practice because they felt it stood in the way of workers being paid fair wages and left them too dependent on the whims of customers. Business owners, particularly hotel managers, also feared that the proliferation of tipping requests would annoy and drive away guests. Some hotels installed something called a Servidor in guestroom doors. It was a compartment that could be opened from both sides, allowing hotel staff to leave cleaned laundry that the guest could then retrieve inside the room without meeting the employee face-to-face and being asked for a tip.

Between 1909 and 1915, six states (Arkansas, Iowa, Mississippi, South Carolina, Tennessee, and Washington) took things even further, passing laws criminalizing the solicitation and giving of tips. Violators were subject to fines and, in the case of South Carolina, even jail time. But the laws proved ineffective and were largely ignored; by the 1920s, they had all been repealed (or, in the case of Iowa, overturned by the state Supreme Court).

STAYING POWER

Despite ongoing opposition, tipping endured and expanded as a feature of American life. In restaurants, a 10 percent tip was customary in the first half of the 20th century. By the 1980s, that baseline had risen to 15 percent, and today 20 percent has become increasingly common. This steady rise may make it seem like there are well-established rules governing tipping, but in the 2023 Pew survey, only about a third of respondents said they thought it was very easy to know when and how much to tip in all situations. (See chart.) What can explain the endurance of a custom that many people find so confusing even after more than a century of practice?

From an economist's perspective, tipping could be an efficient system for monitoring the behavior of service employees. If customers give better tips for better service, this should naturally reward the best employees, making the manager's job easier. On the surface, this would seem to be the main reason for the persistence of tipping. When asked, nearly 80 percent of Americans say that the quality of service is the most important factor in determining whether and how much to tip. But in practice, service quality has little bearing on tipping generosity.

In a 2009 *Applied Economics* article, Ofer Azar of Ben-Gurion University of the Negev reviewed several studies that examined the effect of customer service quality ratings on the size of tips. Those studies found that better service quality did increase tips but only by a little — not enough to be a meaningful incentive for workers. The disconnect between service quality and tip size is also evident in the fact that a tip is usually a percentage of the total bill, making tips larger at more expensive restaurants even though menu prices have little to do with service quality.

"One possibility is that tipping improves social welfare even without improving service quality if most customers feel better with tipping than without it," says Azar.

In a series of research articles, Azar developed a model in which customers derive utility from complying with the social norm of tipping and feeling generous by tipping above the minimum expected amount. As long as the utility customers gain from these feelings exceeds the monetary cost of leaving a tip, the custom will persist. The model can also explain why the expected percentage size for tips has risen over time. If customers regularly tip above the minimum amount because it makes them feel good, then social norms will adjust to reflect this new higher minimum. Customers will then have to tip even more to feel generous, pushing up the average tip size again.

Customers also seem to prefer tipping because of how they perceive prices, which has made it hard for restaurant owners to do away with the practice. At first glance, it would seem that business owners benefit from tipping. Federal law allows employers to pay tipped workers as low as $2.13 an hour as long as their wages plus tips equal or exceed the federal minimum wage of $7.25 an hour. But Lynn says that it isn't so easy for owners to capture these savings because the restaurant industry is so competitive. Most restaurants pass these savings on to customers in the form of lower prices.

Efforts to replace tipping with higher menu prices or a fixed service fee have been met with resistance, even if the final cost to customers is the same. In 2015, national chain Joe's Crab Shack removed tipping at 18 out of 131 restaurants. At those locations, menu prices were raised to pay servers higher wages. In a 2018 article, Lynn examined the results of this experiment and found that online consumer reviews were more positive for the restaurants that retained tipping than they were for the ones with no tipping.

"It turns out that if customers are comparing a restaurant with higher prices and no tipping to a restaurant with lower prices but where you are expected to tip, they think the restaurant without tipping is more expensive," says Lynn. "They focus on menu prices when determining how expensive a restaurant is."

Restaurateurs have continued to experiment with service charges in lieu of tips to equalize pay between tipped and non-tipped staff, with mixed results. The HOUSEpitality Family restaurant group, which owns nine restaurants in Richmond, announced in February that it would remove the automatic 20 percent service fee that it had been applying to its bills. The owners began the practice during the COVID-19 pandemic to provide more income stability for workers, but it proved to be a flop with both customers and staff, who preferred tipping. This lines up with the results of the 2023 Pew survey in which 72 percent of respondents said they opposed automatic service charges.

TIPPING POINT?

Will the proliferation of tipping requests change public sentiment enough to overturn the custom? As surveys and history make plain, most people are not in favor of the alternatives, no matter how much they may scratch their heads about when and how much to tip.

"It's so deeply entrenched that it's hard to squelch," says Mentzer. In his 2013 article, he concluded that "if tipping could survive being treated as a criminal act, perhaps it can survive anything."

Rather than banning tips as in the past, a handful of states have attempted to make workers less reliant on them by raising the minimum wage for tipped workers to match that of non-tipped employees. Voters in Washington, D.C., approved a measure in 2022 to equalize the minimum wage for tipped and non-tipped workers by 2027. Recent legislation in Maryland would have done the same thing, but the bill was tabled after facing opposition from restaurant workers and owners. Many were concerned that the change would reduce customer tips and ultimately result in tipped workers earning less. There is some evidence that average tip percentages are lower in states with higher minimum wages for tipped employees, but it is unclear whether those workers earn less overall.

"I have a hard time imagining any scenario in which tipping goes away," says Lynn.

At the end of the day, who benefits the most from the tipping system?

"People who don't tip very well," says Lynn. "They're being subsidized by the people who do." **EF**

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Ulrike Malmendier

On law versus economics, the long-term effects of inflation, and the remembrance of crises past

IMAGE: COURTESY NOAH BERGER

Over the course of her career, much of the research of University of California, Berkeley economist Ulrike Malmendier has been in the areas of behavioral economics and behavioral corporate finance — looking at the effects of various psychological biases, such as overconfidence, on the decisions of consumers, investors, and executives.

Malmendier's more recent work has taken a turn that has made her the Marcel Proust of economics — focusing, like the French novelist, on the subjective nature of human experience and its enduring influence. In this research, she has been analyzing "experience effects": how individuals living through financial crises and other significant economic events respond to these experiences in their future financial behavior. In her view, a major difference between *homo economicus* (the hypothetical person of classical economics who is perfectly rational and perfectly informed) and actual people is that, as she puts it, "The *homo economicus* is more of a robot who processes data rather than a living organism whose mind and body absorb these experiences."

In addition to faculty appointments at Berkeley's economics department and Haas School of Business, she is faculty director of Berkeley's new O'Donnell Center for Behavioral Economics, which she co-founded with her husband and Berkeley economics colleague Stefano DellaVigna.

A native of Germany, where she studied ancient Roman law before moving to economics, Malmendier has seen her research published in, among other journals, the *American Economic Review,* the *Quarterly Journal of Economics,* and the *Journal of Finance.* She has received numerous awards, including, in 2013, the American Finance Association's prestigious Fischer Black Prize, awarded biennially to a leading finance scholar under the age of 40 for significant contributions to the field. She is also a fellow of the Econometric Society and the American Academy of Arts and Sciences. The German federal government appointed her in 2022 to the five-member German Council of Economic Experts, sometimes called the Five Sages.

David A. Price interviewed Malmendier by phone in January.

EF: How did you become interested in economics?

Malmendier: There were a couple of motivations that played a role. One is that my father had experienced the after-effects of World War II in Germany, so he had a strong notion that you better go for a job where you could earn a safe living. I did pretty well in high school, yet my dad insisted that it would be better to first go to a bank and do one of these German-type apprenticeships. It was practical. I know how to evaluate you for a loan, open your account, and so on. And you study a little bit; I did a two-year degree in business economics. So I'm a publicly certified banker. It was very much a result of this scarring from the past, the idea that we never know what's going to happen.

When I actually started studying, I went to the University of Bonn. I was interested in both economics and law. I was initially more leaning toward law, specifically ancient Roman law; in fact, I ended up doing a whole Ph.D. in law. But since my bank experience, I had economics always in the back of my mind. In the Juridicum building in Bonn, where the law students are taught, the economics students are also taught. So I managed to also get into the economics program. Formally, it was actually not possible to enroll in both degree programs, but when somebody dropped out, I applied for their slot and got it.

What I experienced in the program was theory, mechanism design, the beauty of math, which kind of led me back into economics. The very mathematical, not very real-world-oriented way in which we were taught economics in Bonn just intellectually attracted me. I had some excellent teachers there. That's really the way I found my path into economics.

EF: That sounds like a big switch from law.

Malmendier: In the civil law systems like you have in Germany, and which go back to Roman law, it's not math, but it's pretty close. You really have to learn the whole big model and how to filter through the case at hand and come to the answer. It's quite stimulating intellectually in a way that seems very related to math. At 8 p.m. on Thursdays, we would meet in the Roman Law Institute, sit between the old books and then open up the *Corpus Iuris Civilis*, the big work of Roman law, and take a piece of the Latin text, translate it, and discuss the logic and how it flows. That was an exercise with an almost mathematical feel to it.

EF: Turning to your research, one of the things you've found is that people's likelihood of buying a home rather than renting is influenced by their experiences with inflation. Please explain.

Malmendier: I'll step back for the bigger picture here. In general, I have been very interested in the question of how our personal lifetime experiences tend to change us, tend to change the outlook we have of the world, the way we form beliefs. They might also influence our preferences, although my work is a bit more on the beliefs side.

I mentioned how my early life path was influenced by my dad experiencing World War II and how everything can get destroyed — the house gets destroyed, you lose all your possessions and savings, and maybe your country's currency isn't worth anything anymore. One way of looking at the effects of this is simply in terms of information: After such an experience, you have new data about what can happen. That's the traditional economic view. But I'd argue that there's an element beyond the intellectual. When it's your own life, you tend to put a lot of weight on what has happened to you. You're pushed toward overweighing outcomes that have happened to you.

I first worked on that in the context of the stock market, with a paper Stefan Nagel and I wrote on Depression babies in the U.S. We showed that people who experience big crashes of the stock market tend to shy away for years and decades from investing anything in the stock markets. We then turned to another experience, inflation.

Here, the example of Germany was our motivation. Within the EU, the Germans are somewhat notorious for being preoccupied with inflation being a terrible thing and distrusting the European Central Bank to handle it well. That's our reputation. But where does it come from? Many people think that it might have something to do with Germany going through the hyperinflation in the Weimar times and that experience affecting the German populace strongly — so strongly that the adverse reaction was even transmitted to the next generations.

With that big motivation in mind, we thought experience effects might also apply to inflation. Suppose I've lived through a period of high inflation, such as the Great Inflation in the U.S. of the late 1970s, early '80s. Even if I am an economist and work on monetary policy and inflation, I'm still going to be affected by that personal experience. If I'm asked to forecast inflation on the margin, I may overweigh what I saw happening; I may overweigh the probability that prices can spiral out of control.

If that's the case, it's going to influence my financial decision-making. I would want to protect myself against inflation. So how can I protect myself? I put my money into protected assets. In addition to gold and the stock market and so on, one way is to invest in real estate. And so one prediction is that people who are worried about their money being worth much less in the future might want, on the margin, to buy a home rather than rent.

Also, if I can finance this home purchase with a fixed-rate mortgage, so I'm borrowing at a fixed rate — but I think inflation will go up — I believe that it's going to be a good deal. I don't really like variable-rate mortgages at all in this case because I'm worried about the risk of nominal rates adjusting upward. So that's the link between inflation experience and making financial decisions that protect yourself against inflation.

EF: Many people are familiar with the idea that Depression-era youth were affected by that experience throughout their lives. How do you think the experiences of the past several years will tend to affect young Americans of today?

Malmendier: For starters, look at inflation, which started creeping up since 2021, and then in 2022 you were getting close to the double digits. There was such a sharp contrast between the long period of the Great Moderation and all of a sudden that price shock kicking in. For older people, who have seen high inflation before in the '80s or even the '70s, I'm predicting they're just taking that into the average of the long period of low inflation since the early 1980s and of their experience of high inflation in the 1970s and early 1980s. Given their long history of experiences, the new spike does not get too much weight. It just goes up a bit.

But for young people in the United States who basically had seen no inflation at all outside of textbooks, it's a different story. All of their life before they had experienced very low inflation, and then all of a sudden there's the spike. Initially, then, they might be a little slow to react. But if the spike in inflation lasts long enough — it isn't just a two-month blip — they realize, whoa, the world I live in is different than the world I thought I was living in, where high inflation happens only in textbooks.

So the weight they put on that experience increases and can in fact end up being much higher than for older generations because the new experience makes up a much larger part of their lives after it has happened for two years or so. Applied to the current situation, we are now moving slowly and steadily toward the 2 percent inflation target, and we might avoid the complete scarring effects.

One area where I do expect big experience effects from recent years is living through the COVID-19 crisis and many of us being relegated to working from home. I do expect there to be a lasting change in how we view the value of social interaction, the value of working from home versus working at your workplace.

The leadership here at the Haas School of Business, where I am right now, is encountering exactly this issue. They wonder why the same people who were happily coming in five days a week before COVID absolutely refuse to do so now. It's clearly an experience that has changed people. In the classical economic model, you would just talk about the information obtained from that experience and maybe the setup cost of learning Zoom. But that can't explain everything. We knew the length of our commutes before COVID.

And yet, personally experiencing what remote work and cutting out your commute means for your personal life makes an enormous difference. You have to experience it first, not because of lack of information, not because you cannot add and subtract hours spent in the car versus not, but because it just enters your decision-making differently if you have physically experienced it.

EF: If I'm, let's say, on the Federal Open Market Committee, am I also subject to these forces of experience?

Malmendier: Yes, you are. And that is maybe the most surprising aspect to many economists. Allow me to step back again: When behavioral economics and behavioral finance started playing more of a role in our profession, the applications initially focused on individual investors or individual consumers — the man or woman on the street, so to speak. We would have not thought that these biased beliefs play a role for the highly informed, highly trained, highly intelligent, successful leader of a company, a Federal Reserve Bank president, a Federal Reserve Board governor.

Even before I was working on the research on experience effects, I was wondering about that. Because biases reflect something our brain is wired to do, it doesn't need to be negatively correlated with intelligence. So my earliest work in behavioral finance in fact was about overconfident CEOs. And I vividly remember when presenting this paper on the job market two decades ago how certain audiences would tell me, look, I know several CEOs, they're very smart, how can you argue they are biased? But it turns out biases do apply, even to the most successful CEOs.

Going back to experience effects, our work here is based on basic neuroscience underpinnings: Namely, that as we are walking through life and making experiences, neurons fire and so cause connections between neurons, synapses, to form. When experiences are repeated and last longer, then these connections become stronger. So, if I've gone through a period of high inflation and seeing a price increase triggers fear and worry, well, that's also happening to highly informed and well-trained and knowledgeable policymakers, even at the very highest level. That's why their past personal experiences can help us to predict who is leaning more on the hawkish or the dovish side. We have actually found strong evidence of it.

And I've asked the same question about bankers. I've looked at the reports of banks' financial situations — provided thanks to the Fed — on how close they might have been to a bank run, how close they have been to financial distress, and whether that affects their lending behavior in later years. For instance, if a bank experienced the Russian debt default crisis in 1998, their situation during this crisis has a lasting influence on their future choice of exposure in these kind of debt markets.

EF: It seems like you're quite interested in the psychological level of explanation for economic behavior. What drew you to studying these kinds of issues?

Malmendier: Partly it goes back to those times at the University of Bonn, where I was initially sitting in my law lectures, and then I was venturing over to the very mathematical theoretical economics lectures. As beautiful as the modeling and analysis of equilibria was, I was struck by the sharp contrast between the human behavior we analyzed in my law classes and how human behavior was modeled in my economics lectures. In law, humans make mistakes and emotions play a role. For example, for how the penal code considers somebody's attempts to kill somebody, it matters whether that person was being driven by the moment or cold-bloodedly planned the murder. It makes a difference in how law assesses and penalizes this behavior. In economics, there was no

Ulrike Malmendier

PRESENT POSITIONS

Cora Jane Flood Professor of Finance, Haas School of Business, University of California, Berkeley; Professor of Economics, University of California, Berkeley; Faculty Director, O'Donnell Center for Behavioral Economics, University of California, Berkeley

SELECTED ADDITIONAL AFFILIATIONS

Research Affiliate, Centre for Economic Policy Research; Faculty Research Fellow, Institute for the Study of Labor (IZA); Research Associate, National Bureau of Economic Research

EDUCATION

Ph.D. (2002), Harvard University; Ph.D. (2000), University of Bonn; B.A. (1996), University of Bonn; B.A. (1995), University of Bonn consideration of motives or emotions.

And then, when I started studying at Harvard for my second Ph.D., the economics Ph.D., I was lucky that there was rising interest in behavioral economics. It was still a time when it was not broadly accepted, when advisers told me that I might not want to go on the job market with behavioral economics research, but it was slowly changing. For me, behavioral economics really clicked. It injected the psychological realism we need to make good predictions and have good suggestions for policy.

Now I'm trying to go beyond that. We see in classical economics the *homo economicus* who is perfectly optimizing — taking all the information and coming to the perfect decision. Behavioral economics came around and said, well, that's unrealistic. Let's inject some psychological realism. Let's introduce overconfidence, self-control problems, etc. And that was all good.

But here is the thing that was still missing: If you think about the *homo economicus* as a computer with a program that perfectly solves the problem at hand, behavioral economics was still kind of dealing with humans like computers. They now had flawed software or maybe occasionally short circuited. But however you program them initially — with overconfidence and so on — they are running that program for the rest of their lives.

This newer agenda on experience effects emphasizes much more that, no, humans are not just software, flawed or not flawed. They are living, breathing organisms. As they walk through life, they adapt and change their outlook on the world. That means that we as economists have a lot to learn, not just from social psychology, which was great for behavioral finance, but also from other fields — from neuroscience, from psychiatry, from endocrinology, etc. People who have lived through a monetary or financial crisis come out of that scarring experience with their brains rewired, and they will make different decisions.

They will keep overweighing this outcome happening again. But I think there's much more to learn. For example, the neuropsychiatrists tell us if you do live through a crisis but you feel like "you can do something about your situation" — what they call controllability — then you tend to do better. You don't tend to be so affected, so traumatized by it.

So I'm personally of the opinion that there's robust evidence in medicine, biology, neuropsychiatry, cognitive science, which we haven't incorporated as much as we should. I'm a bit on a mission to get economists more broadly, not just behavioral economists, to open up to that — of course, acknowledging that behavioral economics, the first round, got us a big step forward.

EF: Are there strategies that people can use to overcome the effects of their negative experiences and make better decisions?

Malmendier: Yes, absolutely.

For contrast, let me start, though, from the strategy that a lot of policymakers and economists believe in but that works much less well than we used to think. That strategy is teaching people. That's the strategy I naturally like as a professor. I used to think that if only I teach people about the equity premium puzzle and about diversification, then they will understand they need to put their money in a broadly diversified low-fee fund rather than having it in some savings account, or worse, checking account, etc., and they would all be better off.

Hence the emphasis on financial literacy. But so far, the process has been muted. Now, I still think financial literacy training is useful; it's important. But it tends to be less effective than we professors often hope compared to the effect of personal experiences with the stock market or other financial instruments.

Theoretical knowledge is just less powerful than we used to think. People might not act on information, and it is not because of asymmetric information, frictions, and access to information. All of that exists and is relevant. But even if you have full access to the relevant information, if you've understood it, if you've processed it, you might still not act on it unless you've seen it work in practice.

That brings me to the more direct answer to your question. If you feel that due to past info exposure, you are acting in a somewhat biased way, and you want to remedy it, the best recommendation is to slowly expose yourself to doing the alternative action or environment and personally experience the resulting outcome and in that way rewiring your brain.

From neuroscience, we don't just learn that life experiences rewire our brain and infer that, after a high-inflation period, we might be scared and get triggered when we see price increases. We also learn that throughout our lives, our brain has a high plasticity — maybe less than when we're young, but throughout our lives, we are pruning synapses that we don't need anymore, we are strengthening others, so we can affect how we think about the world. If we manage to expose ourselves to the right setting, that helps us not only to intellectually understand, but almost physically understand, why a certain type of decision is the right one. We change our wiring.

If somebody is really scared about the stock market, doesn't want to go there, the literature on experience-based learning would suggest something like a cognitive behavioral therapy approach. Namely, let's just take $50 or $100 and put it in a broadly diversified low-fee fund. In the worst case, that's not too much loss. After a year, we look back and see what happened to it and realize, huh, that wasn't so scary. That worked out pretty well even at a bad time. That way, we are rewiring our brain and maybe coming around to the conclusion that, to accumulate wealth, we should be doing more of that.

EF: In recent research, you've found that the experience of leading a company during the Great Recession tended to make CEOs age faster. What's going on there?

Malmendier: It's very connected to this high-level view I have of the evolution of what economics is about and should be about. The mind and the body are altered in many ways as we are walking through life. In the work on experience effects, I've mostly looked at how our beliefs are altered and how financial decisions or inflation expectations are then affected. But I mean it quite literally when I say we need to look at mind and body. Leading your company through that stressful period of the Great Recession probably makes you a different person beyond just having more information.

Working with people from our computer science department, I was exposed to machine learning and convolutional neural networks and learned about this subfield that looks at face recognition and visual machine learning. I thought we could apply it to detect signs of stress and aging. That led us to collect pictures of CEOs before and after crises and to show that we actually age in a crisis. In a severe enough crisis — if I take the usual corporate finance definition, the median firm in your industry undergoing a 30 percent or higher stock price decline — it makes you look an additional one year older.

And this visual effect really does seem to translate into effects on your health. While I couldn't get measurements of cortisol levels or heart rates or the like, I was able to get data on longevity. And what we saw is that if you look one year older, you are actually aging faster in the sense that you unfortunately die one year earlier. So it translated pretty much 1-to-1 into longevity.

What I'm hoping is that with this paper, we can further strengthen the point that we need to think about humans with all their biology. We have a lot to learn that's relevant for predicting career paths, education, all the usual outcome variables we economists are interested in.

EF: What are you working on now?

Malmendier: The physical realm of what crises do to you is something that is staying with me. I have been interested in digging deeper. What is the most stressful aspect of it all? What are the actual stressors? In a related project on CEOs, we ask what kinds of specific situations or decisions trigger these adverse effects in your body and on your health. For CEOs, it turns out to be layoff decisions. It's really hard on a leader to have to let a large fraction of their employees go, particularly if they've been with the company for a long time.

Also, going back to the inflation topic: The recent bout of inflation, not just here in the U.S., but also in Europe, has gotten me interested in how the lower-income parts of the population are affected by inflation. When studying inflation and inflation expectations, economists tend to look at the professional forecasters and market participants who have an impact on markets outcomes. The low-income populations are less studied. But they are, of course, the people for whom the marginal price increase in groceries has the highest marginal utility impact.

I'm trying to estimate to what extent inflation affects their consumption behavior. As goods become more expensive, what can they still afford? And what do they want to afford? That is, is the effect of inflation on their spending coming fully, or almost fully, through the channel of constraints, or do beliefs play a role? Also, is there a nonstandard element in their belief formation? There's a lot of research on hand-to-mouth consumers, about adjustment frictions of consumption that could play a role. But present-biased preferences could also play a role; limited attention could play a role.

We got access to a fairly new dataset on low-income consumers and are exploiting the recent bout of inflation as a source of variation. We ran a survey on that sample to tease out what factors play a role. So far, we are finding that, first of all, it's not just all constraints; beliefs do matter. And they are correlated with difficulties in managing debt. People who have difficulties managing their debt are reacting to inflation in an unexpected way, moving further toward overconsuming relative to what the data say they should be doing. This suggests there might be some nonstandard factor at play that got them into difficulties in managing debt to begin with.

That's what the preliminary results suggest. I hope to learn more about this population and the impact of inflation on them. **EF**

BY CARRIE COOK, STEPHANIE NORRIS, ALVARO SÁNCHEZ, AND ADAM SCAVETTE

Understanding SNAP's Role

The Supplemental Nutrition Assistance Program (SNAP) is a key component of the United States' social safety net and supports millions of Americans annually by providing food vouchers for households with low income and assets. SNAP supports households enduring persistent poverty as well as those temporarily in economic distress, as its enrollment expands during recessions to accommodate the unemployed. Economists Robert Moffitt of Johns Hopkins University and James Ziliak of the University of Kentucky have explained that SNAP operates like an automatic stabilizer — that is, a counterweight to the boom-and-bust economic cycle — by subsidizing low-income Americans with almost universal eligibility during economic downturns.

This article explores how SNAP enrollment varies over time and across Fifth District states. The report also investigates the program's effects on the outcomes of benefit recipients and its function as a key resource within low- and moderate-income communities. Community organizations play a role in facilitating access to SNAP and supplementing its benefits via food banks, local kitchens, and farmers markets.

BACKGROUND ON SNAP

SNAP is the predominant source of nutrition assistance among the many anti-hunger programs for low-income households in the United States, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the National School Lunch Program (NSLP). In April 2023, 41.9 million people in 22.2 million households received SNAP benefits, representing 12.5 percent of the national population.

SNAP's origins can be traced to the Food Stamp Program of 1939, where participants could prepurchase all food and receive subsidies for any food that the U.S. Department of Agriculture (USDA) classified as surplus. The program was phased out by 1943 but reemerged in the form of pilot programs in select sites in the early 1960s. Core to his War on Poverty, President Lyndon Johnson made the program permanent by signing the Food Stamp Act of 1964. The Agriculture and Consumer Protection Act of 1973 (the "farm bill") initiated the program's expansion to all U.S. counties beginning in 1974. The Food and Nutrition Act of 2008 renamed the program SNAP, reiterating the program's expressed goal of alleviating hunger and malnutrition by increasing the purchasing power of low-income households.

SNAP is federally funded through the USDA Food and Nutrition Service and administered in partnership with state social service agencies. Program eligibility is determined at the household level through a set of basic enrollment requirements for participants. Generally, SNAP participants must meet work requirements to receive benefits. Participants are required to register for work, take a job if one is offered, participate in employment and training programs if they are assigned by their state, and not voluntarily quit a job or reduce hours. The gross monthly income of participants must be at or below 130 percent of the federal poverty line for a given household size, and their net income must be no more than the poverty line. The total assets of participants are subject to certain limits: Households with at least one member who is 60 or older or disabled cannot have assets over $4,250, while households without such members have assets capped at $2,750.

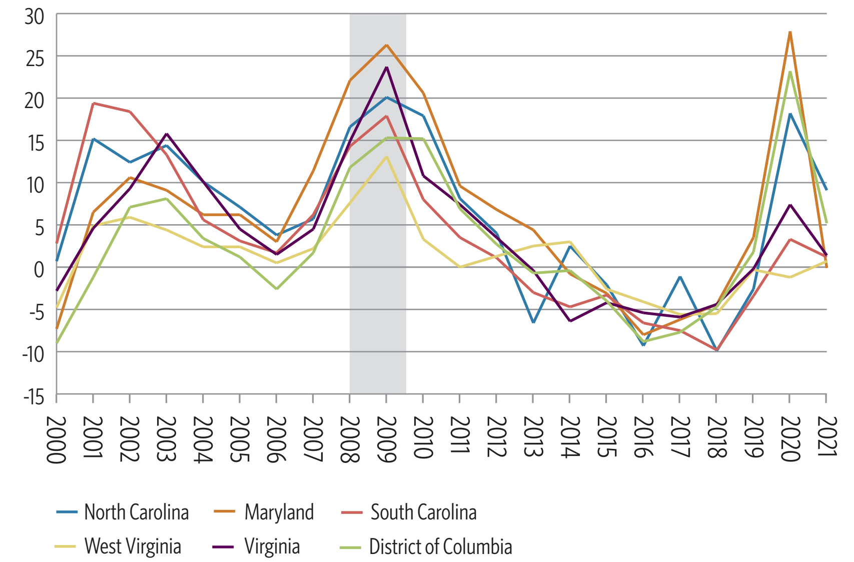
Benefits are disbursed to SNAP participants monthly and accessed with an Electronic Benefit Transfer (EBT) card that can be used at retail stores. The EBT card, which is like a debit card, can be used only for food. The value of the monthly benefit provided to participants is calculated using the household's net income and a predetermined maximum benefit amount that is based on the current value of the Thrifty Food Plan (TFP). The TFP is USDA's estimate of a healthy diet at its lowest cost, adjusted for various household sizes for the determination of benefit values. Participants who earn no income receive the maximum benefit amount based on the TFP, while participants who earn income receive a benefit amount equal to the maximum benefit for their household size minus 30 percent of their net income.

During the COVID-19 pandemic, SNAP benefits were expanded to provide households with a larger "emergency allotment" of benefits. As of March 2023, however, SNAP emergency allotments were discontinued, and benefit amounts returned to their normal levels. The scale of the increase and subsequent decrease was significant: The average SNAP benefit in April 2023 was $181.72 per person and $343 per household, compared to $245.44 per person and $464.36 per household in February 2023 prior to the discontinuation of emergency allotments.

PARTICIPATION DIFFERENCES OVER TIME AND GEOGRAPHY

In line with the idea that SNAP acts as an automatic stabilizer, SNAP participation tends to be countercyclical — in challenging economic times, SNAP caseloads rise, and then they drop as the economy improves. This is largely driven by an increase in the number of households that are eligible due to a drop in labor income. Peter Ganong of the University of Chicago and Jeffrey Liebman of Harvard University found

Average Annual Change in Persons Receiving SNAP Benefits by State



SOURCE: Small Area Income and Poverty Estimates via FRED
NOTE: Gray bar indicates the Great Recession.

that, on average, a one percentage-point increase in unemployment increases local SNAP enrollment by 15 percent. This pattern has been evident in the Fifth District as the number of people receiving SNAP benefits increased during the Great Recession but started trending downward in 2013. (See chart.) The number of SNAP recipients increased in early 2020 as job losses and relaxed program requirements increased the number of eligible households and reduced barriers to participation. In 2022, roughly 41.2 million individuals in 21.6 million households received SNAP benefits, up from 35.7 million individuals in 18 million households in 2019.

While all households and individuals are subject to federal SNAP eligibility requirements, states have some discretion over who qualifies to receive benefits. For example, federal law disqualifies anyone from receiving SNAP if they received a state or federal felony drug conviction involving the possession, use, or distribution of a controlled substance after 1996. State legislatures, however, have the latitude to opt out or impose less severe restrictions on SNAP eligibility. In the Fifth District, Virginia and the District of Columbia have opted out of the ban entirely while Maryland, West Virginia, and North Carolina have instituted modified restrictions on SNAP benefit eligibility for individuals with felony drug convictions. South Carolina is the only state in the country not to opt out of the lifetime ban on SNAP following a conviction.

Not all SNAP-eligible households receive monthly benefits. In 2019, the share of individuals eligible for benefits who are not actively enrolled — sometimes called the “SNAP gap” — was around 19 percent. Among the working poor — households that are below the poverty threshold despite having at least one household member in the workforce for at least half the year — the uptake rate was 71 percent. Older adults (age 60 or older) have significantly lower rates of uptake than eligible adults overall; in 2019, only 48 percent of eligible seniors received SNAP benefits.

Variation in SNAP uptake rates across states reflects differences in state policies and demographic characteristics of eligible households. In a handful of states, including Massachusetts, Oregon, and Pennsylvania, the share of those eligible who are not enrolled is effectively zero — all eligible individuals received SNAP benefits in 2019. Some other states, like Wyoming, Arkansas, and Kentucky, had an uptake rate of less than 70 percent, meaning that more than 30 percent of those eligible for benefits did not receive them. In the Fifth District, SNAP uptake rates ranged from 74 percent in South Carolina to 97 percent in the District of Columbia. (See chart on next page.)

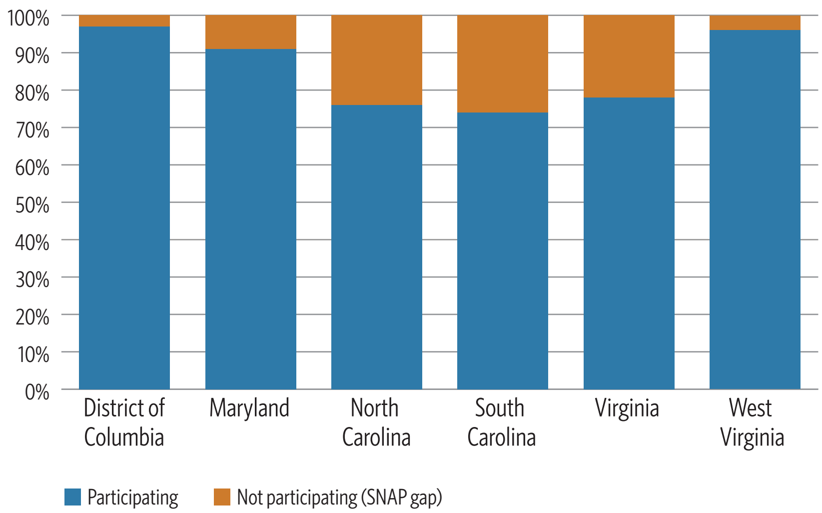
What might keep eligible households from participating in SNAP? Insufficient access to program information and eligibility guidelines is one barrier: Some households might not know that they qualify for benefits or how to apply if they do qualify. Stigma may also prevent some households from taking advantage of the program. Program requirements — administrative or financial hurdles that households must overcome — are another challenge that may discourage some eligible households. Recipients who struggle to meet work requirements and recertification deadlines may find it difficult to stay enrolled.

Household income is an important factor in whether households seek benefits. The lowest-income households (who would be eligible for the highest amount of monthly benefits) tend to have among the highest uptake rates — about 99 percent in 2019. Among eligible households with income over 130 percent of the federal poverty line, the uptake rate was only 21 percent in 2019. Ganong and Liebman found that many state and federal policy changes in the 2000s increased program enrollment, including simplified reporting, extending certification periods, and allowing phone calls in place of face-to-face interview requirements.

FIGHTING FOOD INSECURITY AND POVERTY

The USDA defines food insecurity — inclusive of low and very low food security — as the “limited or uncertain availability of nutritionally adequate and safe foods, or the limited or uncertain

Share of Eligible Population Participating in SNAP by State



SOURCE: USDA FNS, Reaching Those in Need: Estimates of State SNAP Participation Rates in 2019 (Technical Report)

ability to acquire acceptable foods in socially acceptable ways." Overall, food insecurity affected an estimated 10.2 percent of U.S. households (13.5 million households) at some point in 2021, with about 56 percent of food-insecure households reporting participation in at least one of the three federal nutrition assistance programs (SNAP, WIC, NSLP). Research has also shown disparate impacts of food insecurity for select groups, such as households with children, communities of color, and adults who are not working.

Unsurprisingly, food insecurity engenders reduced spending on food at home and lower dietary quality, especially for low-income households. Moreover, across a wide range of literature, food insecurity has been associated with adverse health consequences on affected households. Food insecurity has been linked to chronic conditions such as asthma, cognitive and behavioral disorders, hypertension, and diabetes, among a host of other health outcomes. For working adults, the risk of chronic illness has been shown to increase as the severity of food insecurity increases.

SNAP fills a critical gap in the provision of nutritious and affordable food to households experiencing food insecurity. The primary mechanism by which SNAP can alleviate food insecurity is through the supplementation of participant income, enabling households to increase the amount of food they can purchase monthly. One large study conducted by the USDA found that participating in SNAP over a six-month period was associated with about a 5 to 10 percentage point decrease in the share of households experiencing food insecurity. An additional study found that receiving SNAP reduces the likelihood of becoming food insecure by around 30 percent and decreases the likelihood of experiencing very low food security by 20 percent.

SNAP reduces the prevalence of poverty for participating households. The Census Bureau estimates that between 2016 and 2018, SNAP reduced the percentage of individuals living beneath the Supplemental Poverty Measure (SPM) threshold by just over 1 percentage point overall and by 2 percentage points for children under age 18 (or 3.5 million fewer people in poverty overall). Another estimate found that SNAP reduces poverty by 14 percent to 16 percent, depending on the poverty measure under consideration and after adjusting for underreporting of benefit receipt.

As noted earlier, the temporary emergency allotments between 2020 and 2023 increased monthly SNAP benefits. An analysis of the emergency allotments by the Urban Institute estimated that in the fourth quarter of 2021, nearly 4.2 million people were lifted out of poverty, reducing the SPM by 9.6 percent in states that still provided emergency allotments relative to a scenario where the policy was eliminated.

THE ROLES OF COMMUNITY ORGANIZATIONS

Community-based organizations seek to inform low-income individuals and families about SNAP benefits and help them apply. For example, Affordable Homes and Communities (AHC), a nonprofit developer of affordable housing based in Arlington, Va., reports that all of its resident services team members are trained to assist residents as needed with applications for programs like SNAP, WIC, and Medicaid. In addition to one-on-one support assisting residents, AHC partners with organizations like Real Food for Kids that promote SNAP education, and DHS to host community resource fairs and additional food distribution efforts. Michele Walker, executive director of County United Way, which serves areas of Maryland and West Virginia, states, "We all work collectively to ensure we are maximizing participation in SNAP."

Organizations across the region report that SNAP benefits have not kept pace with the increasing costs and actual needs for food, especially after the discontinuation of pandemic-era emergency allotments. Some organizations report this discrepancy as particularly noticeable for single individuals, households with multiple children, and older adults. Their monthly allotments are frequently cited as insufficient to meet the actual costs of a nutritious and balanced diet. DC Hunger Solutions Director LaMonika Jones reports that many older adults in the District of Columbia saw their monthly benefits reduced from $281 to the local minimum of $30. Perhaps as a result, community-based organizations have advised Richmond Fed staff of a significant uptick in households requesting financial and other assistance — some up more than 200 percent year over year.

Some organizations and policymakers are finding ways to increase program utilization and supplement SNAP benefits. The South Carolina Office of Social Services offers the "Healthy Bucks" program which allows SNAP recipients to obtain additional fresh fruits and vegetables when they use their SNAP benefits to purchase fresh produce at participating Healthy Bucks Vendors. These vendors are typically farm stands, farmers markets, and food share programs. Farmers markets across the region also report accepting SNAP benefits, and food banks are increasingly hosting "pop up" food distributions to reach families in need.

WHEN WORKERS LOSE ELIGIBILITY

Even as organizations encourage the use of SNAP and other benefit programs, households are experiencing benefits cliffs challenges. Benefits cliffs occur when marginal increases in earnings disqualify low-wage workers from public assistance programs, hampering their financial independence and career advancement. Several organizations report that clients have opted to work part time only, even though they could work full time, because their part-time income and SNAP benefits resulted in a higher total monthly income than if they were to work full time and lose benefits.

For example, County United Way's Michele Walker notes that a new employee breached the SNAP benefits cliffs upon starting her new role and now faces challenges feeding herself and her young daughter. Even though she has a full-time job with benefits, the worker struggles to make ends meet amid increasing living costs and "feels penalized for trying to better herself in the workforce." Walker noted that a gradual reduction in benefits in response to the worker's earnings, rather than a cutoff, would help with an adjustment period and not losing benefits so dramatically as people are working toward economic mobility.

SNAP AND LONG-TERM OUTCOMES OF RECIPIENTS

The longer-term effects of SNAP on the well-being of recipients have been extensively studied by social scientists. Research has indicated that SNAP benefits may improve health outcomes for SNAP recipients. Christian Gregory of the USDA and Partha Deb of Hunter College studied data from the Medical Expenditure Panel Survey and found that SNAP participants (compared to those eligible but not participating) have better self-reported health, three fewer sick days per year, and one or two fewer doctor visits per year compared to nonparticipants. Additionally, research suggests that SNAP improves health outcomes for recipients' children over time. Douglas Almond of Columbia University, Hilary Hoynes of the University of California, Berkeley, and Diane Whitmore Schanzenbach of Northwestern University found that enrolling pregnant women in the food stamp program three months before birth resulted in higher birth weights. Studying the effect of SNAP receipt on children's health outcomes using restricted access data from the National Health Interview Survey, Chloe East of the University of Colorado, Denver finds that the loss of parental eligibility before age 5 negatively affects their child's health in the medium run at ages 6-16. Almond, Hoynes, and Schanzenbach investigated the effect of childhood access to benefits on adult health outcomes during the Food Stamp Program's introduction in the 1960s using data from the Panel Study of Income Dynamics. The authors concluded that "access to food stamps in utero and in early childhood leads to significant reductions in metabolic syndrome conditions (obesity, high blood pressure, heart disease, diabetes) in adulthood." Therefore, access to SNAP not only improves the health of the adult recipients themselves, it also improves the health outcomes of their children from birth through adulthood.

Researchers have found that improved nutrition and health through SNAP benefits affects children along other important dimensions as they reach adulthood. The authors above found that in addition to reducing metabolic syndrome conditions in adulthood, young children's exposure to SNAP also yielded improvements in economic self-sufficiency for women. Similarly, Marianne Bitler of the University of California, Davis and Theodore Figinski of the U.S. Department of the Treasury used a similar research design and found that women who lived in an area where food stamps were available during early childhood had higher earnings in adulthood. A recent study by Martha Bailey of the University of California, Los Angeles, Hilary Hoynes, Maya Rossin-Slater of Stanford University, and Reed Walker of the University of California, Berkeley on the long-term effects of early childhood access to the Food Stamps Program found that the program was associated with increases in measures of adult human capital, economic self-sufficiency, and neighborhood quality, as well as reduction in the likelihood of incarceration.

CONCLUSION

Uptake in SNAP, a long-standing poverty-reduction program, varies over time and geography depending on the U.S. business cycle as well as state-specific factors. Community development organizations play a role in aiding access to the program and supplementing benefits when they are insufficient for household needs. **EF**

Community Conversations are opportunities for Richmond Fed leaders to visit a wide variety of communities across our district to learn about their overall economic well-being, their challenges, their concerns, and their successes. During these visits, Richmond Fed President Tom Barkin meets with business and community leaders to exchange economic updates and ideas.

Recent visits included:

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BY THOMAS LUBIK

When Economists Navigate by the Stars

Monetary policy is often likened to steering a ship. For instance, the key economic policy concept of "commitment" is often visualized as Odysseus listening to the Sirens' call while tied to the mast of his ship; analysis and interpretation of the data often seems like the process of navigation by the currents, the wind, and the sky. Indeed, Fed Chair Jerome Powell suggested in August that monetary policymakers are frequently "navigating by the stars under cloudy skies."

But what good is celestial navigation if the navigator cannot see the sun or the stars because of clouds? The Vikings, apocryphally, used sunstones, a mineral that polarizes light and allows determination of the sun's location with reasonable precision. Modern economists likewise use alternative methods to steer the policy ship to its desired long-run resting place. They employ statistical techniques to extract the presumed location of the stars from what they see in the data.

The Vikings, apocryphally, used sunstones, a mineral that polarizes light and allows determination of the sun's location with reasonable precision. Modern economists likewise use alternative methods to steer the policy ship to its desired long-run resting place. They employ statistical techniques to extract the presumed location of the stars from what they see in the data.

At the Richmond Fed, we produce one measure of such a star, called r* (pronounced "r-star"), or in the economist's vernacular, the natural real rate of interest. r* is an old theoretical concept originated by the Swedish economist Knut Wicksell more than 100 years ago. It describes the (hypothetical) real interest rate toward which an economy would gravitate and at which it would be in balance, with neither inflationary nor deflationary pressures.

r* has received much recent attention in the monetary policy debate as the Federal Open Market Committee (FOMC) is contemplating the path for interest rates in 2024. r* can serve as a guidepost for their eventual direction. For instance, when the policy rate is above this neutral rate, monetary policy is restrictive in that it tends to constrain economic activity. This, in turn, tends to reduce inflation so that over time, policy rates normalize. In such an equilibrium, the policy rate moves toward its normal level, which can be ascertained by adding the FOMC's 2 percent inflation target to r*.

But just like the ancient Vikings, who sometimes would land in Northumbria, at other times in Wessex or even Iceland, economists arrive at different neutral policy rates. The median neutral policy rate projected by FOMC members in the latest Summary of Economic Projections sits at 2.5 percent, while the prominent Laubach-Williams estimate of the New York Fed has it at 3.1 percent. The Richmond Fed's model even comes in at 4.2 percent! So, what is a good Viking to do when confronted with such uncertainty?

Some commentators have suggested that r* is not a useful concept for guiding monetary policy precisely because of this wide range of uncertainty. For instance, one might argue that estimating r* and the uncertainty surrounding this estimate is like — to switch metaphors — ordering pizza delivery for 8:30 p.m. on a Friday night that is promised to arrive sometime between 6 and 11 p.m.

Now, most of the time the pizza does, in fact, get delivered at 8:30 p.m. Very rarely, the driver shows up at 6 because it's a slow evening and he or she wants to close shop early. Sometimes, the delivery is quite late because it is a busy Friday night. As an economist analyzing the data, I know of these possibilities because they have occurred in the past. Naturally, my range of estimates would reflect this even though I consider 8:30 as the most likely outcome.

The upshot of this metaphor is that as a policy advisor, I need to make our president aware of the range in delivery times and counsel him not to take the dog for a walk during this time frame. He may if he must and if he is willing to take the risk that the pizza gets cold on the doorsteps. But he should certainly be at home around 8:30.

Taking into account this uncertainty of the state of the world is the hallmark of good policymaking. For one, it avoids the illusion of false precision of fundamentally uncertain matters. Moreover, r* and other stars are just one of many inputs into the policymaking process. Just as the Vikings eventually ended up at their destination, so will monetary policy. But without guidance from the stars, the Vikings would have never reached land. **EF**

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