IN REVIEW

Progress Is a Choice

REVIEW BY THOMAS A. HEMPHILL

What causes a civilization to flourish or stagnate? In *How Progress Ends*, Oxford economic historian Carl Benedikt Frey argues the answer lies not in the genius of inventors or the luck of geography, but in the institutional choices societies make when confronted with technological change. Drawing on a millennium of evidence spanning Asia, Europe, and North America, he traces the recurring patterns behind historical slowdowns in innovation and what happens to societies that fail to navigate them well.

The book is a worthy successor to his acclaimed debut, *The Technology Trap: Capital, Labor, and Power in the Age of Automation* (2019), which examined automation's disruptions to labor and capital. Where that book looked to the future with concern, *How Progress Ends* looks backward with purpose. By understanding how past civilizations rose and fell on the strength or weakness of their institutions, Frey contends, we become better equipped to think clearly about the prospects for progress and stagnation in our own time.

Frey primarily focuses his historical, economic, and technological analysis on three countries: China, Great Britain, and the United States. Other countries are liberally referenced for comparative analysis, including France, Germany, Holland, and Russia in Europe, and Japan and South Korea in Asia. This review focuses on China, Britain, and America.

China / Frey highlights the Song dynasty (960–1279 AD) as a period of Chinese innovation, resulting in the invention and commercialization of the compass, gunpowder, printing, and advanced agricultural tools. This innovation dynamism was aided by decentralized governance, which incentivized states (prior to national unification) to compete through experimentation; the establishment of a meritocratic civil service, which through an imperial examination system recognized and rewarded talent, incentivized formal learning, and encouraged technological adoption; and the development of urban market centers, which created demand for innovations that improved trade, productivity, and daily life in China.

Frey argues that after the Mongol conquest that brought the Song dynasty to a close—and especially under the Ming (1368–1644) and Qing (1644–1912) dynasties—China's political and institutional structures became much more centralized, stifling innovation. Why? One reason was bureaucratic conservatism, as the scholar–official class prioritized Confucian orthodoxy and social prestige was tied to mastery of classical literature, not scientific or technical skill. Another reason was the exercise of rigid state control and cultural aversion to risk, as central authorities suppressed merchant-class advancement and private enterprise, and they legally restricted overseas trade and shipbuilding. Finally, Frey uncovers a lack of intellectual pluralism, in contrast with early modern Europe where competing states and institutions allowed radical new ideas to flourish. In China, intellectual diversity was constrained by central bureaucracy and imperial edicts, limiting disruptive innovation. Ironically, Frey notes that China was, for centuries, ahead of Europe in many technologies, but by the late medieval and early modern era, it found itself overtaken. This shift, he argues, comes down to differences in institutional and political support for innovation. Frey views Chinese innovation as flourishing when institutions were competitive, open, and supportive of intellectual diversity, but fading when centralization and bureaucratic conservatism took hold. He emphasizes that history's lesson is clear: The sustainability of progress requires more than technical ingenuity; it needs supportive social, political, and economic institutions.

Britain / Frey states that Great Britain's rise to technological prominence was far from an inevitability, but resulted from a unique set of institutional developments, many of which were accidental and contingent.

First, Britain developed a decentralized political structure and legal institutions, thus avoiding the high degree of bureaucratic centralization seen in China. The Magna Carta (1215) and subsequent limitations on the Crown's power led to the strengthening of private property rights and judicial independence, protecting innovators from arbitrary expropriation and encouraging investment in risky new ventures.

Second, Britain evolved toward parliamentary sovereignty and representation, operating a broad-based system of governance (at least compared to other European monarchies), and allowed interests outside the aristocracy—such as merchants and industrialists—to influence public policy. Frey views the Glorious Revolution (1688) as pivotal, ensuring a government more accountable and responsive to commercial interests.

Third, Britain exercised religious and intellectual pluralism, especially after the Reformation, and developed a tradition of relative intellectual freedom. Dissenting religious groups, denied official positions, turned their energies to commerce, industry, and science. The lack of an overwhelming state orthodoxy fostered

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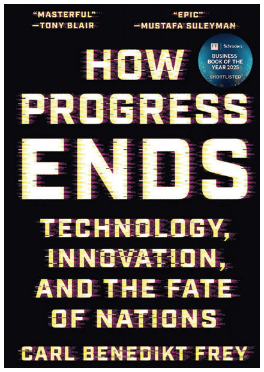
scientific societies (like the Royal Society) and tolerance for experimentation.

Frey argues that Britain's institutions were favorable to technological innovation. For example, the British government secured property rights, thus ensuring that landowners and entrepreneurs could profit from their investments, making it rational to devote resources to invention and development. In addition, an enforceable patent system emerged, making Britain a pioneer in legally protecting inventors' rights, thereby making invention financially lucrative. Britain also established reliable courts and contracts that promoted large-scale investment and trade, which in turn incentivized technological improvement. Another important factor was that Britain's relative openness allowed talented individuals from modest backgrounds to advance through technical or commercial prowess. Frey notes that many early industrialists, engineers, and inventors were not aristocrats but skilled tradesmen or dissenters. Lastly, political and economic decentralization created space for local experimentation and competition, and municipal governments, guilds, and trading companies pursued their interests, fostering dynamism in industries such as textiles and shipping. Frey concludes that Britain's rapid rise into modern technological progress was the product of accidental, hard-won, and fragile features such as pluralism, property rights, and openness to change. Technological progress is fostered not just by ingenuity, but by the social and political frameworks that sustain it.



How Progress Ends: Technology, Innovation, and the Fate of Nations

By Carl Benedikt Frey

529 pp.; Princeton University Press 2025

America / Frey argues the United States has benefited from strong foundational features such as "checks and balances" and "separation of powers" within its political system, with its multiple branches and federal structure, preventing any single federal government authority from unilaterally stifling innovation. This political fragmentation promotes debate, competition, and experimentation. The rule of law and secure property rights ensured by robust legal institutions provide inventors, entrepreneurs, and investors protection for their intellectual property and profits. This creates incentives for risk-taking and investment in new technologies. Lastly, the United States continually draws entrepreneurial and skilled talent from across the globe. Frey notes that waves of immigrants have fueled innovation, bringing fresh perspectives and skills and contributing to a dynamic culture.

America also offers institutional support for research and development. Frey highlights the unique role of the US government in supporting technological innovation, especially since World War II. Federal agencies like the National Science Foundation, National Institutes of Health, Defense Advanced Research Projects Agency, and others have provided funding and direction for scientific research, leading to breakthroughs in computing, medicine, and more. The federal and state governments have also supported a dense network of research universities that collaborate with American industry. Frey points to the Bayh–Dole Act (1980), which allowed federally funded research to be commercialized, as a turning point in connecting academic science to market innovation. Moreover, the American patent system vigorously protects inventors, while antitrust laws prevent market monopolies from suppressing entrepreneurial companies with disruptive technologies.

Frey argues that American society celebrates inventors and entrepreneurs—risk takers—from Thomas Edison to Steve Jobs. Cultural attitudes encourage "thinking big" and accepting failure as part of the creative process. The United States offers relatively easy access to capital and a tradition of venture investing, supporting high-risk innovation in areas such as aviation, biotechnology, and computing. Federalism and local autonomy, as practiced by states and cities, has often acted as "laboratories of democracy," testing new policies, technologies, and economic models. Frey sees this local experimentation as crucial for sustaining innovation. Political pluralism, involving diverse groups and interests competing for influence, often pushes the government to adopt policies to support new industries. His general conclusion is that America succeeded in technological innovation because of a constellation of supportive institutions: political pluralism, legal protections, open borders, dynamic funding models, and an entrepreneurial culture. Those ingredients have made American progress robust, but the country is not immune to backsliding if openness and competition are eroded.

China or America? / Frey argues that many of today's advanced economies risk entering a new era of stagnation, despite rapid technological breakthroughs in artificial intelligence (AI) technologies. He compares the current moment to previous periods when societies missed opportunities for broad-based progress. He views such policy issues as overly constraining regulation (especially around AI, biotechnology, and digital platforms), rising wealth inequality and populism (as technological change benefits a narrow elite, risking a backlash that could result in anti-innovation policies), corporate power concentration (dominant firms, especially in the tech industry, may stifle competition and reduce incentives for disruptive innovation), and rising risk aversion, litigiousness, and hostility as potentially slowing down the pace of commercial innovation and productivity growth. Frey argues, however, that future innovation hinges less on scientific breakthroughs than on societies' willingness to nurture creativity and challenge vested interests, embrace risk, and remain open to new ideas and people.

For a treatise on economic history, technological change, and prosperity, Frey offers the reader a lively read, moving rather effortlessly between countries and regions, and drawing on comparisons across continents and ages. His correlations among technological prosperity, culture and institutions, and subsequent economic prosperity (or economic stagnation) are well supported across the historical record. His detected patterns of economic and institutional behavior among nations support his general concluding historical analysis. His is a book well worth the effort.

Where I have misgivings is with his historical extensions to policy recommendations concerning the current global competitive challenges between the United States and China. While Frey sees both countries as being on a path to economic and technological stagnation, he does not necessarily believe this path is assured for either country. He focuses on China's recent developments in AI surveillance technologies as globally leading, but questions whether this sort of advancement is transferable to other industries. On one hand, he believes that the "dictator's dilemma"—and Chinese President Xi Jinping qualifies as a dictator—results in state power inevitably retarding progress at the technological frontier, but paradoxically also argues that innovation has historically thrived in decentralized systems where the state has often played a crucial role in creating the required institutional foundations for such innovation systems to flourish, especially in democracies. Yet, China has one-party authoritarian control, no rule of law, and Xi is apparently an unelected leader for life. Realistically, I do not see the logic of how this institutional arrangement bodes well for China's successful development and commercialization of technological innovations going forward.

Likewise, while Frey is concerned with political gridlock in the American federalist political system causing issues for technological advancement, this institutional arrangement has not historically resulted in significant roadblocks. For example, as there is growing awareness of AI technologies' adverse effects on matters as varied as privacy, human psychology, and energy and environmental issues, they are being met with vigorous policy discussion in government. Also, his concerns about renewed concentration of economic power are being addressed by the Trump administration using federal antitrust enforcement authority against major tech companies—specifically Google (Alphabet)—for anticompetitive business practices in the tech industry, with behavioral remedies being meted out by federal judges in multiple cases. Moreover, the administration is trying to get industries to shift and scale up production of new goods and services in the United States instead of cheaper locales overseas. Lastly, Frey devotes only a little discussion to energy, but increasing its supply (especially AI and data centers) must be a policy priority.

Frey is right that the threats are real: Regulatory overreach, concentrated corporate power, rising risk aversion, and political gridlock all warrant serious attention. But he underestimates how deeply the drive to innovate is woven into America's social, political, and economic fabric. The concerns he raises are problems to be confronted and solved, not structural limits on US prosperity. History—including the very history Frey so ably recounts—suggests that open, pluralistic societies have a remarkable capacity to adapt when the stakes are high. *How Progress Ends* is a rich and sobering diagnosis. The prescription, fortunately, is in our hands. R

Who Fixes the Fixers?

REVIEW BY PHIL R. MURRAY

Unless you're in on it, no one likes playing a game that is "fixed"—that is, "one that works to the advantage of those operating the system in a way that is unfair and imperfectly understood by the victims." That description comes from economists John Y. Campbell (Harvard) and Tarun Ramadorai (Imperial College London) in their recent book *Fixed*. They argue that personal finance is rigged and government should address it. They want "broader structural reform of the financial system to simplify the financial challenges facing households."

Acumen vs. naivete / Financial naivete is common, they note. Campbell and Ramadorai tell of five unfortunate individuals: One borrowed money for higher education but ultimately did not graduate. A second put everything in the stock of his employer, Enron, and his nest egg evaporated when it went bankrupt. A third put nearly all her money in the money market only to have her interest income dwindle when the Federal Reserve lowered short-term interest rates. The fourth and fifth bought useless financial products "bundled" with other financial products.

Unlike those unfortunate five, wealthy people possess financial acumen. The wealthy, the authors maintain, receive higher rates of return when investing, pay lower interest rates when borrowing, and save larger shares of their incomes. In the authors' view, the market for personal finance both causes and reinforces

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differences in the quality of financial choices we make as well as the inequality of wealth that results.

They explain why many borrowers and investors struggle to exercise good judgment. We make choices today without feedback until years from now. The choices we make are risky, but we do not necessarily know how risky they are. Campbell and Ramadorai write:

> Information to support wise choices, such as expert forecasts of future outcomes (from interest rates to geopolitical trends to climate change), is highly valuable, but access to such information is not available to or easily interpreted by all.

Furthermore, knowing the benefits, costs, and risks is not enough to properly execute. It takes discipline to refrain from excessive debt and to regularly save.

According to Campbell and Ramadorai, people underestimate the benefits of good options such as annuities, and they overestimate the benefits of bad options such as lottery tickets. Given the "difficulty many people have with numerical thinking," they are no better at estimating costs. Capitalism is tainted because "the financial system supplies too many products with exaggerated benefits and too few products with underappreciated benefits," and it also "supplies too many products with hidden costs." Sellers of financial services give consumers what they want. But—as the authors see it—consumers don't know what is in their best interest, so the market fails. Nor can consumers rely on financial professionals to learn what's in their best interest because of a "conflict of interest":

> Many financial advisers receive compensation from financial product providers as well as their clients, and only some advisers have the legal obligation, known as "fiduciary duty," to place their clients' interests above their own.

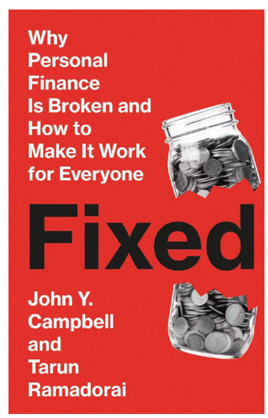
Instead of engaging with conventional financial institutions, individuals may hoard or else borrow and lend with neighbors, relatives, or shadowy figures. Those options are probably worse than conventional finance.

People make mistakes that limit their success in the financial markets as investors. They buy high on the expectation that prices will continue rising, they neglect to diversify, and they sell low on the expectation that prices will never recover. They insure against "small risks" such as the cost of repairing an appliance, and they fail to insure against "big risks" such as an untimely death. When they do buy insurance, they opt for expensive, low-deductible policies and are likely to lose coverage by not paying the premiums.

Technological innovation / Technological progress in the provision of financial services helps consumers. For example, providers can operate at lower administrative costs and tailor products to consumers' preferences and tolerances for risk. Consumers can more easily evaluate alternative products. There are drawbacks to innovation, however. Technology enables providers "to encourage gambling, performance chasing, or impulse buying." While working with online financial service providers, consumers reveal information that may be used to charge them higher prices. Consumers might not grasp what new technology offers. For instance, cryptocurrency exchanges "are virtually unregulated and have frequently defaulted, leaving their customers as unsecured creditors of a bankrupt financial institution."

To promote the good effects of financial innovation and discourage the bad, Campbell and Ramadorai recommend "regulatory sandboxes" in which firms introduce their innovations to a random sample of the population. Regulators may learn the unintended consequences of innovation through controlled observation. The authors put forth "regulatory principles" to assess the merits of new technology. Consider this prescription:

> If closer investigation turns up excessive gamification, marketing strategies that encourage frequent comparisons with peers to stimulate additional buying and usage, nontransparent fees, or excessive difficulties in canceling subscriptions, regulators should intervene.



Fixed: Why Personal Finance Is Broken and How to Make It Work for Everyone

By John Y. Campbell and Tarun Ramadorai

335 pp.; Princeton University Press, 2025

The authors do not define "excessive," "frequent," or "nontransparent." They describe what they mean by intervention: "We call this 'shoving' the system: using the powers of government to curb abuses and encourage the development of better financial products."

Campbell and Ramadorai want to "shove" people by "requiring disclosures" and implementing "tax incentives, price caps, and restrictions on who can use certain financial products." They approve of the "Schumer Box," which requires disclosure of interest rates on credit card transactions. In fact, they want the box to include additional disclosure of interest, fees, and costs in *dollar amounts*, which, they presume, are easier to understand.

But requiring disclosure is not enough to help people make better decisions. Thus, Campbell and Ramadorai endorse using the tax code to reward people for saving and to reward businesses for encouraging employees to save. They also favor legal maximum interest rates. As economists, they recognize the problem with this: "They should not be set so low that they cause a collapse in the supply of credit to small borrowers." But they do not tell us how low legal maximum interest rates may be set without causing a shortage of credit. Finally, the authors are comfortable prohibiting "unsuitable products" or prohibiting poor, financially unsavvy people from buying them.

Starter kit / The centerpiece of the book is the "financial starter kit: a set of basic financial products." Those products include:

- checking account
- savings account
- short-term loans
- loans for education
- mortgages
- short-term insurance
- life insurance
- retirement savings account
- target date retirement funds
- annuities
- reverse mortgages

Campbell and Ramadorai want the government to mandate checking accounts. They argue that "less sophisticated people don't perceive the true costs of their transaction accounts," which is the rate of interest in the money market they forsake. They propose this "more transparent fee structure": a fixed dollar amount per year, plus a percentage of the average amount in the account, plus a fee for every transaction. The authors believe this fee structure would enable bank customers to more easily compare the costs of checking accounts at different banks.

Campbell and Ramadorai want consumers to have access to short-term loans. They would be pre-approved and pay a fixed fee plus an interest rate. However, "there should not be fees like bank overdraft transaction charges or credit card late fees that impose substantial penalties for small increases in debt or small delays in payments." Without incentives to refrain from writing bad checks and making late payments, we may expect people to write more bad checks and make more late payments.

Their financial starter kit would offer fixed-rate and adjustable-rate mortgages. The fixed rate would not be fixed indefinitely; if interest rates fall, "the rate reduces automatically," which sounds like an adjustable-rate mortgage. Readers wondering whether the fixed rate would move upward when interest rates rise will not find out from the authors. Lenders would be prohibited from using "teaser rates" to entice borrowers to take out adjustable-rate mortgages. The authors approve of "assumability" and "portability" features for mortgages. Assumability is "where the buyer of the house takes over the seller's mortgage, subject to a credit check on the buyer." Portability is "where the seller carries their old mortgage with them to their new house, subject to a valuation of the new house." Both features counteract the reluctance of homeowners with low fixed-rate mortgages to sell when current mortgage rates are high. Although assumability and portability are interesting ideas, readers expecting a discussion of unintended consequences will not get one.

After listing what their starter kit would and would not have with respect to borrowing, the authors turn to retirement saving. They want individuals to have a retirement account beginning with their first job. To give individuals more incentive to save, "capital income earned in the account should not be taxed." In return for the favorable tax treatment, there would be less choice over which assets may go into the retirement account. They would allow "target date funds," which are more heavily weighted toward stocks while individuals are young and become more heavily weighted toward less risky bonds and money market instruments as individuals near retirement. Regulation would mandate that the funds charge "low fees and costs." They do not specify how low. The funds would be index funds. Individuals would not be able to hold individual stocks nor "illiquid assets such as real estate and private equity."

Much of what they recommend is good advice, but their penchant for imposing their preferences through regulation comes across as priggish.

Much of what Campbell and Ramadorai recommend is good advice. Unfortunately, their penchant for imposing their preferences through government regulation comes across as priggish.

Conclusion / The book does contain a few errors. When explaining Bayesian probability, they assume that the probability of a successful medical innovation is 5 percent. They assume that "this analyst has correctly predicted the outcome of a medical development 90% of the time." This means the probability the analyst predicts success given that the innovation works is 90 percent, and the probability the analyst predicts failure given that the innovation fails is 90 percent. Then they state:

> Since the analyst erroneously calls 10% of the 90% of startups that fail, 9% of the analyst's positive predictions are true. Since the analyst correctly calls 90% of the 10% of startups that succeed, another 9% of the analyst's positive predictions are true.

That is inconsistent with their assumption that 5 percent of medical innovations will succeed. If the probability of success is 5 percent, the analyst will incorrectly predict that 10 percent of the *95 percent* of the innovations that fail will be successful. And the analyst will correctly predict that 90 percent of the *5 percent* of innovations that succeed will be successful. They appear to have replaced their initial assumption of a 5 percent success rate with a 10 percent rate.

Another mistake: They count "living expenses" as a cost of higher education. Expenses such as food and lodging are incurred regardless of the choice of obtaining a higher education. Also, the net returns on higher education that they calculate are at least slightly biased upward because they neglect to include the cost of foregone income.

Campbell and Ramadorai argue that "the market economy" is "the best system we know of to create widespread prosperity." They acknowledge that regulations may be bad and oppose "public provision of financial services." But their litany of prescriptions for the market may fail to simplify the decision-making process. Take their idea for handling emergency withdrawals from retirement accounts: "structure withdrawals as amortizing loans that retirement savers make to themselves, with a rate of interest equaling the rate of return earned on the balance of the retirement account that is not withdrawn." Will individuals who cannot understand the cost of owning a checking account understand that? They disapprove of bundling until they see a rationale for it: selling insurance for disability, elderly care, and a long life. They condemn "gamification" until they see a rationale for it: "Such products can encourage saving by exploiting the excitement many people feel when they gamble." Perhaps the authors prefer shoving people in the market because they might be unsuccessful at testing their ideas in the market.

Fixed is a frustrating book to read, not because it is wrong about the problem, but because it is so incurious about the costs of its own solutions. Campbell and Ramadorai are gifted economists who understand markets well enough to catalog their failures with precision and authority. But they do not apply the same rigor to government. Every mandate, cap, prohibition, and "shove" they prescribe carries its own risks of unintended consequences, its own potential for capture, and its own implicit assumption that regulators will be wiser and more disinterested than the market participants they are replacing. A book that opens by decrying a system "fixed" in favor of insiders might have asked with equal seriousness, "Who fixes the fixers?" *R*

From the Past

What Do Rational Dictators Do?

REVIEW BY PIERRE LEMIEUX

About the time the Iran war started in February, it was estimated that just 20 percent of Iranians supported their government's authoritarian regime (Faucon 2026). How can such a despised regime remain in power? And yet, in time, why do many of them fall? How do dictators, "supreme leaders," and kings obtain or lose support? The economics of autocracy helps answer those questions.

Dictators, Gordon Tullock noted in his 1987 book *Autocracy*, are individuals "who acquired power essentially because for personal reasons they preferred being dictators to being lower-ranking officials." The book provides a theory of autocracy in the public choice tradition, which uses a rational-choice methodology to analyze politics. Public choice assumes that politicians in general and autocrats in particular are self-interested like the rest of us: Most of the time, they seek their own advantage. The historical evidence Tullock invokes to test his theory, he admits, is "mainly anecdotal," but it still illustrates how dictators and other individuals respond to incentives.

A lawyer by training and self-taught economist, Tullock (1922–2014) was one of the main founders of the public choice school. His 1962 book with James Buchanan, *The Calculus of Consent: Logical Foundations of Constitutional Democracy*, was a cornerstone text of this school of thought (Lemieux 2022a). It argues that constitutional (that is, limited) democracy is explained and justified by a unanimous and tacit social contract in which everyone has an equal veto right.

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Tullock was not a fan of autocrats. His *Autocracy* is an exercise in positive, not normative, economics; its purpose is to understand why kings and dictators do what they do. Most of the original book was reorganized and republished in Vol. 8 of *The Selected Works of Gordon Tullock* (Liberty Fund, 2005), under the editorship of fellow public choice economist Charles K. Rowley. (The present review quotes from this edition.)

An autocrat is defined as an individual who claims absolute political power over a society. In Tullock's typology, autocrats comprise both dictators and monarchs, the difference being that monarchy is normally hereditary. "Electoral regimes" are a different sort of political system in which some part (often small) of the population vote. Democracy is a special case in which "voting is a significant part of the governmental process."

The two polar cases of autocracy and democracy are useful to keep in mind but, as Tullock realizes, there is a whole spectrum of intermediate cases. Some autocratic regimes are totalitarian dictatorships like Stalin's, others are less repressive such as Franco's in Spain. We see cases of "limited autocracies" where

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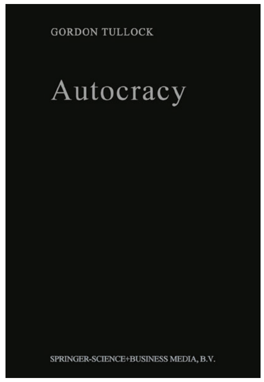
the strongman or would-be dictator coexists with an elected legislature. Even absolute monarchs typically have been constrained by some legal rules.

Looking at world history, Tullock notes that autocracy has been "the dominant form of government." He believes that democracy reached its peak in 1914 and has receded since. Despite a formal revival after the fall of communism (just a few years after the publication of *Autocracy*), the trend remains downward, especially if we are speaking of *liberal* democracy.



Autocracy
By Gordon Tullock
243 pp.; Kluwer Academic Publishers, 1987

Dangerous life / The life of a dictator is not easy. He must prevent coups by other potential dictators. If he doesn't succeed, he risks being imprisoned, killed, tortured, or at least forced into exile. He cannot do whatever he wants, if only because harming others in his government will tempt them into removing him.

Any autocrat, but especially a dictator, needs a praetorian guard; Stalin had some 15,000 praetorians from the People's Commissariat for Internal Affairs stationed in Moscow. A dictator lives in a sort of Hobbesian state of nature. Just as a free society has a problem establishing a self-enforcing constitution, a dictator struggles to build a self-enforcing security for himself. The Gang of Four in China lost power because their praetorians arrested them. South Korean dictator Park Chung Hee was assassinated by the head of his secret police.

Perfectly preventing this threat is impossible. King Hassan II of Morocco had the police surveil the army, but this reinforced the position of the police. Syrian dictator Hafez al-Assad had two different bodyguard forces of roughly the same size. To be secure in power, a dictator needs both "a strong military force to deal with foreign enemies" and "a military force which is weak enough so that it cannot overthrow him"; he must choose the least bad risk. One solution to this conundrum is to develop the loyalty of individual soldiers to the person of the dictator, which Hitler did.

And then there are "the people." Dictatorship shares with democracy the risk of losing the support of the majority to another majority supporting somebody else. The Condorcet Paradox suggests that a different grouping often exists to form another majority coalition (Lemieux 2021). *A fortiori*, a minority of supporters is unstable.

The dictator must persuade his entourage (the high officials who lust for his job) that he will always win at the support game: If they conspire against him, the expected punishments are larger than the expected rewards. He will rigorously enforce laws against treason. He will endeavor to prevent conspiracies by undermining communications among potential conspirators and reward officials who denounce the latter. This, of course, incites his officials to report false conspiracies, if only to handicap their own competitors. The dictator has as much reason to distrust his officials as they have to distrust him.

Despite the existence of a legislature in Iran, the supreme leader is a theocratic dictator. We can start to understand why this apparatus could obtain significant support from the population, even without the theocratic element. The Islamic Revolutionary Guard Corps (IRGC) has become both the regime's praetorian guard and its battlefield army. A militia of 700,000 volunteers also supports the regime on the internal front. Participants in these regime forces benefit from high rewards in cash, careers, and other privileges, meted out by a web of patronage and corruption that "binds millions of loyalists to the Islamic Republic's survival" (Faucon 2026). The IRGC is said to control 50 percent of the Iranian economy. As Tullock suggests, the promise of virgins in the afterlife is the cherry on this cake of incentives. Ideology, especially of the religious kind, combined with a system of rewards and punishments, is a good formula for dictatorship.

One way a dictator can prevent a coup is to frequently move his high officials to new jobs so none of them can build a personal following. Short assignments also teach them that they are removeable at the pleasure of the dictator. He must make sure that he is the real commander of the armed forces and that, under him, power is divided among different titles, such as Minister of War, Chief of Staff, etc. Mao shuffled personnel among different armies and ended up commanding all of them. Xi Jinping has been doing something similar: "After a dramatic recent purge of China's generals, the country's ruler, Xi Jinping, faces another stressful task: A five-yearly churn of leadership posts from bottom to top has begun" *(The Economist* 2026).

Like Buchanan, Tullock had a high opinion of the promises of the American constitutional enterprise, but I wonder if the author of *Autocracy*, were he still living, wouldn't select some American politicians to add to his anecdotical observations of would-be autocrats. The actual or would-be autocrat, he might say, would frequently rotate the leaders of the national security and spy agencies. He would also prefer "acting directors" (or US attorneys) to Senate-approved nominees.

Other economists have noted that a dictator faces another dilemma. If he lets the press (including now the internet) operate relatively freely, subversive ideas against his regime are bound to circulate and undermine his authority. If he censors the press, he will have no independent way of knowing the problems his subjects face and what they think of him. For example, he cannot count on the minister of housing to tell him that the public housing goals of the current five-year plan will not be realized and that the tenants are unhappy with the unlighted corridors and broken elevators.

Compensating benefits / Benefits obviously compensate for the costs (actual and probabilistic) of being a dictator. Nobody is forced to be one, yet many compete for the job; they obviously think that their expected benefits are larger than their expected costs. One subjective benefit is the pleasure of ruling over others, as opposed to being ruled by somebody else. There is much uncertainty in being ruled—that is, in being under the arbitrary power of somebody else.

The autocrat also gets more mundane benefits, namely his high living standard while in power or, if pushed into exile, the money he has stolen and stashed away. When he left Argentina in 1946, Juan Perón took half a billion dollars with him, the equivalent of more than $8 billion today. At the same time, the autocrat must be careful that his standard of living does not attract too much envy from his subjects and his officials.

Doing good? / As long as he is in power, the autocrat has much leeway to implement the policies he likes. However, apart from ideologues, "there is really relatively little evidence that dictators have very strong ideas about policy." Even Lenin was apparently willing to damage the prospects of communist control if he thought it improved his position within the movement. A more typical dictator such as Franco will follow the policies that make him loved by most people or that satisfy his important political clientèles. He will change the policies and even switch ideology if it helps him stay in power. In this respect, Tullock argues, there is not much difference between the public policies of democracies and those of dictatorships.

Even when he tries to do good, the dictator probably does not know what is "good" and for whom. He is likely to pick whatever seems fashionable and implement the same policies that would have been adopted in a democracy. When a new dictator comes to power, policy changes "are no larger than those which occur when Republican replaces Democrat in the presidency." Of course, some dictators (or would-be dictators) are more activist than others.

A dictator will harm his enemies—that is, those who don't support him or who challenge his power—but help those whose support he needs to stay there. Saddam Hussein was a cruel dictator but increased his subventions to the Shia church, to which most Iraqis belonged. Whether in a democracy, a monarchy, or a dictatorship, organized interests and their lobbyists are pushing for the policies they want.

Political animal / We expect the dictator to be an efficient and manipulative political animal. He could not survive without these traits. Indeed, they were essential for him to reach the summit of the state. In this sense, he must be intelligent, but his reforms will seldom be brilliant or coherent. Typically, he knows nothing about economics and the social consequences of public policies. Getting in power and remaining there constitute his main goal and the focus of his attention.

According to Tullock's historical observations, a potential dictator generally "rises in a functioning government of some size" and seizes power when the opportunity arises. He was previously a high official in the civilian state apparatus or in the army. He reached supreme power through opportunistic behavior, not competence. Dictators are opportunists who have been selected as such.

The aspiring dictator needs to wage some sort of coup d'état (violent or not) or grab power after a civil war. Commanding an army, like Mao did, is useful. In organizing his coup, the would-be dictator in the high spheres of the state cannot count on his government colleagues. Many of them share the same ambition and are looking for allies, not a future boss. As previously suggested, the problem with a carefully laid plot is that many people must be involved. A vast conspiracy is a complicated and risky adventure.

The high official who intends to replace the current dictator has a difficult task for another reason. He needs to both satisfy the current dictator that he is a perfect "yes man" and project for his colleagues the image of being a tough man (or woman) who will win the competition for power. One could argue that the problem is the same as that of a democratic politician—say, a cabinet member—who wants to become president or prime minister, except that the aspiring dictator is walking on a higher wire and with a heightened probability of falling—and not only from grace.

A dictator will harm his enemies—that is, those who don't support him or who challenge his power—but help those whose support he needs to stay in power.

It is dangerous for a dictator to name his successor in advance. It would incentivize the latter to depose or kill his benefactor, if only to prevent him from changing his mind. If he does commit the murder, the anointed successor is likely to control the investigation into his predecessor's death, which can be blamed on a natural or accidental cause. This is why appointing a successor in advance is rare. When it happens, it is late in the life of the current dictator. The best autocratic solution seems to be a rule of hereditary succession, which is probably why such a rule evolved in monarchies. Tullock might observe that Kim Jong Un is trying to pull the dynasty trick his father and grandfather did by anointing his young daughter as the next leader.

Democracy and autocracy / In "the long sweep of history," Tullock argues, autocratic governments seldom change into electoral systems, let alone democracies. In the other direction, electoral systems are often overthrown by internal or external dictators. But he confesses that developing a general theory of the fall of electoral systems "has so far defeated [him]." We might add that the task is especially complicated if we want to distinguish between "democracies" and "electoral systems" or between "democracy" and "constitutional democracy."

The dangerous executive / In his chapter on "Democracy and Despotism," Tullock notably proposes three historical generalizations. First, democratic systems "tend to be overthrown by the executive branch of the government rather than by the legislative." One reason that we saw before is the executive typically controls the army and the police. Tullock also points out that a clear majority of the legislature would lose from being replaced by a dictatorship, while a majority in the executive—including the would-be dictator himself—would gain from dictatorship. When the executive hasn't turned dictatorial, it may be that some arrangements "kept the executive very weak." Examples of this include the ancient doge of Venice, who was checked by many mechanisms imposed by the tyranny-fearing Venetians, and Switzerland's use of a seven-member Federal Council in place of a single chief executive. Tullock could have added that, in America, the theory of the "unitary executive" works in the other direction.

When the executive hasn't turned dictatorial, it may be that some arrangements "kept the executive very weak." In America, the theory of the "unitary executive" works the other way.

Second, the author of *Autocracy* argues that the right is "firmly democratic" in the United States, England, and Switzerland. I suspect he would reconsider this evaluation today, especially as he was referring to constitutional democracy, the sort of democracy of which he was a lifelong defender.

Third, Tullock seems to argue that constitutional monarchy—a mix of democracy and autocracy—is especially beneficial. Among historical examples, he invokes England under George II. In his own time, he mentions the promises of Mexico, South Korea, Taiwan, Singapore, and Thailand, hoping that their regimes would move toward constitutional monarchy with a "decorative king." But he admits that this is only a conjecture suggested by the historical record at the time he was writing.

Popular uprisings are rare / Tullock argues that genuine popular uprisings against autocratic regimes are rare and stories of them are largely artifacts of democratic mythology. In his view, overthrowing an autocrat is usually an internal state affair. Many successful revolutions—including in France, America, and Russia (against the czarist regime)—were revolts *within* the state, even if they had the support of much of the population. In the case of America, the central actors were the royal governors against local legislatures. Or, as *Financial Times* columnist Gideon Rachman puts it with reference to our current world, "men with guns have a better chance of toppling Putin than unarmed civilians" (Rachman 2026).

The rarity of genuine popular uprisings makes sense when we reflect on the difficulty of "the people" to coordinate a collective action (in the sense of Olson 1965) against the state. Few individuals will volunteer for a high probability of being among the first ones shot; it's better to let others do it, and get the personal benefits of the revolution and none of the personal costs. It's the problem of the "free rider" in collective action. Thus, "preventing overthrow by the common people is, in general, quite easy if the ruler is only willing to repress vigorously"—to torture dissidents and shoot into crowds of demonstrators.

Only when "the ruler does not actually have professional forces at his beck and call," or when he chooses not to fight back, does a popular uprising appear possible. Tullock suggests that Louis XVI probably sounded the death knell of the monarchy when, in 1792, he ordered his Swiss Guard to cease fire and withdraw from a confrontation with insurgents.

A democratic transition is more likely to happen under monarchs who agree to constitutional monarchy, as happened in 19th century Europe. That epoch was characterized by a strong intellectual current in favor of democracy, which suggests the importance of ideas in motivating individuals to surmount the obstacles of collective action.

"There do not seem to be any clear-cut cases of an enraged people rising up, throwing off a vicious and corrupt dictator, and establishing a pure and noble democracy," Tullock concludes. But when there is "some kind of representative assembly" to "check the power of the ruler," a popular uprising appears possible via the assembly. Isn't this admitting that, when a radical change is desired by large numbers in the population, people can solve the problem of collective action through gaining the support of a component of the state?

Faces of legitimacy / One definition of legitimacy—under an autocracy or any political regime—is a widespread belief that public support would continue even without coercion. In this sense, legitimacy can be explained by certain evolved traits in the "indoctrinable" psychology of humans. We need to economize the brain's computing power with the general presumption that what others tell us is true except if proven wrong. Another psychological trait is the need to reduce cognitive dissonance: If one doesn't have the government he wants, he can instead like the government he has. In short, legitimacy has little to do with the virtue of the government, and much to do with the values and habits that evolution has instilled in our minds. French political philosopher Bertrand de Jouvenel similarly argued that people obey political rulers essentially because "it has become a habit of the species."

This is not to say that individuals will continue to behave as told when it is clearly not in their personal interests. Popular credulity does not forever trump experience. At a certain point, Tullock notes, residents of communist countries stopped believing their governments; they had been told too many falsehoods that their experience contradicted. The dictator (or would-be dictator) may try the trick of "firehose of falsehoods": "The idea is to throw out so many different conspiracy theories and 'alternative facts' that the truth simply becomes one version of events among many" (Rachman 2022).

Ultimately, in the cases under consideration, legitimacy needs to be supported by rewards to part of the population and fear of punishment instilled in the rest. Tullock emphasizes the role of high officials, who stand in a better position to guess whether the dictator will win if challenged—a more practical definition of legitimacy. The legitimacy belief can be in error, but it still has some self-fulfilling power. Yet, it is true that "many governments thought by their subjects to be legitimate have been overthrown."

Pluses and minuses / Despite the book's illuminating approach, many readers of *Autocracy* will find it loosely structured, with numerous repetitions and some arguments that are not easy to follow. Apparently, Tullock was in the habit of dictating his writings, giving them the look and feel of an off-the-cuff lecture.

He confesses that, despite observing "general patterns," he does not find a general and testable theory of dictatorship. He hopes that his analysis will inspire others to do more research. Indeed, with the benefit of hindsight and further analysis, we can find some exceptions or qualifications to his observations. For example, populist leaders with dictatorial intentions often come from outside the government, and their intellect is not a source of wonder. But Tullock's epistemic humility is an advantage, not a drawback.

By asking relevant questions, *Autocracy* contributed to a better understanding of autocratic regimes and to the development of an economic literature on this topic. It showed the usefulness of public choice analysis of autocrats' incentives. The light Tullock threw on the long history of autocracy confirmed that their practitioners are not so different from democratic politicians. Under the ideal of *constitutional* democracy, rulers are simply more effectively constrained, which is what matters most. R

READINGS

- Faucon, Benoit, 2026, "The Web of Patronage Keeping Iran's Regime in Control," *Wall Street Journal*, March 26.
- Jouvenel, Bertrand de, 1945, *Du Pouvoir. Histoire naturelle de sa croissance*, Éditions du Cheval Ailé (*On Power: The Natural History of Its Growth*, translated by J.F. Huntington, Liberty Fund, 1993).
- Lemieux, Pierre, 2021, "Populist Political Choices Are Meaningless," review of William Riker's *Liberalism Against Populism*, *Regulation* 44(1): 54–57.
- Lemieux, Pierre, 2022a, "The State Is Us (Perhaps), But Beware of It!" 60th anniversary review of James Buchanan and Gordon Tullock, *The Calculus of Consent: Logical Foundations of Constitutional Democracy*, Econlib, January.
- Lemieux, Pierre, 2022b, "An Easy Path for the Strongman-To-Be," *Regulation* 45(3): 57–60.
- Olson, Mancur, 1965, 1971, *The Logic of Collective Action: Public Goods and the Theory of Groups*, Harvard University Press.
- Rachman, Gideon, 2022, *The Age of the Strongman: How the Cult of the Leader Threatens Democracy around the World*, Other Press.
- Rachman, Gideon, 2026, "Putin Could Pay a Personal Price for Failure in Ukraine," *Financial Times*, June 1.
- *The Economist*, 2026, "China's Leadership Is About to Be Shaken Up," May 29.

Working Papers BY PETER VAN DOREN AND THOMAS A. FIREY

A SUMMARY OF RECENT PAPERS THAT MAY BE OF INTEREST TO *REGULATION*'S READERS.

Communism, Embargo, and the Cuban Economy

■ Bastos, João Pedro, Vincent Geloso, and Jamie Bologna Pavlik, 2025, "The Forsaken Road: Reassessing Living Standards Following the Cuban Revolution and the American Embargo," SSRN Working Paper no. 5235912, April 29.

How did the Cuban people fare economically under communism? According to government statistics, they benefited: Just prior to the 1959 Revolution, per-capita gross domestic product was just over $3,000 (measured in 2011 Geary–Khamis dollars, which allows for cross-country and cross-time comparisons), and it grew to just under $5,000 in 1989 when the Soviet Union fell, ending Moscow's financial support for the island. Further, supporters of the Revolution say, per-capita GDP would have been much higher if not for the US embargo of Cuba.

But there are serious questions about these numbers' reliability. There is broad consensus that Cuban authorities manipulate the economic data. Even if they are in earnest, Cuba has changed its national accounting system twice since the Revolution, making it difficult to compare data from different periods. Perhaps most important, prices in a centrally planned economy have little relationship to consumer valuation and scarcity.

Given those problems, researchers have developed alternative measures of Cuba's post-Revolution economic performance. One is Queens College (New York) economic historian John Devereux's series using sectoral output indices compiled by non-Havana sources. According to Devereux, Cuba's per-capita GDP in 1989 was only about $3,450.

In this working paper, Bastos et al. build on Devereux's work by comparing Cuba's actual economic performance to how they project it would have performed if there were no Revolution. The authors construct a counterfactual non-communist "Cuba" from a weighted blend of similar Latin American economies, and they determine that Cuba's actual 1989 per-capita GDP was 44.3 percent below the counterfactual. Things could have been worse: They project that if not for the Soviet subsidies (much of which went to Cuba's sugar industry), the gap would have been 55.4 percent.

Is the US embargo to blame for this reversal of fortune? It would seem not, because Cuba found other trading partners. The authors' figures suggest Cuban GDP per capita likely would have been only about 3 percent higher in the absence of the embargo, a percentage that is not statistically significant. To steelman this idea, they use two highly charitable scenarios based only on Cuba's trade with the United States to inflate the embargo's apparent cost, and even under those assumptions, estimated GDP per capita would have been only 7.6–10.6 percent higher without the embargo.

In short, the Cuban economy badly underperformed its potential in the decades after the Revolution and, if Soviet subsidies are excluded, it essentially stagnated. This shortfall was the result of communism itself, not the US embargo. A country that in the 1950s ranked among the wealthiest in Latin America and rivaled parts of Europe on living-standard indicators became a poor country by 1989.—**TAF**

Lighthouses, Protectionism, and Federalism

■ Geloso, Vincent, 2025, "Why Nationalize the Production of Public Goods?" SSRN Working Paper no. 5160519, April 22.

Econ 101 students learn that the free-rider problem leads markets to underprovide public goods, and government provision is justified to correct that shortfall. More advanced students read Ronald Coase's "The Lighthouse in Economics" and learn that private and local-public provision of public goods often works well, competitively, and without state monopoly. Yet, centralized governments often take over provision of those goods. Why?

In this working paper, Geloso argues that governments nationalize public goods not because provision was failing when left to private or local control, but because public provision lets politicians extract rents in unrelated markets. Like Coase, Geloso draws on lighthouses to make his argument: in this case, American lighthouses in the Early Republic period (1789–1815). One seemingly arcane issue that was hotly debated by the Constitutional Convention was tonnage duties, the fees charged to ships based on their cargo capacity; states used that revenue (at least in part) to finance lighthouses. The Constitution's Article I, Section 10, stripped states of the authority to assess those duties, handing it to the federal government. That ended the interstate competition that had kept tonnage rates low and nondiscriminatory between foreign and domestic vessels. Under federal control, discriminatory rates against foreign ships jumped as high as 25 times that of domestic ships, creating a hidden tariff of 0.5–2.7 percent of import value. As a result, the foreign share of tonnage entering American ports fell from roughly 40 percent before federalization to under 10 percent within about a decade.

Governments nationalize public goods because provision lets politicians extract rents in unrelated markets.

Once states lost the tonnage revenue, they had little reason to resist ceding lighthouse administration to Washington. Federal control then became a durable patronage tool: Customs collectors appointed lighthouse keepers and steered construction and supply contracts to political loyalists, and both Federalist and Republican presidencies reorganized the service to reward their own coalitions when power changed hands.

Geloso does not claim that nationalization reduced the quality of lighthouse service. Assessing whether federal takeover was a net social improvement would require comparing the safety gains from expanded lighthouse coverage under federal control against the deadweight losses from the protectionist tonnage duties—that is, weighing shipwrecks against lower trade volumes. So far, no research has tackled that question; instead, scholars typically see the many lighthouses built by Uncle Sam as an unalloyed good.—**TAF**

Oil and Gas Supply in the United States

■ Prest, Brian C., 2026, "Where Does the Marginal Methane Molecule Come From? Implications of LNG Exports for US Natural Gas Supply and Methane Emissions," SSRN Working Paper no. 6671473, April.

In a 2021 post on the *Cato-at-Liberty* blog, I described important work by economists at Resources for the Future (RFF) that explained how the fracking revolution in oil and gas production has increased the responsiveness of oil and gas supply to price. This paper updates that work.

The effect of fracking on US production has been dramatic. In 2015, the United States imported 5 million barrels per day (MMbbl/d) of crude oil and petroleum products on net; by the end of 2025 it was a net exporter of 3 MMbbl/d. In 2023, the United States surpassed Australia and Qatar to become the world's largest liquefied natural gas (LNG) exporter, shipping 12 billion cubic feet per day (bcf/d). By 2025, US LNG exports were 15 bcf/d and could be double that by 2029.

A permanent 10 percent increase in the price of oil increases supply by 6.1 percent. For comparison, in 2014, RFF economists assumed an oil supply response of only 4 percent, a third smaller.—**PVD**

SSDI

■ **Deshpande, Manasi, Maxwell Kellogg, Magne Mogstad, et al., 2026, "Explaining the Historical Rise and Recent Decline in Social Security Disability Insurance Enrollment," NBER Working Paper no. 35300, June.**

Social Security Disability Insurance (SSDI) expenditures increased rapidly in the 1990s and 2000s. *Regulation* published articles and a book review on SSDI in the Fall 2011, Spring 2012, and Spring 2013 issues. The different authors agreed the expenditure growth was unsustainable, but they disagreed on whether statutory reform was required or if changes in the behavior of administrative law judges in the adjudication of benefit appeals would be sufficient to rein in this growth.

In the following decade, something not only reined in that growth, but reversed it. Unlike expenditure patterns in almost all other social welfare programs, expenditures on SSDI have declined since 2013. What explains the decline?

According to these authors, the largest factor (46–57 percent) in the decline is lower application rates, especially from younger men. Improved employment opportunities for less-skilled men explain nearly all the decline in SSDI application rates for men. In addition, 30–43 percent of the decline stems from lower award rates among those who apply because of administrative law judge reform.

The authors find no support for other possible explanations. Social Security field office closings were not a factor, and measures of hassle costs—like long wait and processing times—fell. There were no significant expansions of food or cash assistance programs or unemployment insurance. There is no relationship across states between health insurance increases and SSDI application declines. Veterans' disability compensation did increase, but veterans contribute less than proportionally to the decline in SSDI applications. And population aging would have been expected to increase SSDI because of the shift to the highest-SSDI-receipt ages just below the full retirement age. —**PVD**

Employment Subsidies

■ **Jain, Manisha, Corina Mommaerts, and Jeffrey Weaver, 2026, "The Limits of Targeted Hiring Subsidies: Evidence from the Work Opportunity Tax Credit," NBER Working Paper no. 35229, May.**

The Work Opportunity Tax Credit (WOTC) allows firms that hire applicants from designated disadvantaged groups—such as recipients of means-tested benefits or individuals with felony convictions—to claim tax credits for up to 40 percent of first-year wages, subject to a maximum credit of $2,400 per worker. The WOTC is a large program: Some 2.5 million new hires were certified to have their wages subsidized by the WOTC in 2022, which is more than twice the number of workers earning at or below the federal minimum wage, a policy that has attracted considerably more academic and policy attention.

The WOTC costs over $1.5 billion annually. Food assistance (SNAP) recipients are the largest category of beneficiaries, comprising two-thirds of WOTC certifications in recent years. The next largest, the long-term unemployed, comprised only 6.8 percent of WOTC-subsidized hires in 2023.

This paper asks whether the WOTC increased employment and earnings among SNAP recipients in Wisconsin from the late 1990s through the late 2010s. The research design exploits a major WOTC expansion in 2007 that increased the maximum age eligibility for SNAP recipients from 24 to 39. The authors compare labor market outcomes for SNAP recipients just below and above ages 25 and 40 around 2007. They find no effect on employment or earnings. The program subsidizes the employment of those who would have been hired anyway.

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The explanation for the findings is that firms rarely know whether a particular job applicant is subsidy-eligible. Only 20 percent of the firms that receive WOTC subsidies collect information during the hiring process that would allow them to identify WOTC-eligible applicants. Firms fear claims of age discrimination and thus do not ask age.

The WOTC program authorization expired at the end of 2025. This has occurred before; Congress has always renewed the program retroactively. A bipartisan group of nine senators is now co-sponsoring a bill to extend and expand the program, more than tripling its annual cost. That should not happen given the findings of this paper.—**PVD**