NATIONAL AFFAIRS

Why We Need Traditional Banking

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Thirty years ago, Lowell Bryan, a McKinsey & Company director, declared, "a new technology for lending — securitized credit — has suddenly appeared on the scene. This new technology has the capacity to transform the fundamentals of banking, which have been essentially unchanged since their origins in medieval Europe." Bryan predicted that traditional lending might soon become obsolete: "About half of all debt in the national economy is raised through securities; that number might increase to 80% in the next decade."

His prediction of an impending transformation was borne out. Securitized credit, essentially tradable securities created by pooling mortgages and asset-backed consumer loans, surged by more than 10-fold after 1987 to over $4.5 trillion outstanding in 2001, and, in spite of a sharp decline after the 2008 crisis, recovered to over $8 trillion in 2017. Further vindicating Bryan's forecast, traditional bank loans have shrunk to just a fifth of private debt in the U.S.

This latter part of the equation — the declining role of traditional bank lending, and indeed traditional banking more generally — has been an underappreciated element of the transformation of American economic life. We have paid some attention to the growing role of securitization, especially given its centrality to the 2008 financial crisis. Specifically, the crisis crystallized the worry that securitization makes loan originators careless: Why waste your efforts on due diligence if you can pass on the risk of bad loans to diffuse buyers in anonymous markets? But this worry has generally been offset by the view common among financial economists and financiers that securitization makes for more "complete" markets (allowing more kinds of borrowers and

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forms of risk to be aggregated) and that more complete markets are inherently better.

This now-standard tallying of the benefits and risks of securitization omits the costs involved in the decline of old-fashioned banking itself. And those costs are quite significant. A financial system that downgrades the role of banks becomes dangerously dependent on nearly blind trust in generic credit scores — a risk still underappreciated even a decade after the financial crisis. The marginalization of traditional banking also discourages lending to small businesses, which are essential to America's economic dynamism. And it tends to over-centralize the supply of money, and therefore of credit, in ways that distort our economic life.

Instead of applauding the greater "completeness" of anonymous debt markets, we should lament the marginalization of traditional banking. And we should work to reverse it.

THE RELENTLESS RISE OF SECURITIZATION

The long-term transformation of American lending has little to do with the invention of a new technology of finance. Rather, it has been driven by a progression, over decades, of rules that govern our economy, and then reinforced more recently by emergency measures in monetary policy.

The most significant long-term change has been in residential mortgages. Government-sponsored enterprises, known to many as Fannie Mae and Freddie Mac, guarantee nearly all the residential mortgages securitized today against defaults by borrowers. But because only a sliver of capital supports the guarantees, the credibility of the protection that Fannie and Freddie offer investors depends on their capacity to limit loan defaults. The government also has reason to worry about widespread defaults because of the knock-on effects that Fannie and Freddie's failure could trigger.

Until the mid-1990s, Fannie and Freddie used complex underwriting guidelines that reflected traditional banking practices to limit defaults. But commitments supported by politicians of nearly every stripe to expand guarantees prompted a change to more streamlined rating of applications based on credit scores. In 1994, Fannie Mae launched its "Trillion Dollar Commitment," pledging $1 trillion in targeted housing finance to increase homeownership rates. The effort was supported by a technology initiative that aimed to cut the costs of making a mortgage

by $1,000 and to reduce the origination time from more than eight weeks down to five days. The initiative also sought to enforce uniform underwriting standards and to prevent racial discrimination by limiting the discretion of local loan originators.

The complexity of existing underwriting guidelines precluded replicating them on computer systems. Fannie Mae and Freddie Mac (which had launched its own technology initiative) therefore decided instead to use a credit-scoring algorithm that would simplify, not just automate, the process. And the two agencies further sped up automation by relying on so-called FICO scores.

Originally an acronym for "Fair, Isaac and Company," a California-based data-analytics firm founded by William Fair and Earl Isaac in the mid-1950s, FICO has come to refer to the standard measure of consumer risk used to judge credit worthiness. The FICO score was not designed to predict mortgage-default risk but rather to assess consumer-lending risk. But it was reasonable to expect a close relationship between the two. And, because the scores offered a relatively objective standard and were well known (with the familiar if arbitrary scale of scores from 300 to 850), the use of FICO proved politically useful for Fannie and Freddie in showcasing their new initiatives to Congress.

By 1997, Fannie Mae officials claimed a major reduction in time and effort spent on processing loans. As FICO-enabled automation reduced costs and processing times, the number of mortgages available to securitization increased — as did, not coincidentally, Fannie and Freddie's profits. Net issuance of mortgage-backed securities — created by bundling thousands of mortgages into a single financial claim, which was guaranteed by the agencies, to sell to investors — jumped from $127 billion in the first half of the 1990s to $314 billion in the second half of the decade.

Meanwhile, new legislation and regulations spurred — and have continued to sustain — FICO-enabled securitization of consumer loans. Bank regulators enforcing the 1968 Fair Housing Act and the 1974 Equal Credit Opportunity Act now distinguish between lenders who use statistical credit scoring and lenders who use "judgmental" systems.

Federal fairness examiners subject "customized" scoring models to extra scrutiny. Regulators worry that customized models may include variables excluded from credit-bureau records, such as education, that could correlate with forbidden factors like race, ethnicity, and gender. Customization isn't explicitly forbidden, but it can require lenders to

provide a "business justification." Using a generic FICO score that lenders cannot influence removes the hassle and the regulatory risk. And even those lenders who customize models may omit or dampen the influence of variables outside the FICO-score purview that can have "disparate impact" under fair-lending rules.

Regulators also frown on "discretionary overrides" of the statistical scores, especially if lenders allow staff in their branches (rather than at headquarters) to overrule scores. A branch-based banker in direct contact with customers might be better positioned to determine whether an applicant's score reflects true creditworthiness, but regulators fear that giving branch staffers this authority may invite discrimination.

The use of credit-bureau scores by bank regulators to discourage discriminatory lending and by Fannie and Freddie to screen mortgages was itself predicated on a system of credit reporting fostered by lawmakers. In the 1950s and '60s, as Bank of America and Citibank started marketing credit cards in states where they weren't yet allowed to have branches, they used bureau scores to screen applications. Growing use of these scores by card issuers increased public concerns about inaccurate bureau records. In response, Congress enacted the Fair Credit Reporting Act of 1970, which forbade lenders from providing inaccurate information to credit bureaus, required the bureaus to ensure maximum possible accuracy, and encouraged consumers to correct errors in their reports. The rules helped increase confidence in credit-bureau scores and records, which promoted even wider use of the scores.

Inducing consumer lenders (and not just mortgage lenders) to rely on FICO scores has in turn had the unintended consequence of enabling securitization. In traditional corporate bonds, through which America's largest corporations might float billion-dollar issues, the borrower provides reams of information to investors. But when issuers securitize credits cards, they have to pool the obligations of hundreds of thousands of borrowers to create a billion-dollar issue. Pooling these loans in turn limits the information issuers can provide to investors about the ultimate borrowers. In addition, investors cannot be told much about the qualifications, experience, and track records of a large staff of loan originators.

Relying on generic, bureau-provided FICO scores (rather than customized scoring models) and limiting discretionary overrides reduces investors' concerns about the quality and diligence of front-line lending agents, model-developers, and issuers. And issuers who restrict the

information they secure about borrowers can credibly tell investors almost every bit of the little they know. In other words, fair-lending rules that encourage strict reliance on FICO scores also provide reassurance to buyers of securitized consumer loans that they aren't being sold "lemons." In this way, the evolution of both mortgage lending and consumer credit pushed the financial system toward securitized credit and away from traditional loans that banks hold to maturity.

The Hunger for Securitized Credit

A similar pattern has prevailed at the same time on the demand side, where pension, mutual-fund, tax, and securities rules favor investment in "tradable" debt and equity. Wage controls instituted during World War II that excluded pension benefits created incentives for employers to provide such benefits, and the low after-tax cost of deductible contributions (because of a 93% tax on excess profits) had encouraged American companies to set up pension plans. The Employee Retirement Income Security Act (ERISA), enacted in 1974 after media coverage of mismanaged pensions, boosted contributions to retirement funds by mandating proper funding of pension plans and creating Individual Retirement Accounts.

ERISA also favored tradable claims: Although relatively predictable cash needs should have encouraged retirement plans to buy assets that didn't need to be particularly liquid, regulators concerned about the incompetence and self-dealing of fiduciaries pushed plans to invest in diversified portfolios priced in anonymous markets. IRS rules against tax-exempt entities' engaging in a lending "business" and mutual-fund diversification requirements similarly tilted institutional demand toward tradable bonds rather than illiquid loans.

Initially, pension funds and other institutions responded to the rules by investing mainly in stocks and high-quality corporate bonds. Then, starting in the mid-1980s, Wall Street learned to peddle structured mortgage- and consumer-loan-backed securities, sliced and diced to meet varying institutional tastes for ratings and returns.

Banks themselves have been discouraged from holding loans to maturity by capital requirements. Uniform capital requirements were first imposed on U.S. banks by regulators in 1981 and were toughened by the 1990 Basel Accord establishing global standards. The rules encouraged banks to transfer loans to off-balance-sheet vehicles — and to replace the offloaded loans with tradable securities.

All of these varied factors pushed in the same direction — toward securitized credit and away from traditional bank lending, at least until the financial crisis. We might easily imagine that the crisis itself, given the implosion of securitized-credit markets in 2008, might have pushed the system forcefully in the opposite direction. But monetary policy in the wake of the crisis has prevented that, and in fact has induced a rapid rebound in securitized credit.

When bank lending froze and money-market funds suspended redemptions at the height of the crisis, the Federal Reserve immediately provided emergency assistance to both banks and credit markets, as a lender of last resort should. But then the Fed, invoking its legislative mandate to promote full employment and stable prices, undertook an unprecedented experiment in monetary stimulus. This stimulus, delivered for nearly a decade through zero-interest-rate policies and quantitative easing, has favored credit extended through arm's-length markets over traditional bank loans.

The bias is subtle yet potent. Prudent bankers will not lend to borrowers who are not creditworthy simply because of zero-interest-rate policies. The reduced rate a bank might pay on deposits cannot compensate for large loan losses. Traditional bank lending also requires experienced staff and relationships with borrowers that do not spontaneously materialize when the Federal Reserve slashes interest rates. Expanding credit through monetary easing must thus implicitly rely on imprudent lending or lending that does not require much experience or knowledge of borrowers. But after 2008, regulators have pressured banks to lend more cautiously by increasing oversight and requiring banks to "stress test" their portfolios. American regulators have also "gold plated" international capital requirements, significantly increasing the capital cushion banks have to maintain against their loan portfolios. This too dampens enthusiasm for more lending.

At the same time, low interest rates have driven other financial institutions to increase risks. The obligations of life-insurance companies, pension funds that promise retirees defined benefits, and the endowments of many nonprofits don't shrink when earnings on conservative investments decline. Falling rates therefore push them to take on more risk. These institutions also typically lack the personnel or legal authority to originate loans. Increased risk-taking therefore finds expression in the buying of tradable debt claims, reducing the share of credit raised through bank loans.

Three waves of "quantitative easing" have produced similar effects. By 2014, the Fed held almost $4.5 trillion of securities issued by the U.S. government and its sponsored agencies, Fannie Mae and Freddie Mac. The purchases depressed yields on these "safe" assets, driving yield-hungry investors into riskier but tradable securities sold by private issuers, including corporate bonds and securitized credit-card, student, and car loans. As intended, rates on these securities fell, spurring more issuance.

collectivized ignorance

All of these forces have pushed the American financial system away from traditional banking and toward more anonymous securitized credit. That push has persisted for decades, and especially over the last 20 years it has brought about a profound though only partially understood transformation. Above all, observers of this process have tended to underestimate its costs, and to ignore what is lost with the decline of traditional banking.

Finance scholars often put a benign gloss on that process by characterizing the information used by relationship-based lenders as subjective or "soft" compared to the "hard" statistical data, such as FICO scores, that guide the use of securitized debt. The move away from traditional banking, they say, is thus a move toward more objective lending. But in fact, the role of soft information in traditional lending is exaggerated, often by traditional lenders themselves. For instance, banks frequently assert that they won't make loans without a favorable affirmation of the applicant's character. But a prudent bank won't stop with soft assessments of character: It will also require documentation of the borrower's repayment history, collateral backing the loan, income available to make interest and principal repayments, and so on.

And more than just soft information is lost when lenders rely on generic credit scores. Practical obstacles — and in some cases political considerations — exclude from the scores factors, such as income and education, that self-evidently affect creditworthiness. Moreover, score-based lenders, like Friedrich Hayek's central planners, rely on "statistical information" that ignores "crucial circumstances of time and place." From their far-away perch, they cannot recognize substance abusers, nor can they distinguish workers in plants scheduled to close from judges with lifetime tenure.

Therefore, while relying on FICO scores undeniably reduces the cost of screening borrowers and very likely increases the total number

of mortgage and consumer loans made, it also reduces the quality of the loans. Competent credit-bureau statisticians may well produce scores that correctly predict the overall rate of defaults, but that rate will be higher than if lenders used more information than just the borrower's credit score. The higher default rates on the loans in the securities produced by cursory FICO-based credit screening shouldn't concern buyers of the securities as long as market prices anticipate the defaults (though the high defaults incorporated into lending rates do penalize good borrowers). But, because statisticians can make mistakes, widespread reliance on centrally produced scores poses systemic risks: An erroneous scoring formula can produce widespread loan defaults. Though mistakes, malfeasance, or bad luck are also unavoidable in traditional lending, decentralized credit decisions protect against mass contemporaneous failure.

Besides claiming greater objectivity thanks to hard information, securitization earns rhetorical points by offering more "complete" markets that help reduce risks. For instance, banks can eliminate the risks of particular borrowers, properties, or neighborhoods by replacing the mortgages they themselves originate with securities created from a nationally diversified pool of mortgages. Better yet, they can score the risk reduction — under the assumption that actively traded markets are generally right — without expending much effort on scrutinizing the securities they purchase.

This argument misses an important point, though. Blind diversification *by* creditors increases the sameness of holdings *across* creditors — a dangerous collectivization of risk that undermines finance theorists' recommendation that everyone hold "complete" market portfolios. Thus, if all lenders purchase securitized consumer loans, their portfolios will be exposed to FICO risk. Any unexpected jump in the return the market expects for bearing FICO risks will cause a correlated fall of everyone's securities — and may prompt a rush to get out that further exacerbates this fall. Incomplete markets and high-cost diversification might connote backwardness, but they actually improve the resilience of the financial system.

Reliance on FICO scores and the securitization it supports also contributes to the concentration of the banking industry. Score-based securitization provides significant economies of scale in, for instance, the soliciting and processing of loan applications and the marketing of

securities to investors. And, because there is less branch-level discretion to manage than in more "artisanal," case-by-case lending, top executives can rely on numerical targets and statistical controls. Therefore, as with the mass production of industrial goods, score-based securitization better supports larger organizations, increasing the concentration of finance. But such concentration is often bad for borrowers, and it makes the credit system vulnerable to the miscalculations or misfortune of a few megabanks.

The securitization of credit and its enabling factors also tend to shortchange small businesses. Rules that sustain the mass securitization of mortgages and consumer loans do not apply to loans made to small businesses. Nationwide agencies that assessed the creditworthiness of businesses emerged long before their consumer counterparts, but lenders to businesses don't face the same pressure to use bureau data and scores. Unlike Fannie and Freddie, the Small Business Administration does not mandate the use of standardized scores for the loans it guarantees. Bank examiners do not question lenders for using judgment instead of statistical scoring, scrutinize the fairness of the discretionary overrides of scores, or investigate the potential disparate impact of customized models. And, because business scoring is not subject to fair-credit reporting rules that can help borrowers correct mistakes, credit-bureau records on small businesses are rife with inaccurate data.

More flexible rules for making business loans give more options to small-business borrowers. Community banks tend to use more judgment in evaluating loan applications. Larger banks that rely on statistical credit scoring for lending to small businesses usually develop their own models rather than use off-the-shelf, bureau-provided scores. The greater diversity of lending practices can help improve the match between the borrower's needs and circumstances and banks' credit-screening methods.

But there is also an enormous disadvantage created by the marginalization of traditional banking that we have traced here. Because screening is more opaque than relying on standardized credit scores, banks cannot easily sell tradable securities created by pooling their small-business loans. Small-business borrowers therefore cannot tap institutional investors who, as previously mentioned, have become a significant source of credit. Worse, banks, which must hold their small-business loans to maturity, incur higher regulatory capital charges than

they do for securitized assets, which reduces the profitability of small-business lending.

For megabanks that now specialize in mass securitization and large bespoke transactions, lending to small businesses seems to be a nuisance tolerated for its public-relations value. And this has meant much less small-business lending. Small loans made to businesses by the 10 biggest banks in the United States, for instance, have fallen by more than a third from their 2006 peaks, even as consumer debt has rebounded and corporate-bond issuance has surged. Yet small businesses, which elected officials tirelessly aver are the backbone of the economy, cannot raise funds from capital markets. Bank loans are crucial to their growth. It is a noteworthy fact, and no coincidence, that the extended decline in fast-growing small businesses has coincided with a huge increase in securitization.

THE CENTRALIZATION OF MONEY

The marginalization of traditional banking has diminished the importance not just of decentralized lending but also of the decentralized production of the medium of exchange — namely, money. The ways that a decline in decentralized lending leads to less decentralized money creation are not widely appreciated, however, even if such a connection is implicit in everyday references to "money and credit."

Some historians who insist that the state has to take a leading role dispute the suggestion that the demand for a medium of exchange somehow spontaneously spawns mechanisms for its supply. Widely used money, going back at least to the coins of the Roman Empire, they note, has almost invariably been created by fiat. When the "coin of the realm" was minted from gold and silver, the metals themselves did not serve as a hand-to-hand medium of exchange. They had to be shaped and stamped in an authorized mint. Even Vikings pillaging the British Isles demanded tribute in minted English coin, not in bars of gold or silver.

The state's authority to levy taxes gave its money unique advantages. The sovereign could decree that taxes and fines would be paid in the coins it minted. And privileging the state's money for all tax obligations encouraged its acceptance as payment in private transactions. Sellers would readily accept coins that they knew anyone could pass on to the tax collector or the court bailiff. And the harsh penalties — often death — imposed on counterfeiters naturally increased people's confidence in the state's minted currency.

Although paper notes and electronic reserves, conjured as it were out of thin air, have replaced coins minted from gold and silver, the authority of a circulating medium backed by the government's tax monopoly remains. Even the black money in underground economies depends on the state's imprimatur — the recent demonetization in India, for instance, wiped out the value of all large denomination notes, black as well as white. And where people don't trust the local currency, they favor paper produced by some other government (such as U.S. dollars in Russia).

But relying on the state to produce the entire medium of exchange poses problems. An effective medium of exchange requires provision for its adequate supply. Shortages have, time and again, proven debilitating. But money must also to some degree be scarce; if everyone could get it freely, sellers would not accept it as payment. And governments often face political pressure to under- or over-produce money. Creditor interests, for instance, will demand tight limits on money production, while populists agitate for loose money to ease burdens on the indebted.

Lawmakers can technically make central banks independent, but in reality central banks can never be fully insulated from political pressure to produce more or less money. Central bankers can also miscalculate. And, even if a central bank gets its sums right on "average," centrally determined quantities and prices for money in a diverse economy may be wrong for a great many particular circumstances.

As it happens, our monetary system has developed, after much trial and error, a two-tiered process that can produce acceptable amounts of money in light of these challenges. The Federal Reserve produces "high-powered" (or "base") money, either by operating a physical printing press or its electronic equivalent. Commercial banks complement the Fed's base money through the amounts they credit to borrowers' checking accounts when they make loans. These credits can be used, one-for-one, to pay taxes and make purchases by writing checks or authorizing wire transfers. And they can also be redeemed at ATMs or bank branches for Fed-produced currency. Therefore, even though balances in checking accounts aren't legal tender, we accord them virtually the same monetary status as money produced by the Fed.

Crucially, just as the Fed can conjure new base money through the turn of a printing press or strokes on a computer keyboard, a system of "fractional banking" gives commercial banks a similar privilege. Banks

do provide a depository for savings and raise capital from stockholders, but the total amounts lent by banks are much greater than the savings they take in or the capital they raise. The difference constitutes money creation. Credit "intermediation" by banks thus has a circular quality: Most of the money banks lend is money the banks themselves create through a book entry in borrowers' checking accounts.

The system raises concerns about fairness: Why give commercial banks the privilege of making, out of thin air as it were, most of the public's money? Historically, the Fed's base money has accounted for less than 10% of the circulating medium. But this base money provides an indispensable foundation needed to make the money produced by banks fungible, and to allow banks to lend it out at a profit.

Instability poses another problem. Savers and borrowers alike can ask to convert the balances in their checking accounts to base money. If many rush to convert, banks have to suspend payments made out of the accounts, threatening a collapse of the medium of exchange and thus the entire economy. Fears of monetary collapses in turn have prompted the state and its agencies to undertake burdensome roles: lender of last resort; monitor of risk exposure, credit procedures, and capital adequacy; and provider of insurance to depositors.

But entrusting banks to produce much of the circulating medium also provides significant benefits to the public at large. As with many non-monetary goods and services, creating money though decentralized lending arguably strikes a better balance between too much and too little money overall than would a purely centralized process. Individual lenders certainly will make mistakes, but in the absence of a widespread mania or a contagious race to the bottom in lending standards, decentralization limits the aggregate effect of miscalculations. This is not to suggest that decentralized lending makes the Fed's monetary policies irrelevant. But decentralization dampens the problems of over- or under-issuance of centrally produced base money.

Co-producing money and credit also helps distribute the medium of exchange more efficiently. Money cannot simply be sprinkled over the land, as if by helicopter, in the hope that it will fall into the right hands. But the usual market solution for placing resources in their highest-valued use cannot be deployed to distribute money: The medium of exchange cannot itself be sold for money, and renting it to the highest bidder risks giving it to those who have most overestimated their

capacity to repay. Decentralized lending by banks, which takes into account the borrower's capacity to pay interest and repay principal, helps solve the problem of efficient, "as needed" production and placement. If instead the government directly produced all the money, it would have to be spent into circulation through public expenditures or transfer payments. This would make moving money to where it provided the most value far more cumbersome.

Lines of credit that small- and medium-sized businesses can use to finance inventory and receivables ("working capital") epitomize the advantages of decentralized money creation and distribution by banks. Working-capital lines correspond precisely with why we use money instead of bartering: It bridges the gap (the timing and magnitude of which cannot be fully anticipated) between providing and receiving compensation for goods or services.

Raising permanent capital to bridge the gap can be prohibitively expensive for a small- or medium-sized business. But extending credit for this purpose, without incurring large loan losses, requires information best secured by an "on-the-spot" banker. Making working-capital loans to businesses that don't have access to public debt markets thus provides a public benefit that can justify the money-creation privilege granted to banks.

This means that "traditional banking" is about much more than careful lending with a personal touch. It actually fuels the idiosyncratic dynamism of our complex economy. And that role cannot be taken over by securitized lending that smooths out all particular distinctions in favor of broad statistical patterns. The marginalization of traditional banking stands to carry some very high costs.

Restoring Prudent Banking

The vulnerability of banks to runs and over-lending has long been a source of anxiety, and a justification for draconian remedies. Thomas Jefferson called banks "more dangerous than standing armies," and John Adams declared a lifelong abhorrence of the entire U.S. banking system. In 1845, former president Andrew Jackson, who had fought against the renewal of the Second Bank's charter, wrote to Sam Houston urging that the Texas constitution prohibit state banks altogether, in order "to protect your morals and to cap the climax of your prosperity." The ban was duly included. Other states that refused to charter

money-producing banks at various times before the Civil War included Arkansas, California, Iowa, and Oregon.

More sophisticated schemes (such as the "Chicago Plan" published by University of Chicago economists in 1933) have sought to end the co-production of money and credit by requiring that banks hold as much base money as balances in their checking accounts. Similarly, Boston University economist Laurence Kotlikoff's "Limited Purpose Banking" proposal would make banks akin to funds that raise money from investors to buy publicly traded debt.

But while fractional banking may be naturally fragile, increasing the proportion of money centrally produced by the Federal Reserve or collectivizing credit extension through anonymous markets won't improve matters. Rather, we should regard the banking system as akin to the heart—a vital organ contained in an airtight thorax, enclosed in a rib cage, regulated by a sophisticated neurological system, and kept in good order by a healthy diet, exercise, stress and cholesterol control, and physical exams. We need it, though we should always be aware of its fragility and its limits.

Reformers should thus reject proposals to suppress or abolish banks and recognize that there is no simple alternative panacea. We cannot expect bank stability without regulating who can operate a bank, and restrictions on entry can create opportunities for unacceptable discrimination and cronyism. But we need better responses to these dangers than a mechanistic reliance on credit scores. The examples of college admissions and the job market suggest that changing demographics, social norms, and, yes, state pressure can reduce gender and racial discrimination without suppressing information about candidates or discouraging personal interviews.

Similarly, incompetent or reckless bankers are a real menace, but more stringent capital requirements are questionable nostrums that can simply lead bad lending to hide in anonymous markets. Imposing more careful examination of individual loans and branches, while restricting banks to activities that regulators can effectively scrutinize and executives can manage, may be more effective in controlling ineptitude and imprudence.

The "dual mandate" of the Federal Reserve to promote full employment and maintain price stability also warrants serious reconsideration. Both full employment and price stability are nebulous constructs and, in a dynamic economy constantly buffeted by myriad cross currents,

impossible for a central bank to reliably deliver. Worse, the Fed has used this mandate to justify go-for-broke activism that has boosted reckless borrowing while applying pressure to prudent banks.

What the Fed can — and should — be held responsible for is the soundness and stability of banks, as was envisioned by the U.S. Congress when it created the Fed in 1913. More or less stable prices and low joblessness were regarded as desirable byproducts. They were not — and should no longer be — the explicit goal of the Fed.

Indeed, the cure for what ails our financial system may actually be more traditional banking. "Big data" may well have a role to play in mitigating the risks involved in finance, but only if it is properly balanced by the sensibilities and practices of "small banking." There is no technological substitute for vigilance and prudence by the nation's lenders, bank regulators, and monetary authorities.