BANKING & FINANCE

Too Small to Succeed?

The decline of small U.S. banks presents an opportunity for reform.

BY DIEGO ZULUAGA

Most observers of bank consolidation in the United States have exaggerated its economic implications but underplayed its likely consequences for politics and policy. America has historically had an unusually large number of independent banks because of regulatory restrictions on branching. For that reason, consolidation is an overdue phenomenon that only the gradual liberalization of branching from the 1970s onward enabled. The evidence suggests that consolidation has increased consumer welfare and made U.S. banks more efficient. While regulation has probably made it costlier for small banks to remain in business, there is no evidence that the number of U.S. banks is too low. On the contrary, America has many more banks than comparable developed economies.

On the other hand, small banks have played an outsized role in U.S. politics and the development of bank regulation. In the early 20th century, they formed an implicit coalition with the "money center" banks of New York that helped usher in the Federal Reserve System. More recently, the small banks' trade association, the Independent Community Bankers of America (ICBA), facilitated the creation of the Consumer Financial Protection Bureau (CFPB) in exchange for an exemption for its members from supervision by the new agency, as well as other benefits. Furthermore, the need to "level the playing field" on behalf of small banks is used as an argument to preserve many idiosyncratic features of the U.S. banking system, such as the existence of a government-sponsored secondary market for mortgages and the Federal Reserve's promised foray into real-time payments. Those features reduce banking competition and potentially increase risk in the financial system.

Small banks' political influence, disproportionate to their economic role, stems from the existence of at least one community bank in every congressional district. The gradual reduction in the number of banks will eventually sap small banks' political clout, with significant consequences for bank regulation. Because small banks have historically lobbied to enact and retain restrictions on competition and to create government bodies that would cater to their requirements, the decline of small banks is an opportunity to increase the role of market forces in many parts of the financial system.

DIEGO ZULUAGA is a policy analyst at the Cato Institute's Center for Monetary and Financial Alternatives and formerly head of financial services and tech policy at the Institute of Economic Affairs in London.

THE LONGSTANDING DECLINE IN THE NUMBER OF U.S. BANKS

As of June 30, 2019, 5,303 commercial banks and thrift institutions reported to the Federal Deposit Insurance Corporation (FDIC). That number was down 4.3% from the same date in

2018. The number of U.S. commercial banks has been declining without pause since 1984, when it peaked at a post–New Deal high of 14,496, while the number of savings institutions peaked at 3,677 in 1986.

Contrary to the popular narrative, the decline in the number of individual banks has not meant a decline in the density of bank offices or their proximity to U.S. households. In fact, the number of commercial bank offices (headquarters plus branches) rose steadily until 2008, when it reached 90,117. It has since declined to 83,714, but that is still substantially above the 1984 figure of 57,227.

For the last 50 years and especially since 1994, the U.S. banking industry has experienced rapid consolidation as a result of bank branching. Whereas only 14 states allowed intrastate branching and no state allowed out-of-state banking in the mid-1970s, by 1990 all but five states had authorized intrastate branching and the same number (but not the same states) allowed interstate banking. (See "The Benefits of Branching Deregulation," Spring 1999.) The federal Riegle–Neal Interstate Banking and Branching Efficiency Act of 1994 finally extended branch banking to the whole of the United States. The number of bank offices per capita continued to rise after Riegle–Neal, and while it has recently declined to 253 per million inhabitants, it remains higher than at any time before the end of branching restrictions.

Consolidation has also meant the gradual decline of the small U.S. bank. Since 1992, the number of banks and thrifts with less than $100 million in assets has dropped by 87%. For those with assets between $100 million and $1 billion, the decline has been less pronounced and more recent. Banks above $1 billion, on the other hand, have seen their ranks grow since the early 1990s. Even adjusting for inflation, the strong trend persists: There were 6,654 banks with under $100 million (in June 2019 dollars) in assets in 1992. Today, just 1,230 remain—a decline of 82%. Similarly, there were 6,402 banks under $1 billion in assets in 1992, whereas 3,281 now remain.

Finally, small banks have declined in economic importance since the passage of Riegle–Neal. As of 2019, banks and thrifts under $1 billion in assets (representing 85% of institutions) accounted for just 23% of small-business loans and less than 10% of residential mortgages outstanding.

REGULATION AND THE DECLINE OF SMALL BANKS

Consolidation is not just a market phenomenon resulting from the long-overdue removal of government restrictions on branching, although that is an important if not the main cause of consolidation. Contemporaneously to branching liberalization, there has been relentless growth in the number of individual regulations (mandates and restrictions) to which depository institutions are subject. According to the Mercatus Center at George Mason University, U.S. businesses engaged in "credit intermediation and related activities" were subject to 40,000 rules on the eve of last decade's financial crisis, up from around 10,000 in 1970. The post-crisis Dodd–Frank Act added more than 27,000 new rules to the *Code of Federal Regulations.*

EYEMARK/GETTY IMAGES

Researchers have noted the post–Dodd–Frank decline in the market share of smaller banks and related it to increased regulation. Industry and think tank surveys of banks also suggest that post-crisis changes to mortgage and small-business lending regulations have increased compliance costs, particularly for smaller banks.

Additionally, the years after 2008 have seen federal regulators issue very few new bank charters. Whether that is primarily a supply- or demand-side phenomenon is in dispute. Some scholars suggest that narrower interest rate margins have made it unattractive to enter the banking business.

But others have sought to model the effects of the regulatory burden, and associated human capital and other requirements, on profitability. These models suggest that regulatory proliferation can dramatically reduce the profitability of

small banks, particularly those under $50 million in assets. It is worth noting that the smallest banks' average return on assets and equity is substantially below that of larger banks. (See Table 1.)

WHY THE ECONOMIC IMPLICATIONS OF CONSOLIDATION ARE OVERSTATED

Some analysts have argued the gradual decline in the number of U.S. banks, and particularly of small banks, has important and potentially negative economic implications. Their concerns focus on:

- the effects of consolidation on competition
- the consequences for lending in which small banks have historically specialized
- the likely effect on "relationship lending," in which larger banks allegedly do not engage
- the recent emergence of "banking deserts"—areas without a single bank branch—as a result of the closure of small banks.

This section explains why such concerns are probably overstated.

Competition has increased / The dramatic nationwide decline in the number of banks over the last 35 years may suggest to the casual observer that market concentration has also increased sharply during that time. Yet, as with other industries in the United States, it is important to distinguish between national and local market concentration. FDIC data on bank deposits for the largest metropolitan statistical areas (MSAs) show that, while the top five banks in each MSA have increased their collective share of deposits, local market concentration started at very low levels and remains comparably low.

A standard measure of market concentration is the Herfindahl–Hirschman Index (HHI), the sum of the squares of the market share of each firm in a given market. The Department of Justice defines a market as "unconcentrated" when its HHI falls below 1,500. Markets with HHIs between 1,500 and 2,500 are "moderately concentrated," while those with HHIs above 2,500 are "highly concentrated." By this criterion, not a single one of the 10 largest U.S. metropolitan areas had a highly concentrated banking market in 2019. Two markets were moderately concentrated, while two others fell close to the threshold. Eight of the markets were unconcentrated by this standard. (See Table 2.)

Recent deposit market share data illustrate another potentially pro-competitive development: consolidation appears to have made it more likely that the country's largest banks will compete locally with each other across many markets. By contrast, the 1994 norm was a fragmented market featuring locally and regionally dominant banks. Finally, in recent years the largest banks have in fact lost deposit market share to online and community banks that seem to offer more attractive returns in a low interest-rate environment.

Other measures of competition and consumer welfare point to the beneficial effects of recent consolidation. Competition has reduced the spread between retail deposit and loan interest rates, and expanded access to fee-free networks. Banks operated more efficiently after deregulation, as illustrated by lower loan chargeoffs, operating expenses, and loan interest rates. Economic growth accelerated after branching liberalization. This recent evidence is consistent with historical experience, which shows banks *of all sizes* to be more efficient and stable when they operate in markets that allow branching. Economic theory further suggests that consolidation and branching, by allowing geographic and product diversification, have made banks better able to withstand shocks. Indeed, scholars have blamed the persistence of branching restrictions in the United States for the historical instability and high failure rate of U.S. banks.

Regulation is the culprit / Smaller banks have traditionally played a large role in mortgage and small-business lending. Their decline in number and market share since the 1990s has fed concerns that credit availability in these markets might suffer as a result. These worries are not entirely misplaced, as there is copious evidence that lending for home purchases and to businesses by banks large and small has declined since the financial crisis.

Table 1

Mean Return on Assets and Equity for U.S. Commercial Banks and Thrift Institutions

	INSTITUTION ASSETS				
	<$100M	$100M–$1B	$1B–$10B	$10B–$250B	>$250B
Return on Assets (%)	0.96	1.35	1.28	1.43	1.37
Return on Equity (%)	6.75	11.42	10.64	11.88	12.66

Source: FDIC, Quarterly Banking Profile, Q2 2019.

Nonbanks' share of mortgage originations grew from 30% to 50% between 2007 and 2015. Researchers have attributed around 60% of this growth to a post-crisis increase in the regulatory burden on banks and 30% to nonbanks' technology advantage.

Similarly, the growth rate of bank small-business loans has ground to a halt, and in some cases turned negative, since the financial crisis. Whereas loans over $1 million to businesses saw a cumulative growth rate of 80% between 2010 and 2018, loans under that amount—a standard threshold for small-firm lending—grew a meager 3%. As in the case of mortgages, it appears that nonbanks have plugged some of the gap left by banks, with 32% of small businesses applying to nonbank online lenders in 2018 compared to 19% as recently as 2016. Still another concern arising from the recent trend of consolidation is that "relationship lending," by which is meant credit extension based on a longstanding connection between lender and borrower that yields hard-to-quantify but predictive insights ("soft" information)

about creditworthiness, has declined and will continue to do so.

While the declining share of banks in key lending markets suggests that regulation has made it harder for banks to compete, it is not only small banks that have beaten a retreat since the financial crisis. In fact, small-business loan originations by the largest banks fell more and took longer to recover than those from smaller lenders, with significant employment and other economic consequences. The decline of relationship lending also appears to stem from regulation, which standardized product offerings starting with mortgages, thus making it more difficult for lenders to underwrite loans using soft information. According to bankers, forthcoming mortgage-like data collection rules mandated by the Dodd–Frank Act will have a similar effect on small-business lending.

Some 8.4 million U.S. households lack a bank account. But the decline of the small banks and the emergence of areas without bank branches are not significant contributors to the unbanked problem.

Banking "deserts" are usually real deserts / The phenomenon of banking "deserts," areas without a single bank branch within a 10-mile radius, has recently attracted press and scholarly attention. If a growing number of people find themselves without easy physical access to banking services, it is argued, they may have to resort to more expensive providers of banking services and even suffer exclusion from economic life.

There is little overlap, however, between "unbanked" households—those that lack a bank account—and banking deserts. Two-thirds of banking deserts are in rural areas, whereas the bulk of the unbanked live in urban areas. Furthermore, the states with the highest population share living in banking deserts do not have a high percentage of unbanked households, with the exception of New Mexico. In fact, many MSAs have higher unbanked rates than the state average, suggesting that lacking a bank account is often more an urban than a rural phenomenon. When asked for the reasons they choose not to own a bank account, unbanked households cite cost and a lack of trust, first and foremost. Less than one in 10 respondents cites inconvenient locations.

Some 8.4 million U.S. households lack a bank account. But the decline of the small bank and the emergence of areas without bank branches are not significant contributors to the unbanked problem.

WHY THE POLITICAL AND POLICY IMPLICATIONS ARE UNDERSTATED

America's small banks have cast a long shadow on the country's politics and bank regulatory framework. Some of the most important pieces of banking legislation over the last century came about under the influence of small-bank interest groups. Moreover, small banks' positions in many of these debates have pitted them against advocates of competition and economic freedom. Despite small banks' economic decline in recent decades, their political leverage persists, as illustrated by two of the most important areas of financial regulation: housing finance and the payments system.

Creation of the Federal Reserve / Small banks played an important, if perhaps unintended, role in the advent of the U.S. central bank. There is a tendency to present the Federal Reserve as an inevitable (and desirable) response to persistent bank panics in the second half of the 19th century and the first decade of the 20th. Closer study of policy developments in the run-up to the 1913 Federal Reserve Act shows that the central bank route became the favored alternative only late in policymakers' deliberations. Furthermore, neither broad popular support nor the bulk of economic scholarship was behind the Fed's creation.

In the wake of five major financial crises between the end of the Civil War and 1913, there was a growing consensus that only significant policy change could make the U.S. banking system at least as stable as its counterparts in Canada (which did not have a central bank until 1935) and Western Europe. Two American idiosyncrasies—a strict limit on banknote issue and the prevalence of unit banking because of legal prohibition on branches—had long caused the country's banks to be vulnerable to panics, particularly during the harvest season when farmers' demand for currency increased. For years, a majority of bankers and economists shared the view that allowing for more flexible banknote supply, backed by all bank assets and not just Treasury bonds, plus branching liberalization, could help arrest the trend of periodic panics. The Canadian experience certainly suggested it would.

But opposition from Sen. Nelson Aldrich (RI), the powerful Republican chairman of the Senate Banking Committee and an avowed defender of the interests of the large New York banks, made such reform impossible. It would have taken away from those institutions the lucrative correspondent business they conducted on behalf of small and regional banks that could not open branches in New York or other large cities. A preference of most Democratic legislators for greater government control of currency issue made a central bank an attractive alternative, as it would preserve the New York banks' correspondent role and create a lender of last resort to provide them with emergency liquidity during a credit crunch.

Small banks were useful, though peripheral, contributors to the creation of the Fed. It is ironic that they played such a role,

given their notorious suspicion of New York banks. But they feared branching liberalization—of which New York banks, like other banks, could have taken advantage—more, calling it "unpatriotic, un-American, unbusinesslike, and … tending to … monopoly," in the words of a Kansas Bankers' Convention resolution of the era. Small banks therefore opposed market-based reform without a central bank of issue. Their opposition strengthened congressional populists at the same time as they bolstered their nemesis, Aldrich, who stated cynically that "any system which is to be adopted in this country must recognize the rights and independence of the 25,000 separate banks in the United States."

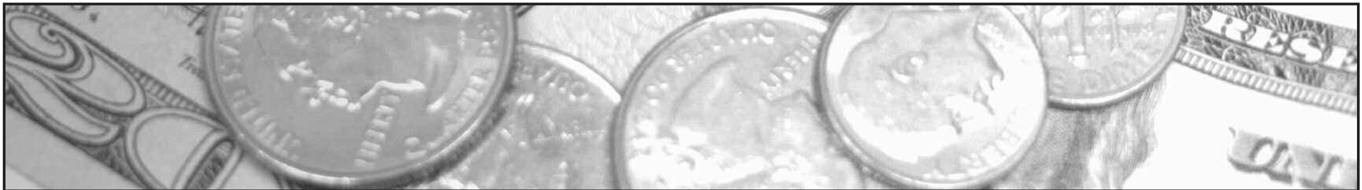
Thus did small banks aid America's transition, not toward a more stable and competitive banking system like central-bankless Canada's, but in the direction of greater centralization and government power, which boosted the largest banks more than any other industry player.

The CFPB / During the deliberations that culminated in the passage of the Wall Street Reform and Consumer Protection (Dodd–Frank) Act of 2010, House Financial Services Committee chair Barney Frank found in ICBA president Camden Fine a silent ally. Fine agreed not to speak out against Dodd–Frank's Title X, which created the CFPB, in exchange for a tweak in the premium assessment formula for deposit insurance and an exemption from CFPB supervision for banks with assets under $10 billion. Because small banks remain subject to CFPB rulemakings and enforcement actions, it is unclear how beneficial this exemption really has been to ICBA members. But it testifies to the continued political salience of small banks and their antagonism to larger banks.

As *Washington Post* associate editor Robert Kaiser, author of a book on the genesis of Dodd–Frank, wrote in a May 5, 2013 article:

> The Frank–Fine deal was one of the most important made on the path to what would become, nine months later, the law now known as Dodd–Frank.…
>
> The Gutierrez amendment [changing FDIC premiums to the benefit of small banks] also received scant attention. Ultimately, it became part of the final Dodd–Frank bill. It cost the big banks big bucks—at least $1.4 billion in increased FDIC payments in its first year in force.
>
> Frank had neutralized one of the most influential interests on the [CFPB] issue. He felt he hadn't given up anything that he considered vital to the reform effort generally, or to the proposed consumer agency specifically. He had made Fine a partner, and that partnership proved invaluable in the months ahead.

It is worth noting that the CFPB has since taken over rulemaking and enforcement for financial laws accounting for at least 47.9% of community bank compliance costs, according to a 2018



The proposals before Congress have long-term effects on our nation's budget — and potentially yours.

WashingtonWatch.com delivers the numbers behind federal legislation in the form that matters most: the price for you and your family.

Let **WashingtonWatch.com** be your starting point for investigating what the government does with your money, and for taking action to control it. Whatever your viewpoint, you will have more power to effect change.

Subscribe to the **WashingtonWatch.com Digest**, free e-mail notice of new legislation — and, most importantly, its price tag.

washingtonwatch.com

the numbers behind proposed legislation and regulation

Table 2

Deposit Market Concentration (Top 5 Banks in 10 Largest MSAs): Herfindahl–Hirschman Index

	1994	2018	2019
New York–Newark–Jersey City, NY–NJ–PA	322	1,173	1,175
Los Angeles–Long Beach–Anaheim, CA	602	829	789
Chicago–Naperville–Elgin, IL–IN–WI	167	785	817
Dallas–Fort Worth–Arlington, TX	908	1,402	1,402
Houston–The Woodlands–Sugar Land, TX	644	2,011	2,178
Washington–Arlington–Alexandria, DC–VA–MD	317	831	816
Miami–Fort Lauderdale–West Palm Beach, FL	263	712	N/A
Philadelphia–Camden–Wilmington, PA–NJ–DE–MD	270	1,386	1,692
Atlanta–Sandy Springs–Roswell, GA	928	1,437	N/A
Boston–Cambridge–Newton, MA–NH	449	1,590	1,480

Source: FDIC, Summary of Deposits, June 2019.

survey by the Federal Reserve Bank of St. Louis. Perhaps Fine's deal with Frank was not so good for small banks after all.

Housing finance / Since September 2008, Fannie Mae and Freddie Mac—the two government-sponsored enterprises (GSEs) that purchase and securitize 44% of single-family mortgages in the United States—have been in government conservatorship. The Trump administration has made it a priority to end the GSEs' conservatorship and the Treasury recently issued a housing reform plan with that goal.

When President Trump directed the Treasury to craft such a plan, he listed as a goal "maintaining equal access to the Federal housing finance system for lenders of all sizes, charter types, and geographic locations." This mandate may appear innocuous, but it has a tenuous relationship to the ostensible purpose of housing finance reform—namely, to enable the GSEs to exit conservatorship and to establish a prudential supervisory regime that minimizes taxpayers' exposure to potential losses while providing for adequate compensation for any such losses. Still, the Treasury's reform plan recommends legislative changes that would privilege small banks, such as a prohibition on volume discounts and a requirement that Fannie, Freddie, and any guarantors chartered in the future maintain a nationwide presence and the option to sell mortgages for cash, which small lenders prefer, rather than just mortgage-backed securities preferred by large banks.

At present under conservatorship, and in the future if Congress and the Federal Housing Finance Agency (FHFA) adopt the Treasury's recommendations, the secondary market for mortgages operates as a lender utility. The FHFA regulates pricing and places on Fannie and Freddie an obligation of equal treatment regardless of purchase volume. In a more competitive system, guarantors—whether Fannie and Freddie or newly chartered competitors—might choose to operate in specific geographic markets, to give volume discounts to large lenders or those whose underwriting they particularly trusted, and to price-discriminate in favor of non-cash mortgage swaps for mortgage-backed securities for which the cost of capital may be lower. Some lenders might even join efforts to form a guarantor that would cater exclusively, or on favorable terms, to the member institutions. Yet, under the present regime, they could not.

It is difficult to explain the status quo as anything other than a government-granted privilege for small banks (and small nonbank mortgage companies). Under specific economic conditions, such a system might improve competition in the mortgage market. But it is not obvious that the secondary market for mortgage loans is a natural monopoly, nor have defenders of the present regime gone to great lengths to offer an economic justification for its preservation.

Government-provided real-time payments / The U.S. payments system, which transfers funds between retail bank accounts, is comparably slow and costly. Advocates for faster payments have argued that they could save consumers, particularly liquidity-constrained and low-income households, billions of dollars in fees. The Federal Reserve recently vowed to launch a real-time payments and settlement service, which it has called FedNow, to become available "in 2023 or 2024." In a speech delivered on the day of the announcement, Fed governor Lael Brainard stated that FedNow will "increase competition, decrease market concentration, and provide a neutral platform for innovation."

But competition from the Fed presents serious challenges. The payments system features strong network economies: the more participants in a network, the more attractive it becomes for additional participants to join that network. And since 2017 there has already been a private real-time payments (RTP) network in existence, operated by The Clearing House (TCH), a 166-year-old banking association owned by 25 of America's largest banks, which together account for more than 60% of bank assets and more than half of deposits. (See "Is the Fed Impeding Real-Time Check-Clearance?" p. 6.) Yet the payments services TCH provides do not just cater to large banks; banks and credit unions under $10 billion in assets make up 80% of its customers. More than 50% of U.S. transaction accounts already connect to TCH's RTP network. Furthermore, TCH operates like a utility. It offers no volume discounts, "has never paid a dividend in its history, there is no expectation for any return on capital, and … no special pricing for owner banks," according to recent testimony before the Senate Committee on Banking, Housing, and Urban Affairs.

Despite this explicitly size- and owner-agnostic pricing struc-

ture, the ICBA opposes TCH-provided real-time payments. At a recent congressional hearing, Iowa banker Robert Steen stated that real-time payments are "too important to be entrusted to a private monopoly … especially an organization that does not have a proven track record of reaching smaller financial institutions." Steen criticized TCH's argument that it can only guarantee equal pricing so long as no other participants, including the Fed, enter the market. TCH argues that an entrant could introduce volume discounts, attracting the largest banks away from TCH and thus making its utility pricing structure unviable. Rather than a veiled threat to exercise monopoly power, as Steen and other small bankers seem to have interpreted TCH's warning, it is a commitment to equal pricing: if TCH does not abide by it, then the Fed as payments provider and the Department of Justice as antitrust enforcer could intervene.

Not all small banks have taken an antagonistic view of TCH's RTP network. It was recently reported that around 20 small banks had joined the TCH network, prompted by the belief that waiting for the Fed to deliver its own real-time payments services posed greater risk to their business. Nevertheless, the ICBA has very publicly and forcefully supported the Fed's entry into real-time payments provision, arguing it is the only way to "foster ubiquity for all financial institutions regardless of size and charter." Ironically, by encouraging the Fed's participation as an operator of real-time payments services in competition with TCH, the ICBA is making it more likely that both competitors will offer volume discounts to retain their large-bank customers, thus increasing competitive pressure on smaller banks.

IS THE DECLINE OF SMALL BANKS AN OPPORTUNITY FOR LIBERALIZATION?

Consolidation and regulatory proliferation have characterized the evolution of U.S. banking since the 1970s, and particularly since the mid-1990s. While the gradual decline of small banks in number and market share during this period has attracted some attention for its alleged economic consequences, the evidence seems to suggest those consequences are exaggerated. U.S. banking has become more efficient and competitive thanks to consolidation. Furthermore, to the extent beneficial bank practices such as relationship lending have declined, this has stemmed from regulation, not consolidation.

The effect of small banks' decline on their political influence, and the consequent implications for future regulation and policy, have been less discussed but are arguably more significant than the economic effect. Small banks have had a great deal of political clout since the 19th century. They were instrumental in the creation of the Fed and have more recently facilitated other credit market laws and regulations.

The gradual disappearance of small banks may put an end to such influence. Moreover, because small banks have frequently lobbied for interventions that would reduce competition and protect their status vis-à-vis larger rivals, their decline may be an opportunity for market-based policies in areas where U.S. financial markets remain unusually government-controlled. In addition to the secondary market for mortgages, the longstanding legal separation of banking and commercial businesses comes to mind as a policy ripe for reform and with significant beneficial economic implications. As several large technology firms contemplate entry into financial services provision, repealing the existing ban would enable entry and strengthen competition with the largest banks.

It is paradoxical yet entirely plausible that the decline of small banks will make possible that which small banks have long sought: containing the dominance of banking by the large New York banks. R

READINGS

- *Bank Deregulation in Historical Perspective*, by Charles W. Calomiris. Cambridge University Press, 2000.
- "Branch Banking as a Device for Discipline: Competition and Bank Survivorship during the Great Depression," by Mark Carlson and Kris James Mitchener. *Journal of Political Economy* 117(2): 165–210 (April 2009).
- "Diverging Trends in National and Local Concentration," by Esteban Rossi-Hansberg, Pierre-Daniel Sarte, and Nicholas Trachter. National Bureau of Economic Research Working Paper no. 25066, September 2018.
- "Dodd–Frank Is One of the Biggest Regulatory Events Ever," by Patrick McLaughlin, Oliver Sherouse, and Daniel Francis. Mercatus Center at George Mason University, August 31, 2017.
- "Fintech, Regulatory Arbitrage, and the Rise of Shadow Banks," by Greg Buchak, Gregor Matvos, Tomasz Piskorski, and Amit Seru. Columbia Business School Research Paper no. 17–39, August 2018.
- "Geographic Deregulation of Banking and Economic Growth," by Margaret Z. Clarke. *Journal of Money, Credit, and Banking* 36(5): 929–942 (October 2004).
- "How Are Small Banks Faring under Dodd–Frank?" by Hester Peirce, Ian Robinson, and Thomas Stratmann. Mercatus Working Paper No. 14–05, February 2014.
- "Nationwide Branching and Its Impact on Market Structure, Quality, and Bank Performance," by Astrid A. Dick. *Journal of Business* 79(2): 567–592 (March 2006).
- "New York's Bank: The National Monetary Commission and the Founding of the Fed," by George Selgin. *Cato Policy Analysis* no. 793, June 21, 2016.
- "Quantifying the Costs of Additional Regulation on Community Banks," by Ron J. Feldman, Jason Schmidt, and Ken Heinecke. Federal Reserve Bank of Minneapolis, May 30, 2013.
- "Regulatory Accumulation in the Financial Sector," by Patrick McLaughlin, Oliver Sherouse, and Stephen Strosko. Mercatus Center at George Mason University, August 31, 2017.
- "Small Business Credit Availability and Relationship Lending: The Importance of Bank Organisational Structure," by Allen N. Berger and Gregory F. Udell. *Economic Journal* 112(477): F32–F53 (February 2002).
- "The Decline of Big-Bank Lending to Small Business: Dynamic Impacts on Local Credit and Labor Markets," by Brian S. Chen, Samuel G. Hanson, and Jeremy C. Stein. National Bureau of Economic Research Working Paper no. 23843, September 2017.
- "The Impact of the Dodd–Frank Act on Small Business," by Michael D. Bordo and John V. Duca. National Bureau of Economic Research Working Paper no. 24501, April 2018.
- "The Riegle–Neal Interstate Banking and Branching Efficiency Act of 1994: Responding to Global Competition," by Patrick Mulloy and Cynthia Lasker. *Journal of Legislation* 21(2): 255–273 (1995).
- "The State and Fate of Community Banking," by Marshall Lux and Robert Greene. Mossavar-Rahmani Center for Business and Government Working Paper no. 37, February 2015.
- "There Was No Place like Canada," by George Selgin. *Alt-M*, July 29, 2015.
- "Where Are All the New Banks? The Role of Regulatory Burden in New Charter Creation," by Robert M. Adams and Jacob P. Gramlich. Federal Reserve Board Staff Working Paper no. 2014–113, December 16, 2014.

the CATO JOURNAL

AN INTERDISCIPLINARY JOURNAL OF PUBLIC POLICY ANALYSIS

"Exceptional in consistently publishing articles that combine scholarly excellence with policy relevance."
— MILTON FRIEDMAN

Cato Journal is America's leading free-market public policy journal. Every issue is a valuable resource for scholars concerned with questions of public policy, yet it is written and edited to be accessible to the interested lay reader. Clive Crook of *The Economist* has called it "the most consistently interesting and provocative journal of its kind."

Cato Journal's stable of writers constitutes a veritable Who's Who in business, government, and academia. Contributors have included James M. Buchanan, Richard Epstein, Kristin J. Forbes, Milton Friedman, Robert Higgs, Vaclav Klaus, Justin Yifu Lin, Allan H. Meltzer, Charles Murray, Wiliam Niskanen, Douglass C. North, José Piñera, Anna J. Schwartz, and Lawrence H. White.

Three times a year, *Cato Journal* provides you with solid interdisciplinary analysis of a wide range of public policy issues. An individual subscription is only $22 per year. *Subscribe today!*

SUBSCRIBE TODAY— BY PHONE OR ONLINE

For more information call (800)767-1241 or visit www.cato.org/cato-journal

Save more with multiple years	1 YEAR	2 YEARS	3 YEARS
Individuals	$22	$38	$55
Institutions	$50	$85	$125