Introduction

Melissa S. Kearney*, Justin Schardin, and Luke Pardue*****

September 2023

The post-pandemic US economy features a strong labor market but also persistent inflation, rising levels of debt, and acute educational challenges. These issues are compounded by ongoing, systemic difficulties: domestic and global, economic and political. This policy volume considers these topics and others, with a thematic focus on building a more resilient US economy.

The federal government's aggressive fiscal and monetary policy in 2020 and 2021 mitigated the potential economic losses from the pandemic-induced recession and sped up economic recovery. However, trillions of dollars of federal assistance boosted aggregate demand in the face of constrained supply, spurring inflation to highs not seen since the 1980s. Restrictive monetary policy in the form of higher interest rates has helped tame inflation.

The overall response, however, has left the United States with a higher accumulated debt and larger deficits going forward. These results are compounded by more persistent factors, including the aging of the US population and rising health care costs, which drive up spending on major US entitlement programs including Social Security and Medicare.

After a long period of low interest rates led to some complacency about the US federal budget situation, current forecasts point again to at least somewhat higher interest rates that will make the continued imbalance between federal spending and revenues unsustainable. Building a more resilient US federal budget will require reforms that narrow the gap between spending and revenues, while maintaining sufficient levels of both to support national priorities. Accomplishing this task will require bipartisan cooperation and forward-looking congressional leadership.

The US labor market has remained strong in the post-pandemic period, but it shows signs of cooling and still faces long-term challenges that predate the pandemic. Despite widespread worries about women disproportionately falling out of the workforce

* Director, Aspen Economic Strategy Group; Neil Moskowitz Professor of Economics, University of Maryland

** Deputy Director, Aspen Economic Strategy Group

*** Economic Policy Fellow, Aspen Economic Strategy Group; Economist, Gusto

during the pandemic, female rates of labor force participation and employment now exceed pre-pandemic levels (US Bureau of Labor Statistics (BLS) 2023a).

However, male labor-force participation and employment rates have recovered more slowly and remain depressed compared to prior decades: 86.4 percent of prime-age men in the US were employed in August 2023, equal to the 2019 average but below the 87.9 percent averaged in the 1990s (US Bureau of Labor Statistics 2023a, 2023b). As prime-age men work at lower rates, and as an aging population pushes a larger share of workers into retirement, the size of the workforce will start to grow much more slowly than it has in the past. Over the next ten years, the US labor force is forecast to add half the number of workers it added from 1990 to 1999 (Congressional Budget Office 2023a).

Building a more resilient US workforce will require promoting widespread employment and making investments in youth and young adults to build human capital and skills. It is troubling that the pandemic accelerated already-declining college enrollment: in 2022, there were over one million fewer students enrolled in college than there were in 2019 (National Student Clearinghouse 2023).

The pandemic disruption also led to large losses in student learning. Assessment data from 1.6 million elementary school students across more than 40 states indicate that in the spring of 2021, students were on average five months behind in mathematics and four months behind in reading progress compared to pre-pandemic cohorts. Learning losses were even larger for students in majority-Black schools and schools with lower average family income (Dorn et al. 2021). That study estimated that, if left in place, this learning loss could reduce lifetime earnings by $49,000 to $61,000 per student. Making up for these learning losses before they become permanent is an urgent priority, but doing so will not be easy.

Both the pandemic shock and recent geopolitical developments, including rising tensions with China and the war in Ukraine, have demonstrated the fragility of US supply chains and production. Businesses that lowered costs through just-in-time inventory practices, single-source suppliers, and manufacturing in countries with unstable political situations were left more vulnerable to supply shocks that fueled inflation. And heightened global tensions threaten the prospect of economic cooperation while creating political pressures at home for protectionist and nationalist policies.

The chapters in this book consider these and related issues. They are organized into three sections, as described below.

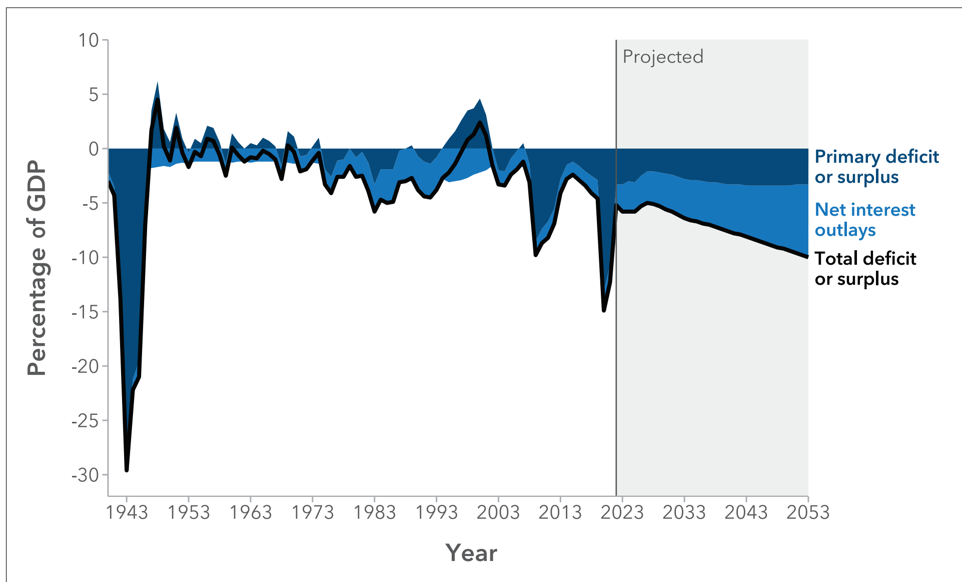
1. Addressing US Fiscal Challenges

The US is facing rising levels of debt and interest payments, as well as federal government spending that is on pace to grow faster than revenues. Figure 1 below, reproduced from the Congressional Budget Office (CBO), shows total deficits, primary deficits, and net interest outlays, historically back to 1940 and projected out to 2053. From 2023 to 2053, the budget deficit is projected to rise to 10.0 percent of gross domestic product (GDP), a level only reached during World War II and the COVID-19 pandemic.

As a result, the overall level of federal debt is projected to rise above 100 percent of GDP, exceeding levels seen in the US during either of those periods. Such a high level of debt threatens the resiliency of the US economy. It would push up interest payments and slow economic growth by crowding out private investment and public spending that could otherwise be used to make investments in America's workforce, infrastructure, and productive capacity.

Figure 1. Components of the Federal Deficit or Surplus as a Percentage of GDP, 1940–2053

Total deficits, primary deficits, and net interest outlays



Source: Congressional Budget Office (2023b).

Note: Primary deficits exclude net outlays for interest.

In chapter 1, “High and Rising US Federal Debt: Causes and Implications,” Karen Dynan explains that the outlook for federal debt represents a major economic challenge for the United States. Drawing on the same forecasts cited above, she notes that even under optimistic economic scenarios, debt will soon reach levels well above historical experience, a circumstance that will impose significant economic costs and risks.

Dynan explains how the US arrived in this situation, observing that though economic developments and policy changes over the past two decades have materially raised the level of current and projected debt, the primary factors behind the projected upward trajectory of debt remain population aging and rising health care spending. She also notes that fortunate economic developments, such as high productivity growth or lower-than-expected interest rates, are unlikely to put the budget on a sustainable trajectory.

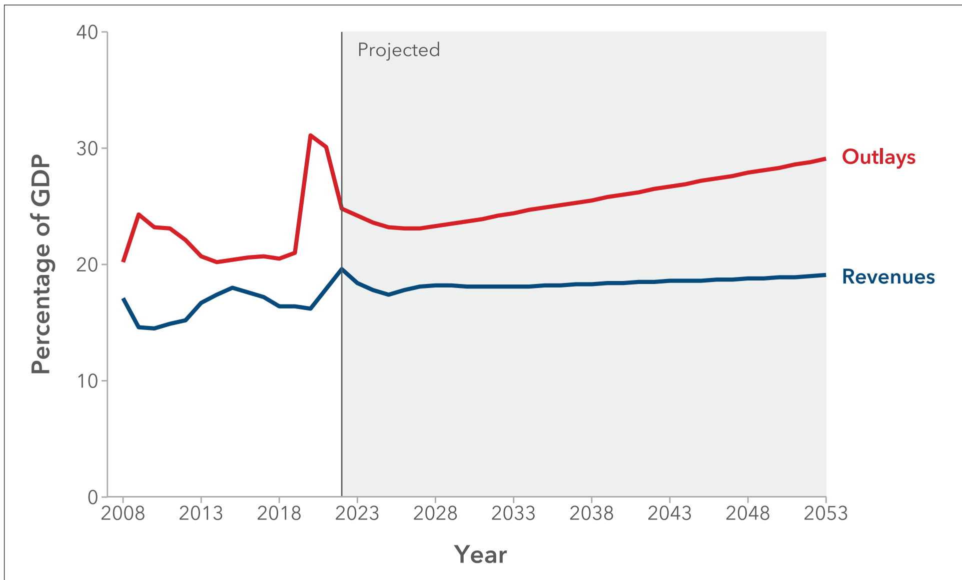
Addressing the budget imbalance will require bringing spending and revenues more in line. As shown in figure 2 (top panel), according to the CBO, federal outlays are expected to rise from 24.2 percent to 29.1 percent of GDP over the next 30 years. This level is substantially higher than was seen in the period from 1993 to 2022, when outlays averaged 21.0 percent of GDP. The projected growth in federal outlays reflects, in part, rising interest rates, persistently large primary deficits, and increased spending on Social Security and the country's major health care programs—driven by the aging of the population and growing health care costs.

Dynan presents various policy reforms that would reduce the deficit to more sustainable levels. But she also acknowledges that each of these reforms would have significant disadvantages. Cutting spending on mandatory programs such as Social Security and Medicare would have more of an impact on federal budget projections than would cuts to other nondefense discretionary programs, but across-the-board cuts to these programs would inflict harm on older Americans with low levels of income and those with more health problems. Policy makers have a variety of options for raising more tax revenue, but the advantages and disadvantages of different tax reforms also need to be carefully considered.

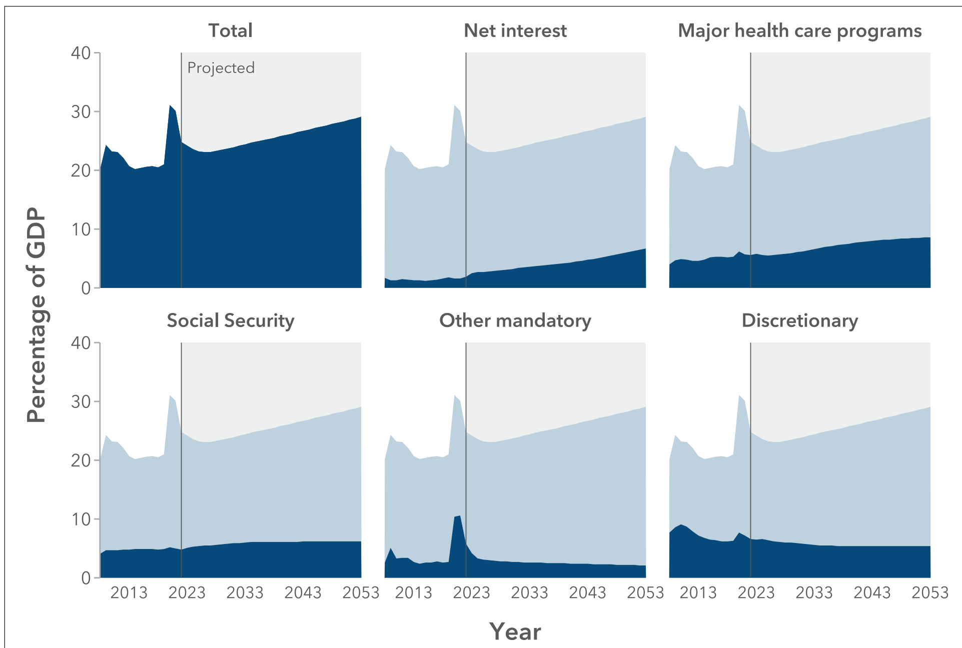
Mark Duggan offers a proposal for reforming Social Security finances in chapter 2, “Reforming Social Security for the Long Haul.” He describes Social Security as arguably the most important spending program in the US, but he warns that the program stands on unstable financial footing. He cautions that with the Social Security trust fund projected to hit zero by 2033, the situation could force across-the-board benefits cuts of nearly 25 percent.

Figure 2. CBO Projections for Federal Spending and Revenues, 2008–2053

Total outlays and revenues



Outlays, by category



Source: Congressional Budget Office (2023b).

Duggan observes that Social Security's fiscal imbalance is now much worse than the one that policymakers confronted 40 years ago. At that time, the program's annual deficits made up a much smaller fraction of Social Security benefits than they will under current projections for coming years, and demographic trends were not so problematic for the program's long-term finances.

The perilous spot the program finds itself in today is largely driven by two demographic factors: people are living much longer, and fertility rates have declined.[1] Two additional drivers of the worse-than-expected Social Security trust-fund balance have been slower-than-expected earnings growth during the last 40 years and rising earnings inequality, which have together caused an increasing share of earnings to be above the program's taxable maximum and thus not contributing to Social Security's revenues.

As Duggan notes, this more difficult situation for Social Security's finances comes at a time when America's political and governing system seems much less capable of solving problems through bipartisan compromise. But he cautions that if changes are not implemented soon to improve Social Security's finances, the program's structural deficits will almost inevitably crowd out other important government-spending priorities.

Duggan proposes a package of six reforms aimed at raising revenue and slowing benefits growth to put the program on a sustainable fiscal path—while maintaining benefit levels for low- and middle-income retirees who rely on the program for economic security. He proposes (a) increasing the Social Security payroll tax rate; (b) subjecting a higher share of wages to Social Security's payroll tax; (c) an additional tax rate on all earnings above the annual taxable maximum; (d) a modest increase in the full retirement age; (e) a progressive adjustment to Social Security's progressive benefit formula; and (f) allowing Social Security's trust fund to temporarily borrow from the US Treasury against future annual Old Age, Survivors, and Disability Insurance (OASDI) surpluses.

Looking to entitlement programs beyond Social Security, spending on federal health care programs such as Medicare is consuming a larger share of federal spending. The size of these programs is set to rise further as the population ages and as health care costs—of which pharmaceutical drug costs make up a significant part—rise.

In chapter 3, "Why Drug Pricing Reform Is Complicated: A Primer and Policy Guide to Pharmaceutical Prices in the US," Craig Garthwaite and Amanda Starc describe the opaque and complex process of pharmaceutical price setting in the US. The authors

1 Kearney and Levine's 2022 AESG paper explored the causes and consequences of the decline in US fertility rates and observed that the evidence does not suggest a return to above-replacement-level fertility (average lifetime births of 2.1 per woman) in the US anytime soon.

argue that at its core, drug pricing in the US involves a tradeoff: drug firms are granted a large degree of market power as an incentive to make the large, fixed, and sunk investments necessary for them to bring new products to market. Although high domestic prices have resulted in greater pharmaceutical innovation, there are ways to make markets more competitive and efficient, thereby lowering costs without reducing drug innovation.

Drug price negotiations involve a complex set of discounts, or rebates, among manufacturers, pharmacy benefit managers of health insurance programs, wholesalers, and pharmacies. Many points along this supply chain have also seen substantial market consolidation recently. The complicated structure and opacity of certain parts of the chain may lead parties—such as single-source drug manufacturers, larger pharmacy chains, and pharmacy benefit managers—to unnecessarily extract profits at the expense of consumers.

US policymakers have proposed several solutions to curb rising drug prices, including a provision in the 2022 Inflation Reduction Act that allows Medicare to directly negotiate certain drug prices. But Garthwaite and Starc argue that promoting competition and reducing barriers to entry within certain markets, while preserving incentives for innovation, should be the aim of any policy intervention.

Within the generic drug market, reducing barriers to entry can help prevent natural monopolies from forming. The authors suggest potential solutions that include streamlining the application process for generics, reforming the drug patent system, and working with other countries to expand generic markets to lower costs. They stipulate that when generic markets are too small to support multiple firms, the Food and Drug Administration should allow for a properly regulated form of market exclusivity to prevent monopolistic behavior in these product markets.

At the same time, increasing transparency at points within the drug supply chain will also work to restrain price increases beyond the value added. For instance, the size of rebates negotiated between drug manufactures and middlemen acting on behalf of pharmacies is not disclosed. Rather than banning these discounts, which often work to lower costs, providing this information to all parties along the chain will help to ensure that downstream negotiations occurring between these middlemen, pharmacies, and insurers can take place on equal footing.

Chapter 4, "The Next Business Tax Regime: What Comes After the TCJA?", turns to the revenue side of the ledger. In this chapter, Owen Zidar and Erick Zwick suggest potential reforms to the US business tax regime, with a particular focus on reforming the business tax code. They observe that business income is a substantial part of the overall tax base and a large portion of income and wealth held by the richest and

wealthiest Americans comes from business activity, as opposed to wage income. They take the position that the business tax code needs to be revised to make it more difficult for wealthy individuals to shield substantial amounts of income from tax liability through business tax loopholes. Their policy proposals draw on lessons from the experience of the 2017 Tax Cuts and Jobs Act (TCJA) and provide a path forward.

Zidar and Zwick provide an overview of the business tax base in the United States and of how business activity is taxed. They then describe how the TCJA reformed business taxation and what the early evidence says about how the TCJA affected economic activity. They report that academic research indicates that TCJA tax cuts did not deliver higher corporate tax revenue, as the law's advocates had suggested it would.

Careful research does find an increase in business investment activity as a result of TCJA provisions. But the additional tax revenue this activity would have brought in was more than fully offset by the large mechanical decline in revenue coming from lower tax rates. Furthermore, with regard to the prediction that this tax reform would boost worker wages, they report that the most reliable evidence finds that wages only increased for highly paid employees and executives, not for the median worker.

Drawing on these lessons, Zwick and Zidar propose specific tax reforms guided by three overarching goals: preserving productive business activity, promoting efficiency by harmonizing tax rates across income tax bases, and increasing tax progressivity. They propose to return key components of the federal tax code to what they were in 1997, with higher rates for dividend taxes, estate taxes, capital gains taxes, and top marginal income tax rates.

The authors also propose changes to estate taxes and individual marginal income tax rates because, as they explain in their paper, most estate tax wealth is in the form of either private business assets or publicly traded stock, and most business income in pass-through form is taxed at the top marginal income tax rate. They further recommend several adjustments to corporate taxation to better support productive investment, and reforming international tax provisions in the TCJA. A key takeaway from this paper is that business income and individual income are tightly linked, especially for the richest Americans, and smart tax policy requires that the two tax regimes be treated as an intertwined system.

2. Investing in America's Youth

A productive workforce is critical to the United States' future economic growth and competitiveness. Achieving this goal requires a vibrant, skilled working-age population and the healthy development of children, who are the workforce of the future.

The AESG has taken up various aspects of human capital development over the past several years. A 2019 AESG working group proposed an infusion of federal dollars aimed at building the supply-side capacity of community colleges to deliver high-quality education and skill development (Ganz et al. 2019). Recent AESG papers have examined potential benefits of career- and technical-education programs (Stevens 2019) and apprenticeship opportunities (Lerman 2019). In a 2021 AESG paper, Gordon and Reber argue for a renewed focus on the fundamentals of the K–12 system to improve US schools.

The state of K–12 learning took a major hit during the COVID-19 pandemic, with years of progress that had been made in improving student outcomes being wiped out. Through 2022, national test scores reveal major learning loss among elementary school students, with math scores in 2022 down to levels not seen since 1999 (National Assessment of Education Progress 2022).

In chapter 5, "Overcoming Pandemic-Induced Learning Loss," Jonathan Guryan and Jens Ludwig propose a concrete solution to address pandemic-era learning loss: high-impact tutoring. The authors argue that intensive or "high-dosage" tutoring has been shown to have promising effectiveness for students of any age. Studies of both demonstration and real-world tutoring interventions indicate large learning improvements.

Guryan and Ludwig suggest that high-impact tutoring should be an integral part of efforts to remediate pandemic-era learning loss and that the challenge of scaling such programs can be aided by the use of technology. As a matter of federal policy, the authors suggest that Congress extend the deadline for using pandemic recovery funding to pay for such tutoring programs, and that states and the federal government should consider additional funding for both immediate tutoring efforts and to build out an infrastructure for longer-term tutoring programs.

Chapter 6 takes a broader look at the country's investments in future generations. In this chapter, titled "The Economic Case for Smart Investments in America's Youth," Melissa S. Kearney and Luke Pardue observe that the US spends relatively little on children, despite consistent evidence that such outlays yield large long-term social returns. In 2019, the federal government spent an estimated $5,595 per child on programs benefiting children under 18, compared to $29,189 per elderly American on entitlement programs alone (e.g., Social Security and Medicare)—a gap that remains even when state, local, and private charitable giving are accounted for.

When economists compare the evidence of the effectiveness of government spending across recipients of all ages, they find that spending on children under 18 generates consistently larger returns than programs targeting elderly and non-elderly adults alike. Efforts such as expanding Medicaid to young children significantly improve

these children's adult health. Offering high-quality preschool programs to children in low-income families and mentorship opportunities to disadvantaged teens has been found to boost educational outcomes and raise earnings when these children enter the workforce. These programs build a healthy, skilled next generation, and in doing so, they raise public revenue and often reduce spending enough to pay for themselves.

As a matter of social values, there are good reasons to invest in children growing up in disadvantaged settings. However, from a purely economic perspective of impact investing, there is a strong case to be made for evidence-based investments in youth. As the country faces new and existing challenges discussed in these chapters, investing in children is one of its greatest opportunities for building a more resilient future.

3. Navigating Shifts in the Global Economy

Along with the domestic challenges highlighted above, new and ongoing global challenges require a reexamination of American economic and diplomatic approaches. These challenges include global supply-chain disruptions and growing tensions between China and the West.

In chapter 7, "Manufacturing Resilience: The US Drive to Reorder Global Supply Chains," Mary E. Lovely begins with the recognition that recent disruptions caused by the COVID-19 pandemic, along with the threat of further interruptions from rising geopolitical risks, have exposed the fragility of modern supply chains. To build more resilient networks, US policymakers have taken three main approaches: increasing domestic manufacturing capacity ("reshoring"), building new supply chains among foreign partners aligned with US interests ("friendshoring"), and reducing bilateral tensions with critical trade partners such as China ("derisking").

Lovely evaluates these strategies, weighing the likelihood that each will reduce the potential of future disruptions against the costs to taxpayers and consumers. Reshoring, she argues, builds domestic capacity but is costly and only tenable in a few critical sectors. Friendshoring balances the efficiencies of trade while preventing reliance on rival states but can ultimately result in longer and less transparent networks. Finally, derisking our relationship with China will allow the US to diversify critical supply chains but is complicated by the country's dominant role in world trade and by ongoing political tensions.

Efforts to reduce supply risks can be improved, Lovely argues, by better targeting policy toward the supply chains it seeks to move rather than making open-ended actions to alter supply chains. This approach would balance the need to secure critical supply chains with America's longstanding commitment to a rules-based

trading order—and would avoid forcing other countries to diverge from a global economy of which China is an integral part.

Hanming Fang takes up the topic of China's economic prospects specifically in chapter 8, "Where Is China's Economy Headed?" Fang contends that the main factors driving uncertainty about China's economic growth path are the internal political economy and the external environment, even more so than uncertainty around the standard economic and demographic factors of productivity growth, population aging, and capital investment and consumption patterns.

Fang observes that the growth of the Chinese economy over the last four decades is one of the most transformative events of global economic history. The growth of China's economy since the late 1970s has been rapid; China went from being one of the poorest countries in the world to being its second-largest economy. As defined by World Bank criteria, China emerged as a lower-middle-income country in 2001 and transformed to an upper-middle-income country in 2010.

From 1990 to 2022, China's real GDP per capita grew from 4.1 percent of the US per capita GDP level to 28.4 percent. In terms of aggregate economic activity, China is now approaching par with the United States. In 2022, China's nominal GDP was 18 trillion USD, or three-quarters the size of the US economy ($24 trillion); adjusting for purchasing power, China's GDP was 28.8 trillion USD, about 20 percent larger than that of the US.

Fang contends that the Chinese economic growth miracle of the last four decades was a result of the country's warming relationship with the US-led West and of its corresponding embrace of market-oriented reforms and globalization. He observes that it is generally accepted that the double-digit annual growth rates China experienced during the 1980s, 1990s, and first decade of the 2000s are a thing of the past, but that predictions of future annual growth rates vary widely among analysts, ranging from 1 percent to 8 percent over the next 10 to 15 years.

These predictions tend to differ by the analysts' sectoral perspective. For instance, investment banks tend to focus on annual or even quarterly growth rates instead of on medium- or long-run rates. They also tend to pay relatively more attention to the fiscal- and monetary-policy stances of the Chinese government than to more fundamental economic factors, such as the declining size of China's workforce, whereas forecasts from economists tend to put a relatively heavy weight on economic fundamentals, returns to investment, productivity growth, and the consequences of potential technological decoupling from the West.

China's rapid growth has come with an increased willingness by Beijing to exercise its geopolitical influence, while this willingness—along with some of China's economic and political practices—has contributed to greater friction with the West, and with the US in particular, over the past several years. At the same time, China faces serious structural economic challenges, including an aging population and declining workforce, a precarious real estate sector, and high levels of income inequality that may impede a transition to a consumption-driven growth model.

But, in Fang's view, these issues could be addressed by appropriate reform measures. The larger risk for China, he argues, is that necessary reform efforts will be blocked by vested interests spurred by perceived external threats to China's national security and perceived internal threats to social stability. Ultimately, where the Chinese economy heads in the next decade will depend on whether deeper reforms are implemented to enhance rather than impede its market-based economy and to spur additional economic growth.

References

Congressional Budget Office. 2023a. "Historical Economic Data." *CBO.gov,* February 15. https://www.cbo.gov/system/files/2023-02/55022-2023-02-Historical-Economic-Data.zip.

Congressional Budget Office. 2023b. *The 2023 Long-Term Budget Outlook*. Washington, DC: Congressional Budget Office, June 28. https://www.cbo.gov/system/files/2023-06/59014-LTBO.pdf.

Dorn, Emma, Bryan Hancock, Jimmy Sarakatsannis, and Ellen Viruleg. 2021. "COVID-19 and Education: The Lingering Effects of Unfinished Learning." McKinsey and Company, July 27. https://www.mckinsey.com/industries/education/our-insights/covid-19-and-education-the-lingering-effects-of-unfinished-learning.#/.

Ganz, Amy, Austan Goolsbee, Glenn Hubbard, and Melissa S. Kearney. 2019. "A Policy Agenda to Develop Human Capital for the Modern Economy." In *Expanding Economic Opportunity,* edited by Melissa S. Kearney and Amy Ganz. Washington, DC: Aspen Economic Strategy Group, February. https://www.economicstrategygroup.org/publication/a-policy-agenda-to-develop-human-capital-for-the-modern-economy/.

Gordon, Nora, and Sarah Reber. 2021, "Addressing Inequities in the US K–12 Education System." In *Rebuilding the Post-Pandemic Economy,* edited by Melissa S. Kearney and Amy Ganz. Washington, DC: Aspen Economic Strategy Group, December 1. https://www.economicstrategygroup.org/publication/gordon-reber.

Kearney, Melissa S., and Phillip Levine. 2022. "The Causes and Consequences of Declining US Fertility." In *Economic Policy in a More Uncertain World*, edited by Melissa S. Kearney and Amy Ganz. Washington, DC: Aspen Economic Strategy Group, January. https://www.economicstrategygroup.org/publication/kearney_levine/.

Lerman, Robert I. 2019. "Scaling Apprenticeship to Increase Human Capital." In *Expanding Economic Opportunity for More Americans*, edited by Melissa S. Kearney and Amy Ganz. Washington, DC: Aspen Economic Strategy Group, February 4. https://www.economicstrategygroup.org/publication/scaling-apprenticeship-to-increase-human-capital/.

National Assessment of Education Progress. 2022. "NAEP Long-Term Trend Assessment Results: Reading and Mathematics." *National Assessment of Education Progress*. https://www.nationsreportcard.gov/highlights/ltt/2022/.

National Student Clearinghouse. 2023. "Current-Term Enrollment Estimates." NSC Research Center, May 24. https://nscresearchcenter.org/current-term-enrollment-estimates/.

Stevens, Ann Huff. 2019. "What Works in Career and Technical Education (CTE)? A Review of Evidence and Suggested Policy Directions." In *Expanding Economic Opportunity for More Americans,* edited by Melissa S. Kearney and Amy Ganz. Washington, DC: Aspen Economic Strategy Group, February. https://www.economicstrategygroup.org/publication/what-works-in-career-and-technical-education-cte-a-review-of-evidence-and-suggested-policy-directions/.

US Bureau of Labor Statistics. 2023a. "Employment-Population Ratio, Men 25-54, Seasonally Adjusted [LNS12300061]." BLS Data Viewer, retrieved July 12. https://beta.bls.gov/dataViewer/view/timeseries/LNS12300061.

US Bureau of Labor Statistics. 2023b. "Employment-Population Ratio, Women 25-54, Seasonally Adjusted [LNS12300062]." BLS Data Viewer, retrieved July 12. https://beta.bls.gov/dataViewer/view/timeseries/LNS12300062.

US Bureau of Labor Statistics. 2023c. "Unemployment Rate [UNRATE]." FRED, Federal Reserve Bank of St. Louis, retrieved July 12. https://fred.stlouisfed.org/series/UNRATE.