

SEPTEMBER 2025

China's Economic Transition

*Debt, Demography, Deglobalization,
and Scenarios for 2035*

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Dinny McMahon

Andrew Polk

A Report of the CSIS Freeman Chair in China Studies

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List of Abbreviations

CAFS	Chinese Academy of Fiscal Sciences
CASS	Chinese Academy of Social Sciences
CCFEA	Central Commission for Financial and Economic Affairs
CF40	China Finance 40 Forum
CPI	Consumer price index
CSRC	China Securities and Regulatory Commission
GDP	Gross domestic product
GPB	General purpose bond
ICE	Internal combustion engine
IMF	International Monetary Fund
IPO	Initial public offering
LGFV	Local government financing vehicle
LPR	Loan prime rate
NCD	Negotiable certificate of deposit
NDRC	National Development and Reform Commission
NEV	New energy vehicle
NPL	Nonperforming loan
NSSF	National Social Security Fund
OECD	Organisation for Economic Co-operation and Development
PBoC	People's Bank of China
PPI	Producer price index
PV	Photovoltaic
SOE	State-owned enterprise
SPB	Special purpose bond
SPV	Special purpose vehicle
TFP	Total factor productivity
UNIDO	United Nations Industrial Development Organization
WTO	World Trade Organization

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Executive Summary

China's economy is at a transformational moment. For more than two decades, a growth model centered on the debt-fueled construction of housing and infrastructure propelled the country's rapid expansion. But it reached its limit in 2021, when housing demand peaked. Beijing is now attempting to pivot toward a new growth model.

One of the great questions of our time is how China will emerge from this period of transformation. The goal of this report is to present a clear picture of the economy Beijing wants to build by 2035 and develop potential scenarios for how this might unfold in reality—as well as explore the implications for U.S. policymakers, the U.S. economy, and other Western countries. The report focuses, in particular, on how China's approach to managing the challenges of debt, demography, and deglobalization might shape its economic trajectory.

The authors of this report acknowledge that long-term forecasts are inherently uncertain and could be quickly derailed by a pandemic, war, recession, or some other major shock. Still, given China's central role in the global economy, it is crucial to develop an informed understanding of the most likely paths this transformation could take—as any changes will quickly ripple outward.

Rejection of Consumption-Led Growth

For a long time, economists—both Chinese and foreign—have argued that China needs to “rebalance” its economy away from investment toward consumption.

In China, household spending represents a much lower share of economic activity than in most other countries. In 2023, household consumption was responsible for 39 percent of China's GDP, well below the Organisation for Economic Co-operation and Development (OECD) average of 59 percent.¹

Chinese households spend so little and save so much because they receive a relatively small share of the gains from economic growth. That is partly because China's welfare programs—most notably pensions and healthcare—are chronically underfunded, pushing households to save more than they otherwise might. But it is also because wealth is diverted from households toward companies, which use it to invest—in R&D, factories, and infrastructure.

To build a consumption-led economy, Beijing would need to undertake a program of large-scale wealth redistribution—primarily by increasing welfare spending and expanding public services. Funding such a program would require either raising taxes or borrowing by the central government.

Given the sluggish economy, Beijing is unlikely to increase taxes. At the same time, China's leaders are deeply reluctant to fund welfare with debt. Xi Jinping and other senior officials have repeatedly said welfare spending must not exceed the government's ability to pay for it. Chinese officials, state publications, and academics often blame the economic stagnation of Latin American countries on their attempts to build Western-style welfare systems before they had achieved Western levels of development.

Consequently, Beijing is neither striving to build a consumption-led economy nor pursuing large-scale wealth distribution. Rather, its focus is on wealth creation.

In building a new economic model, Beijing's goal is not simply to develop a new source of growth. While economic growth remains important—Xi wants to double China's GDP per capita between 2020 and 2035—Beijing also aims to align the new model with key political objectives:

- **Avoiding the middle-income trap and building an advanced economy:** Beijing wants to avoid the middle-income trap, and in doing so, make significant progress toward achieving income parity with advanced economies. However, to converge with the income levels of the United States or European Union, China's economic structure must change. Middle-income economies typically achieve that status by producing large quantities of goods at low cost. For China to become a truly advanced, high-income economy, its workforce needs to produce things of greater value—either by producing current products more efficiently or by developing new, more sophisticated products.
- **Delivering “common prosperity”:** Promoting “common prosperity”—a concept Xi introduced in 2021—involves narrowing the wealth gap by ensuring the fruits of China's economic development are distributed more equitably. Xi has said that China will achieve common prosperity by 2050 and make substantial progress by 2035. However, the focus of common prosperity is not on redistributing existing wealth, but on generating new wealth more equitably. This includes promoting entrepreneurialism, enabling people to realize greater returns from their assets, and raising incomes.

- **Equipping the economy to handle an aging, shrinking population:** China is one of the fastest-aging countries in the world. It has long been said that the country faces the challenge of “growing old before getting rich,” meaning that as the population ages, it will be increasingly difficult—if not impossible—to expand the economy and raise incomes. As a population ages, rising pension and healthcare expenditures increase the financial burden on the state. At the same time, a shrinking workforce means fewer people create wealth and contribute taxes to fund those burgeoning demands. China needs an economic model that boosts the wealth of working-age people so they can support a rising number of retirees without sacrificing their own financial security.
- **Achieving economic security:** Beijing views China as economically vulnerable, with its industrial economy heavily reliant on the import of certain key products, such as semiconductors. It fears that foreign control over these bottlenecks has already been—and will continue to be—weaponized against China. Replicating these foreign products domestically requires innovation and, in some cases, scientific breakthroughs.
- **Promoting debt sustainability:** China’s debt relative to the size of its economy eclipses that of most developing countries and is higher than even most advanced economies. That imposes a real cost on the economy as firms, households, and the government forgo investment, consumption, and spending on public services, respectively, to make interest payments. Moreover, as a country’s debt-to-GDP ratio rises, so does the risk that debt servicing costs will become unsustainable—as is the case with China’s local governments and property developers. In the interests of financial stability, Beijing wants the debt-to-GDP ratio to decline from its current levels. For that to happen, debt accumulation must be slower than economic expansion.

Productivity, Innovation, and Industrial Upgrading

With these goals in mind, Beijing has embraced an economic model centered on manufacturing-led productivity growth, driven by innovation and the incorporation of advanced manufacturing techniques across both emerging and established industries.

Innovation is central because it generates wealth by improving efficiency and fostering new businesses. It enables firms to differentiate their products, command premium prices, and expand into—or even create—new markets. And by replacing some workers with robots, it allows firms to lower costs and improve quality.

China has already demonstrated its innovative capacity in its development of world-leading electric vehicles, batteries, and solar power components. Beijing expects that Chinese firms—weaned on state support, hardened in ultracompetitive domestic markets, and fueled by huge domestic demand—will be able to replicate those successes with other products and industries.

Alongside innovation, the new model requires existing industries to upgrade their equipment and processes. By adopting innovative technologies, manufacturers can cut their costs, improve the quality of their products, and increase their profits. Beijing hopes that with those profits, firms

will fund the next round of upgrading. The drive to continuously improve productivity with better technology creates a market for innovators to keep pushing the envelope.

Innovation and industrial upgrading are so important because they increase profits and incomes. By developing their own proprietary technologies, firms can charge more for their products than would be possible if they used the same technology as their competitors. Firms can either distribute that extra income to employees in wages or bonuses or keep it as profit. Either way, the government benefits from increased tax revenue, which it can use to fund an expansion of welfare programs, further boosting demand.

While industrial upgrading will reduce the number of workers in manufacturing, those that remain will be more highly skilled and demand higher wages. Innovation and industrial upgrading also create higher-paying white-collar jobs—first in R&D, science, and engineering, then in support functions like corporate communications, finance, and legal services as firms scale up. Finally, as firms build their brands, they will require people in marketing, advertising, sales, design, and market research.

Ultimately, Beijing envisions an economy where productivity gains result in higher corporate profits and household incomes. This will expand the tax base, enabling the government to increase spending on welfare and public services and fostering a wealthier, more equitable society.

Maintaining Exports

The challenge is that this economic model relies on China expanding its production of manufactured goods. But China's share of global industrial output is already huge. No country has dominated global production to this degree since the United States in the immediate wake of World War II, and before that, the United Kingdom in the nineteenth century. And yet, for this model to succeed, global demand for Chinese manufactured goods must continue to grow.

The United States is already pushing back against Chinese exports, with the second Trump administration imposing tariffs of 145 percent on all Chinese imports in April 2025, before partially winding them back for 90 days. The European Union—and even some developing countries—has also imposed trade barriers on certain Chinese imports.

The U.S. measures, in particular, will make it difficult for China to sustain export growth. Still, exports are so central to China's new growth model that Beijing will do everything it can to keep the export machine humming. In recent years, Chinese firms have cut prices to maintain sales of manufactures. In the coming years, China is likely to take further actions to protect its exports:

- **Shifting further into the production of components and intermediate goods:** China's export of intermediate goods has grown at unprecedented rates in recent years. In 2000, they accounted for a third of China's total export value. By 2023, that figure had risen to almost 46 percent. Growth in China's export of high-value manufactured goods is almost solely driven by intermediate goods. Beijing sees increasing China's dominance in high-value

components as a way to entrench China in global supply chains, making decoupling harder and shielding the country from protectionist measures.

- **Pursuing new free trade agreements:** China has been an enthusiastic proponent of bilateral free trade agreements and a willing signatory to multilateral trade agreements. It will continue to pursue new agreements and expand existing ones to secure export markets.
- **Building factories overseas:** By setting up factories overseas, Chinese firms can get around trade barriers. Rules vary from country to country, but overseas factories will draw at least some—and often most—of the inputs they need from China. China does not capture as much value from Chinese firms building factories overseas as it would if a product were made entirely in China. But by sacrificing a little downstream domestic production, Chinese intermediate goods producers can further secure overseas markets.
- **Expanding exports to the Global South:** China will look to take market share from firms from the United States, European Union, Japan, and other advanced economies in the Global South, where consumers already welcome China’s cheap, good quality, innovative, and well-designed products.

China is also positioning itself as the indispensable partner in the global green transition. For most of the developing world—in fact, for any country without an advanced manufacturing sector—China represents the most viable path to affordable decarbonization.

That will potentially create an ongoing and rising source of demand for Chinese exports, one that Beijing can support with financial aid. Huang Yiping, a government adviser and academic at Peking University, has proposed that Beijing launch a “Green Marshall Plan” to support demand for Chinese manufactures in developing countries.

Despite these efforts, maintaining export growth will be a challenge. That makes domestic demand, which Beijing can influence more directly, critical for maintaining economic growth. However, since the Covid-19 pandemic, domestic demand has been weak, held down by several structural forces:

- **The property market realignment:** Traditionally, housing has been the preferred store of household wealth in China because it has consistently delivered high returns. Since the market peaked in 2021, household wealth has been sharply eroded in the face of declining prices. Prior to the slump, people could fairly assume home values would at least double over the following decade. Now, in many parts of the country, prices may never return to their previous peak. Consequently, people are not only spending less because of the decline in their wealth but may also be saving more to offset the loss of future capital gains. This dynamic could weigh on the economy indefinitely.
- **An aging population:** Members of the first wave of people born under the one-child policy, which came into effect in 1980, are increasingly responsible for caring for their aging parents, many of whom are now in their 70s. With no siblings to share the burden of healthcare—which is underfunded by the government—this generation needs to save more to meet the rising needs of their parents. Even though some married couples from this generation have already been supporting their retired parents for years, the impact of retirees’ declining

health has likely started to accelerate recently, with provincial governments recently granting additional leave to only children to care for their parents. The burden of eldercare on the one-child generation will grow in coming years.

- **Fiscal austerity:** The recent collapse in housing demand has resulted in a permanent decline in local government revenue. Income from land sales—which local authorities use both to service debt and to supplement their ordinary budget spending on public services—has dried up, as has income from property-related taxes.

The central government has stepped in to help, increasing annual fund transfers to local governments and taking measures to reduce interest rates on local government debt to reduce debt-servicing costs. But Beijing is reluctant to transfer more, having repeatedly said it does not intend to rescue local governments from the consequences of their excessive borrowing.

But Beijing's increased transfers have not been enough, not least because local government spending responsibilities have continued to rise. In other countries, a collapse in revenue would result in austerity policies, with governments prioritizing debt repayments and cutting spending.

China's local governments have taken a different approach. Instead of cutting spending, they have topped up their revenue by increasing fees and fines on firms and individuals. They have also conserved cash by withholding payments to suppliers, contractors, and public employees. This approach has undermined public confidence and increased economic uncertainty, further eroding firms' and households' willingness to spend.

What China's Future Holds

What will China's economy look like in 2035? Beijing hopes the rest of the world will continue buying ever-increasing volumes of high-value goods from China. The result would be higher corporate profits and higher household incomes, which would broaden the tax base and enable greater spending on welfare and public services. In this ideal scenario, not only would China be wealthier and more equitable, but the debt-to-GDP ratio would decline as productivity—not debt—drives growth.

But achieving this outcome will be difficult. Exports are likely to continue growing, but at great cost, as either firms will need to cut prices or the government will need to provide some sort of support.

As firms lower prices, profits margins will shrink and income gains for households will be moderate. The government's tax base may expand, but competing demands on public funds will likely limit any broad-based expansion of welfare.

Domestic demand will remain weak unless Beijing borrows more to offset that weakness. Specifically, the central government needs to borrow enough to make up for local governments' funding shortfalls and to boost healthcare spending sufficiently to relieve pressure on the one-child generation.

Meanwhile, the United States, the European Union, and other advanced economies will increasingly worry that they are falling behind. Chinese firms will continue to commercialize new, innovative products that find willing buyers around the world, and China will subsequently develop more globally recognized brands. In the Global South, China's influence will grow as its companies edge out developed-country competitors.

Ultimately, delivering sustained growth through manufacturing will come at the cost of lower profits, especially in a world of rising trade barriers. There will be winners. The success of innovative Chinese firms will mint a generation of wealthy entrepreneurs. But China's overseas success is unlikely to translate into meaningful material gains in well-being for most Chinese—blunting the positive impacts of China's attempt to shift to this new growth model.

Beijing could address this by once again significantly increasing its borrowing. But with annual borrowing already at elevated levels, any increase would likely be gradual. Beijing's reluctance to significantly increase borrowing to support domestic demand and expand the welfare state, therefore, will remain a major constraint on its ability to fully realize its vision for economic transformation.

Despite this, Beijing will be able to maintain political stability, even as discontent with the status quo mounts. Those with the financial means will continue looking for ways to move their assets—or even themselves—abroad, but overall, China's authorities will likely be able to manage the political and societal fallout of failing to meet the ideal new growth model.

The irony, then, is that over the next decade, the Chinese economy will be strong and weak at the same time. From the outside, China will look strong as it exports more advanced and innovative manufactured goods. But domestically, it will feel relatively weak, as the government leans on debt to support domestic demand and most people experience only marginal improvements in their well-being. The upshot is that China will remain an economic challenger to high-income economies, and in many areas increasingly so, even as it falls short on its ambitions to improve people's lives at home.

Introduction

China's economy is undergoing a foundational transformation. For more than two decades, a growth model centered on the debt-fueled construction of housing and infrastructure propelled the country's rapid expansion. However, this model reached its limits in 2021, when housing demand peaked. In response, Beijing is pivoting toward a new growth strategy that emphasizes advanced manufacturing, state-supported innovation, and export growth.

As Beijing manages this shift, it must also address the challenges of deglobalization, demography, and debt.

- **Deglobalization** poses a direct threat to China's export machine, as the United States and other countries impose new trade barriers.
- China's deteriorating **demographic** profile—a shrinking population coupled with an aging workforce—threatens domestic demand and household consumption growth.
- High levels of corporate and local government **debt**—a legacy of the old growth model—will drag on growth until central authorities devise a solution.

One of the great questions of our time is how China will emerge from this period of transformation.

Many in the United States see a long-term decline in China's global influence as inevitable. The United Nations projects that the country's population could halve by the end of the century.² A shrinking population could lead to falling domestic demand, leaving factories idle and schools empty, and Beijing without the revenue to fund pensions and healthcare. China's demographic decline could render it a spent force on the global stage by 2070—if not sooner.

Conversely, some observers foresee a future in which China's push into innovation-driven economic transformation and advanced manufacturing gives rise to a technological and military power that will challenge—and potentially eclipse—the United States. Over the next decade, demographic pressures will remain relatively moderate, providing China a critical window to accelerate its transformation before population decline becomes a more acute constraint.

Any assessment of China's economic prospects requires a clearly defined time frame. This report focuses on what China might look like by 2035.

The choice of 2035 is not arbitrary. Beijing has anchored much of its long-term planning to that year. Chinese President Xi Jinping has set a target of doubling China's gross domestic product (GDP) per capita from 2020 levels by 2035, and he aims to make substantial progress toward achieving “common prosperity”—his vision of a more equitable economic system—by that year.

The goals of this report are twofold. First, it aims to present a clear picture of the economy Beijing wants to build by 2035; second, it aims to evaluate how that vision might unfold in reality—along with the implications for the United States. The report focuses, in particular, on how China's approach to managing the challenges of debt, demography, and deglobalization—while advancing its aspirations for its new economic model—will shape its economic trajectory.

The authors acknowledge the challenges of long-term forecasts. Any projection made in this report could be quickly upended by pandemic, war, recession, or some other unforeseen shock. Moreover, this report does not attempt to account for every potential variable that could shape China's economic trajectory over the next decade—such as the potential impact of social movements, or the influence of the private sector.

While the future is inherently uncertain, what is clear is that the Chinese economy is undergoing a profound transformation that will leave it radically different from what it is today. Given China's central role in global trade, finance, and supply chains, as well as its growing geopolitical ambitions, it is crucial to develop an informed understanding of the most likely paths this transformation will take, as any changes will quickly ripple outward.

In recent years, China has rolled out a wave of seemingly disparate reforms across the economy—from the industrial sector and capital markets to the monetary system and local government finances, to name just a few. Collectively, these changes will reshape the economy, but so far there has been little effort to assess what that might look like. This report strives to help fill that gap by painting a picture of where China's economic transformation is likely to lead over the next decade.

This Report's Approach

Often, when outsiders write about China, they write about what China should do, rather than what China is actually doing. Often, they overlook what is feasible given the constraints of China's political system. And often, they assume China's problems are insurmountable, underestimating policymakers' ability to delay or diffuse a crisis.

China's economy is unique. Its authorities can intervene in ways that other governments cannot. That does not mean they operate with a free hand—far from it. Chinese policymakers face a distinct set of political and economic constraints, many of them self-imposed. But within those limits, they have a track record of pursuing creative solutions and have demonstrated a remarkable capacity to defer a reckoning.

This report strives to assess what China is doing—its plans, goals, and intentions—on its own terms. The authors identify the constraints policymakers operate under and explain how these shape the choices Beijing makes.

This research is based primarily on Chinese-language sources—especially central government policy documents and speeches and essays by government officials and former officials who remain influential in policy circles.

The report also references prominent commentaries from key Chinese Communist Party publications—particularly front-page articles in the *People's Daily* and the *Economic Daily*.

In addition, the authors draw extensively from the speeches and writings of government advisers. Advisers are a crucial component of China's economic policymaking process. Their role is to propose feasible solutions to pressing economic and financial issues that respect the constraints under which officials operate. As such, their public commentaries can provide insight into how officials are framing economic challenges internally. The advisers cited in this report either hold formal advisory positions, such as being a member of the People's Bank of China's (PBoC) monetary policy committee, or routinely brief either Xi Jinping or Premier Li Qiang.

Sometimes, it is impossible to piece together Chinese authorities' approach to an issue based on the above sources alone. When necessary, the authors infer Beijing's intentions based on the government's actions—such as in the case of maintaining financial stability, discussed in Chapter 9.

What This Report Covers

Understanding China's economic trajectory requires more than just identifying Beijing's goals. It demands close attention to the pressures that stand in the way of achieving those goals and whether policymakers will be able to overcome them. With that in mind, this report is structured to first establish the logic behind China's new growth model and then discuss the key challenges it must overcome—in particular deglobalization, demography, and debt—before finally assessing the potential scenarios for China's economy in 2035.

- Chapter 2 explores the demise of China's old growth model and the challenges it leaves in its wake.
- Chapter 3 examines why many economists argue that Beijing should pivot toward consumption-led growth—and why Beijing is unlikely to do it.
- Chapter 4 explores Beijing's economic goals for the next decade and what authorities require from a new growth model.

- Chapter 5 explains why China’s new economic model centers on innovation, advanced manufacturing, and exports—and how the new model is intended to work.
- Chapter 6 discusses how Beijing plans to sustain export growth in the face of rising protectionism from the United States and other countries.
- Chapter 7 explores the importance of maintaining domestic demand as a counterbalance to export uncertainty and examines the forces suppressing households’ willingness to spend.
- Chapter 8 analyzes Beijing’s approach to managing local government debt and how it will continue to drag on growth pending more decisive intervention by central authorities.
- Chapter 9 examines how Beijing has maintained financial stability despite mounting financial stress among property developers and local governments, and why the authors believe a financial crisis is unlikely.
- Chapter 10 presents three potential scenarios for China’s economy in 2035: (1) Beijing’s ideal scenario, where policymakers have achieved their goals; (2) a worst-case scenario, in which nothing has worked as intended; and (3) a scenario that falls between the first two and represents what the authors think is most likely to occur. The chapter explores what this last scenario would mean for the United States and the world.

China’s economy is undergoing a generational transformation—one that will reshape its role in the global economy and redefine its relationship with the United States. That transformation will be shaped not only by Beijing’s efforts to realize its new growth model, but also by how it manages the challenges of debt, demography, and deglobalization.

In the following pages, the authors examine how Beijing is managing those challenges, what it hopes to achieve by 2035, and why it has chosen this path. The goal of this report is to leave the reader with a grounded profile of the type of economy China is likely to build in the decade to come.

The Demise of China's Economic Model

For most of this century, China's economy was driven by the construction of housing and infrastructure.

During the days of China's planned economy, people living in cities were allocated housing by their state employer. Accommodation was typically cramped and utilitarian. Families often had to share kitchens and bathrooms with their neighbors. State firms had neither the resources nor the motivation to build additional housing on a sufficient scale.

In 1998, China's authorities decided that state companies should no longer provide housing to their employees for free. People were encouraged to buy their homes from their state employers, which sold them at heavily discounted prices. New homeowners were subsequently able to sell those apartments at higher prices, giving them the financial resources to purchase better quality, newly constructed commercial housing.

Years of pent-up demand for better accommodation was unleashed, launching a 20-year housing boom. Millions of migrants flowed into the cities, creating even more demand for housing. Rising incomes allowed people to repeatedly upgrade their homes. Social convention eventually demanded that young men buy a home before marriage to make themselves attractive marriage partners, creating a steady stream of buyers who in other countries may have remained renters.

Demand seemed endless and supply inadequate, which steadily and reliably drove up prices and created an incentive for people to buy investment properties in addition to their primary homes, used for accommodation.

This drive to entirely replace the existing state-controlled housing stock, as well as meet the additional housing demands of fast-expanding cities, led to China's housing market differing from that of the United States—and other Western property markets—in a key way. In the United States, most people buy their home from the previous owner. Very little housing is newly constructed. But in China, most people buy their home directly from the property developer that built it. In 2019, about 76 percent of all homes sold in China were newly constructed. In 2020, about 89 percent of all homes sold in China were newly constructed, compared with only 13 percent in the United States.³

Consequently, China's housing market contributed to economic growth in a way that would be inconceivable in the United States. At its peak, the property sector was responsible for anywhere between 25 and 30 percent of all economic activity in China. That takes into account not only the actual construction of housing, but also the production of steel, glass, cement, and all the other materials that go into building—as well as downstream production of housing appliances and outfitting.

China built new factories to accommodate the rising demand for steel, glass, and cement. It built its own excavators and bulldozers to populate construction sites, and ships to bring in the iron ore and bauxite it needed to make steel and aluminum. It built new power plants to run the factories. It also made the refrigerators and microwaves for new kitchens, air conditioners for new living rooms, washing machines for new laundries, and elevators for new high-rise apartment buildings.

The housing market was also the main driver of growth in middle-class wealth, with roughly 60 percent of household assets being invested in property.⁴ Rising prices created a cycle of ever-increasing wealth—and expectations of future wealth for anyone that owned property.

The housing market also made possible a vast expansion in infrastructure construction.

Funding Infrastructure

The scale of internal migration to China's cities, together with the increasing demands of a fast-expanding economy, created a need for more and better-quality infrastructure. That construction was funded with debt, which drove major changes in how local governments funded themselves.

Prior to 2015, local governments were not permitted to borrow. To get around that stricture, they set up companies—which were technically privately owned entities—known as local government financing vehicles (LGFVs), which borrowed on their behalf to fund infrastructure construction.

In 2015, however, Beijing permitted local governments to directly raise debt by issuing bonds. Each year, the Ministry of Finance issues each province a quota of special purpose bonds (SPBs)—which are mostly used to fund public works—and general purpose bonds (GPBs), which are used to supplement ordinary budget expenditures.

Through these channels, China's local governments have accumulated a huge amount of debt, both directly and indirectly, via what Chinese authorities call "hidden debt," defined as money borrowed by LGFVs and other state-owned firms on behalf of local authorities.

By the end of 2024, local governments had borrowed RMB 47.3 trillion directly by issuing SPBs and GPBs. It is less clear how much hidden debt is still outstanding.

In November 2024, the Ministry of Finance declared that there was only RMB 14.3 trillion of hidden debt outstanding and indicated that amount would be whittled down to around RMB 3 trillion by 2028, after the bulk of it was migrated onto the books of local governments.⁵

But China's official count of hidden debt is unquestionably too low. The International Monetary Fund (IMF) estimates that borrowing by LGFVs—a good proxy for hidden debt—stood at RMB 60.4 trillion at the end of 2023.⁶ Combined with direct borrowing by local governments of RMB 40.5 trillion at the end of that year, total local government debt based on the IMF's estimate came to RMB 100.9 trillion. Victor Shih, director of the 21st Century China Center at the University of California, San Diego, came up with a similar estimate, putting local government debt at between RMB 90 trillion and RMB 110 trillion, or between 75 and 91 percent of China's GDP in 2022.⁷

Local governments are in part able to pay interest on their outstanding debt obligations with revenue generated by state-funded infrastructure construction. Projects like toll roads, airports, and ports generate a steady income stream that can be used to pay down loans and bonds. However, those projects often generate far less income than is needed to cover full debt servicing costs. Other projects—like new government offices, ornamental lakes, and proverbial bridges to nowhere—do not generate income at all.

In other countries, infrastructure projects that cannot cover their costs typically need to be funded by tax revenues. But in China, local authorities were able to borrow so much because they were able to supplement interest payments by selling land-use rights under long-term leases.

The state owns all land in China, so it cannot be sold outright. Instead, authorities transfer land to "buyers" under long-term leases, which last for 70 years for residential land (for simplicity's sake, this report will refer to "leases" as "land sales"). Local governments routinely expropriate agricultural land from farmers, rezone it as residential land, and then sell it to property developers at hugely inflated prices. There are costs involved in compensating the farmers and preparing the land for sale, but local governments nonetheless make a significant profit on these land sales.

The profits from these land sales funded China's massive expansion of infrastructure. As long as revenue from land sales kept going up, local governments could borrow more and more—either directly or indirectly—and expand their investments in infrastructure.

Housing's Decline

The model of economic growth outlined above—one that supported ever-expanding infrastructure construction, household wealth, and demand for industrial products—was fundamentally built

on ever-rising demand for housing. But since peaking in 2021, China's housing market has entered a prolonged downturn, marked by falling home prices, weakening sales, and declining investment volume.

By floor space, aggregate home sales in 2024 fell 48 percent from their 2021 levels.⁸ As sales plummeted, housing inventory surged, with the total floor space of unsold residential properties increasing 74 percent between September 2021 and December 2024. Property investment in 2024 contracted 32 percent from the 2021 level, as developers scaled back new projects amid tightened liquidity conditions and a worsened demand outlook.

In China, local authorities limit how much developers can offer discounts on newly constructed properties. As a result, official figures do not capture the full extent of the decline in property values. Nevertheless, industry analysts and local property brokerages estimate that average new home prices have fallen by 20 to 30 percent since their August 2021 peak—a drop in line with the decline in secondhand housing prices, which are less subject to government controls. In some smaller cities, the declines have reportedly exceeded 40 percent.⁹

The decline in housing construction and investment means developers do not need as much land as they previously did. Consequently, local governments' income from land sales has fallen. At the housing market's peak in 2021, local governments raised RMB 8.7 trillion from land sales. In 2024, they earned just RMB 4.9 trillion, down 44 percent.

“Compared with international experience, China's real estate adjustment has been deep and long,” wrote the authors of a 2024 research report published by China Finance 40 Forum (CF40), a leading Chinese economic think tank, which compared China's housing slump with 22 property crises around the world since 1970.¹⁰

The CF40 report found that among those crises, housing sales declined on average 35.1 percent from peak to trough, and that it took on average five years “after the bubble burst” for sale volumes to start rising again.¹¹

In 2024, housing sales in China were down 47.8 percent by value from their 2021 peak. Of the countries reviewed in the CF40 study, the only countries to experience a sharper decline were Spain and Ireland, which saw sales fall by 64.1 percent and 89.3 percent, respectively, after their housing markets peaked in 2007.

As such, the housing market will likely continue to drag on China's economy for some time yet. In February 2024, the IMF forecast that real estate investment would eventually decline 30-60 percent from its level at the end of 2022. At the end of 2024, investment had only fallen 24.5 percent from its 2022 level. More importantly, the IMF also forecast that once investment hit rock bottom, it would only rebound modestly thereafter.¹²

China's challenge, therefore, is not that the housing market is going through a temporary adjustment. Instead, ongoing population shrinkage, rapid aging, and a surfeit of housing inventory

mean China will never again need to build as many homes as it did at the market's peak. Moreover, in many—if not most—cities, home prices will not return to their previous highs for decades.

A Shrinking and Aging Population

China's population peaked in size in 2022, and its working-age population—which is the cohort most likely to buy housing—has been shrinking since 2012. Both of these trends will accelerate in the coming decades, weighing on long-term housing demand as the potential pool of home buyers shrinks.

Nationally, the pool of potential first-time home buyers has collapsed. The age of the average Chinese homebuyer is 29.5, although there is some variation between cities.¹³ The age of first-time buyers is higher in more developed cities, averaging 33.5 in first-tier cities and 32.5 in second-tier cities (see Chapter 7 for more on the tier system).¹⁴

Regardless of the precise age at which someone is likely to enter the housing market for the first time, these buyers are typically under 35. However, China's current population of under-35s is significantly smaller than the generation that came before them. According to UN data, there are currently 45.2 million fewer people aged 20-35 in China than there are aged 35-50, a 14.3 percent difference. The generation behind these current potential homebuyers is even smaller. Moreover, there is reason to believe authorities have inflated the number of new births during the one-child policy era (see Chapter 4), which means the pool of potential first-time home buyers might be even smaller than official data suggests.

The impact of China's declining population will hurt some localities more than others. The population of many Chinese provinces is already shrinking as migrants leave to find better opportunities in more developed parts of the country. In 2023, the population of 13 provinces was lower than in 2019.

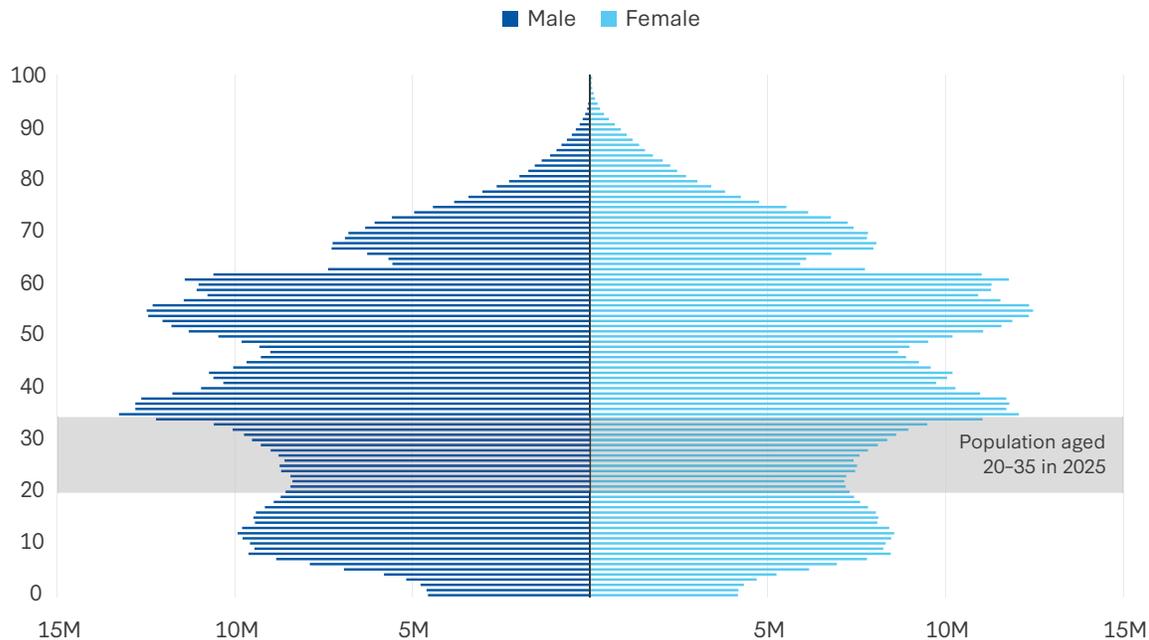
And people are not just moving between provinces. Even as the population of some provinces shrinks, their biggest cities grow bigger, drawing migrants from the surrounding, smaller cities. Overall, then, the number of cities likely to enjoy a rising population is set to decline. A Peking University study estimates that in 2025, only 204 of China's roughly 340 cities will grow in population, down from 243 in 2020.¹⁵ The study expects this number to drop to 140 by 2035.

Cities with a declining population typically lose their young people, a group that is already small by historical standards. Even worse, there is an internal brain drain occurring, as university graduates—who are more likely to eventually be able to afford to purchase housing than migrant workers—move to where the opportunities are.

The University of Jilin—based in Jilin, a rust belt province in China's frigid northeast—found that only 26 percent of its 2024 graduating class stayed in the province. Almost 10 percent of graduates moved to economic powerhouse Guangdong Province at the far southern end of the country, and another 7 percent went to Beijing.¹⁶ In contrast, the Shanghai University of International Business and Economics found that 68 percent of its graduating class stayed in Shanghai.

Figure 2.1: China's Population of Men and Women by Year of Birth, 2025

The current generation of first-time home buyers is significantly smaller than the generation that came before them.



Source: United Nations, *World Population Prospects: The 2024 Revision* (UN Department of Economic and Social Affairs Population Division, 2024), <https://population.un.org/wpp/>.

The migration of large numbers of rural migrants will help support the municipal housing markets of some major cities, but not as much. The pace of migration from the countryside to the cities has slowed, even as Beijing envisions that a further 50 million people will become city dwellers between 2025 and 2030. Traditionally, rural migrants have not contributed to demand for commercial housing, which is too expensive for them to buy. Instead, they live in dormitories, on construction sites, or in urban villages—villages that were swallowed by expanding cities, where the original tenants have typically built cramped and poorly constructed apartments that lack infrastructure.

Since 2021, Xi Jinping has made the construction of affordable housing for migrant workers a priority. As it nears the end of the 14th Five-Year Plan—a period running from 2021 to 2025—China is on target to reach its goal of 8.7 million new affordable housing units. That is equal to about 20 percent of the 41 million commercial housing units likely to be built during the same period.

While there is still room for plenty of growth in this area, affordable housing construction does not contribute to the economy in the same way as commercial housing. To keep costs as low as possible, local governments sell the land for such developments at cost, and developers make little profit from the projects. Moreover, affordable housing units are typically smaller than 40 square meters, whereas commercial housing is bigger than 75 square meters. In sum, affordable housing generates a fraction of the economic activity commercial housing does.

Even so, construction of affordable housing is not the only bright spot for China's housing market. Assuming the overall incomes of Chinese households continue to rise, people will want better quality housing with more space. Moreover, as the population ages, elderly parents might move in with their children. That will require bigger apartments that will need to be built.

“There is still a lot of room for China's real estate market,” according to Yang Weimin, who was deputy director of the Central Financial and Economic Affairs Commission, the CCP's top economic policymaking body, before retiring in 2018.¹⁷ “The housing needs of about 300 million [migrant workers] have not been well met; and among the more than 600 million urban registered residents, a considerable number of them belong to ‘old, broken, and small’ houses, and this part of the population has a potentially heightened demand for high-quality housing; in addition, the existing rural population will continue to concentrate in cities and towns, generating new housing needs.”

Still, none of this demand for new construction will make up for the wider impact of population decline on housing demand; further exacerbating this problem is a major housing glut.

Housing Glut

There is currently no shortage of vacant housing in China. A 2019 report from researchers at the Southwestern University of Finance and Economics detailed a survey they conducted which led them to conclude that 22 percent of the national housing stock was empty.¹⁸ In August 2022, Beike Research Institute, an independent data provider, estimated that 12 percent of housing in 28 major Chinese cities was vacant. Its calculations were based on housing in 30,000 residential complexes that remained vacant for more than three months.¹⁹

Regardless of the exact figure, a very large number of apartments in Chinese cities are empty. The unsold inventory of property developers has soared since 2021 as developers complete construction of housing projects they began work on before the market peaked. But many of these empty apartments are investment properties.

What is more, rents in China are so low relative to home prices that homeowners routinely prefer to keep their investment properties empty. In China's largest cities, the ratio of home prices to monthly rent is well over 500 to 1.²⁰ According to the Chinese Academy of Social Sciences (CASS), China's leading think tank, anything above 200 is an indication of a property bubble.²¹ By way of comparison, according to data from CEIC, at the end of 2024, the standard price-to-rent ratio in Australia—another country with high housing prices—was 130.²² Consultants in the United States typically advise would-be landlords to set monthly rents at about 1 percent of the price of the house or unit, or a ratio of 100 to 1.²³

Given the pace at which home prices in China have increased over the past 20 years, capital gains have far outstripped rental income. Many homeowners have traditionally preferred to forgo meager rental income rather than endure the hassle of managing a rental property.

However, the shrinking population—both nationally and regionally—means that future capital gains will be limited. In most parts of the country, housing prices will likely never again regain

their previous highs. Therefore, there is an incentive for people to sell their properties and realize whatever gains they have already made—if not now, then after the market has bottomed and prices rebound a little. In turn, this likely imminent release of investment properties onto the market will further erode the need for newly constructed homes.

The Great Unraveling

For the first two decades of this century, the combination of housing construction—funded by a mix of debt and household savings—and land-financed investment in infrastructure supercharged China’s economic growth. However, these dynamics were pro-cyclical. As housing demand increased, home prices went up, increasing the wealth of China’s middle class and allowing local governments to earn more from land sales. That supported the construction of more infrastructure, which, combined with rising housing investment, created demand for industrial goods like steel, cement, and excavators.

As demand for housing declines and prices fall, however, this model is unraveling. Households feel less wealthy. Local governments do not have the resources to cover existing debts, let alone fund more infrastructure investment. Firms that supplied the housing boom are capable of producing far more than China’s economy will need in the future, ushering in deflationary price pressures. And the loss in revenue—for local governments, property developers, and industrial firms—threatens to burden the banking system with bad loans.

“The characteristics of the real estate industry are ‘four, five, six’—40 percent of bank loans, 50 percent of local government fiscal revenue, and 60 percent of residents’ wealth are related to the real estate industry,” writes Zhang Bin, a deputy director of the Institute of World Economics and Politics at CASS.²⁴ “A sharp fall in real estate values impacts the growth of credit and purchasing power in the whole society.”

Given these fundamentally changed property market dynamics, China desperately needs a new economic model—one capable of generating new growth, but one that can also deal with the problems the old model left behind.

The Rejection of Consumption-Led Growth

For a long time, economists—both Chinese and foreign—have argued that China needs to “rebalance” its economy away from investment and toward consumption. Now, with the housing boom over and China in need of a new growth model to replace it, economists continue to argue that the only viable alternative is consumption-led growth.

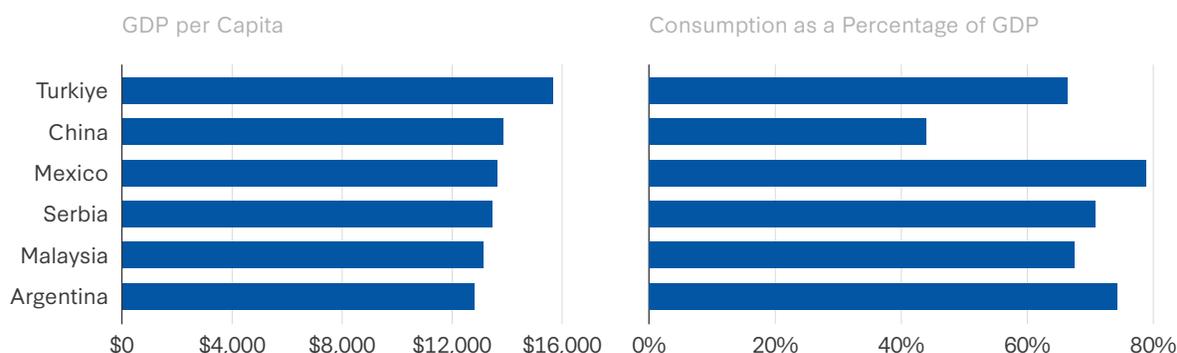
“Only when consumption rises can economic growth be sustainable,” writes Huang Yiping, dean of the National School of Development, a think tank at Peking University, and a member of the PBoC’s Monetary Policy Committee.²⁵ “If consumption remains sluggish and the living standards of ordinary people do not improve significantly, how can economic development have strong momentum?”

China “still has 500 million people who have not used toilets and 1 billion people who have never taken a plane,” says Liu Shijin, former deputy director at the Development Research Center, the State Council’s in-house think tank.²⁶ “If we tap part or most of these demands, we can release huge growth potential.”

Spending by households represents a much lower share of economic activity in China than in most other countries. According to the Organisation for Economic Co-operation and Development (OECD), in 2023 household consumption was responsible for 39 percent of China’s GDP. That is well below the OECD average of 59 percent. It is also well below countries at a comparable stage of development to China, such as Turkey (57 percent), Malaysia (55 percent), and Serbia (65 percent).²⁷

Figure 3.1: Per Capita GDP in Current Prices vs. Household Financial Consumption as a Share of GDP, 2023

Chinese households consume far less than other countries at a similar stage of development.



Source: “IMF Datamapper,” International Monetary Fund, accessed June 26, 2025, <https://www.imf.org/external/datamapper/NGDPDPC@WEO/OEMDC/ADVEC/WEOORLD>; and “World Bank Data 360,” World Bank, accessed June 26, 2025, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN-MX-TR-MY-RS>.

Household spending used to play a greater role in China’s economy. Throughout the 1990s, it accounted for between 44 percent and 48 percent of economic activity, but this proportion declined throughout the 2000s as exports and housing construction became a more important part of the economy. It has rebounded a little since the global financial crisis, after hitting a low point in 2010, but consumption still contributes relatively little to GDP. For a developing country desperately in need of new housing and infrastructure—as was the case in China earlier this century—it is understandable for investment to drive growth and for consumption to play a smaller role. That was Japan’s experience prior to the 1980s.

But China is no longer playing catch-up. The need for newly constructed housing is diminishing. And in urban areas, China no longer suffers from a deficiency of infrastructure. Local governments are finding it increasingly difficult to fund infrastructure projects capable of generating enough economic value to justify their construction. While there will always be a need for new infrastructure, to keep building at the previous pace would be hugely wasteful.

“In the past, there were projects but no money,” says Yang Weimin, former deputy director of the Central Financial and Economic Affairs Commission.²⁸ “Now, there is money, but it is difficult to find projects.”

The only thing that can replace investment as the driving source of domestic demand is consumption by households or governments. Otherwise, net exports can supplement domestic purchases via external demand. Given this reality, there is broad consensus, even in the government, that household spending needs to play a greater role in the economy.

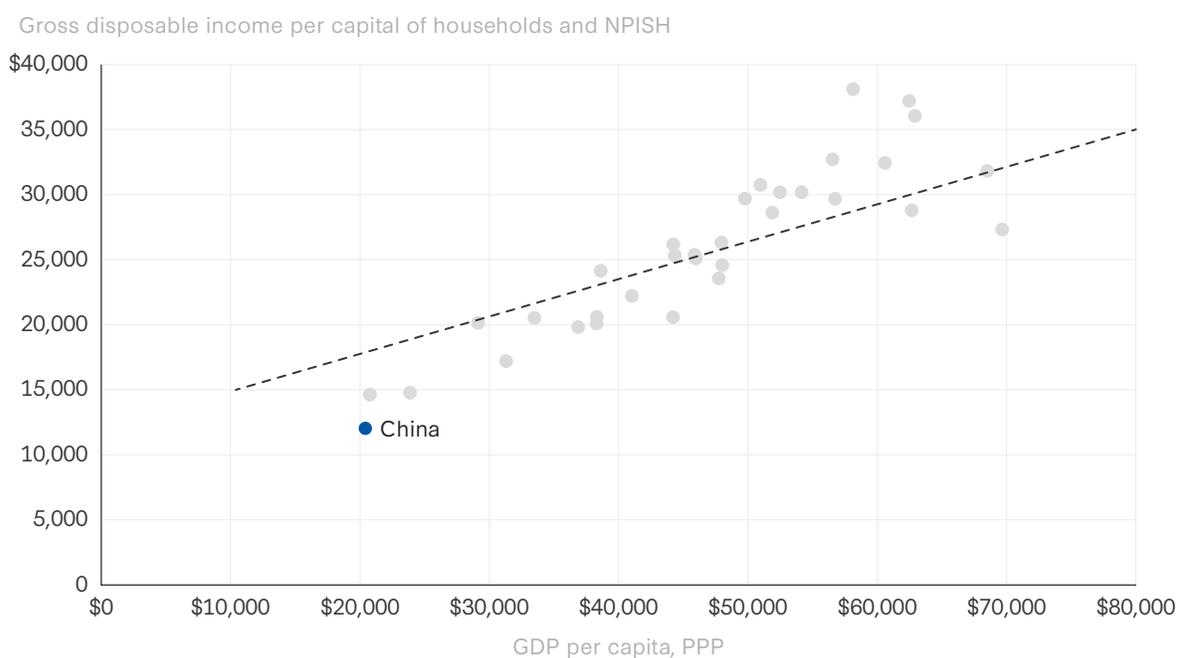
“We must . . . rely more on boosting consumption to expand domestic demand, smooth the economic cycle, and drive economic growth,” Premier Li Qiang said in February 2025.²⁹ “We must

do everything possible to enhance consumption capacity, adopt more effective policies to promote consumption, [and] remove obstacles that restrict consumption.”

However, achieving higher levels of consumption poses a challenge. For households to spend more, one of two things must happen. First, Chinese households’ propensity to spend must rise. If they spent more of their disposable income, they would create more demand and help drive economic growth.

Figure 3.2: GDP per Capita and Household Disposable Incomes, OECD Countries plus China

Household disposable incomes in China are lower than in other countries at a similar stage of development.



Note: NPISH stands for non-profit institutions serving households.

Source: “OECD Data Explorer,” OECD, accessed June 26, 2025, <https://data-explorer.oecd.org/>; “World Development Indicators,” World Bank, accessed June 26, 2025, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

Second, Chinese households’ disposable income must increase. China’s focus on investment-driven growth—prioritizing infrastructure, industry, and exports over household consumption—has meant that household incomes have seldom grown faster than overall GDP. As a consequence, household income as a proportion of GDP has changed little over the past two decades. Consequently, as China’s economy expanded, households accrued a relatively small portion of the gains.

As Yang Weimin writes, “The low proportion of residents’ disposable income in national income is an important reason for the low proportion of consumption in total demand.”³⁰

When the economic pie gets sliced up, households get a relatively small share of China's economic proceeds. That is partly because most of China's welfare programs—most notably pensions and healthcare—are chronically underfunded. But it is also because wealth is diverted from households toward companies, which use it to invest—in research and development (R&D), in new factories, and in infrastructure. That diversion occurs through a myriad of ways, but the three main channels are state firms, the property sector, and labor laws.

State-Owned Firms

China's state-owned enterprises (SOEs) receive all sorts of subsidies from the government: They have privileged access to low-cost credit, and they typically get some combination of cash subsidies, cheap land, and subsidized power or other utilities. They receive subsidies regardless of whether they are strategically important, and without subsidies they would be far less profitable, assuming they are profitable at all. Any money spent on corporate subsidies is money not spent on public services—and this opportunity cost means that any subsidy to an SOE comes indirectly at the expense of households. But perhaps the most egregious way the public loses out is through dividends.

Technically, the public owns state firms and so should benefit twice from corporate profits—first from taxes, then from dividends. However, the public receives little benefit from these dividends.

In 2013, the central government set a goal for non-financial centrally owned state firms—of which there are currently almost 100—to transfer 30 percent of their after-tax profit to the general public budget. SOE dividends rose throughout the 2010s, but those payments went into the state capital operations budget, one of four budgets maintained by the government. The state capital operations budget is managed by the State-Owned Assets Supervision and Administration Commission (SASAC), which redirects most of the dividends that go into the budget back to SOEs, which they then use to reinvest in their businesses.³¹

According to research from the Peterson Institute for International Economics, in 2019 only 2.4 percent of those firms' after-tax profit made its way into the government's general budget, which funds general expenditures.³²

In effect, the wealth of China's state sector is retained by the firms themselves and not shared with their shareholders. Capital retention is not necessarily a bad thing—retained earnings can be used to fund R&D, pay down debts, or reduce capital costs when borrowing to invest. But excessive capital sloshing around SOE balance sheets inevitably leads to waste—through lavish salaries, excessive business expenses, and luxury banquets for management—and also increases the likelihood of outright corruption. It also translates into less government revenue that might be spent on public services.

Land and Housing

In China, urban land is state owned, while rural land is collectively owned by village economic organizations. All land is designated for a specific use, such as residential, agricultural, or industrial,

based on government planning. For farmers, this system means they have not been able to realize the full benefit of China's urban expansion. The farmland they cultivate is designated for agricultural use and cannot be directly sold or leased for nonagricultural purposes unless it is first converted. While farmers can rent their land to other farmers, they generally cannot transfer it to property developers or businesses without government approval.

Local authorities have the exclusive right to rezone rural land and convert it into state-owned construction land. Consequently, to accommodate China's expanding cities, local authorities expropriate land from farmers on a massive scale, rezone it for residential or industrial use, and then sell the land-use rights under long-term leases to developers and companies. Once the land is rezoned, it immediately increases in value. The farmers are compensated—far better now than they were 20 years ago—but the compensation does not reflect the market value of the land. What they receive is only a fraction of what they could earn if they were able to sell their land directly to developers.

When it comes to selling the land, local governments sell residential land at as high a price as possible, and industrial land as cheaply as the law will permit. Local authorities use cheap land as an incentive to attract investment, which translates into a subsidy for firms—by acquiring land below market price, firms can keep production costs low.

Meanwhile, local governments earn significant profits on the sale of residential land, at the expense of urban households. While residential land is nominally acquired by developers, the real buyers—the end users—are urban households, who fund their purchases with savings and mortgages.

Prior to the housing bust in 2021, about 90 percent of all housing sold each year was newly constructed, which means it was built on land provided by local governments. The cost of that land accounted for a major part of the sales price paid by homebuyers. In 2017, CASS calculated that land accounted for 68 percent of the price of commercial housing.³³ Consequently, most of what homebuyers paid for their new properties went to local governments.

The difference between what local governments pay farmers and charge urban homebuyers accrues to local coffers as discretionary income.³⁴ This income enables local governments to fund the infrastructure investment that has been the hallmark of China's economic development this century. This situation has also created an incentive for local authorities to inflate land prices.

Throughout the 2010s, housing became increasingly unaffordable in China. Prices were partly inflated by investors buying multiple investment properties that they did not rent out. But at the same time, there was a housing shortage. Hundreds of millions of migrant workers were priced out of the housing market for years. A 2016 survey of three cities found that only 11 percent of migrant workers in those cities had bought housing there, because most could not afford to.³⁵ The paper did not disclose the identity of the three cities beyond saying one was in China's north, one was in the south, and one was in China's central region.

Most of China's 300 million migrant workers rent substandard accommodations. They tend to live in crowded dormitories, which are often ordinary apartments with extra beds. In some cities,

they live underground in basements, air raid shelters, and storage spaces. Others live in tents on construction sites. And many live in urban villages—until recently, authorities called them “shantytowns”—which are cramped, have poorly constructed housing, and lack infrastructure.

Clearly, there is huge demand for the construction of affordable housing, but local authorities have been reluctant to provide land for such developments. To ensure affordable housing is sufficiently cheap, central government regulations require that land be “allocated” for free, meaning local governments cannot sell it at market prices. As a result, land that could otherwise be sold to commercial developers at significantly higher prices must instead be provided without profit. Additionally, by providing adequate land for affordable housing, authorities fear they might cannibalize demand for commercial housing, thereby suppressing home prices and reducing the amount local governments could earn from land sales.

Consequently, local governments have chronically underprovided land for residential use. They have presided over a system that extracts more and more wealth from urban households and distributes it to firms involved in infrastructure construction.

In summary, local governments have historically undercompensated rural citizens for their land and then sold the same land at inflated prices to city residents. If they paid farmers more and charged urban folks less, Chinese households would have far greater wealth. Instead, that wealth has gone to companies, either as investment subsidies, or to build vast amounts of infrastructure.

Migrant Workers

When migrant workers move from rural areas to cities, they are limited in what jobs they can get. Jobs at state firms and government agencies—which are typically stable and well compensated—tend to favor university graduates, or blue-collar workers with the proper *hukou* registration. (That is, workers who have an urban residency permit that allows them to legitimately live in a given city.) Consequently, migrant workers typically end up in low-skilled, private sector work.

Many of those jobs involve gig work where workers get rehired every year after Chinese New Year. As such, the relatively vulnerable legal status of migrant workers means they lose out financially.

In China, firms are supposed to make contributions to social security programs for all their contracted employees. For the state-subsidized pension program, companies need to contribute the equivalent of 16 percent of an employee’s monthly salary, and an additional 6-10 percent for healthcare. The employees then make an additional contribution of 8 percent and 2 percent, respectively, from their earnings.

However, relatively few migrant workers have contracts. In 2016, the last time that the National Bureau of Statistics disclosed such data, only 35.1 percent of all migrant workers had signed labor contracts with their employers.³⁶

Historically, urban workers who did not have a formal contract with their employers had no way to contribute to social security. That changed in 2020, when these workers were granted access to

social security programs. However, the burden of making contributions for those who choose to participate falls entirely upon the worker.³⁷ Gig workers who sign up are expected to hand over 20 percent of their monthly wage to the pension fund and 6 percent to the health insurance program.³⁸ Employers do not make any contribution at all.

A 2020 survey by a research institute at Shanghai Jiaotong University found that about 51.3 percent of the surveyed migrant workers did not pay any social insurance.³⁹

Social security contributions are a real burden for firms, inflating their wage bill by more than 20 percent. However, they can mostly avoid making such contributions to migrant workers, who account for about 40 percent of the urban workforce.⁴⁰ For migrant workers, this means they get to keep a larger share of their monthly paycheck, but they miss out on state-subsidized services in the places where they live.

These workers are still entitled to pensions, but only in the place where their *hukou* is registered, which is typically the town or village where they were born. However, the pension for people living in rural areas averages just about RMB 200 per month, a fraction of the RMB 3,500 per month people in cities receive.⁴¹ Consequently, there is no way migrant workers can fund their retirement in the city, forcing them, upon retirement, to return to the villages and counties they likely left as a young adult.

In effect, Beijing has created a system that transfers wealth to firms by reducing their wage bills at the expense of migrant workers' access to social security.

Redistributing Wealth

Redistributing wealth back to households is difficult, but China has made policy moves in this direction in recent years.

In 2021, Xi Jinping made the construction of affordable housing a priority. Under the current five-year plan (2021–2025), the housing ministry set a target for 8.7 million new housing units to be built. That is equal to almost 20 percent of all new commercial housing units planned during the period.

With local authorities expected to provide land for such projects at minimal cost, and developers expected to accept profit margins that are far lower than on commercial projects, this is a major step toward providing decent housing for migrant workers at a price they can afford.

Meanwhile, the government has increasingly pressured ride-hailing and food delivery companies—including private sector giants like Didi Chuxing and Meituan, which collectively employ hundreds of thousands of contract and gig workers—to provide their drivers with social insurance benefits.

While significant, measures like these are too small on their own to turn China into a consumption-led economy.

Many countries face the challenge of too much wealth consolidating in the hands of firms or the rich. Sometimes they redistribute wealth to households using the tax code, as in the cases of the United States, France, and the United Kingdom, which make direct transfers of cash to low-income households that earn below a certain threshold.⁴² Sometimes this is done through state provision of services, like education. And sometimes it is through government welfare programs, like healthcare, pensions, subsidized housing, and unemployment benefits.

Here, China underperforms. China's pension system is chronically underfunded. Among OECD countries, the average pension payment is equivalent to 61.4 percent of what a person was earning prior to retirement.⁴³ In China, the level is currently about 44 percent.⁴⁴

China's healthcare system is also underfunded. In China, about 34 percent of healthcare expenses are paid for by households out of pocket.⁴⁵ For comparison, that figure is way above most high-income countries (such as Japan, at 13 percent), as well as middle-income countries (such as Brazil, at 22 percent). As explained above, China's labor laws exacerbate this problem. Because many migrant workers do not participate in any social security programs, their healthcare expenditures are paid for entirely out of pocket, and their retirement is mostly unfunded.

Meanwhile, the *hukou* system locks many migrants out of accessing public services in the places they live. Subsidized housing is also usually for local *hukou* holders only. According to 2024 comments from Bi Jingquan, chairman of China's leading nongovernmental economic think tank, the China Center for International Economic Exchanges, less than 2 percent of migrant workers live in public rental housing provided by the government.⁴⁶

In principle, children without local *hukou* can apply for public schools in cities, but priority is given to kids of parents who have a local *hukou*—and there are seldom enough spots left over to accommodate the children of rural migrants. As a result, rural migrants typically have to pay for their children's education or send them back to the village or county where they are entitled to state subsidized education.

While things are far worse for migrant workers, healthcare is a relatively heavy burden for everyone in China, and an underfunded pension system shifts the burden of saving onto all individuals. Consequently, the many demands for savings erode the propensity of households to spend.

Government advisers routinely advocate for an increase in government spending on public services and welfare as a way to increase household consumption and drive growth. Recommendations include increasing pension payments, expanding unemployment insurance, boosting subsidies for families with small children, and reducing individual social security contributions.

But the one recommendation that enjoys almost universal support in academic circles—both Chinese and foreign—is that China should equalize the provision of social security between migrant workers and the permanent urban population.

“Because they have no public services and no social security, they have worries and need to save money, so their willingness to consume is suppressed,” Cai Fang, chief expert at CASS's National

Think Tank and one of China’s leading demographers, wrote of migrant workers in 2023.⁴⁷ “It means that if you relieve their worries, they can increase their consumption by nearly 30 percent, and this is without income growth.”

Chinese researchers, Cai included, often cite OECD research from 2016, which found that giving a migrant worker equal status to a permanent urban resident—with all the perks that go with that—increases their spending by a third.⁴⁸

There are about 300 million migrant workers in China. Of those, about 120 million have stayed relatively close to home, moving to the city nearest to where they live. The remaining 180 million moved farther afield for work. According to Cai, if the latter group was given the same access to welfare and public services as their urban neighbors, their collective spending would increase by more than RMB 2 trillion annually.

According to China’s National Bureau of Statistics, final consumption by households was RMB 49 trillion in 2023, so an RMB 2 trillion increase in annual spending translates to a 4 percent increase in total spending, a meaningful boost.⁴⁹

In principle, Beijing is on board with this idea. In July 2024, the Third Plenum—a meeting that occurs every five years, at which the CCP draws up key economic and social reforms—said rural migrants should be allowed to “enjoy the same rights” as their neighbors with urban *hukou*, including access to public education systems for children, social insurance schemes, and subsidized housing programs.⁵⁰

The following month, the National Development and Reform Commission (NDRC)—China’s economic planning agency—authored an essay that was published on the front page of the *People’s Daily*, in which it said China will strive to “increase . . . basic public service projects that non-registered permanent residents [i.e., migrant workers] can enjoy . . . and accelerate the promotion of equalization of basic public services.”⁵¹

However, many localities do not have the financial resources to extend public services to all migrants. In practice, many third- and fourth-tier cities have rating systems for migrants based on their age, skills, education, and number of years in the city and only grant full public services to those who achieve a given score.

“Our research shows that after some third- and fourth-tier cities have relaxed their household registration system, they still give priority to older citizens when public service resources are limited,” Liu Shangxi, president of the Chinese Academy of Fiscal Sciences, a think tank affiliated with the Ministry of Finance, wrote in 2023.⁵² “It seems that new citizens are ‘qualified to queue,’ but they may not necessarily get in.”

The upshot is that funding an expansion of China’s welfare system cannot be left to local governments, most of which are already financially overstretched. However, Beijing has so far proven unwilling to fill the funding gap.

Welfarism and the Funding Gap

Xi Jinping's aversion to "welfarism" is well documented. At the 2021 Central Economic Work conference, Xi complained that populism in some Latin American countries had resulted in welfare programs that "supported a group of 'lazy people' who got something for nothing."⁵³

That statement is often misinterpreted by foreign observers as a fundamental opposition to state-funded welfare programs. While Xi is undoubtedly averse to overly generous welfare schemes, neither he nor the CCP oppose a general expansion of welfare. Rather, Xi is happy to expand such programs, but only up to the point that the state is able to pay for it.

"Welfare benefits cannot be reduced once they have gone up," Xi wrote in 2021. "It is unsustainable to engage in 'welfarism' that exceeds one's ability." Instead, welfare spending must be "within the means" (量力而行) of the economy to support it.⁵⁴

"Protecting and improving public wellbeing must be done on the basis of sustainable . . . fiscal resources," Han Wenxiu, executive deputy director at the general office of the Central Commission for Financial and Economic Affairs (CCFEA), the CCP's top economic strategy body, wrote in the *People's Daily* immediately following the Third Plenum in 2024.⁵⁵ "We must do the best we can within our means."

Chinese officials fear that if they fund an expansion of welfare with debt, China might repeat the experience of Latin America.

"In the past, some Latin American countries engaged in populism," Xi wrote in his 2021 essay.⁵⁶ "As a result, national finances were overwhelmed and [these countries] fell into the 'middle-income trap,' from which they could not extricate themselves for a long time."

Chinese officials have long been obsessed with avoiding the middle-income trap, whereby growth in the per capita income of developing countries stalls, keeping them trapped as developing economies and unable to enter the ranks of advanced economies.

Chinese officials and academics have long argued that excessive spending by Latin American economies on welfare left them mired in the middle-income trap.

"Latin American countries chose 'welfare catch-up' [whereby they tried to catch up with Western standards of welfare] which eventually made Latin America fall into the 'growth trap,' with a widening gap between the rich and the poor, high unemployment, and social tensions that have been difficult to alleviate," the *People's Daily* wrote in a 2014 commentary.⁵⁷

Under Xi, an expansion of welfare is only possible if it can be paid for by sustainable tax revenues or some other reliable source of government revenue.

"We must persist in doing our best and acting within our means, focusing on improving the level of public services, accurately providing basic public services in areas of greatest concern to the people, such as education, medical care, elderly care, and housing, and ensuring the basic living standards of the people in need, without raising expectations or making empty promises," Xi wrote in 2021.⁵⁸

Of course, the CCP might be able to justify the expansion of certain kinds of welfare spending, even if it has to borrow to do so. One area to watch in this regard is fertility.

“The rise and fall of great nations are often deeply influenced by demographic conditions,” Xi Jinping said in a speech to the CCFEA in May 2023.⁵⁹ “Therefore, population security must be incorporated into the broader national security framework and carefully planned.”

Beijing abolished the one-child policy in 2016, permitting couples to have two children. It then dropped penalties for having a third child in May 2021. However, birth rates have continued to fall, hitting all-time lows in 2023.

The 2024 Third Plenum decisions document promises to “strive to build a childbirth-friendly society,” and lays out measures to encourage families to have more children, including by improving access to prenatal, neonatal, and pediatric medical care; improving parental leave policies; and generally cutting the costs of childbirth, parenting, and education.

That could potentially be costly. However, by making fertility a matter of national security—rather than welfare—the funding calculus has changed. Fertility is likely to be the exception rather than the rule, on this front, however.

Building a Tax Base for More Generous Welfare

The challenge with funding a broad-based expansion of welfare is that, in recent years, key sources of government revenue have declined. The housing market slump has eroded the income generated from property-related taxes. The government cut taxes during the pandemic years and permitted firms to defer social security contributions to provide relief to both firms and households. The collapse in land sales has further exacerbated local governments’ financial distress.

Beijing has tried to top up tax revenue by going after the overseas assets of China’s ultrarich. Chinese nationals have long been required to pay taxes on their overseas financial assets, but officials have rarely enforced it. Starting in mid-2024, tax authorities began meeting with wealthy individuals to negotiate payment of back taxes.⁶⁰

As a more enduring solution, Beijing could introduce a property tax, which the IMF recommends. However, that seems increasingly unlikely. Under a property tax, owners of real estate would be required to pay an annual tax on the value of their property holdings. China introduced property taxes in Shanghai and Chongqing in 2011 on a trial basis, with the expectation that a tax would eventually be rolled out nationally. Instead, Chongqing and Shanghai have progressively rolled back the scope of their taxes. As long as the housing market remains in distress, a property tax seems like a nonstarter.

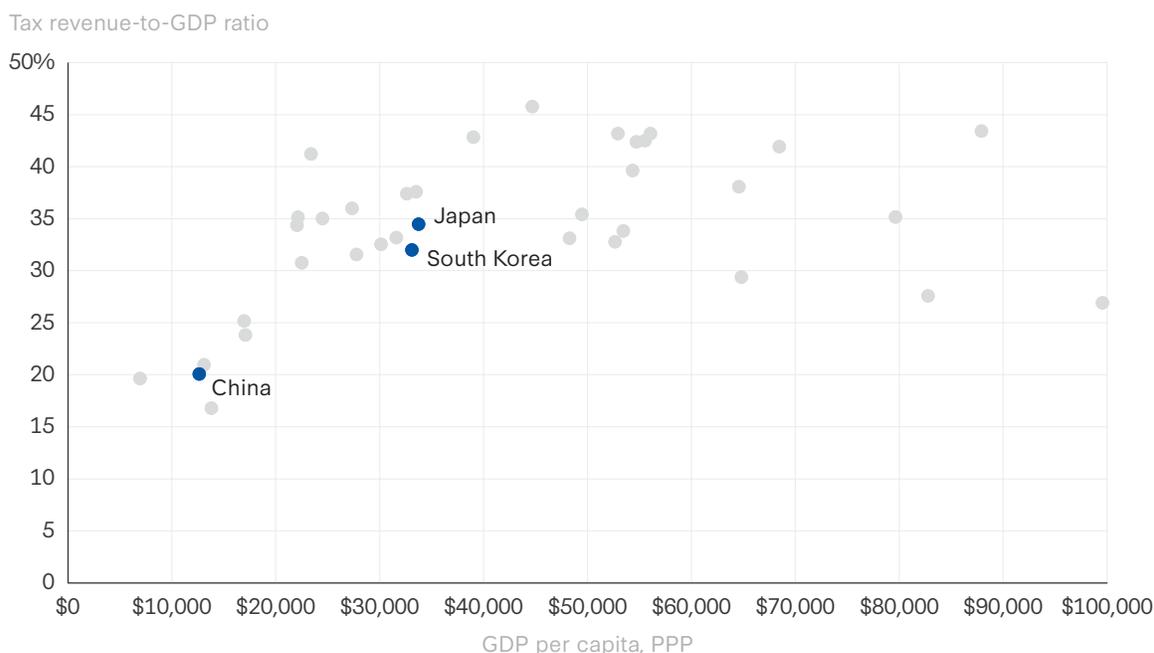
Given the current relative weakness of China’s economy, it also seems unlikely that Beijing would be willing to materially increase taxes, and certainly not on the scale that would be needed to fund a broad-based expansion of welfare.

What China needs then—and what Beijing wants—is not more or higher taxes, but a broader tax base.

China’s annual tax haul is low relative to the size of its economy. In 2022, China’s tax-to-GDP ratio (including social security contributions) was 20.1 percent, down from 22.1 percent in 2019. The average for members of the OECD—a club of 38 rich nations—was 34 percent.

Figure 3.3: Tax-Revenue-to-GDP Ratio of OECD Members and China, Compared to GDP per Capita

China takes in relatively little tax revenue, but as the economy grows, so will the tax base.



Note: The OECD includes Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye, the United Kingdom, and the United States. Luxembourg and Ireland were excluded from this chart as their status as tax havens make them outliers.

Source: “OECD Data Explorer,” OECD; and “World Bank Data 360,” World Bank.

According to Liu Yuanchun, president of the Shanghai University of Finance and Economics and one of Xi Jinping’s closest economic advisers, the relatively low—and declining—level of taxation “means that China’s ability to control the overall economy and the economic foundation of national governance have been comprehensively weakened.”⁶¹

China’s government has other sources of revenue in addition to taxes, such as dividends from state firms, income from lotteries, and revenue from land sales. Still, even if these additional sources are taken into account, the state’s revenue is relatively low as a percentage of GDP.

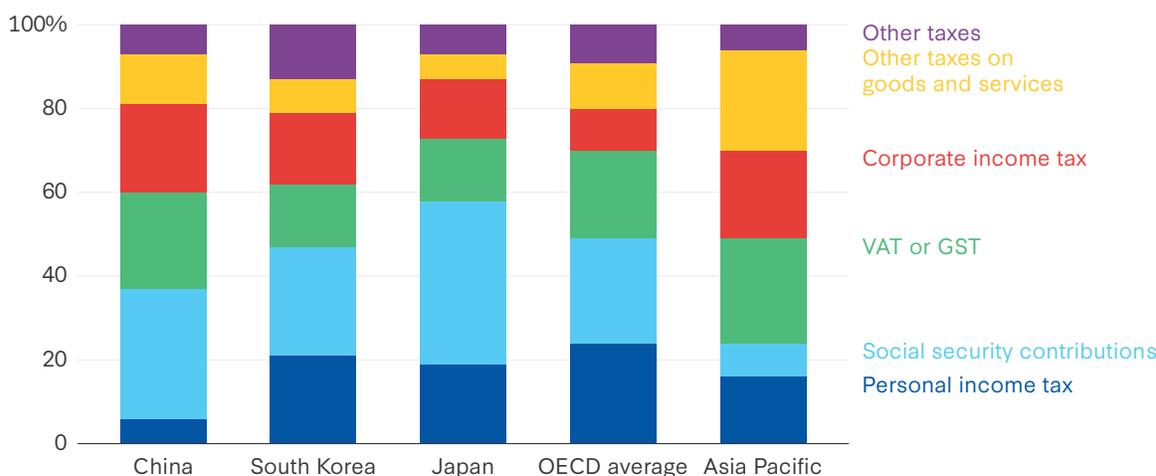
China cannot catch up to OECD standards simply by imposing new taxes. That would have a crippling effect on the economy and generate widespread unrest. This contradiction is at the heart of China’s critique of Latin American countries, which argues that those countries tried to create Western-style welfare programs without a Western tax base.

OECD countries can sustain higher taxes because their populations are richer. Specifically, OECD nations can generate a significant amount of tax revenue from personal income taxes, which is something populations in poorer countries cannot afford. People with low incomes can ill afford to hand over a large chunk of their earnings to the government. But as incomes increase, workers can pay a larger and larger share of what they earn under progressive income taxes and still enjoy far higher disposable incomes than before.

In China, relatively few people pay personal income tax.⁶² In the United States, 154 million people filed tax returns in 2022, or about 45 percent of the population.⁶³ In China, only 65 million people paid personal income tax that year, less than half the number in the United States, despite having a population four times as big.⁶⁴ Moreover, about 60 percent of people who pay personal income tax in China pay only 3 percent, the lowest tax rate. In 2022, personal income tax accounted for, on average, 24 percent of tax income (including social security contributions) in OECD countries. In China, it accounted for only 6 percent.

Figure 3.4: Type of Tax as a Percentage of Total Tax Revenue, 2022

Personal income tax accounts for a small share of China’s tax revenue, but it will rise as China gets richer.



Note: There are 36 countries in the Asia Pacific. VAT stands for value-added tax; GST stands for goods and services tax.

Source: OECD, *Revenue Statistics 2024: Health Taxes in OECD Countries* (Paris: OECD Publishing, 2024), <https://oe.cd/revenue-statistics-2024>.

As countries become richer, it becomes easier to expand and sustain a bigger tax base. In 2013, South Korea’s tax-to-debt ratio was 23 percent, only marginally higher than China’s current level.⁶⁵

In 2022, this figure had risen by 9 percentage points to 32 percent. South Korea's GDP per capita was USD 34,820 in 2022, up 22.4 percent from USD 28,240 in 2013.

Much like China, South Korea is dealing with a rapidly aging population and has raised taxes to fund additional spending on pensions and healthcare. If China's tax-to-GDP ratio were 9 percentage points higher, government revenue would be about RMB 10 trillion higher, giving the authorities the wherewithal to massively expand social programs. However, to realize those gains, China has to build an economy capable of supporting a bigger tax base.

Despite all the voices calling for consumption-led growth, the policies necessary to make it happen are not politically feasible at the moment. Wealth redistribution that strips firms of their perks and privileges would be hugely disruptive to the economy and would challenge entrenched vested interests in the state sector. Those interests would unquestionably push back. China could create a consumption-led economy by expanding welfare, but Beijing is not willing to do that without adequate tax revenue.

Ultimately then, Beijing is in favor of higher consumption, but it is not willing to pursue the sort of wealth redistribution policies that a consumption-led growth model requires. Instead, China is pursuing a very different growth model, one it believes will eventually deliver the kind of economy that can support a more expansive welfare system. But such a model is also one Beijing believes will help to deal with a number of other pressing issues—which the next chapter will address.

What Beijing Wants

China needs a new growth model, but if Beijing is unwilling to embrace a consumption-led model, what is it pursuing instead?

Beijing has settled on a model that can help it achieve some specific goals, namely avoiding the middle-income trap and delivering common prosperity—Xi Jinping’s vision of a richer, more equitable China. But it needs to deliver on those goals while coping with population decline, ensuring economic security, and keeping debt levels manageable.

Avoiding the Middle-Income Trap and Beyond

Beijing wants to avoid the middle-income trap, and in doing so make strides toward income parity with advanced economies.

World Bank economists introduced the idea of the middle-income trap after finding that, out of 101 developing economies classified as “middle income” in 1960, only 13—including Ireland, Israel, Japan, Singapore, and South Korea—had become wealthy by 2008.

Many countries that failed to progress appeared on track until growth slowed and never rebounded. Thailand and Malaysia, lauded as “tiger economies” during the 1990s, faltered after the Asian financial crisis. Similarly, Brazil and Mexico, once among the world’s fastest-growing economies, now seem stuck in the middle-income bracket.

By income levels, China is on the cusp of escaping middle-income status. In 2023, the World Bank defined high-income countries as those with a gross national income of \$14,005 per capita. That year, China's per capita GDP was \$13,390, making it an "upper-middle-income" country by World Bank standards.⁶⁶

In 2020, Xi Jinping said that "it is 'completely possible' for China to meet the current standards for high-income countries by the end of the 14th Five-Year Plan [2021-2025] period."⁶⁷

Xi's projection is on track. China is poised to enter the ranks of "high-income" countries in 2025, based on the World Bank's benchmark, which typically rises by 2 percent annually. But Xi's ambitions do not stop there. He has set the target of doubling China's per capita GDP between 2020 and 2035. In 2020, China's per capita GDP was \$10,409.⁶⁸ Doubling it would bring it close to current central European levels. In 2023, Poland's per capita GDP was \$22,056, Hungary's was \$22,141, and Croatia's was \$21,865.

However, it is not enough to simply surpass an arbitrary income threshold. China can grow by just borrowing and building—the growth model of the past 20 years. But that model is unsustainable and offers no guarantee against slipping backward once the building slows.

The key for a country to avoid the middle-income trap is not chasing fast growth at any cost, but restructuring the economy in a way that the country can permanently sustain higher income levels than most of the world.

Globally, economists are divided on what allows an economy to avoid the middle-income trap, but in China, a consensus has formed.

"Those countries that have successfully [escaped the middle-income trap] have achieved a shift from quantitative expansion to qualitative improvement in economic development after experiencing a period of rapid growth," the *People's Daily* wrote in December 2024.⁶⁹ "Those countries that have stagnated or even regressed have not achieved this fundamental transformation."

Put another way, countries have achieved middle-income status by producing goods cheaply and in large quantities. However, only those economies that have then transitioned to producing higher-quality goods have been able to maintain income growth; those that failed to do so remain trapped. In short, China's workforce needs to produce things of greater value, either by improving efficiency or by developing new products.

Cai Fang, the demographer and CASS chief expert, argued in a 2014 paper that "to overcome the middle-income trap and transform from an economic power to an economic powerhouse, we must fundamentally rely on efficiency-driven, innovation-driven, and endogenous growth-driven development."⁷⁰

Delivering Common Prosperity

In 2021, Xi introduced the concept of common prosperity as a key pillar of his vision of China's future, presenting it as a safeguard against the deep political divisions seen in other countries taking root in China. He wrote:

In some countries, the gap between the rich and the poor and the collapse of the middle class have led to social divisions, political polarization, and the spread of populism. The lesson is very profound. China must resolutely prevent polarization, promote Common Prosperity, and achieve social harmony and stability.⁷¹

China is a highly unequal society. According to China's National Bureau of Statistics, China's Gini coefficient—a measure of income equality—has hovered between 0.46 and 0.47 since 2015.⁷² A score of 0 reflects perfect equality; a score of 1 reflects perfect inequality. Even the United States, considered a highly unequal society by developed-world standards, is less unequal than China. Over the past decade, the U.S. Gini coefficient has mostly ranged between 0.41 and 0.42.⁷³

Promoting common prosperity involves narrowing the wealth gap by ensuring that the fruits of China's economic development are distributed more equitably. Xi has set a goal of China achieving common prosperity by 2050, with substantial progress made by 2035.

At first glance, common prosperity seems to be laying the groundwork for a major program of wealth redistribution. Outlining his vision, Xi said common prosperity involved the equalization of public services—which typically refers to migrant workers getting access to publicly funded government services where they live, not where they were born—and the expansion of the middle class “to form an olive-shaped distribution structure with a large middle and small ends.”⁷⁴

However, even as Xi outlined his vision of a more equitable China, he added a caveat—that in its quest for common prosperity, China must spend within its means:

We must . . . base the protection and improvement of people's livelihoods on the basis of economic development and financial sustainability. We must not be too ambitious, raise appetites, and make promises that cannot be fulfilled. The government cannot cover everything. . . . Even if development levels improve and financial resources grow in the future, we cannot set overly high goals or make excessive guarantees.

As outlined in Chapter 3, Beijing is reluctant to expand spending on welfare programs through an expansion of debt—a perfectly reasonable position. However, achieving wealth redistribution on the scale Xi envisions will be challenging without an expansion of welfare. Given the limits imposed by Xi, that can only occur in line with increases in the tax base.

Since Xi introduced the concept of common prosperity, officials routinely speak of the need to address the most pressing issues affecting people's lives across education, medical care, housing, eldercare, and childcare. Authorities have rolled out incremental measures to improve public welfare. The minimum wage has been increased in most places, the central government has increased spending on healthcare, and China's poorest communities receive more financial support

from Beijing. But officials have not yet made any substantive moves to significantly redistribute wealth to Chinese households through welfare.

Instead, the focus of common prosperity is not on redistributing existing wealth, but on ensuring that new wealth is distributed more equitably.

Zhang Laiming, deputy director of the Development Research Center of the State Council, put it like this in a 2024 essay in *Qiushi*, the CCP’s leading theoretical journal: “We must . . . further divide the ‘cake’ . . . and make the ‘cake’ bigger and better.”⁷⁵

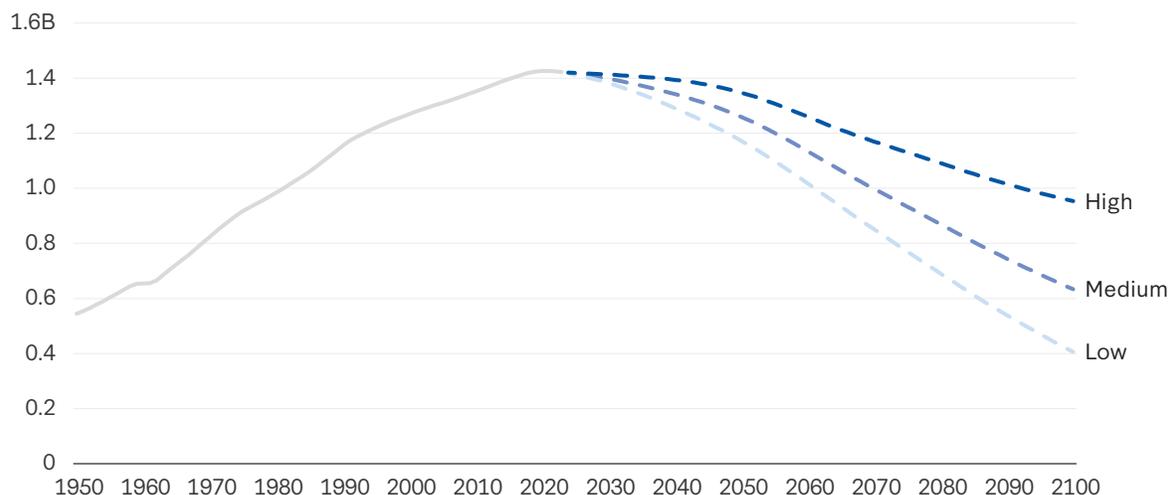
In other words, growth and redistribution must go hand in hand. Under the old economic model, the benefits of growth were concentrated in the hands of developers and state firms. Under the new model, growth will be the driver of common prosperity.

Growing Rich Despite Growing Old

China is one of the fastest-aging countries in the world. According to UN data, its population peaked in 2022 at 1.43 billion people and is projected to shrink by 60 million people—or 4 percent—to 1.37 billion by 2035.⁷⁶ It will likely fall to 1 billion by 2070 and halve from its peak by 2093. While China’s shrinking population will profoundly reshape China’s economy and society, the impact will be most acutely felt in the latter half of the century. Over the next decade, the impact will likely be relatively small.

Figure 4.1: China’s Population and UN Estimates from 2024 Onward

China’s population has peaked and will decline in size throughout the rest of the century.



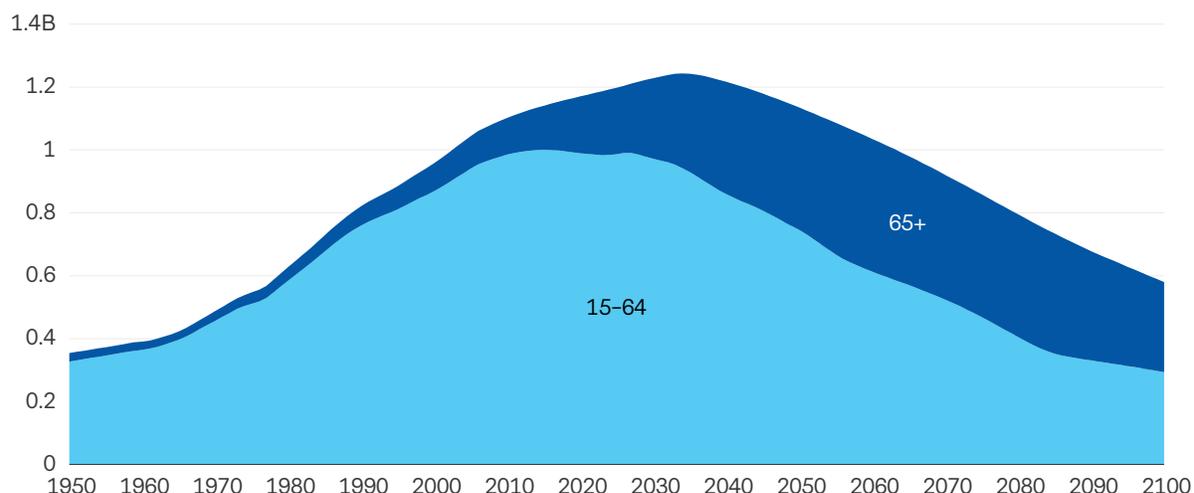
Source: United Nations, *World Population Prospects: The 2024 Revision*.

Rapid aging will take a far larger toll on China’s economy. China’s working-age population (those between the ages of 15 and 60) peaked in 2012 at 929 million people and will likely decline to 820

million by 2035—a 12 percent decrease. Meanwhile, the number of people over 60 was only 170 million in 2012, but is set to hit 422 million in 2035.⁷⁷ It is set to peak in 2054 at 513 million.

Figure 4.2: Number of Working-Age People (15–65) vs. People over 65, 2024

China’s working-age population will decline dramatically relative to the number of retirees.



Source: United Nations, *World Population Prospects: The 2024 Revision*.

China’s old-age dependency ratio—the number of people 65 and over as a percentage of the working-age population—is relatively low compared to most major economies and will remain that way until after 2035.⁷⁸ The United States currently has a higher old-age dependency ratio than China, but the two countries are set to converge in 2035. However, the challenge for China is that the ratio is rising fast and will keep doing so. In 2046, it will surpass Europe; in 2064, it will overtake Japan. Assuming China does not significantly lift its chronically low fertility rate in the coming decade, it will eventually peak in 2085 at 109 percent—leaving it with more people aged 65 and over than between 15 and 64—well above Japan’s peak of 74 percent in 2054.

The pace at which China is aging might be worse than what the United Nations projects. According to Yi Fuxian, a senior scientist at the University of Wisconsin-Madison who has worked extensively on Chinese demographic issues, China’s authorities have significantly inflated the size of the population.⁷⁹

Yi found that China’s family planning bureaucracy consistently inflated the number of new births during the one-child policy era to convince China’s leadership of the need to maintain fertility controls.⁸⁰ He estimates that between 1990 and 2016, China had 377.6 million newborns, significantly fewer than the official figure of 464.8 million.⁸¹

Most of the missing 87 million people would be of working age by now, had they existed. Without them, the burden on China’s workforce of supporting its retirees is greater than the official data suggests.

It has long been said that China faces the challenge of “growing old before getting rich”—the implication being that once China becomes too old, joining the ranks of high-income nations will become much more difficult, if not impossible.

An aging population has many implications for growth. Retirees tend to spend less than working-age individuals. They make do with older cars, are less inclined to replace their furniture, and spend less on groceries. And the older they get, the less they spend.

However, their burden on the state increases as they draw pensions and require more government spending on healthcare. At the same time, as the workforce shrinks, there are fewer people creating wealth and paying taxes, making it harder for the government to fund the burgeoning demands placed on its resources by the expanding cohort of retirees.

Moreover, as a population ages, demand declines for all the factories, infrastructure, and housing that were built previously to meet the higher consumption needs of a younger population. This shift could feed deflation as factories cut prices to sustain sales in a shrinking market. Less revenue makes it difficult for firms to repay debt. Similarly, a smaller tax base makes it harder for governments to service their own obligations.

Finally, as a population ages, the productivity of the workforce typically declines. This occurs because the economy requires fewer workers in high-productivity sectors, such as manufacturing, and more workers in the lower-productivity service sectors, such as healthcare and hospice care to support the elderly.

For decades, China benefited from a demographic dividend. A relatively young population meant there were relatively few retirees to support. The one-child policy reduced the burden of child-rearing for most families. With fewer children, mothers spent less time out of the workforce than they would have with bigger families. Consequently, the workforce expanded, maximizing the productive potential of the economy.

Even though the one-child policy was abolished in 2016, China’s fertility rate has continued to decline. But while the workforce needs to support fewer and fewer children, the rise in retirees means the demographic dividend is a thing of the past—a shift that threatens to slow growth.

“The slowdown in economic growth caused by the disappearance of the demographic dividend has set a ceiling for the growth of residents’ income and consumption,” writes Cai Fang, the demographer.⁸² “On the one hand, the relative reduction in economic growth directly limits the size of the pie that can be converted into residents’ income. On the other hand, the slower rate of increase in labor productivity also restricts the increase in wages of ordinary workers.”

Economic Security

Beijing sees China as economically vulnerable. The country depends on imports to meet its energy and food needs and to supply the raw materials that fuel its industrial engine. It also relies heavily on the U.S. dollar to settle most international transactions, including imports and exports. And

many of the most advanced manufactured and industrial products used in China's factories are sourced from abroad.

For years, China has been trying to reduce its economic vulnerabilities. Where possible, it has sought to reduce its dependence on imported raw materials by investing in the domestic exploration of key minerals like lithium and iron ore. In cases where imports are unavoidable, China increasingly seeks to develop resources in friendly countries that are less likely to choke off supply if geopolitical tensions between major powers further deteriorate.

Beijing also fears that it might one day face the kind of financial sanctions the United States imposed on Russia following its invasion of Ukraine. The United States and its allies effectively barred Russia from using their currencies. Since most countries are unwilling to transact in rubles, Russia found it nearly impossible to pay for imports.

As a safeguard against such an eventuality, Beijing has been promoting the internationalization of the yuan. Progress has been slow, and the yuan is unlikely to surpass the dollar or euro in importance this decade, or maybe ever. However, these efforts could give China a buffer that Russia lacked, helping it avoid the worst effects of potential financial sanctions.

Lastly, Beijing wants to ensure that it is not dependent on imports from the United States and its allies for the goods needed to power its industrial machine.

The alarm first sounded in 2018 when the United States banned its firms from supplying goods to Chinese telecommunications giant ZTE Corporation.

More recently, the United States has taken aggressive steps to block China from accessing advanced semiconductors and from developing such chips, aiming to slow China's development of advanced technologies like AI. Tech industry luminaries have described these moves as a watershed moment for China, exposing the country's vulnerability stemming from its lack of independence in science and technology. The moves triggered significant anxiety over China's inability to innovate and be self-sufficient in key strategic sectors—often referred to as “bottleneck” technologies.

The concern is that foreign control of these bottlenecks has already been weaponized against China and will be again. The solution, in Beijing's view, is to produce domestically what is currently imported from overseas—a process that requires real innovation.

“In the face of increasingly fierce international competition, it is necessary to . . . achieve high-level scientific and technological self-reliance . . . [and] enhance the security of the industrial chain and supply chain . . . so as to ensure that China wins the initiative in the game between major countries,” former Minister of Industry and Information Technology Jin Zhuanglong wrote in April 2023.⁸³

However, Beijing's goal goes beyond simply substituting imports with local products. It sees economic security as achievable only if China can create its own scientific breakthroughs and successfully bring them to market.

“At present, a new round of scientific and technological revolution and industrial transformation is accelerating, and international technology and industrial competition is becoming increasingly fierce,” writes Han Wenxiu, executive deputy director of the CCFEA.⁸⁴ “Whoever masters the leading position in technology and industrial development will have the first opportunity for development and will be more likely to occupy an advantageous position in the competitive game.”

Debt Sustainability

China’s debt relative to the size of its economy eclipses most developing countries and even exceeds the levels of most advanced economies.

In mid-2024, China’s debt-to-GDP ratio stood at 291.9.⁸⁵ The U.S. ratio was only 249.4. For other large developing countries like India and Brazil, it stood at 182.5 and 178.6, respectively.

China’s high ratio is partly a legacy of its previous growth model. In the eight years from the end of 2008, before Beijing started stimulating in response to the global financial crisis, to the end of 2016, when Beijing was preparing the deleveraging campaign that finally reined in credit growth, China’s debt-to-GDP ratio rose more than 100 percentage points. That could well represent the fastest accumulation of debt in history.

That surge in debt was mostly the result of borrowing by firms. However, many of those firms—most notably LGFVs—borrowed on behalf of local governments to fund the construction of public works and infrastructure.

The debt-to-GDP ratio was mostly flat from 2017 to 2019, but it started rising again with the onset of Covid-19 and the collapse in housing demand. From the end of 2019 to mid-2024, it rose a further 48 percentage points. Most of the additional debt was borrowed explicitly by the government.

China’s debt-to-GDP ratio is now at a level one might associate with an economy dealing with a crisis. For comparison, Japan’s debt-to-GDP ratio only reached a similar level—296.3—at the end of 1997, seven years after its property and asset bubbles began to deflate.

While that seemed high at the time, Japan’s debt-to-GDP ratio continued to rise as the government tried to manage an aging population, counter deflation, and drive growth—eventually peaking at 422.5 in 2020.

Japan has managed to avoid a crisis because the additional borrowing was done by the government, and because the Bank of Japan has maintained policy interest rates at zero—and even below zero—for decades. Consequently, the state’s interest payments remained relatively low even as the stock of debt soared. Of course, at some point, interest rates could rise to a level at which the cost of maintaining the debt might destabilize the economy.

China’s central government will likely have to borrow more—significantly more—in the coming decades. At some point, the workforce will shrink so much relative to the number of elderly citizens that the state’s fiscal burden will require it to borrow more and more.

Before that day arrives, Beijing would ideally like its debt-to-GDP ratio to decline from its current levels. For that to happen, it needs to develop an economic model in which the economy expands faster than the stock of debt.

China's high debt-to-GDP ratio is the consequence of Beijing prioritizing growth with little concern for the consequences for decades. It deployed as much debt as was needed to achieve high annual GDP growth targets. However, that debt was not used productively.

China needs an economic growth model where debt is used more efficiently.

What China Needs from Its New Growth Model

Beijing demands a lot from the new growth model. To avoid the middle-income trap, China must produce higher-value goods that lower-income developing economies cannot cheaply replicate. Achieving that requires innovation and technically advanced manufacturing.

To safeguard economic security, China must be confident in its ability to produce any product it needs, no matter how complex, without relying on foreign suppliers. At the same time, bringing down the debt-to-GDP ratio will require an economy that puts debt to far more productive use than in the past.

Common prosperity demands an economic model capable of expanding the middle class, fostering more small businesses and entrepreneurs, and generating a bigger tax base to support an expansion of welfare. That, in turn, requires higher-paying jobs to lift people into the middle class, a robust stock market to incentivize entrepreneurs and build household wealth, and more profitable firms to boost government revenue.

To cope with the pressures from a rapidly aging population, China must generate far greater tax revenue to cover rising pension and healthcare costs. However, it needs to do so without excessively burdening firms and households. It also needs a growth model capable of raising incomes to the point where the workforce can comfortably support a large population of retirees.

In short, China needs an economy that can generate greater wealth—wealth that translates into higher corporate profits and higher household incomes, both of which can be taxed at higher rates to fund an expanded welfare system.

To achieve all this, Beijing has settled on a productivity-led growth model, driven by innovation and advanced manufacturing.

The New Growth Model

Xi Jinping’s vision of China’s new growth model is one in which debt-driven growth is replaced by productivity-led growth. The idea is encapsulated in the concept of “new quality productive forces,” which Xi introduced during an inspection tour of Heilongjiang Province in September 2023.

At a Politburo study session in January 2024, Xi clarified that “the substantial improvement of total factor productivity” was the key component of the concept.⁸⁶

Total factor productivity (TFP) measures how efficiently an economy converts inputs—such as labor and capital—into outputs, capturing gains beyond mere input increases. It reflects advancements in technology, innovation, and resource allocation that contribute to output growth without a proportional increase in inputs. Those efficiency gains translate into higher profits for firms and, ideally, increased compensation for workers.

Productivity gains were once a significant driver of China’s economic growth, fueled by the mass migration of workers from the countryside to cities. A factory worker can produce greater value with the same amount of time and effort than a worker in a field. As hundreds of millions of people left agricultural work to take up industrial, construction, and other urban jobs, the overall productivity of China’s workforce increased.

This structural transformation enabled rural workers to move into more productive industrial jobs in factories and urban infrastructure, increasing labor productivity. These new industries required more capital than agriculture, and the capital was allocated more efficiently—it is easier to identify

and scale up productive investments in urban factories than it is in rural fields. This meant that not only did labor and capital inputs increase, but the efficacy with which the inputs were utilized also increased, leading to a subsequent rise in TFP. A host of productivity-boosting reforms around the same time, such as integration into the global economy and market-oriented reforms, contributed to further gains in TFP.

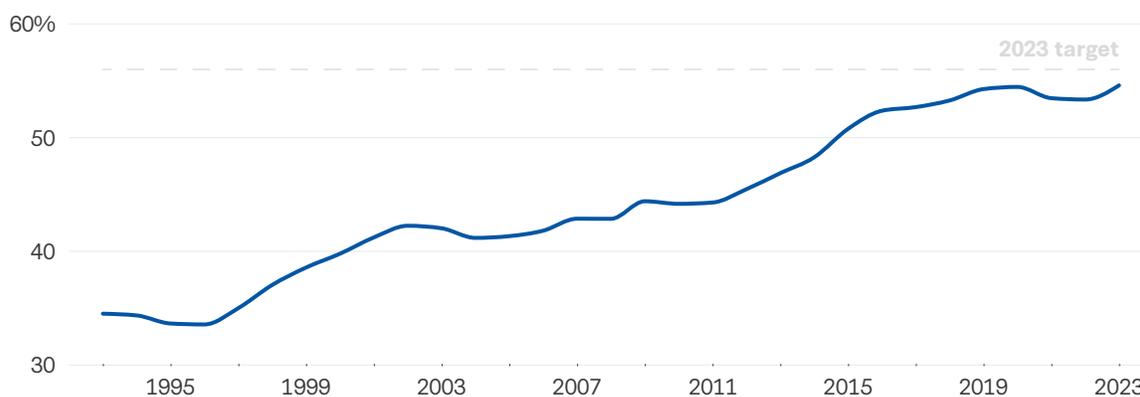
However, in the decade following the global financial crisis, China's productivity growth slowed precipitously. According to a World Bank report by Loren Brandt, John Litwack, and others, average annual aggregate TFP growth fell from 2.8 percent in the 10 years before the crisis to 0.7 percent in the 10 years after.⁸⁷

According to Brandt et al., multiple factors contributed to the decline. First, Chinese manufacturing productivity declined because there were fewer “exits and entrances”—in other words, it became less likely that inefficient firms would collapse and be replaced by more productive ones. Moreover, before the financial crisis began in 2007, state manufacturers were narrowing the productivity gap with private companies, driven by a wave of state sector reforms. After the crisis, though, state firms' relative productivity gains dropped off as reforms stalled.

The greatest drag on overall productivity, however, was the growing role of services in the economy. The great migration of people from the countryside continued apace after the global financial crisis, and it still is not over. China's five-year plan for urbanization (2025-2029) projects a further 50 million people moving to cities by 2029.⁸⁸ However, unlike in the past, these migrants will be more likely to move into less-productive service sector jobs.

Figure 5.1: China's Services Value Added as a Proportion of Total GDP

The role of China's services sector is expanding, but it failed to hit the government's 2023 target of accounting for 56 percent of GDP.



Source: “World Bank Data 360,” World Bank.

In middle-income economies, people spend progressively more on services rather than physical goods as household incomes increase. As disposable incomes rise further, Chinese spending

on services—things like holidays, healthcare, education, dining out, and entertainment—will also increase.

China's aging population will also drive demand for services, creating more jobs in healthcare, hospices, and other forms of eldercare. Meanwhile, a growing population of retirees will be less likely to spend on electronics, new furniture, and other big-ticket goods and more likely to spend on travel, education, pets, and entertainment.

A decade ago, Beijing regarded the service sector as a source of growth that should be encouraged. The 13th Five-Year Plan (2016-2020) set a goal of increasing the sector's share of GDP as part of a strategy to reduce the economy's reliance on manufacturing and exports, aiming to raise the sector's value-added share of GDP from 50.5 percent in 2015 to 56.0 percent by 2020.⁸⁹

There is still room for service sector growth in China. In the United States and Japan, service-based industries—including professional and business services, real estate, finance, and healthcare—make up about 70 percent of GDP. In 2023, it was 64 percent for Germany, 70 percent for France, and 73 percent for the United Kingdom. In 2023, services accounted for 55 percent of China's economy.

However, as an economy becomes increasingly dominated by services, economic growth slows. That is because the opportunity for productivity gains in services is far smaller than in manufacturing.

To boost productivity, a car manufacturer might automate the production line, replacing workers with robots. Lifting productivity in a hospital is more challenging—reducing the amount of time a doctor spends with each patient, for example, would likely reduce the quality of care. Similarly, it is difficult to increase the ratio of students per teacher in a classroom without diminishing the quality of education.

Jiang Xiaojuan, former deputy secretary-general of the State Council's research office, laid out the crux of the issue in 2021:

By 2015, services accounted for more than 50 percent of GDP, marking China's entry into the service economy era. Over the past decade, China's economic growth has steadily slowed. While multiple factors contribute to this trend, the rising share of services and their relatively low productivity growth have played a key role. Without the robust empowerment of internet and digital technologies [to boost services productivity] in the future, China's economy is likely to experience a prolonged period of decline as the share of the services sector continues to rise.

It can be said that without the continued and robust empowerment of internet and digital technologies, China's economy is likely to experience a prolonged period of decline as the share of the services sector continues to rise. Stability may only be achieved once the proportion of services and the pace of economic growth reach a relatively balanced level, similar to that of more advanced economies.⁹⁰

Of course, incremental gains to service sector productivity are possible. Technology can improve diagnostics in a hospital, and tablets allow teachers to tailor learning to each student's ability. Moreover, artificial intelligence promises to bring about strides in efficiency, whether in law firms by reducing the hours previously spent by paralegals poring over reams of documents during discovery or in tech firms by taking over some coding duties.

Beijing hopes to realize such a transformation in logistics, with a combination of new infrastructure, advanced technology, and streamlined regulation.

China suffers from higher logistics costs compared to developed countries due to protectionist barriers between provinces and cities, as well as a heavy reliance on expensive road transportation. In November 2024, the State Council launched an action plan to reduce logistics costs as a share of GDP from 14.4 percent in 2023 to 13.5 percent by 2027.⁹¹ Under the plan, authorities are investing in massive canal projects so firms can realize cost savings by shipping via water rather than land. They also plan to build more logistics hubs and develop the cold chain network so that perishable goods can be shipped further without spoilage. Over time, the plan envisions firms incorporating autonomous vehicles and unmanned logistics infrastructure into their operations.

Most service sector businesses, however, do not have such a clear path to productivity. Still, most will likely benefit from Beijing's efforts to build what it calls a "unified national market," which primarily involves dismantling internal trade barriers and addressing regulatory inconsistencies between China's different regions. China's economy effectively functions like a patchwork of regional markets protected and regulated by local governments operating in competition with each other. This fragmentation not only fuels industrial overcapacity in manufactured goods by encouraging redundant investments and shielding inefficient firms but also pushes up costs for service providers like logistics firms by making it difficult for them to operate on a level playing field throughout the country.

The push for a unified national market is not new. Central authorities first floated the idea in 1993, and Xi embraced it as part of his agenda in November 2013. However, it became a greater priority in 2022, as Beijing grew more acutely concerned about the structural decline in TFP growth.⁹² Breaking down internal trade barriers would boost productivity for both services and manufacturing firms alike, but implementation remains challenging, as too many vested interests stand to lose.

At the same time, Beijing has recalibrated its growth strategy and no longer sees services as a driver of growth. Xi is doubling down on boosting productivity in manufacturing to counter the economy's slide into a services-driven model. In the current five-year plan (2021-2025), Beijing has pivoted away from services, instead calling for maintaining manufacturing's share of GDP, which had declined over the previous five years.

Speaking to delegates from the manufacturing province of Jiangsu at the annual Two Sessions in March 2023, Xi was pointed about the need to boost manufacturing, saying "There are two critical areas for China. One is to safeguard our [food supply], and the other is to develop manufacturing."⁹³

China's traditional manufacturing advantage was built on low-cost production; it outcompeted the rest of the world on price. However, wages in China have risen so much that they are now much higher than in most developing economies. Moreover, Xi wants wages to rise even further, which will not be possible if the manufacturing sector continues to rely on labor-intensive production.

Instead, Xi envisions driving manufacturing productivity through innovation and the incorporation of advanced manufacturing techniques across both emerging and established industries.

In January 2024, he explained it like this: “In a nutshell, New Quality Productivity is an advanced productivity state that is dominated by innovation. It is spawned by revolutionary technological breakthroughs, the innovative allocation of production factors, and the deep transformation and upgrading of industries.”⁹⁴

Driving Productivity Through Innovation

Innovation is a crucial part of the plan because it creates wealth by fostering new business opportunities and improving efficiency. It enables firms to differentiate their products and command premium prices, expand into new markets, and sometimes create new markets entirely. And by replacing some workers with robots, it allows a firm to make the same product at lower cost and with greater consistency in quality.

Many economies have avoided the middle-income trap by fostering innovation—most notably Japan, South Korea, Taiwan, and Singapore. However, all were far smaller than China, making it possible for advances in a handful of industries to transform the entire economy. For instance, advances in semiconductor and electronics manufacturing helped lift Taiwan into the ranks of rich countries, raising the incomes of 23 million people. That is a little more than half the population of Fujian Province on the other side of the Taiwan Strait. For China to follow a similar path, the scale of innovation must be significantly larger. In effect, China needs to restructure the economy in such a way that it is constantly innovating.

Only a few years ago, that would have struck many foreign observers as fanciful. The prevailing perception was that China was incapable of innovation, largely because the CCP stifled the conditions under which new ideas could flourish.

There should no longer be any doubt, however, that China is capable of innovating.

China's electric vehicle industry stands out as a prime example: The industry is widely recognized for being well ahead of foreign competitors in chassis design, and even further ahead in enhancing the experience of drivers and passengers through digital amenities. Moreover, vehicle manufacturers are supplied by Chinese battery makers that are first in class.

Chinese officials refer to new energy vehicles (NEVs)—which mostly refer to electric vehicles and hybrids—together with lithium-ion batteries and photovoltaic (PV) components for solar power production as the “three new”: innovative Chinese manufactured goods for which global demand has surged. The implication is that they are replacing textiles, plastic, and electronic goods—the

three industries that formed the backbone of China's low-skilled, low-wage manufacturing sector—for which overseas demand is waning.

Chinese officials envision the “three new” as just the first wave of innovative Chinese manufactures poised for global success. It is impossible to say what product or industry will be next to achieve global recognition, but authorities are aggressively pushing for the development of what Chinese officials call the “low-altitude” economy, a designation that broadly encompasses drones and eVTOLs (electric vertical take-off and landing vehicles—or flying cars).

The scope of Beijing's ambitions is vast. In January 2024, the Ministry of Industry and Information Technology published a list of “future industries” in which Beijing aims to accelerate breakthroughs to build a globally competitive, innovation-driven economy. The industries span advanced manufacturing, information, materials, energy, space, and health, and involve developing humanoid robots, nano-manufacturing, quantum computing, nuclear fusion, hydrogen energy, deep-sea mining, genetic engineering, and cutting-edge pharmaceuticals, among other areas.⁹⁵

By focusing on innovation and encouraging it across a diverse range of industries, Beijing is confident China will replicate the success of the “three new” in new areas of the economy.

In a speech at the World Economic Forum in the summer of 2024, Premier Li Qiang pointed to China's “unique comparative advantages” to explain its success in emerging industries:

China has a super-sized market of more than 1.4 billion people, a complete industrial supporting system, [and an] abundant labor force and talent pool. . . . The economies of scale can help to reduce innovation costs for enterprises and accommodate the growth of different . . . business models. That is also how China's emerging industries get their competitiveness.⁹⁶

Chinese officials routinely speak of the advantages of the country's “complete industrial supporting system” and “super-sized market.”

The former refers to the unparalleled range of manufacturing done in China. Supply chains typically snake across multiple countries—it is rare for any single country to produce all the components that go into making a phone, or a washing machine, or a car. However, far more components are produced in China than anywhere else in the world, and this production is concentrated in industrial clusters: electronics and communications equipment in the Pearl River Delta, semiconductors in the Yangtze River Delta and around Beijing, and automobiles in the northeast and around Chongqing in the west.⁹⁷

The concentration of companies within a cluster fosters collaboration between firms and local research institutes, speeding up technology transfer, driving new product development, and improving industry standards.

Meanwhile, China's “super-sized market” creates an even greater advantage.

“China’s super-large-scale market can help companies quickly dilute costs,” the Development Research Center—the State Council’s internal think tank—wrote in July 2024.⁹⁸ “Companies can enter the international market with the low-cost and high-performance advantages gained from domestic competition.”

China’s “super-large” market is not simply a function of its large population. Often, it is cultivated by policy from Beijing and supported by lower levels of government. That is the case with China’s solar and lithium battery industries.

The original technology for converting sunlight into power was developed in the United States, while Germany developed the machinery for producing solar cells. The first key innovation by Chinese firms in the solar industry was significantly lowering production costs, making widespread adoption feasible.

The incentive to innovate stemmed from the Chinese state’s commitment to decarbonization, which supported domestic sales. China has committed to achieving peak carbon emissions before 2030 and net-zero emissions by 2060, and the government has rolled out waves of policy to support the installation of both large-scale solar facilities and urban solar networks.

These policy incentives have driven a massive expansion of renewable energy capacity. According to China’s National Energy Administration, China installed 277.2 gigawatts (GW) of new solar capacity in 2024, roughly double the United States’ entire installed capacity at the end of that year, increasing its 2023 capacity by 28 percent. In 2023, China installed 216.9 GW of new solar capacity, similar to the combined capacity it installed in the previous four years and more than the European Union’s entire installed capacity at the end of 2022.

Meanwhile, China’s battery companies were neither innovative nor particularly competitive until Beijing decided to ramp up support for the development of NEVs in 2009.⁹⁹ This created an entirely new, quickly growing market for lithium batteries. Before 2009, Germany was the biggest manufacturer of batteries, the United States was the biggest buyer, and Japanese firms led R&D spending. Fifteen years later, China dominates all three areas.

In short, a key part of China’s innovation model is Beijing’s ability to create large-scale demand for new products. Sometimes, the government itself directly drives demand, as was the case with solar panels, and previously with high-speed rail. Other times, it cultivates a commercial market, as it did with batteries and NEVs, with financial subsidies and regulatory incentives (such as making it easier to obtain a license for an NEV than for a traditional internal combustion engine vehicle).

Of course, a large market alone is not enough. According to CSIS expert Scott Kennedy, Chinese authorities provided over \$220 billion in subsidies to the NEV industry between 2017 and 2023.¹⁰⁰ That support took the form of tax exemptions, government investment in infrastructure (primarily charging piles), funding for R&D, government procurement of NEVs, and consumer subsidies.

According to Kennedy, the actual amount of support was likely much higher when factoring in harder-to-estimate contributions, such as local government rebate programs, subsidized land,

energy and credit, and local government investment in NEV makers.¹⁰¹ Kennedy notes that NEV makers also benefit from subsidies and other government support for their component suppliers, including battery makers.

Still, China's vast market has been crucial in enabling firms to scale up and achieve global dominance, as seen with NEVs, solar components, and batteries. Crucially, Beijing has fostered highly competitive environments in which private and state firms vie to outcompete each other, driving further innovation.

Originally, the strength of China's solar and battery firms lay in their ability to produce existing technologies more cheaply. Now, driven by fierce competition—not against foreign firms, but against Chinese competitors—Chinese solar and battery companies have become world-leading innovators in their own right.

One example is CATL, now the world's biggest battery maker. In 2024, the company unveiled the world's most efficient battery, capable of powering an electric vehicle to drive 1,000 kilometers on a single charge.¹⁰²

Another example is Chinese solar manufacturer Utmolight. In 2023, the company broke ground on the world's first 1 GW perovskite PV production line, overcoming significant durability concerns that had hindered the commercial adoption of PV cell panels—which are more efficient, and much cheaper and faster to produce, than silicon-based panels.¹⁰³

In short, China has proven itself able to produce global giants, weaned on state support, hardened in ultra-competitive domestic markets, and backed by sufficient domestic demand to achieve unparalleled economies of scale.

Despite the successes, however, Beijing recognizes that the system has significant shortcomings.

“Compared with the world's scientific powers, China's scientific and technological innovation development still has many problems,” He Defang, deputy secretary-general of the Ministry of Science and Technology, wrote in 2023.¹⁰⁴

Chief among these problems is the country's struggle in delivering transformational scientific breakthroughs. Chinese innovation has primarily focused on refining existing technologies, through either incremental improvements to the manufacturing process or the next iteration of the technology. This approach has driven China's successes in NEVs, solar panels, high-speed trains, communications equipment, and batteries. Despite investing huge amounts of state resources in next-generation technologies like quantum communications and advanced semiconductor manufacturing, Beijing has not yet been able to commercialize any advances.

China also faces challenges commercializing innovative ideas, partly due to limited collaboration between universities and industry, and also because the financial system is dominated by banks, which are ill-suited to funding start-ups and growth firms.

In recent years, Beijing has been overhauling China's innovation ecosystem. It is building a system of national laboratories not unlike that of the United States; boosting funding for university research; creating incentives for state-owned firms to engage in innovative research; seeking to boost funding for start-ups by reducing the conditions that used to be attached to venture capital firms accessing government funds; giving private sector firms tax incentives to encourage them to ramp up research; and cracking down on corruption in the research grants system.

The goal is to build a system capable of generating transformational research breakthroughs and translating them into a pipeline of innovative new products.

Driving Productivity Through Industrial Upgrading

Traditionally, economists expected that as wages in China went up, low-end manufacturing would move where labor was cheaper. That is already happening in the cases of textile and toy producers, which have made an exodus to Bangladesh and Vietnam. It also seemed likely that some manufacturing would move to the United States to take advantage of cheaper land, lower energy costs, proximity to the world's biggest consumer market, and a narrowing wage gap with China. It was assumed that China would make up for what it lost by moving into more advanced manufacturing.

However, Beijing wants to lose as few of those lower-end manufacturers as possible. While that seems to fly in the face of Xi's vision of productivity-led growth, it is actually a key part of the new quality productive forces concept.

Jin Zhuanglong, former minister of industry and information technology, explained it the following way in January 2024: "Traditional industries are the basis of the modern industrial system, and they cannot simply be abandoned because they are 'low-end industries.'"¹⁰⁵

Jin argued that industries that would have otherwise moved to countries with cheaper labor, land, energy, and shipping costs should stay in China by using machines to remain competitive.

Using machines to reduce costs leads to the question: Given that machines can be installed in any market, how do these industries remain competitive if they stay in China?

Again, innovation is central. Traditionally, China's factories have run on machines made somewhere else—typically Germany or Japan. Moreover, regardless of the industry, the best technology is usually not available off-the-shelf for anyone to buy, but is closely held by the companies that develop it. Only by developing its own machines can China move into more advanced manufacturing.

An example of the sort of product that should have moved abroad years ago is plastic cigarette lighters. Instead, firms used technological innovation to double down on manufacturing in China.

Production of lighters has moved repeatedly over the past century. Originally done in Europe, production moved to Japan and South Korea in the '60s and '70s, then to China's Guangdong and Zhejiang Provinces in the '90s. Eventually, production moved to the town of Shaodong in Hunan

Province, which has since become the world's largest lighter production base, with 114 companies producing around 15 billion lighters annually.¹⁰⁶ Currently, about 70 percent of all lighters manufactured globally are made in Shaodong.¹⁰⁷

About a decade ago, rising wage expectations made it difficult for Shaodong firms to find workers, complicating efforts to meet customers' demands for low prices. But rather than relocate to a place with cheaper labor, Shaodong's producers updated their machinery.

Producing lighters has traditionally been a labor-intensive process. They are made of roughly 16 different components, many of which are very small and not well suited to a traditional production line.

Dongyi Electric, the biggest lighter producer in Shaodong, started upgrading its manufacturing equipment in 2016. Since then, it has gone through three rounds of upgrading. Over the last eight years, Dongyi's cost of producing a lighter has dropped from RMB 0.2 to RMB 0.015—less than 10 percent of the original costs—and the firm has cut its workforce by 85 percent.¹⁰⁸ In 2014, Dongyi was producing 1 million lighters a day with over 200 workers. It now produces 5 million a day with about 30 workers.¹⁰⁹

“In the past, workers held tweezers and pliers in three shifts day and night,” the *People's Daily* reported in April 2023.¹¹⁰ “Now, all 12 processes have been automated.”

Industrial upgrading creates its own virtuous circle. By applying innovative technologies, manufacturers can cut their costs, improve the quality of their products, and increase their profits. With those profits, they can then fund the next round of upgrading, as lighter producers did, leading to the commercialization of more heat-resistant lighters and models that work at high altitudes.¹¹¹ The drive to continuously improve productivity with better technology creates a market for innovators to keep pushing the envelope.

According to Jin, authorities must

[push firms] in high-end, intelligent [manufacturing], and green directions; implement manufacturing technology transformation projects; implement tax incentives and special re-loan policies; and support enterprise equipment updates, process upgrades, digital empowerment, and management innovation to allow traditional industries to sprout anew from old trees.¹¹²

That is the essence of Xi's vision of “new industrialization,” another policy concept rolled out in recent years.

Under new industrialization, high-tech companies produce innovative new materials and tools that can then be used by firms in traditional manufacturing industries to cut costs and improve the quality of their products.¹¹³ In the lighter example given above, this meant creating machines with the dexterity to perform tasks that previously required human fingers. It also meant incorporating sensors to check each lighter's flame.

It can also mean reducing defective products, making it easier for firms to repurpose their equipment to accommodate product changes, simplifying machine maintenance and the manufacturing process, streamlining communication along the supply chain, and improving worker safety.

This virtuous cycle between innovation and manufacturing is not materially different from how things work in the United States. However, China still suffers from a major technological divide between low-end and high-end manufacturers. Those at the high end are comparable to (and in some cases more advanced than) Western producers, with highly “digitized” systems—including smart sensors, programmable logic controllers, robotics, and the like—ready to benefit from “smart,” AI-driven optimization systems. But those at the low end include manual operations with limited to no digitized production—rendering 5G, large language models, and other “smart” applications all but useless until substantial digital upgrades occur.

The gulf between low- and high-end manufacturers will become even more of a problem for the new industrialization policy as advanced manufacturing comes to incorporate humanoid robots, artificial intelligence, the metaverse, 6G, and quantum computing, as envisioned by Beijing.¹¹⁴ A small, labor-intensive production line will see minimal benefit from AI without first replacing people and mechanical processes with digital systems.

Beijing hopes to narrow the divide by pushing manufacturing and industrial firms to upgrade their facilities via digitization. That has already been embraced by Shaodong’s lighter producers, which have incorporated smart meters and digital management systems on the production line.¹¹⁵

In April 2024, Beijing launched a major program to support industrial upgrading. The program uses carrots—including subsidies, tax breaks, and discounted loans—to incentivize companies to invest in new machinery and equipment. It also uses sticks, like improving standards to force companies to upgrade outdated equipment.

While the upgrading push is partly designed to reduce carbon emissions and the environmental impact of Chinese industry, it is fundamentally an economic support program. By instituting policies to bolster demand for new machines and factory equipment, Beijing aims for investment in large industrial equipment to rise over 25 percent by 2027 relative to 2023 levels. But industrial upgrading policies are also about positioning Chinese manufacturers and industrial firms to better embrace further innovation in the future.

Driving Greater Domestic Demand Through Manufacturing

At a glance, Xi’s emphasis on manufacturing seems to be the opposite of the consumption-led approach favored by many economists. The latter prioritizes redistributing wealth to boost consumption, whereas Xi’s approach focuses on creating new wealth through industrial development.

Of course, that is an oversimplification. Redistribution stimulates demand by putting money into the hands of those who will spend it (consumers)—rather than leaving it in the hands of firms, which

are more likely to save it. This, in turn, drives job creation, higher wages, the creation of new firms, and the expansion of existing ones.

Under Xi's model, production and demand go hand-in-hand—but demand is driven by production. Rather than redistributing wealth to households, the goal is for households to become wealthier as a result of the manufacturing sector generating greater value.

The NDRC put it like this in an essay on the front page of the *Economic Daily* in September 2024: “General Secretary Xi Jinping pointed out that we should . . . [build] a dynamic balance in which demand drives supply and supply creates demand, and realize a virtuous cycle of the national economy.”¹¹⁶

To paraphrase, in China's new economic model, demand and supply must develop in tandem. Expanding production creates demand, and the expansion in demand creates an incentive to further expand supply—or so the theory goes.

That is why innovation and industrial upgrading are so important under this model.

By developing their own proprietary technologies, firms can charge more for their products than would be possible if their competitors employed the same tech. Firms can either distribute that extra income to employees in wages and bonuses or keep it as profit. Either way, the government increases its tax revenue, which can be used to fund an expansion of welfare programs, further boosting demand.

Meanwhile, by replacing old machines and factory equipment with newer, more advanced versions, firms can reduce the number of employees, improve the overall quality of the product, and reduce costs. The smaller workforce likely needs to be better trained or more highly educated to operate the machines that replaced their colleagues, and so can demand higher pay. The result is fewer qualified workers, but those who remain are paid more. Meanwhile, firms are more profitable, and the government ultimately generates more revenue from both the companies and workers.

That is good for workers in manufacturing, but it is unlikely to translate into a surge of new jobs in the manufacturing sector. In fact, the number of manufacturing jobs has been fairly stable for years as China moves into new areas of manufacturing even as productivity gains reduce employment in older areas. At the end of 2023, 27.5 percent of migrant workers were employed in manufacturing, a level largely unchanged since the end of 2019. (Over that period, the total population of migrant workers changed little.) The output of China's manufacturing sector rose 27 percent over the same period.

However, the real value of this model is its ability to create not new manufacturing jobs, but new service sector jobs.

In any economy, manufacturing creates employment away from the factory floor. Calculating the exact amount is an imperfect science, but according to the NDRC, between 1990 and 2005, each additional manufacturing job in China generated 0.41 to 0.59 service sector jobs. Most of these,

however, were relatively low-end jobs in wholesale, retail, transportation, warehousing, real estate, and construction.

Chinese authorities envisage that the move into more innovation-driven advanced manufacturing will create white-collar jobs with much higher incomes, similar to what happens in the United States, where each new manufacturing job in the high-tech sector creates 2.5 service jobs.¹¹⁷

Innovation and industrial upgrading inevitably require engineers, scientists, and researchers. Manufacturing can also create jobs in lobbying, government relations, corporate communications, finance, and legal services.

Brand building is not an explicit part of Xi's "new quality productive forces"—after all, a strong brand does not inherently deliver higher productivity. Nonetheless, it is something Chinese authorities have been encouraging for years, as firms with strong brands can generate more revenue and higher profits and support higher-paying white-collar jobs in marketing, advertising, sales, design, and market research.¹¹⁸ These sorts of jobs are all the more important given China's high rate of youth unemployment.

China's youth unemployment rate hit 21.3 percent in June 2023, after which Beijing redefined youth unemployment to generate a lower figure.

China's youth unemployment is concentrated among university graduates, who emerge from four-year degrees to discover that the white-collar jobs they trained for are in short supply. However, this dynamic will change if Xi's vision of new quality productive forces takes shape.

China aims to build a developed economy where highly paid white-collar jobs support a high-quality, efficient industrial sector driven by innovation. Realizing this vision would help deal with the challenges of population aging by giving a smaller workforce the income to support a growing number of retirees. Rather than relying on the accumulation of debt to generate growth, the model emphasizes the judicious use of debt to create value. Ultimately, it offers the promise of another generation of rising prosperity for the Chinese population.

At least, that is the vision. Its success hinges on Beijing's ability to navigate the challenges of deglobalization, demography, and debt.

Ensuring Export Growth

China’s manufacturing-powered growth strategy ultimately aims to place the economy on a domestic-demand-driven footing. This is how the NDRC frames the ambition:

In the period ahead, the characteristics of a domestic-market-led economic cycle will become more pronounced, and the potential of domestic demand to drive growth will continue to be unleashed.¹¹⁹

The logic is that better-paying jobs will boost household incomes, while an expanded tax base will support the social programs needed to reduce precautionary savings and free up spending.

That day, however, is still some distance off. In the meantime, China must find buyers to absorb all the planned additional manufacturing output. How China bridges this interim demand gap will determine whether the shift to an economy driven by domestic demand stays on course or stalls in the face of external headwinds.

Unlocking Consumers’ Latent Demand

Beijing thinks Chinese households can play a role in supporting manufacturing growth if it can just unlock their latent demand. Xi first introduced the idea in a Politburo speech in February 2023, when he argued that expanding household consumption requires ensuring people are “able to consume, aren’t worried about consuming . . . and are willing to consume.”¹²⁰

The theory is that Chinese households would spend far more if they had access to the goods and services they really want. The beauty of Xi's vision is that it does not require incomes to rise or the government to spend more on welfare; rather, it is about unlocking existing demand.

One example of this approach is installing NEV recharging piles in rural areas. Up until 2023, NEV sales had surged in urban areas but lagged in the countryside, partly because of insufficient charging infrastructure. By removing that hurdle, authorities aimed to unlock a new source of NEV demand.

Meanwhile, since early 2023, authorities have promoted the construction of more parking facilities in cities based on the assumption that limited parking crimps demand for cars. At the same time, regulations restricting car purchases—designed to reduce congestion—have been relaxed to unleash demand previously held back by these policy constraints.

Beijing also believes that people in rural areas spend less on manufactured products than they otherwise would due to limited access. To address this, it has been pushing for improved logistics and regional transport hubs and encouraging online platforms to better serve rural areas.

These measures will increase spending, but probably not by much. The major constraint on households' spending is their relatively low incomes (as discussed in Chapter 3) and high propensity to save. Moreover, even if household incomes were to rise significantly, urban households would be unlikely to substantially increase their purchases of manufactured goods. At this stage of development, rising incomes tend to drive demand for services, not goods (as discussed in Chapter 5).

Zhang Bin, deputy director of the Institute of World Economics and Politics at CASS, argued in June 2024 that wealthier Chinese consumers will demand higher-quality—but not a greater volume of—manufactured goods:

If you look at China's household sector, such as household consumption demand, the growth rate of consumption of manufacturing goods is actually slowing down. China's consumption expenditure will be more focused on the service industry, because if we want to further improve the quality of life, we will spend more money on children's education, elderly care, etc., rather than on manufactured goods.¹²¹

In short, Beijing can probably boost purchases of manufactured goods a little by unlocking latent demand—and even if Chinese households' disposable incomes increase, they are likely to spend the extra cash on services rather than goods.

Ultimately, the sheer scale of China's manufacturing exceeds what the Chinese public can absorb. According to the United Nations Industrial Development Organization (UNIDO)—the UN organization tasked with promoting industrial development—China accounted for 27 percent of global industrial output in 2023.¹²² No country has dominated global production to this degree since the United States in the immediate wake of World War II, and before that, the United Kingdom in

the nineteenth century.¹²³ UNIDO projects that, given current trends, China's share will rise to 45 percent by 2030.

Doubling Down on Exports

The only way for China to realize an economic transformation based on an expansion of manufacturing is for the rest of the world to buy more of what China's factories produce. For that to happen, the share of manufacturing for the rest of the world will have to decrease.

“Since 2022, the real estate industry has ‘stalled,’ and economic growth . . . has increasingly relied on the growth of the manufacturing industry—and the growth of the manufacturing industry is highly dependent on external demand,” Yang Weimin wrote in September 2024.¹²⁴ “If external demand is good, the manufacturing industry will be even better. China's marginal growth is increasingly dependent on external demand.”

And yet, the world already absorbs a huge number of Chinese manufactured goods.

After China joined the World Trade Organization (WTO) in 2001, the share of its manufactured exports—as measured by value added—soared, peaking at 41.8 percent in 2007. However, following the 2008 global financial crisis and then the 2009 eurozone crisis, global trade slowed sharply. By 2018, exports accounted for 29.6 percent of China's total manufacturing value added.

BOX 1

Estimating the Proportion of Manufacturing Value Added Derived from Foreign Demand

To estimate the proportion of China's manufacturing value added that is exported, China's manufacturing exports cannot simply be calculated as a proportion of domestic manufacturing value added. This is because a large proportion of China's manufacturing exports are made using components produced in other countries—imported intermediate goods. Therefore, the nominal export value includes not just what China adds, but also the value of those imported components. Here is a simplified example to demonstrate this dynamic:

- A Chinese auto manufacturer (BYD) exports a car for RMB 100,000.
- The tires were imported from Vietnam for RMB 10,000.
- Everything else was produced domestically.

In this example, the value added by China's domestic economy is only RMB 90,000, since the imported tires account for RMB 10,000 of the nominal export value.

So rather than looking at the nominal value of China's manufacturing exports, one needs to look at value added, which can be done using an OECD dataset called Trade in Value-Added (TiVA). TiVA data takes nominal exports and asks what proportion of export value was

generated by the exporting economy. In the above example, when BYD exports a car, China logs a nominal export value of RMB 100,000, but a TiVA export value of RMB 90,000.

Beyond the manufacturing sector, other complementary industries such as power generation, upstream raw materials, and downstream sales and maintenance services also contribute to manufacturing export value added. To illustrate this, one can take the same BYD example as above and disaggregate the different sources of value add to the RMB 100,000 auto export.

- The tires were imported from Vietnam for RMB 10,000.
- The battery was bought from a Chinese battery maker for RMB 30,000.
- The glass was bought from a domestic glass manufacturer for RMB 10,000.
- Copper for the cars' electrical wiring was purchased from a Chinese miner for RMB 10,000.
- Electricity for the manufacturing plant was purchased from the power sector for RMB 20,000.
- Everything else was produced by BYD itself.

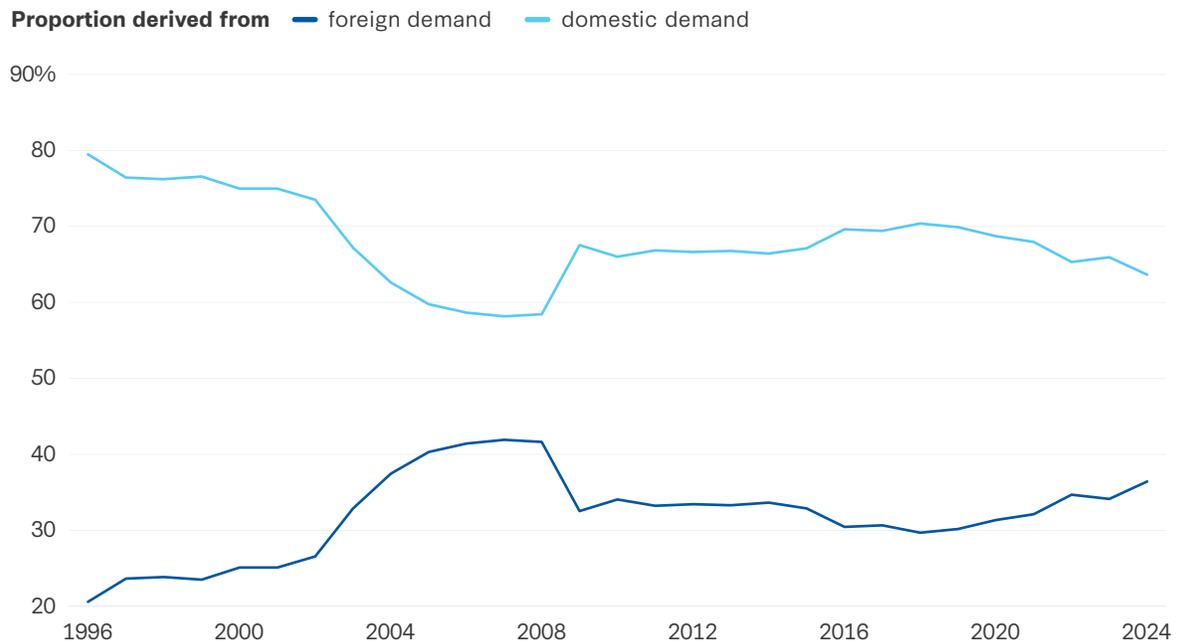
As discussed above, the export value added is RMB 90,000. But of interest in this case is the value added from the manufacturing sector only. In this example, of the RMB 90,000 economy-wide value added, RMB 30,000 comes from nonmanufacturing sectors: RMB 10,000 from raw materials and RMB 20,000 from power generation. This means that the value added from manufacturing is only RMB 60,000. However, the TiVA database records export value added from the entire economy without disaggregating it by sector (i.e., it reports the RMB 90,000 figure, not the RMB 60,000 that is relevant in this case). This means one cannot use the TiVA dataset to estimate manufacturing export value added from the manufacturing sector only.

To estimate manufacturing export value added, it is first necessary to understand how much nonmanufacturing input is used to produce China's manufacturing output. To do this, the authors analyzed China's input-output tables, which map the structure of China's economy across different sectors and show the monetary value of inputs that are used for each of China's outputs. Based on this, the proportion of manufacturing output generated by nonmanufacturing inputs—namely, raw materials, power generation, and complimentary services—was calculated to be 30 percent. That means that for every RMB 100 of manufacturing value added, RMB 70 comes from the manufacturing sector and RMB 30 comes from nonmanufacturing industries.

Based on this, the TiVA figures for manufacturing exports were reduced by 30 percent to exclude the nonmanufacturing value added, resulting in an estimate of China's manufacturing export value added from the manufacturing sector only.

Figure 6.1: Proportion of Manufacturing Value Added Derived from Foreign and Domestic Demand

Exports accounted for over 36 percent of China’s manufacturing output in 2024.



Source: “Trade in Value-Added (TiVA) Database,” OECD, accessed June 26, 2025, <https://www.oecd.org/en/topics/sub-issues/trade-in-value-added.html>.

Since the pandemic, the share of its manufactured exports—as measured by value added—has been rising again. In 2023, exports accounted for 34.1 percent of China’s manufacturing value added.

Growth in exports of high-value manufactured goods has outpaced that of general export growth. In 2015, high-value manufactured goods accounted for 52.2 percent of total export value. By 2023, this had edged up to 54.4 percent.

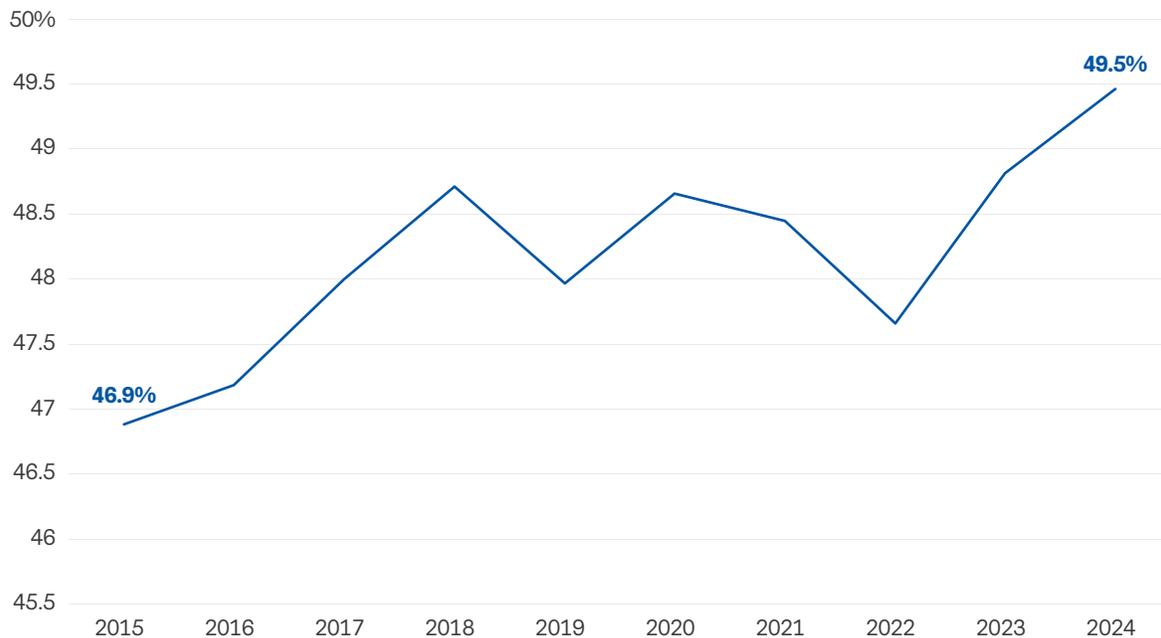
Michael Pettis, a professor of finance at Peking University’s Guanghai School of Management, estimates that if China’s economy grows 4-5 percent annually over the next decade, and manufacturing maintains its current contribution to that growth, China’s share of global manufacturing would rise from 30 percent today to 37 percent by 2035.¹²⁵

That will require the rest of the world to accept a reduced share of global manufacturing.

“Can the future international environment support the export [of a rising share] of industrial manufactured products? If not, where is the way out for the huge production capacity?,” Yang Weimin asked in 2024.¹²⁶ “Production capacity has increased, but domestic consumption has not increased, so we can only expand exports. If exports are blocked, growth will decline.”

Figure 6.2: High Value-Added Exports as a Proportion of Total Exports

High value-added manufactured goods account for an increasingly large proportion of China's total exports.



Source: "United Nations Commodity Trade Statistics Database," United Nations, accessed June 26, 2025, <https://comtradeplus.un.org/>.

The strongest backlash against Chinese exports of manufactures has been from the United States. The irony is that most of the measures taken by the first Trump and Biden administrations had little to do with Beijing doubling down on manufacturing.

President Trump started the hostilities during his first term, imposing tariffs—mostly between 10 percent and 25 percent—on more than \$600 billion worth of imports. However, China did not start ramping up manufacturing as a solution to its long-term growth problems until 2020, just as Trump's first term was ending.

For most of the decade following the global financial crisis, net exports did not contribute to Chinese growth—in fact, China's declining trade surplus dragged on a Chinese economy that was being driven by the housing sector. But China's trade surplus with the United States continued to expand in the years leading up to the first Trump presidency, and so the trade relationship continued to be a source of tension. Overall, though, China's economy was becoming less dependent on exports.

Trump's goal was not to rein in a resurgent Chinese manufacturing sector, but to undo the damage done to blue-collar jobs in the United States a decade earlier, when China's entry into the WTO gutted U.S. jobs in steel, textiles, furniture making, and other industries.

Figure 6.3: Percentage Point Contribution to GDP Growth

China's trade surplus is playing an increasingly important role in driving economic growth.



Source: "CN: Contribution to GDP Growth: Net Export of Goods and Service, Annual," National Bureau of Statistics, via CEIC.

China is dealing with additional tariffs in Trump's second term. However, Trump's focus is less on China specifically and more on rebalancing trade with all of the United States' trade partners to encourage the return of manufacturing to the United States.

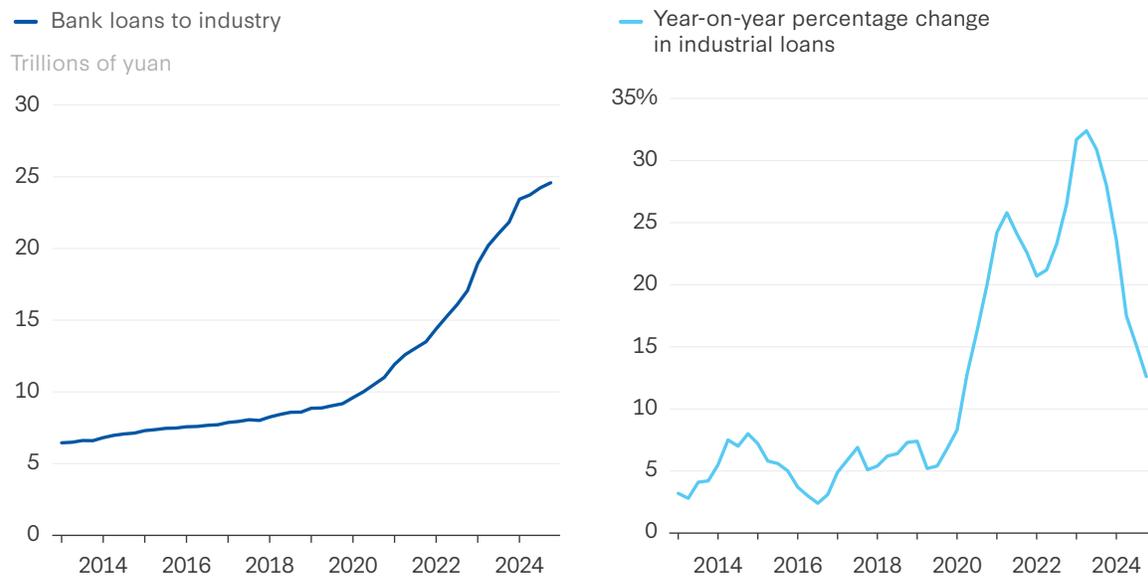
The surge in Chinese investment in manufacturing mostly coincided with the Biden administration. The growth in bank loans to manufacturing from mid-2020 to mid-2024 was consistently four times faster than overall loan growth.

Biden imposed a raft of new restrictions on Chinese trade that went well beyond tariffs. However, these restrictions mostly stemmed from human rights and security concerns. Measures to prevent China from accessing advanced semiconductors, or making their own, touched on China's efforts to become an innovation power, but even then, the U.S. response was framed as a security concern.

The only Biden measures that explicitly targeted China's new manufacturing-led growth model were tariffs imposed on the import of China's "three new" exports: NEVs, batteries, and solar cells. The United States justified the measures on the grounds of Chinese industrial overcapacity.

EU leaders took a similar approach. After complaining of Chinese overcapacity, the European Union imposed tariffs on the import of Chinese electric vehicles in 2024. That year, it also launched an anti-subsidy investigation into Chinese exports of wind turbines.

Figure 6.4: Total Outstanding Bank Loans to Industrial Firms vs. Year-on-Year Change
 Bank loans to industry—including manufacturers—started accelerating in mid-2020. Loan growth has slowed.



Source: “CN: Loan: Local and Foreign Currency: Medium & Long Term: Industrial, Quarterly,” People’s Bank of China, via CEIC.

Neither the United States nor the European Union have a well-developed NEV industry, but Chinese exports pose a challenge to both auto sectors—an industry with long supply chains that supports a lot of well-paying industrial jobs.

Regardless of the rationale behind the international pushback against Chinese exports, the reluctance of the world’s two biggest economies to accept the free flow of goods from China threatens to undermine Beijing’s growth model.

There are three actions Beijing can take to mitigate the impact of this shift, and potentially even further expand exports: cut export prices, further embed itself in global supply chains, and diversify its markets.

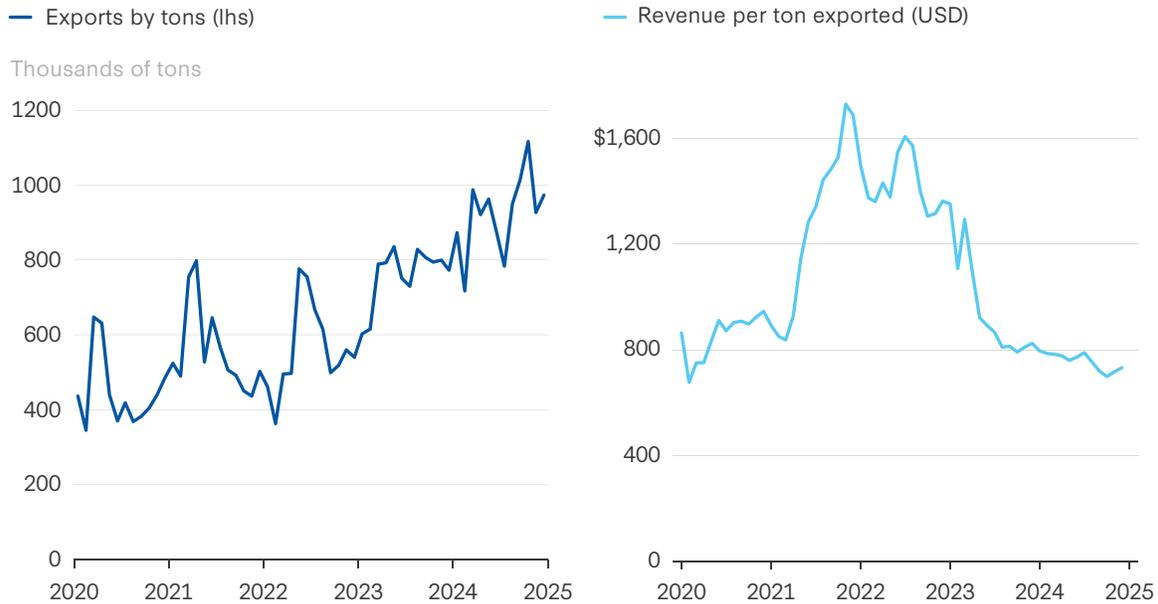
Make China Cheap Again

Cutting prices is perhaps the least appealing option, but it is one that Chinese exporters have already embraced.

As a consequence of China’s housing crisis, domestic demand for some products has plunged and will never recover, leaving a legacy of factories that will never again be fully utilized. The standout example is steel. China has the capacity to produce more steel than the rest of the world combined, and until recently, most of the steel produced in China was for construction.

Figure 6.5: Total Monthly Volume of Steel Exports vs. Monthly Revenue from Steel Exports

Chinese exports of steel have increased, but since mid-2023, this has only been possible by cutting prices.



Source: “CN: Export: Product of Steel or Iron, Monthly” and “CN: Export: Product of Steel or Iron, Monthly,” General Administration of Customs of the People’s Republic of China, via CEIC.

The volume of steel exports has surged since the end of 2021, when the housing market peaked. However, the income earned from those exports has stagnated as Chinese firms have slashed their prices.

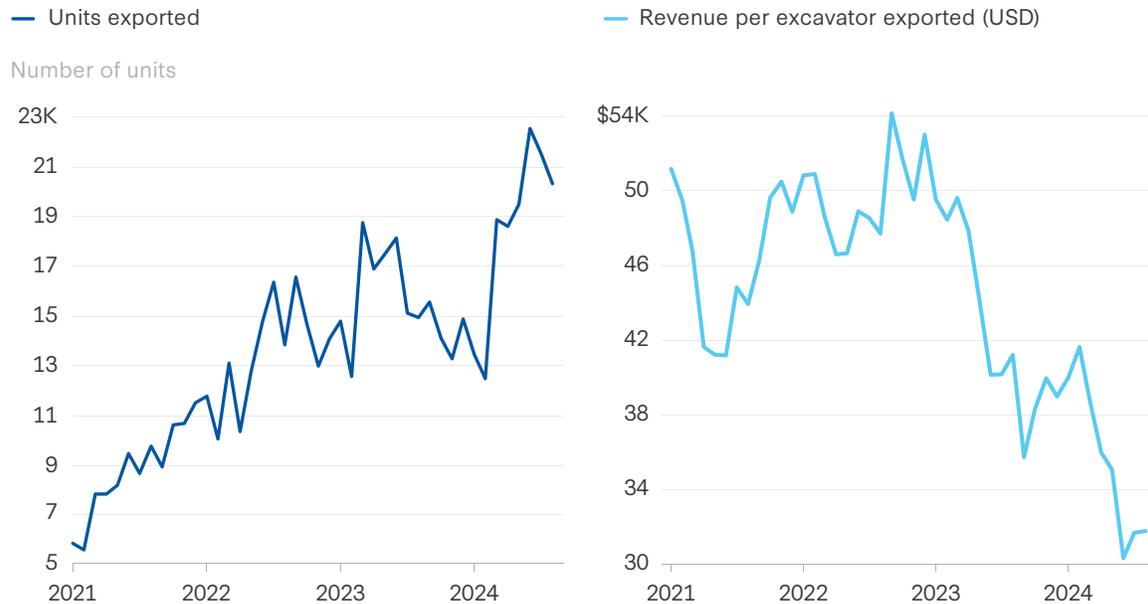
Since China’s housing market peaked in 2021, Mexico, Brazil, Chile, and Colombia have hiked antidumping duties on Chinese steel imports. So have Canada, Malaysia, India, and Turkey.

Other industries have also ramped up exports in response to the property crisis, albeit without international backlash. Exports of dishwashers and air conditioners have risen, but revenue from these exports has not risen as quickly. (China’s housing market has traditionally driven white goods sales; when people buy a newly constructed apartment, they need to furnish it, and that involves purchasing appliances.) Construction machinery exports have surged as well. Prices have held up better, but revenue from excavator exports flatlined in 2024 despite an increase in units shipped.

Price cuts have been felt elsewhere as well. The rise of NEVs has massively cut domestic demand for internal combustion engine (ICE) vehicles. Exports of ICE vehicles have surged as traditional carmakers have cut their prices.

Figure 6.6: Monthly Excavator Unit Exports vs. Value of Exports

Excavator exports have continued to rise, but Chinese firms have been earning less from exporting more.



Source: General Administration of Customs of the People’s Republic of China; and CEIC.

Overall, in 2023 and 2024, even as exports soared, prices fell. This is not simply a case of providing foreign buyers a discount to boost sales. Rather, domestic prices have fallen under deflationary pressures, dragging down the prices Chinese firms are willing to accept overseas.

In theory, Chinese firms could maintain export growth by pushing down domestic production costs. However, that is not a sustainable solution.

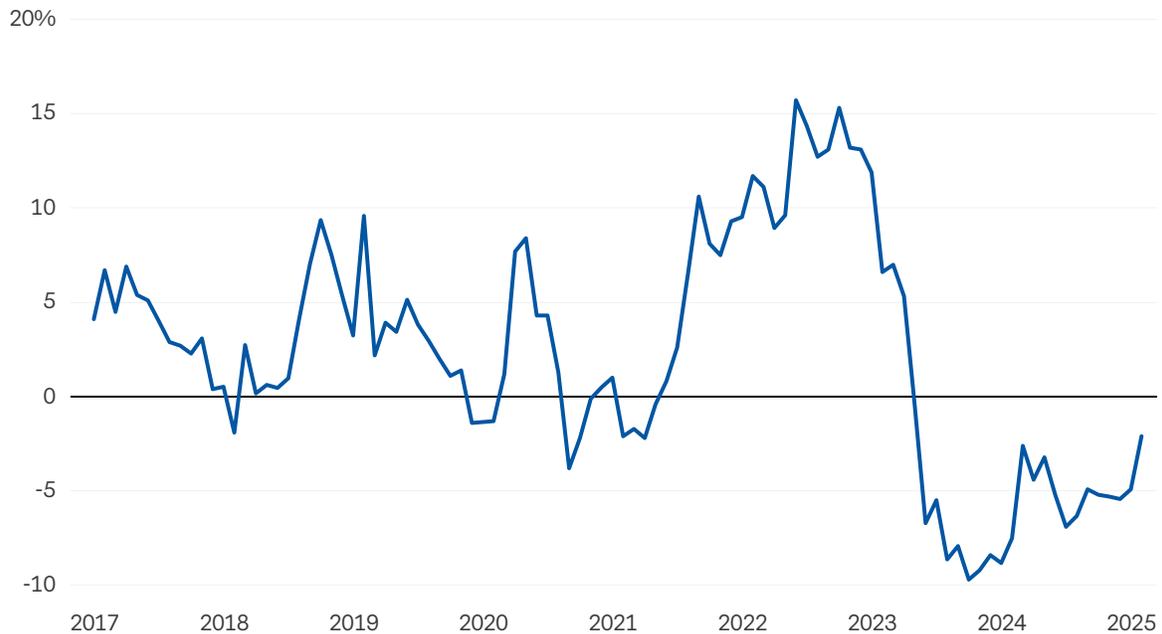
“When the economy is already facing insufficient demand . . . reducing internal prices will increase deflationary pressure and bring higher social costs,” writes Peng Wensheng, chief economist at China International Capital Corporation (CICC), China’s leading securities brokerage. Peng, who is often called upon to brief senior government officials, added that the approach only makes sense in the face of slowing growth and rising unemployment.¹²⁷

Alternatively, Beijing could allow the yuan to depreciate, which would have the same effect. Beijing pursued this approach from 2018 to 2020, when the yuan fell about 10 percent against the dollar, mitigating some of the impact of the first Trump administration’s tariffs.

However, while a weaker yuan would be good for Chinese exporters, it would erode the spending power of Chinese households by pushing up the prices of imports. That would fly in the face of Beijing’s goal of boosting households’ spending power.

Figure 6.7: Year-on-Year Change in China’s Export Prices

Exporters have been slashing prices since April 2023, the longest period of export deflation on record.



Source: CEIC; and General Administration of Customs of the People’s Republic of China.

Regardless of whether exporters cut prices or Beijing permits the yuan to depreciate, both approaches invite retaliation and competitive devaluations from other countries.

“The problem with the economy of a big country is that whatever you sell becomes cheaper, and whatever you buy becomes more expensive,” writes Huang Yiping.¹²⁸ “Any action will have an impact on the balance of the international market. Historically, if trade imbalances are not properly resolved, it can easily lead to major economic, political and even military conflicts.”

Rather than purely compete on price, Beijing hopes to make Chinese exports indispensable.

Greater Security Through Intermediate Goods

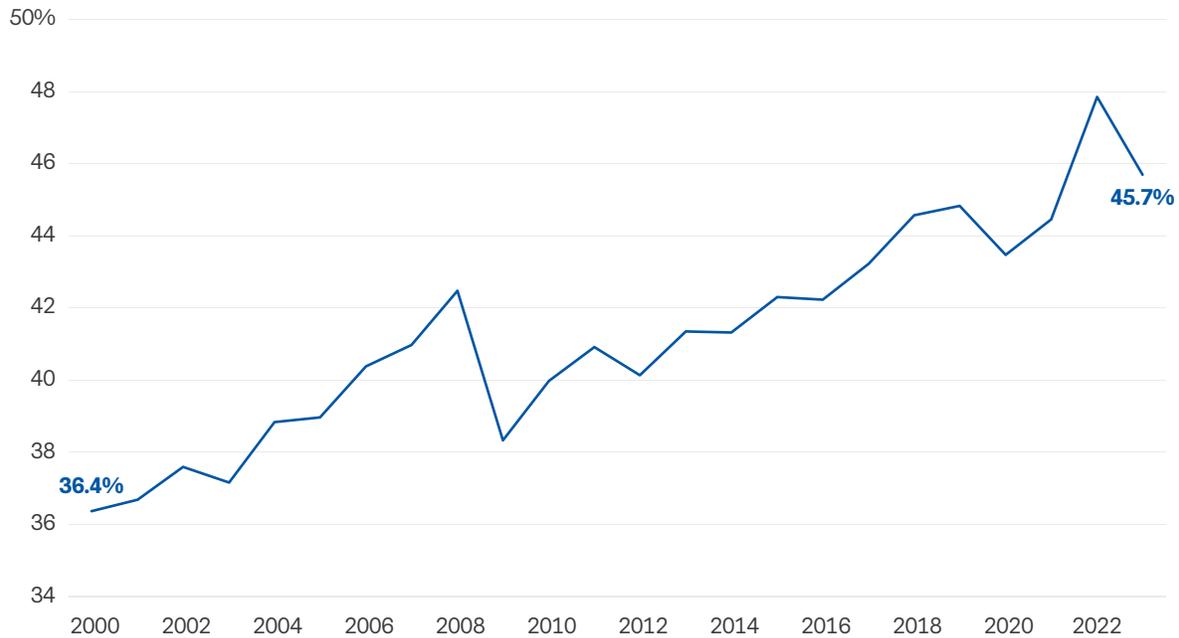
One way China is insulating itself from trade barriers is by focusing on producing—and exporting—intermediate goods. Intermediate goods are components and semi-processed raw materials that go into making a finished product.

Chinese exports of intermediate goods have grown at unprecedented rates. In 2000, they accounted for a third of China’s total export value. By 2023, they accounted for almost 46 percent.

By another measure, they have accounted for about 60 percent of the growth in Chinese exports over the past 20 years.¹²⁹

Figure 6.8: China's Intermediate Exports as a Proportion of Total Exports

By increasing its export of intermediate goods, China is irreversibly embedding itself into global supply chains.



Source: "United Nations Commodity Trade Statistics Database," United Nations.

Intermediate goods are also at the heart of China's efforts to move into more advanced manufacturing. Growth in China's export of high-value manufactured goods is almost solely driven by intermediate goods. While finished high-value goods such as NEVs and solar panels steal the headlines, it is intermediate high-value goods that are truly driving China's exports up the value chain.

These goods include automotive parts going to Japan and Mexico, lithium batteries going to the United States and Germany, and screens for electronic devices going to Vietnam and Indonesia—all of which saw double-digit growth in 2023.¹³⁰ The sheer scale of Chinese exports of intermediate goods is massive.

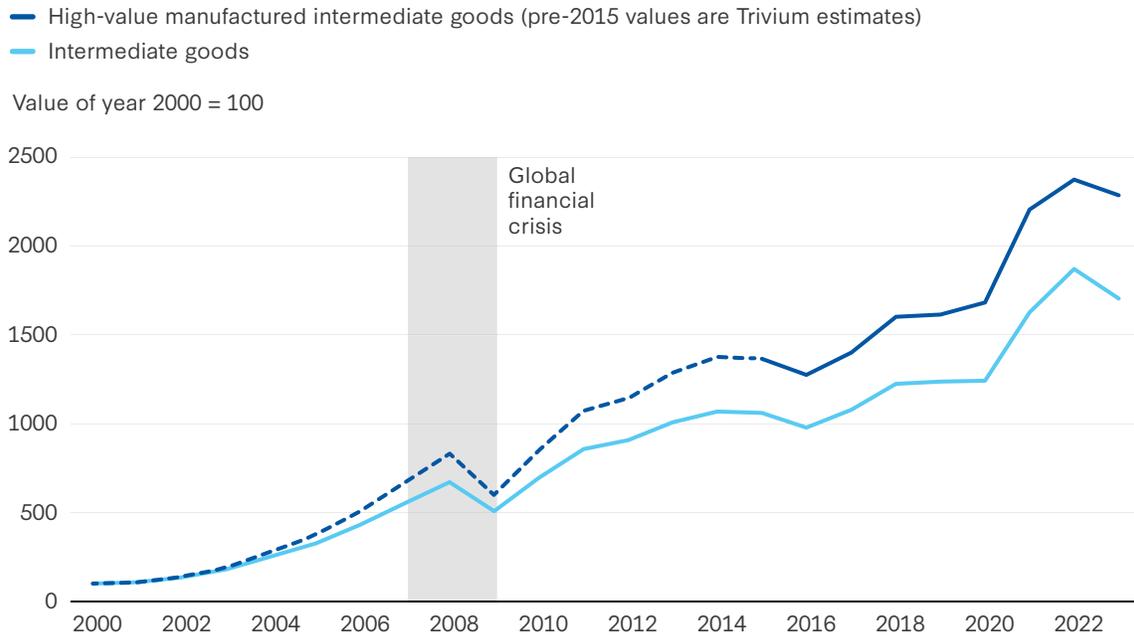
"Simply put, China has become what might be called 'the OPEC of industrial inputs,'" writes Richard Baldwin, professor of international economics at IMD Business School.¹³¹

Baldwin is one of the authors of a Brookings paper titled *Hidden Exposure: Measuring U.S. Supply Chain Reliance*, which found that in 2018, China produced about 40 percent of all intermediate goods produced globally, up from about 10 percent at the turn of the century.¹³² Finished goods produced by China accounted for only about 20 percent of the global total.

The consequence is that the United States—and the European Union as well—is far more dependent on products manufactured in China than direct imports from China would imply.

Figure 6.9: Intermediate and High-Value Intermediate Exports Index

Since the 2007–08 global financial crisis, China’s export of high-value intermediate goods has outpaced broader intermediate goods export growth.



Note: Value set to 100 in the year 2000.

Source: “United Nations Commodity Trade Statistics Database,” United Nations.

“By any measure, China is the United States’ largest supplier of industrial inputs,” the Brookings paper found.¹³³ “But taking account of the Chinese inputs into all the inputs that American manufacturers buy from other foreign suppliers—what we call look-through exposure—we see that the US exposure to China is almost four times larger than it appears to be at face value.”

In other words, much of what the United States imports from the rest of the world has Chinese components.

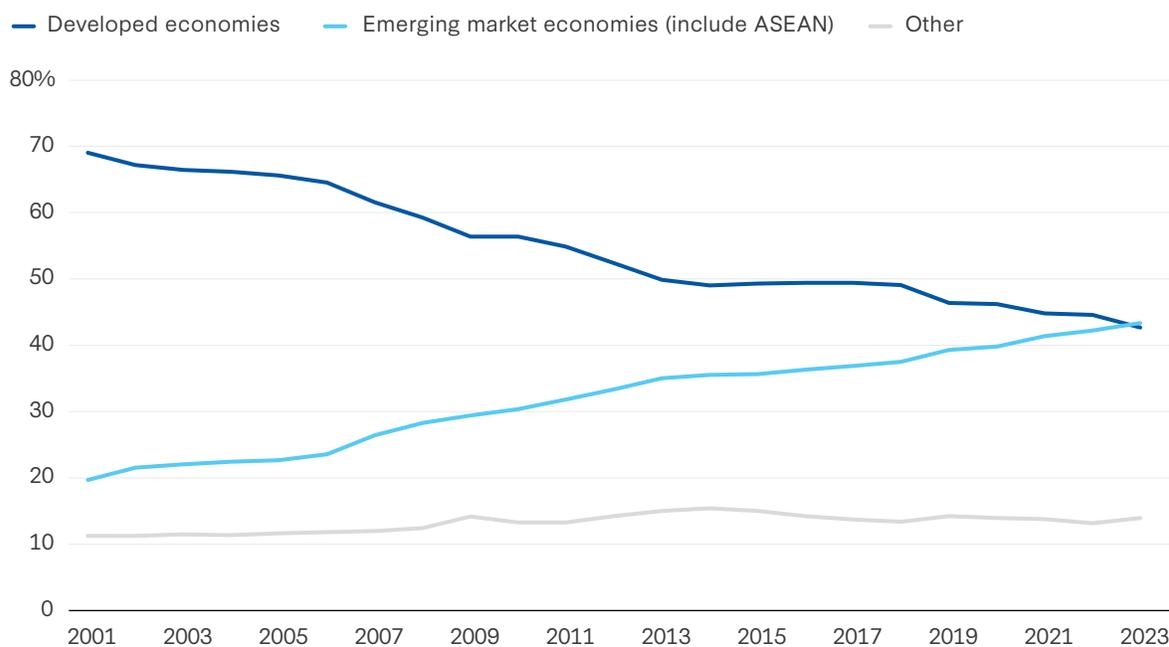
Although the paper was published in 2023, it used data ending in 2018. Since then, a lot has changed. Trump imposed tariffs on China in mid-2018, after which direct exports from China to the United States declined. However, as exports to the United States dropped, overall Chinese exports increased. Much of that growth was driven by intermediate goods.

Between 2018—when the first Trump administration imposed tariffs on Chinese imports—and 2023, the share of China’s intermediate goods exports to the United States dropped from 15.9 percent to 10.7 percent. Over the same period, intermediate exports from China to Mexico, Vietnam, Malaysia, Thailand, and Indonesia—which were then assembled in final products and exported to the United States—grew from 16.0 percent to 18.3 percent. In 2023, for the first time, emerging markets received a greater proportion of China’s intermediate goods exports than developed economies.

In 2022, the top three categories of products imported by Mexico from China were electrical and electronic equipment, mechanical equipment, and vehicles—which were also the main categories of goods hit by Trump’s 25 percent tariffs.¹³⁴ The value of automobiles and parts imported by Mexico from China in 2023 was 2.6 times higher than it was on the eve of the Sino-U.S. trade frictions in 2018.¹³⁵

Figure 6.10: China’s Intermediate Goods Exports by Economic Bloc

In 2023, China exported more intermediate goods to developing economies than to developed economies, for the first time ever.



Source: “United Nations Commodity Trade Statistics Database,” United Nations.

China has an explicit strategy of dominating the global supply of intermediate goods. In a 2020 essay, Xi Jinping wrote that China should strive to “tighten the dependence of the international industrial chain on China.”¹³⁶

By cultivating global dependence on Chinese-made components, Xi is hoping to insulate China from protectionism. By expanding and diversifying its production of intermediate goods, China increases the odds that any given final good produced globally contains at least some Chinese components. The more China dominates the production of an intermediate good, the more difficult it is to source it from somewhere else. Ultimately, it makes decoupling far more difficult because the world has grown dependent on China for parts.

Intermediate goods can also help Chinese firms get around trade barriers.

In 2004, TCL—a Chinese manufacturer of televisions and other panels—took over the TV business of France’s Thomson, acquiring a factory in Poland, a 40-minute drive southwest of Warsaw.

Today, the factory makes up to 5 million TVs annually. Some of their components are made in Poland, but 80 percent come from China, including the most valuable parts: the mainboard, display screen, power board, backlighting, casing, wiring, speakers, and remote control.¹³⁷

“Simply exporting goods is not sustainable,” Li Dongsheng, founder and chairman of TCL, said in June 2024.¹³⁸ “Only by investing locally, creating jobs and contributing more to local taxes, can we gain substantial support from local governments.”

According to TCL, TVs exported directly to the European Union from China are subject to a 14 percent customs duty. But by assembling the components within EU borders, the duty is zero.

Getting around trade barriers is not always that easy. For example, the United States’ International Trade Administration determines tariff rates for imports based on their country of origin, and when determining the country of origin, the agency takes intermediate goods into account. That can be tricky when a product includes components from all over the world.

One of the key legal principles undergirding these rules, however, is “substantial transformation”: Specific trade agreements notwithstanding, a good’s country of origin will typically be the last country in which it underwent major processing, manufacturing, or some other transformation that resulted in a significant increase in value. For example, molding sheet metal into a car door constitutes a sufficiently large increase in value, but turning it into metal roofing probably does not. Simply assembling components produced elsewhere is sometimes enough, but not always.

In a bid to get around U.S. tariffs, Chinese solar components set up factories throughout Southeast Asia during the 2010s. These factories were heavily supplied by components produced in mainland China. Chinese solar manufacturers run a near-monopoly on the production of polysilicon and silicon wafers—the basis of solar cells—accounting for around 92 percent and 98 percent of global output, respectively, in 2023.¹³⁹ The vast majority of that supply was directed to Southeast Asia, where it was transformed into solar modules.

Chinese solar module imports to the United States are subject to punitive antidumping and countervailing duty tariffs, but for a long time those produced in Southeast Asia were not, because the transformation of polysilicon and wafers into modules by the Southeast Asian factories was sufficiently substantial that China was not classified as the country of origin for the downstream exports.

That changed in December 2024, when the U.S. Commerce Department announced preliminary antidumping tariffs on imported solar modules and cells from Cambodia, Malaysia, Thailand, and Vietnam—the four main recipients of Chinese investment, which together accounted for three-quarters of U.S. imports of solar modules.¹⁴⁰ The preliminary U.S. tariffs vary significantly by country and company, ranging from 0 percent to 271 percent. However, they hit China’s four largest manufacturers hard, with average rates exceeding 50 percent.

Nonetheless, more and more Chinese firms are likely to set up factories overseas to contend with tariffs and other duties. China does not capture as much value from its firms building factories

overseas as it would if a product were made entirely in China. But by sacrificing a little domestic production, these firms can secure lucrative overseas markets.

China's battery makers have been particularly active in expanding overseas production. CATL, the Chinese battery giant, is building factories in Hungary, Morocco, and (as a joint venture project with Stellantis) Spain.¹⁴¹ Ningbo Shanshan is building a facility in Finland.¹⁴² Gotion is also building a factory in Morocco.¹⁴³

Chinese car companies are also moving abroad. Chery has plans to build a joint venture factory in Spain.¹⁴⁴ BYD intends to build facilities in Hungary, Thailand, Turkey, and Indonesia.¹⁴⁵ Chinese-owned Volvo is shifting some production from China to Belgium.¹⁴⁶ GAC Aion, an NEV subsidiary of state-owned GAC Group, is building a factory in Thailand.¹⁴⁷

Focusing on the production and export of intermediate goods is a way for China to maintain sales of manufactured goods to the United States and European Union even as trade tensions mount. Removing Chinese-made intermediate goods from the U.S. and EU supply chains will be difficult. It will take time, political will, and money to identify what Chinese-made components governments are not willing to tolerate in their supply chains, and then to establish a stable, cost-effective substitute.

The risk to China is not just falling exports, but sluggish or stagnant export growth. Its dominant position in intermediate goods makes decoupling difficult, but China's new growth model requires manufacturing production to increase—and that rests upon growing exports.

China needs to find new markets. That does not just mean selling more intermediate goods to Vietnam for assembly into products that are exported to the United States; China needs markets other than the United States and European Union (i.e., the rest of the world) to buy the things it makes.

Championing the Existing Trade Order

Most of the pushback against Chinese exports has been from advanced economies for which China's push into advanced manufacturing poses a real threat to firms and jobs. But outside of the United States, European Union, and Japan, few countries are threatened by China's move into higher-quality manufactured goods.

In 2024, China became the world's biggest exporter of passenger vehicles, overtaking Japan for the top spot. Relatively few of those vehicles go to the United States and European Union.

China was able to jump to the top spot because of Russia. Following Russia's invasion of Ukraine, China was the only major car producer still willing to export vehicles to the country. In 2023, China exported 900,000 vehicles to Russia, accounting for 61 percent of all car sales in Russia that year.¹⁴⁸

However, even without the windfall from Russian exports, Chinese vehicles have surged in popularity globally in recent years.

Chinese-made vehicles accounted for 20.2 percent of all cars sold in Mexico in 2023.¹⁴⁹ The total volume of newly sold Chinese cars purchased in the country—275,878 units—was up 63 percent from the previous year. Chinese companies are setting up factories in Mexico, giving rise to U.S. concerns that companies intend to use Mexico as a backdoor into the United States. That might be the case, but Chinese cars are popular in Mexico in their own right because they are cheap and well made.

Australia, a developed economy, tells a similar story. Traveling from the United States to Australia, it is a shock to see so many Chinese car brands on the roads. But Australia does not have a domestic auto industry; the last car manufacturer shut down in 2017 after the government cut subsidies. Consequently, Chinese imports do not threaten Australian jobs. In 2023, 15.9 percent of all new vehicles sold in Australia were imported from China.¹⁵⁰ The total volume of newly sold Chinese cars—193,433 units—was up 57.5 percent from the previous year.

In both the United States and Australia, demand is driven by traditional ICE vehicles, but in other places, demand is being driven by NEVs.

The United Arab Emirates, Saudi Arabia, and Israel are among the biggest export markets for Chinese electric and hybrid vehicles. In Israel, Chinese imports accounted for 22.9 percent of all car sales in 2024, up from 16.7 percent in 2023. Demand is also strong in Thailand, where authorities want to foster strong domestic demand for electric vehicles as a precursor to Thailand building its own NEV factories for export, mirroring the country's role as a regional hub for ICE vehicle production.

In these places, China is cannibalizing the market share of advanced economies. It is able to do that by making well-designed, low-cost vehicles. But China is also looking to create additional opportunities by pursuing free trade deals.

China is a founding signatory and enthusiastic proponent of the Regional Comprehensive Economic Partnership (RCEP), a free trade agreement between Australia, China, Japan, New Zealand, South Korea, and the Association of Southeast Asian Nations (ASEAN). The agreement went into effect for most participants in January 2022.

China also wants to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), a free trade pact linking 11 Pacific countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. China has been preparing to pilot regulatory changes to better align with CPTPP standards, but despite Chinese enthusiasm, in December 2024, CPTPP members decided not to move forward with China's application, prioritizing Costa Rica's bid instead.¹⁵¹

China is also aggressively pursuing bilateral free trade agreements. It currently has eighteen such agreements, four of which have been finalized since 2022, with another eight under negotiation and a further seven under consideration.¹⁵²

Few countries have lost faith in the global trade order like the United States. Most countries still believe they benefit from free trade. To that end, China has framed itself as a champion of free trade—and a victim of protectionism.

“Protectionism leads to nowhere, and there are no winners in a trade war,” Ding Xuexiang, the country’s vice premier, said at the World Economic Forum meeting in Davos in January 2025.¹⁵³ He called multilateralism “the right path for maintaining world peace and promoting human development.”

That echoed Premier Li Qiang’s comments at the forum in 2024, when he said, “It is essential that we embrace each other with open arms and work closely with each other, reject bloc confrontation and decoupling, [and] keep industrial and supply chains stable and smooth . . . so as to promote the sound development of globalization and form a strong synergy for global economic growth.”¹⁵⁴

That might sound cynical to U.S. ears, but it reflects a difference in perspective about what constitutes free trade. In the United States, free trade is a principle, and the WTO exists to codify those principles. In U.S. officials’ view, Chinese industrial policy, supported by extensive subsidies, is cheating. In contrast, China’s authorities equate free trade with WTO compliance. In China’s telling, its industrial policies do not diminish its commitment to free trade.

“Using industrial subsidy policies to guide industrial development and adjust industrial structure is a common practice adopted by countries around the world,” China’s Ministry of Commerce said in a May 2024 essay.¹⁵⁵ “The key is to comply with WTO rules and adhere to fairness, transparency and non-discrimination. China’s industrial subsidy policies strictly abide by WTO rules.”

China views itself instead as the victim of protectionism. The Ministry of Commerce singled out the Biden administration’s Inflation Reduction Act as discriminating against Chinese firms by excluding Chinese-made electric vehicles, batteries, and key minerals from subsidies and setting up barriers to Chinese firms entering the U.S. market. According to the ministry, this constitutes “a clear violation of WTO rules and [is] a typical protectionist approach.”¹⁵⁶

Comments like these are not aimed at the United States, or even the European Union, neither of which are likely to be receptive to Chinese claims. Rather, they are aimed at the rest of the world—at countries that feel there is value in preserving the WTO’s free trade regime.

The challenge for China is that the world’s biggest advanced economies—the United States, European Union, and Japan—between them represented about 48 percent of global GDP in 2024.¹⁵⁷ China accounted for a further 17 percent of global GDP, which means the rest of the world accounted for only 35 percent of economic activity. Moreover, income levels in the rest of the world are lower, so there is less demand for the kinds of high-end manufactured goods China wants to produce more of.

In 2023, about 15.5 million passenger vehicles were sold in the United States. In China, about 26 million vehicles were sold, in Japan about 4.8 million, and in the European Union about 10.6 million.

Nowhere else comes close. In ASEAN, car sales came to 2.3 million units.¹⁵⁸ In Central and South America, they totaled an additional 3 million, and in the Middle East, 2.8 million.¹⁵⁹

Advanced economies account for a huge amount of global demand for these goods, and the rest of the world does not come close as an alternative destination for Chinese exports. Nonetheless, the rest of the world is still undoubtedly an important source of incremental growth.

To maximize that potential, China does not just want to increase its market share in the rest of the world; it wants to create new markets. To that end, China is positioning itself as the indispensable partner for the green transition.

The Green Transition's Indispensable Man

“The contradiction between the huge demand for low-carbon development and the serious shortage of low-cost green technology supply is prominent, which restricts the global response to climate change,” the Development Research Center (the State Council’s think tank) wrote in July 2024.¹⁶⁰ “China has found a feasible technical path for deep decarbonization in the energy and transportation sectors through its own efforts, and has significantly reduced the cost of new energy products through large-scale applications, bringing hope to the global response to climate change.”

Such arguments have no traction in the United States. But for most of the developing world—in fact, any country without an advanced manufacturing sector—the path to affordable decarbonization is through China.

For China, becoming the developing world’s supplier of choice for the green transition could be one solution to its overcapacity problems.

When the United States imposed tariffs on Chinese NEVs, solar components, and batteries, it said it was doing so in response to Chinese industrial overcapacity. When the European Union imposed tariffs on NEVs and launched an investigation into Chinese wind turbine exports, it was similarly in response to overcapacity.

Beijing has adamantly denied any overcapacity in those sectors, but the United States and European Union have a compelling case. Industrial overcapacity is an imprecise concept, but it broadly refers to an industry producing more than a market can consume, leading to lower prices and less revenue.

In 2024, consultancy Wood Mackenzie estimated that China’s capacity is sufficient to meet annual global demand for solar wafers, cells, and modules until 2032.¹⁶¹ In October 2024, the China Photovoltaic Industry Association held a meeting at which its members—solar component manufacturers—implicitly acknowledged the overcapacity problem when they pledged to “strengthen industry self-discipline, avoid vicious competition, improve market mechanisms for eliminating weaker players, and streamline processes for phasing out obsolete capacity.”¹⁶²

Meanwhile, domestic sales of wind turbines plummeted when the government wound down national-level subsidies for new projects in 2021. That created massive oversupply and drove prices

through the floor.¹⁶³ Chinese firms responded by ramping up exports, creating tensions in the European Union, where Chinese firms undercut European turbine manufacturers on price.

At its peak, China had about 200 NEV producers, many of which had built factories well beyond the capacity of the domestic market to absorb them.¹⁶⁴ According to the *New York Times*, in late 2024, Chinese factories had the capacity to produce twice as many cars as the domestic market needed.¹⁶⁵

Exports have surged as firms seek new buyers overseas. However, U.S. and EU complaints that rising exports are a symptom of overcapacity are dismissed by Beijing as hypocritical.

“In 2023, only 20 percent of Germany’s automobile production was sold domestically and about 80 percent was sold to the international market. About 50 percent of Japan’s automobile production was sold abroad, while China’s overseas sales of NEVs only accounted for 12.7 percent of its production,” China’s Ministry of Commerce wrote in May 2024.¹⁶⁶ “It is unreasonable to accuse China of ‘overcapacity.’”

Despite these objections, overcapacity is a recurring problem in the Chinese economy. Firms prioritize market share over consumption, resulting in the rapid expansion of production capacity and aggressive price cutting as firms strive to become the biggest players. In a market economy, that would quickly drive out of business those firms without enough cash to absorb the losses. But in China, local authorities often step in to provide firms with enough support to keep them alive. To escape cutthroat competition at home, Chinese firms expand into overseas markets, where they are able to undercut foreign competitors on price.

Regardless of whether China is willing to acknowledge its overcapacity problems, Chinese firms desperately need export markets.

“Our current challenge is that our domestic market may not be large enough to accommodate our output of electric vehicles and green products, while at the same time, Western countries are setting up barriers such as tariffs against us,” writes Huang Yiping.¹⁶⁷ “So, where should we go?”

The obvious market for China’s green tech is the Global South, where there is clear demand. In 2023, China’s top export markets for wind turbines were Uzbekistan, Egypt, South Africa, and Laos.¹⁶⁸

However, developing economies are unlikely to be able to make purchases on the scale that China requires to resolve its overcapacity issues.

Huang has proposed a solution to this, which he calls the Global South Green Development Plan, or, more pithily, the Green Marshall Plan.

Under the Marshall Plan, the United States provided huge amounts of aid for Europe’s post-WWII reconstruction. Huang envisions something similar, except with China providing funding for developing economies to build low-carbon economies.

“As many developing countries begin their green transformation, China can provide a lot of help – commercial loans and investments, financial support from China’s policy banks, direct government assistance,” says Huang.¹⁶⁹ “In the process, we can also gain incremental demand.”

There is no sign that Beijing is moving toward launching something like a Green Marshall Plan. Still, Huang’s impetus for proposing such a plan reflects the challenges China is facing and the potential importance of the Global South in any solution.

China needs to sell more to developing economies. It can do so by taking away market share for things like cars from advanced economies. But it can also do so by supporting their electrification with solar modules, wind turbines, charging piles for electric vehicles, ultra-high-voltage power lines, and batteries.

Driving green exports will depend on the commitment of governments to invest in the green transition—but perhaps also on China’s willingness to help fund this investment.

Will Exports Be Enough?

China’s ability to maintain exports has been complicated by the tariffs imposed by President Trump, not just on Chinese imports but on all imports into the United States. For decades, the United States has played the role of global consumer of last resort, running persistent trade deficits and absorbing surplus production from around the world. As U.S. imports shrink under tariffs, the rest of the world—China included—must scramble to find new markets.

The Global South—where export-driven growth represents the surest path to development—desperately needs someone to replace the United States as a buyer. That role will not be filled by China. Instead, Beijing is looking to these developing markets to absorb China’s own growing industrial output, as well as to absorb the goods the United States no longer buys. While many countries will welcome China’s affordable, high-quality, and increasingly sophisticated goods, there may be limits to how much they are willing to buy, particularly if China does not reciprocate by importing more from them.

That makes China’s domestic market all the more important, not least because Beijing can stimulate domestic spending more readily than it can convince other countries to increase their imports. Still, even at home, China’s authorities face significant challenges, which Chapter 7 will discuss.

Threats to Consumption

Under Xi Jinping's new economic model, higher household consumption is not a driver but a consequence of China's economic transformation. Still, the extent to which households increase their spending during this transition has important implications for the structure of the economy.

The more Chinese people spend, the less factories need to rely on exports to absorb production. However, if household spending is sluggish, China will either have to export more or increase its borrowing to boost growth through investment.

To relieve pressure on exports and government-led investment, household consumption ideally needs to grow at a faster rate than GDP. In the five years before the pandemic, China's nominal GDP averaged 8.9 percent growth per year.¹⁷⁰ Over the same period, household consumption grew by 10.3 percent per year.¹⁷¹ By consistently outpacing the overall growth, household consumption as a proportion of GDP increased from 34.9 percent in 2010 to 39.3 percent in 2019.

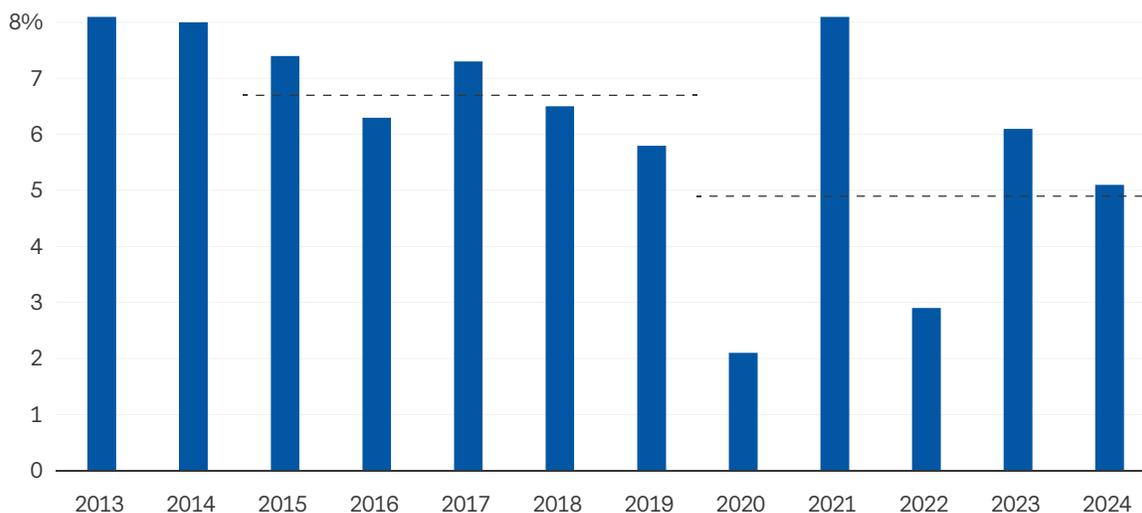
However, since the beginning of the pandemic, the gap between household consumption and GDP growth has narrowed considerably. Since 2020, both the overall economy and household consumption have grown at an average nominal rate of 6.1 percent per year, keeping consumption's share of GDP largely unchanged since 2019.

Consumption growth has been eroded by a slowdown in real disposable income growth, which averaged 6.7 percent annually in the five years before Covid-19 (2015-2019) but has averaged only 4.9 percent in the five years since (2020-2024).¹⁷² Meanwhile, according to the National Bureau of

Statistics' consumer confidence index, households' willingness to spend dropped with the onset of the pandemic and has yet to recover.¹⁷³

Figure 7.1: Year-on-Year Growth in Disposable Income per Capita

Household income growth has permanently slowed down.



Source: CEIC; and National Bureau of Statistics of China.

Initially, it was widely assumed that once Beijing abandoned its hardline zero-Covid policy in December 2022, consumer spending would soon come roaring back. The Chinese press was filled with discussions of “revenge spending”—the idea that the population, freed from restrictions on their movements, would go out and spend to make up for lost time.

In its end-of-year *Monetary Policy Report for 2022*, the PBoC said the lifting of pandemic controls would “lead to a recovery in previously suppressed demand for visiting family and friends, leisure and entertainment, tourism, and dining [and] some of the precautionary savings [households previously] accumulated [during zero-Covid] are likely to be gradually released into actual consumption demand.”¹⁷⁴

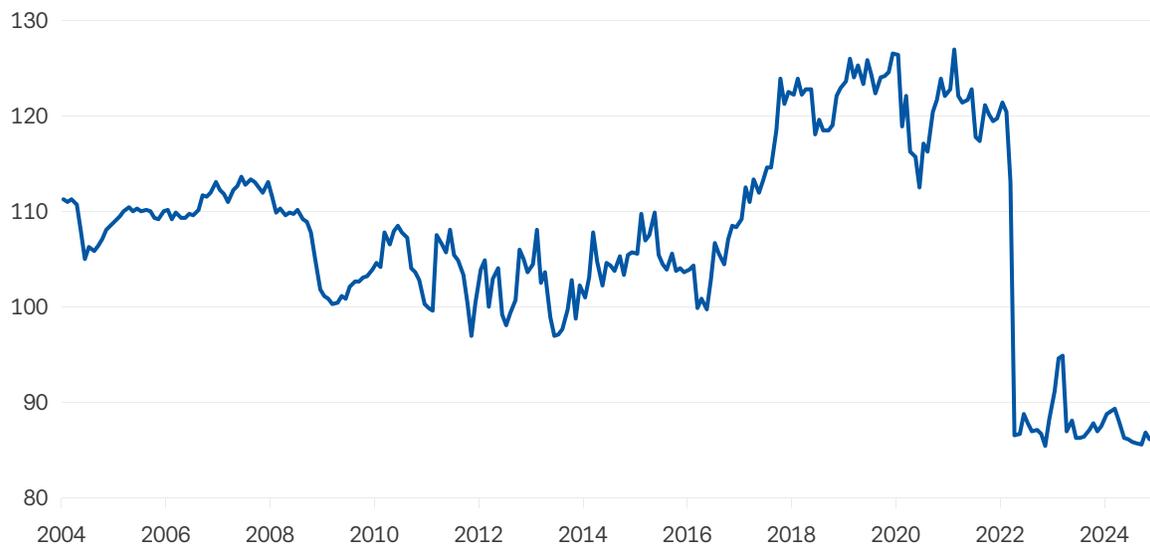
However, the surge in consumption never materialized, prompting China’s authorities to reframe their expectations. In September 2023, Yi Gang, who had recently retired as PBoC governor, said: “Internationally, it has generally taken about a year for consumption to recover from the pandemic. China has only been in recovery for about six months.”¹⁷⁵

Any hopes of a one-year recovery, however, were quickly dashed. In September 2024, a year later, Yi had drastically shifted his stance, sounding the alarm that the economy was so weak that Beijing’s priority should now be fighting deflation.¹⁷⁶

The pandemic undeniably took a toll on China’s economy. Government stimulus was small relative to both international responses and China’s responses to previous economic shocks. Whereas the

Figure 7.2: NBS Consumer Confidence Index

Consumer confidence cratered with the pandemic lockdowns of 2022 and never recovered.



Note: Values above 100 indicate rising confidence. The consumer confidence index is calculated based on the weighted average of the NBS's satisfaction index and the expectations index. The satisfaction index refers to consumers' judgment on the current employment situation, current family income, and purchase timing, and the expectations index refers to consumers' expectations of the employment situation and family income in the next six months.

Source: National Bureau of Statistics of China; and CEIC.

United States expanded welfare programs, provided support to small businesses, and sent out stimulus checks to households, small businesses and households in China were, for the most part, left to fend for themselves.

Beijing tried to relieve pressure on small firms by allowing them to defer tax and social security payments. It encouraged state firms to waive or reduce the rent they charged small firm tenants. Banks were told to exercise forbearance in their treatment of delinquent loans and not penalize small firms for falling behind on their interest payments.

However, most firms and households emerged from three years of Covid restrictions far worse off than before the pandemic, undermining their willingness to spend. Firms had depleted their reserves and savings just to stay afloat, which they then had to rebuild. Meanwhile, household incomes decreased during the Covid years. Many firms suspended annual bonuses, an important and near-universal component of most people's compensation. Many people took cuts to wages from firms struggling to keep their heads above water. Many migrant workers lost their jobs in cities and moved back to the countryside, and youth unemployment soared.

The consequences were most noticeable in sales of what Beijing calls "big-ticket items"—things like white goods, consumer electronics, and passenger vehicles. Spending on eating out and travel also slowed; the Chinese press was full of stories of people reducing their consumption by buying cheaper coffee at work or taking holidays closer to home.

So far, Beijing's efforts to revive consumption have focused on unlocking latent demand (as discussed in Chapter 6), as well as providing discounts through discount vouchers—usually distributed by municipal authorities to boost spending during holiday periods—and subsidies.

Beijing's biggest campaign to boost consumption has centered on reviving big-ticket purchases. In March 2024, authorities launched a consumer trade-in program, through which people who traded in their old white goods and cars could get significant discounts on a new version. After a slow start, the program took off in the second half of the year when the subsidies were increased, and the program was expanded to include consumer electronics in 2025.

The trade-in program and the discount vouchers are designed to provide a short-term boost to spending. However, by bringing forward consumption decisions, they cannibalize future demand, as people take advantage of cheaper prices to buy more now, and less next year or the year after.

That will not matter as much if the finances of Chinese households recover from the hit they took during the Covid years, allowing spending to bounce back. But what if the pandemic merely coincided with a more fundamental shift in consumption habits? There is reason to think the Chinese public emerged from the Covid years more frugal than before primarily due to the housing market slump and shifting demographics.

The Housing Market Collapse

The collapse in housing demand has unquestionably had an impact on consumption. However, it has impacted different parts of the population in different ways. For migrant workers, the consequences have principally been felt through employment.

China's official urban unemployment rate typically hovers between 5 percent and 5.5 percent. However, the official figure does not provide a complete picture of unemployment in urban areas because it only includes individuals with urban residency permits. The government's own data indicates that urban residents account for less than half of the working population in China's cities and towns.¹⁷⁷ Moreover, a significant proportion of this group is employed at state firms and government agencies, ensuring relatively stable employment.

Employment conditions for everyone else—namely, migrant workers—are far more precarious. However, there is no official measure of unemployment for this group.

Migrant workers are disproportionately represented in construction. According to one estimate, in 2020, about 90 percent of all construction workers were migrant workers.¹⁷⁸ Likewise, in 2021, 19 percent of all migrant workers were employed in construction. That was the peak of China's housing market and employment. The share of migrant workers in construction fell to 15.4 percent at the end of 2023. Those displaced workers did not end up in manufacturing, where wages are comparable; the proportion of migrant workers engaged in manufacturing work rose only marginally from 27.1 percent in 2021 to 27.5 percent in 2023. Instead, they took service sector jobs as delivery couriers and ride-hailing app drivers. Particularly when compared to these types of jobs, construction is a relatively high-paying source of employment for migrant workers. Hence, it is safe

to assume that as many as 10 million people moved to lower-paying jobs between 2021 and 2023 as a result of the housing collapse.

This figure might be even higher. Small private sector firms engaged in logistics, wholesale, renovations, and a range of other service industries—all major sources of employment for migrant workers—were heavily exposed to the property sector. As work for these businesses shrank, it is unlikely that laid-off workers were able to find new jobs offering comparable wages.

The collapse in housing demand has undoubtedly left China’s migrant workers worse off and eroded their capacity to spend.

“Considering that the entire service industry and construction industry provide the vast majority of sources of household employment and income growth . . . [their weak recovery] will naturally directly affect the disposable income of households,” writes Zhang Jun, dean of the school of economics at Fudan University.¹⁷⁹ “That will inevitably affect the recovery growth rate of consumer expenditure.”

The Wealth Effect

In any economy, people feel poorer when a decline in asset values (whether in housing or stocks) erodes their net wealth—even if that wealth is only on paper. As a result, they become less willing to spend. This is known as the wealth effect. For example, a decline in housing prices prompts people to save more to compensate for their losses, reducing discretionary spending. In addition, negative news about falling property values can fuel a broader sense of economic pessimism, dampening consumption even among those not directly affected.

There are reasons to think the wealth effect from China’s housing crisis might be worse than elsewhere.

According to research from the PBoC, in 2019, housing accounted for 59.1 percent of total household assets in China.¹⁸⁰ In contrast, according to the U.S. census, in 2021, 28.5 percent of U.S. households’ net worth was equity in their homes, with an additional 7.9 percent in rental properties and other real estate.¹⁸¹ This brings the total share of real estate in U.S. household wealth in 2021 to 36.4 percent, 22.7 percentage points fewer than in China in 2019.

Consequently, a decline in property values will have a bigger impact on household wealth in China than in the United States.

Once prices start rising again, people will start feeling wealthier. Initially, this effect will be more noticeable for people who bought after the market bottomed, but as prices continue to rise, long-term homeowners will see their property’s market value exceed what they originally paid. In most cases, prices will eventually surpass their previous peak.

Recovery times vary among different housing market slumps. Most recently in the United States, prices began falling from their mid-2006 peak as the global financial crisis took hold. They

started rising again in early 2012 and finally eclipsed their mid-2006 peak in early 2017, a bit over a decade later.¹⁸²

In the United Kingdom, prices peaked in late 2007, bottomed out in early 2009, and surpassed their previous peak in 2014.¹⁸³ In Ireland, they peaked in mid-2007, bottomed out in 2012, and finally surpassed their previous peak in 2022.

The key question is, how quickly will Chinese housing prices rebound? It is reasonable to assume that the process will vary significantly across regions.

China's most in-demand markets of Beijing, Shanghai, Guangzhou, and Shenzhen, often referred to as "tier-one" cities (see below), will likely see prices rebound more quickly than elsewhere and eventually rise beyond their previous peak. As China's most dynamic and well-resourced urban centers, the economic expansion of these cities will support housing demand for years to come.

However, people living in China's smallest cities might never see the value of their homes return to the previous peak.

While not an official classification system, Chinese cities are often categorized into different "tiers" by businesses, economists, and analysts based on factors such as economic development, population size, infrastructure, and market potential. Tier-two cities—of which there are around 35-45—have not achieved the same level of economic development as those in the first tier but are nonetheless big urban conglomerations at the center of major regional economies. The lower tiers, which are referred to as third-tier cities, are made up of the rest of China's 700 or so cities.

Few of China's third-tier cities are well known, especially outside of China. Individually, their economic significance is limited, even though some have over 10 million residents. However, collectively, these cities play a significant role, accounting for 60 percent of China's GDP and 66 percent of its population.¹⁸⁴

During the boom years of China's real estate market, housing construction in third-tier cities outpaced that of the other two tiers. According to Kenneth Rogoff and Yuanchen Yang, the third tier of cities accounted for 72 percent of China's housing stock before the housing slump, significantly more than these cities' share of the population.¹⁸⁵ Furthermore, in 2020—immediately before the slump—floor space under construction in the third tier was 10.6 times the amount of housing sold that year.¹⁸⁶ The resulting glut could potentially suppress prices for years.

According to Rogoff and Yang, from the beginning of 2021 to mid-2022, the price of newly built housing in tier-three cities fell about 20 percent, while prices rose a little in the first tier, and stayed flat in the second.¹⁸⁷

The real challenge for third-tier cities is that their populations are declining, as working-age individuals migrate to more dynamic first and second-tier cities in search of better opportunities. Consequently, China's higher-tier cities have relatively young populations, and are filled with people willing and able to buy housing. In contrast, tier-three cities' populations are not only shrinking but

aging, with retirees—who are typically not in the market for new homes—making up a growing share of the population.

Most of China’s housing wealth is concentrated in China’s third-tier cities. But overbuilding and shrinking and aging populations could prevent prices from recovering, continuing to dampen spending.

The housing slump could also dampen household consumption in another way. Traditionally, housing has been Chinese households’ preferred store of wealth, as it consistently delivered high returns. Before the market slump, homeowners could reasonably expect the value of their property to at least double over the following decade. That had been the trend for 20 years.

Now that Chinese homes are likely to appreciate far more slowly—if they appreciate at all—there is a risk that people will spend less and save more to compensate for the loss of anticipated future capital gains. That dynamic could weigh on the economy indefinitely.

Building a Slow Bull Market

Given the challenges in reviving housing prices in much of the country, Chinese households need alternative ways to build wealth. To that end, Beijing wants the stock market to rally.

As a commentary published in the *Economic Daily*, the CCP’s official publication for economic issues, noted in August 2023:

The wealth effect brought about by a rise in the stock market can directly increase investors’ income and boost income growth expectations, thereby translating into actual consumption. In short, the capital market can stimulate consumption, expand domestic demand, and drive economic growth.¹⁸⁸

At the time the commentary was published, stock prices had been in decline for about two years. The Politburo had expressed frustration with market’s weakness the previous week, stating in a readout that officials should seek to “enliven capital markets and increase investor confidence.”¹⁸⁹

China’s authorities are not seeking a short-term surge in stock prices. Instead, they aim for stocks to take over from property as the primary way Chinese households accumulate wealth.

“How can capital markets . . . play a more positive role in promoting consumption and expanding domestic demand?” the *Economic Daily* asked, arguing that “it is necessary to take measures to increase market activity, and push stocks toward a ‘slow bull’ market.”¹⁹⁰

Beijing’s vision of a slow bull market is a stock market where share prices rise inexorably over time—not unlike in the United States. To date, however, China has not experienced a slow bull market. In the past 20 years, the Shenzhen and Shanghai stock exchanges have seen two short-lived bull markets during which prices surged before crashing—first in 2008, then in 2015. In both instances, the market mostly moved sideways for years following the collapse. When the *Economic Daily* commentary was published in 2023, the CSI 300 Index—a composite of the top 300 stocks listed on

the Shanghai and Shenzhen stock exchanges—was at roughly the same level as it had been 15 years earlier. In the United States, the S&P 500 tripled in value over the same period.

Figure 7.3: China Securities Index (CSI 300) vs. Nasdaq Composite Index

Beijing wants China’s stock markets to emulate the “slow bull” market of the United States, where stock prices continue to rise over time.



Note: The CSI 300 is a market capitalization weighted index that tracks the 300 biggest companies listed on the Shanghai and Shenzhen stocks exchanges. The NASDAQ Composite Index is a market capitalization weighted index with more than 3,000 common equities listed on the NASDAQ Stock Market.

Source: “CN: Index: CSI 300 Index, Daily,” China Securities Index Co., via CEIC; and “NASDAQ OMX Group,” NASDAQ Composite Index [NASDAQCOM], retrieved from FRED, Federal Reserve Bank of St. Louis, February 28, 2025, <https://fred.stlouisfed.org/series/NASDAQCOM>.

Historically, whenever Beijing has wanted to boost stock prices, it has done so by trying to maximize the funds available to invest in stocks. That often includes relaxing rules on margin trading, allowing investors to borrow more to purchase stocks. Other measures include banning short-selling—preventing investors from profiting if stock prices fall—and halting all new initial public offerings (IPOs) out of concern that an injection of new shares will dilute the pool of funds investing in the market, driving down prices. At times, authorities have also mobilized large state-owned firms to buy stocks directly to prop up prices.

Such measures are intended to drive up stock prices in the hope that rising valuations will spark investor interest and lead to a sustained market recovery. Beijing attempted exactly this in the second half of 2023, with no success.

Beginning in 2024, however, Beijing shifted its strategy. Instead of simply trying to boost prices, the government is now focused on addressing the structural issues that have prevented China's stock markets from emulating those of the United States.

The Chinese public has long felt that the domestic stock markets are rigged in favor of insiders at the expense of ordinary investors. Moreover, retail investors—China's public—represent a far greater share of stock ownership in China than in more developed markets like the United States, where institutional investors—mutual funds, insurers, hedge funds—play a larger role.

Beijing is now striving to build trust in the market, thereby encouraging people to invest more of their savings in equities, by strengthening corporate governance. The hope is that enforcing greater discipline on the market will lay the groundwork for a long-term, sustainable bull market.

Other countries have taken a similar approach with great success. Japan, for example, introduced its Corporate Governance Code in 2015, requiring companies to appoint more independent directors, increase the scope of their public disclosures, and improve their communications with shareholders. A year earlier, Japan also rolled out a Stewardship Code, designed to encourage institutional investors to actively improve the quality of the companies they invest in.

These reforms are widely credited as a key catalyst for the bull market in Japanese stocks since 2016. In 2024, Japan embarked on a second wave of corporate governance reform.

China has not yet introduced a comprehensive regulatory framework comparable to Japan's Corporate Governance Code. Instead, its approach has been piecemeal.

In 2024, authorities increased the penalties for corporate fraud; handed out more penalties and warnings for lax regulatory compliance and risk management; tightened rules governing share sales by shareholders and senior managers; strengthened oversight of securities brokerages and investment funds (the gatekeepers responsible for vetting listed companies) to hold them to higher standards; forced mutual funds to reduce their fees; and cracked down on the “revolving door” of former officials at the securities regulator taking jobs at firms they once regulated.¹⁹¹

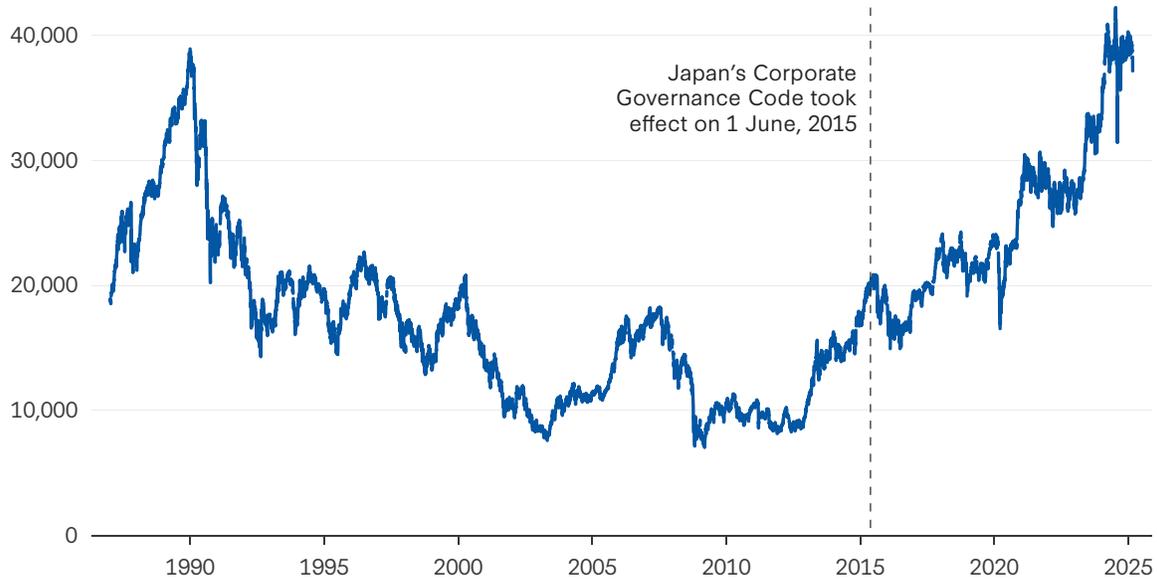
Additionally, Beijing wants investors to benefit from holding stocks even if prices remain stagnant. Regulators are pushing firms to do share buybacks, with the central bank supporting buybacks with cheap loans. They have also demanded that listed companies increase the size and frequency of dividend payouts, threatening penalties for those that fail to comply. In 2024, listed companies paid out RMB 2.4 trillion dividends, up 9 percent from RMB 2.2 trillion in 2023.¹⁹²

“Chinese listed companies traditionally have not paid enough dividends. We are now encouraging them to pay more dividends,” Fang Xinghai, a vice chairman of the China Securities Regulatory Commission (CSRC), told a room of foreign investors in May 2024.¹⁹³ “This should very much enhance investor value of Chinese stocks going forward.”

Finally, Beijing aims to increase the role of institutional investors in the stock market. In January 2025, regulators instructed large state-owned insurance companies to invest 30 percent of new

Figure 7.4: Japan's Nikkei 225 Stock Average

Japan's corporate governance reforms ushered in a period of rising stock values, something Beijing hopes to emulate.



Note: The Nikkei 225 tracks the performance of Japan's most highly capitalized and liquid 225 companies listed on the Tokyo Stock Exchange.

Source: "Historical Data (Nikkei 225)," Nikkei Indexes, accessed February 28, 2025, <https://indexes.nikkei.co.jp/en/nkave/archives/data>; and Board of Governors of the Federal Reserve System (U.S.), via FRED.

premiums into domestic stocks.¹⁹⁴ At the time, about 21 percent of the insurance sector's premiums were invested either directly or indirectly (through mutual funds) in stocks.

Authorities aim for insurers to play a stabilizing role by buying and holding stocks for the long term. Moreover, they anticipate that the significant influx of additional funds will push up prices. According to Wu Qing, chairman of the CSRC, "at least hundreds of billions of long-term funds will be added to A-shares every year."¹⁹⁵

In implementing such measures, regulators are seeking to build trust in the stock market and create greater value for investors. But that is only half the pitch.

When speaking to foreign investors in London, CSRC Vice Chairman Fang said he expects productivity gains from automation and digitalization to boost corporate earnings. The hope is that China's push into innovation and advanced manufacturing will create more valuable firms, pushing up stock prices.

At the time of writing, China's corporate governance reforms had not translated into higher stock prices. That is unsurprising; building trust takes time. In Japan, stocks fell for a year after the Corporate Governance Code took effect on June 1, 2015. But in the following eight years, the

Nikkei 225—which tracks 225 of the biggest companies on the Tokyo Stock Exchange—more than doubled in value.

Beijing is undoubtedly aiming to foster a similar “slow bull” market to offset the impact of the housing downturn on household wealth. However, creating such a market is also crucial for generating the returns that China’s growing population of retirees will need to supplement their underfunded retirement.

The Population Effect

China’s population is slowly shrinking and rapidly aging. As Chapter 4 explained, both trends will erode its domestic consumption. A smaller population means fewer consumers. Additionally, people typically spend less during retirement than during their peak earning years, which means demand shrinks as the proportion of retirees increases.

That is the case anywhere, but in China, spending by retirees faces additional pressure from a chronically underfunded pension system.

China’s pension system has three pillars. The first and largest pillar is a pay-as-you-go system known as “basic pension insurance.” Workers with urban residency and government employees are required to pay about 8 percent of their salary into the fund; their employers pay an additional 16 percent. Migrant workers and people who are employed in rural areas can also opt in. The Ministry of Finance routinely tops it up with transfers of government funds. Almost all adults in China are covered by the fund.¹⁹⁶ At the end of 2023, some RMB 7.8 trillion was invested in the fund.

Under the second pillar, firms provide enterprise annuities to their employees. The arrangement is similar to 401(k) plans in the United States in that companies—or government agencies—contribute to tax-deferred accounts owned by their employees. So far, very few private firms have embraced the second pillar.

As of the end of 2023, 31.4 million employees at state firms held enterprise annuity accounts, which collectively held RMB 3.2 trillion in funds. This means that these workers stand to enjoy far better-funded retirements than those relying solely on basic pension insurance.¹⁹⁷ Additionally, employees of government departments and institutions had RMB 2.56 trillion invested in annuities.

The third pillar has done little to supplement retirement income. The scheme allows workers enrolled in the basic state pension system to open tax-deferred individual retirement accounts (IRAs) with commercial banks. The funds in those accounts are then invested in a range of financial assets including treasury bonds and index funds, savings deposits, commercial insurance, mutual funds, and wealth management products.¹⁹⁸

The program was launched in 2022, and while the number of IRAs opened has been promising—reaching 73 million as of November 2024—very few of these accounts actually hold any funds. People have mostly opened them, usually in response to some incentive from their bank, then promptly ignored them.

Most people primarily depend on the first pillar of the pension system to fund their retirement. But a 2019 actuarial report by CASS estimated that the basic pension fund was on course to be depleted by 2035.¹⁹⁹

In the report, Zheng Bingwen, director of the CASS World Social Security Research Center and lead editor of the report, advised that China could buy time if, starting in 2022, it pushed back the retirement age for men from 60 to 65, and for women from 50 to 60. Even then, CASS estimated the fund would run dry by 2042.

In 2024, after years of debate, Beijing finally announced that it would raise the retirement age starting in January 2025, albeit far less aggressively than Zheng recommended. For men, the retirement age will increase from 60 to 63 over the next 15 years. For women, it will increase from 50 to 55 for blue-collar workers and 55 to 58 for white-collar workers over the same period.

Meanwhile, the number of years an individual must contribute to the system to be eligible for a pension will gradually increase from 15 to 20 years, starting from 2030 and phased in over 10 years.

Pushing back the age of retirement, however, will only help to delay what seems to be the inevitable depletion of the basic pension insurance fund in a little more than a decade.

Nevertheless, Beijing has safeguards in place. Before the fund runs dry, Beijing can deploy funds accumulated in the National Social Security Fund (NSSF), which functions as an emergency reserve for the basic pension.

The NSSF was established in 2000 to ease the financial strain that the rapidly aging population would place on the basic pension scheme. The NSSF receives funds directly from the central government through regular transfers, as well as through contributions from state-owned enterprises (SOEs). The NSSF can invest its funds in a wider range of products than the pension fund, allowing it to generate higher returns.

This reserve pension fund is intended for use only in emergencies—specifically, when the basic pension fund does not have enough to meet its obligations. At the end of 2023, the NSSF held RMB 3.0 trillion in funds. In the same year, the basic pension disbursed RMB 6.8 trillion to retirees.²⁰⁰ Even if the NSSF experiences significant growth over the next decade (it has averaged annual returns of more than 7 percent since its inception) it seems unlikely that it would be able to cover pension expenditures for more than a couple of years.

If both the basic pension system and the NSSF are depleted, pension payments will need to be financed through either taxation or government borrowing. However, Beijing does have some options to address the issue before it comes to that.

CASS recommends that Beijing transfers some of China's foreign exchange reserves—which stood at USD 3.2 trillion at the end of 2024—into the NSSF. Authorities could also transfer additional SOE shares into the basic pension fund, increasing its income with dividend payments.

In 2017, Beijing required large and midsized SOEs, including those under both central and local government control, to transfer 10 percent of their equity to the NSSF. By the end of 2020, all central SOEs, which numbered 93 at the time, had made the transfer, amounting to RMB 1.68 trillion worth of shares.²⁰¹

However, so far, the move has resulted in very little in dividend payments. In 2022, centrally owned SOEs paid out RMB 20 billion in dividends to the NSSF.²⁰² That equates to a return on equity of just 1.2 percent for the fund. Moreover, the dividends were miniscule relative to the RMB 5.9 trillion disbursed to retirees by the basic pension fund that year.

That amount could increase if Beijing brought greater pressure to bear on SOEs and their political masters in local governments. Zheng recommends converting the equity held by the NSSF into preferred shares so that SOEs are compelled to pay higher dividends.²⁰³

Meanwhile, Beijing could lessen the burden on the pension system by encouraging some retirees to reenter the workforce, as has occurred in Japan, where 9.14 million people over the age of 65 engaged in paid employment in 2023—equivalent to 25 percent of all people over 65, and 13.5 percent of the total workforce.²⁰⁴

Comparable data for China is harder to come by. However, the 2020 census found that 27.5 percent of people aged 65–69 were still employed in some way, but the same was true for only 11.8 percent of people over 70.²⁰⁵

Cai Fang, the demographer and chief expert at CASS's National Think Tank, recommends introducing training programs and initiatives to combat age discrimination to support retirees reentering the workforce.²⁰⁶

If China's pension system eventually runs out of money, it will occur after 2035, which is beyond the scope of this report. For the next decade, the pension system will be sufficiently funded to meet its obligations to retirees. Nonetheless, both its current deficiencies and anticipated shortfalls will impact how much households spend—and how much they save—over the next decade.

As part of its strategy for boosting domestic demand, Beijing aims to unlock the “silver economy,” or spending by retirees, as China's population ages. This partly includes increasing spending on healthcare and retirement villages. But it is also a vision of people having a dynamic, fulfilling retirement, one where seniors take classes on things that interest them, incorporate a pet into their lives, travel more, improve their health with exercise, and increase spending on entertainment.

Anecdotally, such changes are already occurring. The Chinese press has published reports of kindergartens being repurposed as community centers for the elderly, and of surging demand for veterinarians.²⁰⁷

It is a beautiful vision, albeit one that will remain out of reach for many of China's elderly. People relying solely on the basic pension to fund their retirement face relative poverty in their golden years. It is generally accepted in the United States that, in order to maintain a comparable standard of living during retirement, people should aim to retire on no less than 70 percent of their

pre-retirement income.²⁰⁸ In China, the state pension currently covers about 44 percent of the average wage.²⁰⁹

“The employment rate, labor income, and pension security level of the elderly in China are all low, which ultimately manifests as a decrease in consumption capacity and propensity with age,” Cai wrote in March 2024.²¹⁰ “Negative population growth and the deepening of aging will significantly slow down the growth rate of residents’ consumption or further suppress residents’ consumption.”

Of course, most retirees do not rely solely on income from their pension or any additional employment they may pick up to fund their retirement. Most depend heavily on their families for financial support. According to research from the China Research Center on Aging, in 2021, 65.6 percent of elderly individuals in China received financial support from their children or grandchildren.²¹¹

That helps supplement retirees’ spending. However, it also influences the spending habits of the working-age population, who must not only support their retired parents in the near term, but also prepare for their own retirement, knowing they cannot rely on the pension system to adequately fund it. Even if the pension system does not run out of funds, it is reasonable to assume the pension will pay out less per person than it does today. As a result, the current crop of workers feel an even greater sense of urgency to ensure they can fund their retirement.

Cai argues these considerations are already diminishing the willingness of middle-aged individuals—those in their peak earning years—to spend.

“Under the backdrop of the pay-as-you-go pension system, this group of people face a triple burden: pension insurance payments, providing support for elderly people at home, and making precautionary savings,” Cai writes.²¹² “These burdens have significantly reduced the consumption capacity and willingness of middle-aged people.”

Those burdens are exacerbated by the ongoing impact of the now-defunct one-child policy. Under the policy, which was introduced in 1980, most families—including nearly all urban residents—were limited to having just one child. The policy was relaxed nationally in 2016 in favor of a more flexible two-child limit. In 2021, the limit was again adjusted to allow couples to have three children, before all fines and fees were abolished and pronatalist policies were finally adopted nationally toward the end of the same year.

However, as a result of more than 30 years in which one-child families were the government-mandated norm, many retirees must rely on the support of a single child.

According to research from Peking University, in 2030, 34.2 percent of all families in urban areas will be “dual only-child families,” in which neither parent has siblings.²¹³ In such households, working-age couples will, at some point, likely have to support all four of their retired parents in addition to their own children. The same study estimated that, in the same year, almost 48.6 percent of urban families will have one working-age parent who is an only child.

Many adult only children have already been dealing with the burden of being the sole source of support for their parents for years. In 1980, the first year of the one-child policy, the average age of first-time mothers was 25, while the average age of first-time fathers was a few years older.²¹⁴ On average, those mothers entered retirement in 2005, and the fathers followed in 2013. That means many of their working-age only children, who are now in their early to mid-40s, may already have spent a decade or more supporting two retired parents.

Cheng Shi, the chief economist and managing director of ICBC International, calculates that households in which couples were born in the 1980s and 1990s are spending a smaller share of their income compared to previous generations as they enter middle age.²¹⁵ That is partly due to mortgage stress, but it is also because “without brothers and sisters to share the family’s financial pressure, an only child will save part of their income for elderly care.”

While supporting the daily needs of retired parents is undoubtedly a burden to working families, the greatest financial pressure arises from health issues. Anecdotally, much of the discussion online about the burden of taking care of parents revolves around the crippling cost of medical bills.

China has a public health insurance system that provides near-universal coverage, but people still need to cover on average 34 percent of healthcare expenses out of pocket.²¹⁶ That is far above the United Kingdom (13 percent) and Japan (13 percent)—which, like China, have public healthcare systems—and also compares unfavorably with middle-income countries like Brazil (22 percent). As people get older, healthcare costs rise further. For Chinese people over 65, out-of-pocket expenses are around 50 percent of their total healthcare costs.²¹⁷ Moreover, the government insurance program does not cover hospice or long-term care.

Even though one-child families have already been supporting their retired parents for years, the full impact of rising healthcare costs likely only started to take hold more recently. Many of the parents of only children born in the early 1980s are now passing 70, with some approaching or exceeding 75. While the impact is difficult to measure directly, one indicator of the growing burden on only children is the rapid pace at which provincial governments have introduced policies granting additional paid leave to people without siblings to take care of their parents.

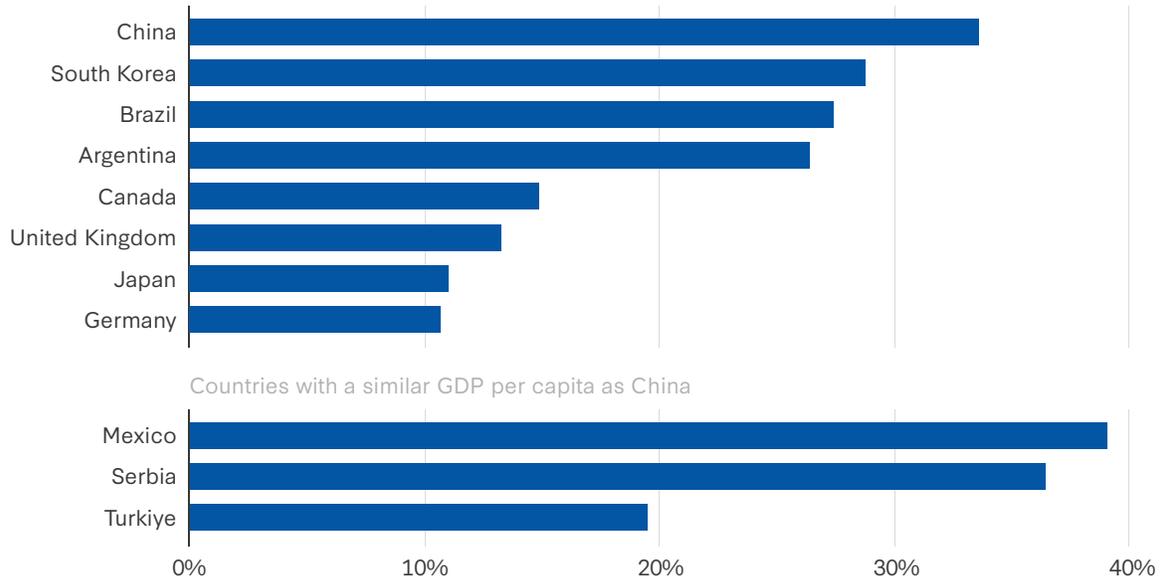
A handful of provinces introduced such policies in 2017 and 2018, but the number surged in 2021 and 2022. The rules typically entitle working-age adults without siblings to between 10 and 20 days of paid nursing leave annually to take care of their parents.

For many, the extra days of leave ultimately do little to ease the burden, particularly for migrant workers who live far from their parents. Many people are confronted with the choice of either moving home, and taking a lower-paying job, or hiring someone to look after their parents. Both options erode potential spending.

The number of working-age adults in this position is set to grow at an accelerating rate. China experienced a baby boom from 1962 to 1972. That cohort will begin reaching the age of 65 in 2027, when their healthcare needs will begin rising significantly.

Figure 7.5: Out-of-Pocket Spending as a Share of Healthcare Expenses Among Countries with Universal Healthcare Programs

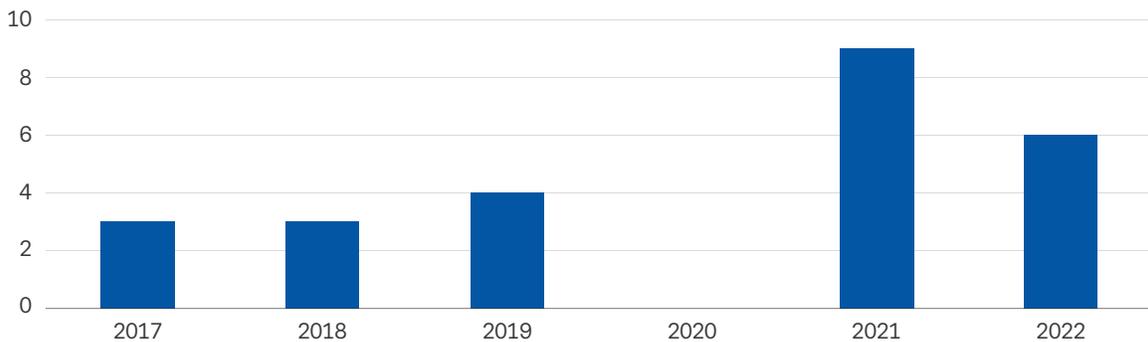
Out-of-pocket expenses for healthcare in China are high compared to developed economies but similar to nations at a similar stage of development.



Source: "Global Health Expenditure Database," World Health Organization, last updated July 2025, <https://apps.who.int/nha/database>.

Figure 7.6: Number of Provinces Introducing Nursing Leave Policies for Only Children, by Year

During the pandemic, many more provinces introduced regulations giving people without siblings additional leave to take care of their parents.

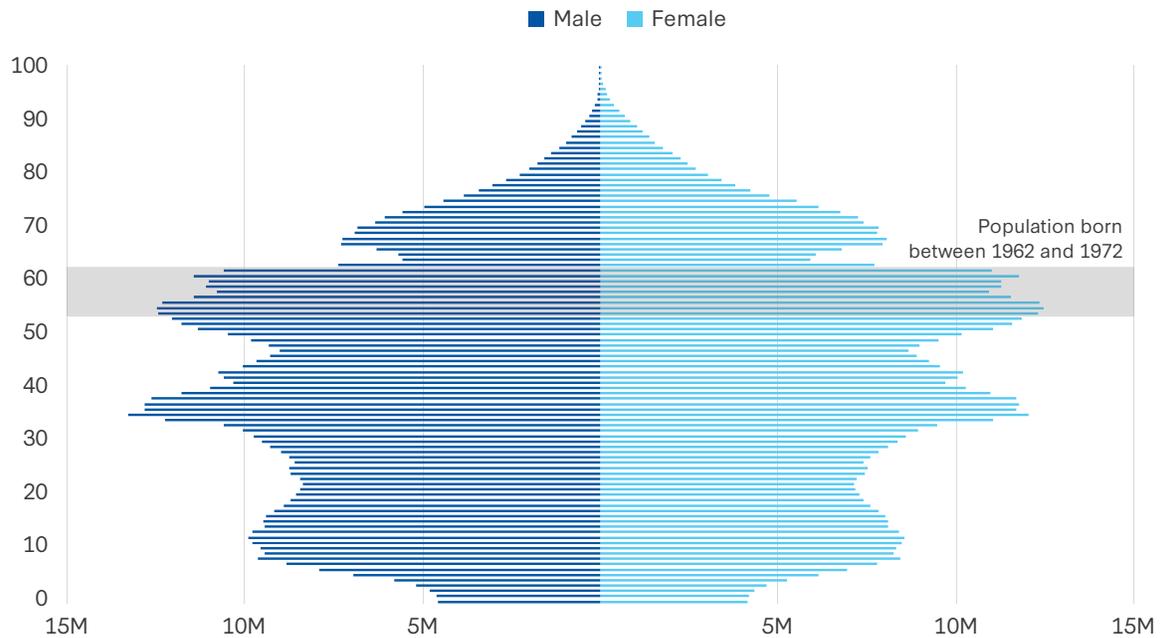


Source: Provincial-level regulations on population and family planning; and provincial regulations on the protection of rights and interests of the elderly.²¹⁸

The burden of taking care of elderly parents will affect every family differently. Some will avoid onerous medical bills, while others will be crippled by them. But for the generation of adults

Figure 7.7: China's Population of Men and Women by Year of Birth, 2025

People born during the baby boom of 1962–72 are entering retirement.



Source: United Nations, *World Population Prospects: The 2024 Revision*.

without siblings, a deterioration in their parents' health looms as a threat to their financial security, whether due to medical bills or relocation costs. That creates an incentive to save more, and spend less.

In short, China's households face real pressure on their spending. While the strains associated with the pandemic will gradually pass, the collapse in home values will have a much longer lasting effect. Meanwhile, the impact of China's demographic decline is only just starting to take hold and is set to strengthen over the next decade.

It is difficult to quantify how any of these factors—the effects of the pandemic, the erosion of household wealth from the property slump, and the impacts of the aging population—will affect consumption. None of them are likely to result in a further contraction in consumption, at least not over the next decade, but it seems reasonable to expect that household spending may never return to its pre-Covid levels.

However, as long as net exports keep expanding, China's economy can likely maintain a growth rate of between 4.5 percent and 5 percent, allowing it to meet Beijing's goal of doubling per capita income by 2035, even without strong consumption growth. But if exports stagnate or decline, consumption will need to become the primary growth engine. If that fails to happen, then the government will need to step in, either by stimulating household spending or ramping up infrastructure investment.

That will require higher taxes or more debt. However, Beijing is also facing mounting demands on its fiscal resources from elsewhere, which the next chapter explores.

Local Government Finances

There is an inclination among observers to regard China's local government financial issues as being a debt problem, but the issue runs far deeper. The collapse in housing demand has fundamentally broken the way China's local governments fund themselves.

Income from land sales is a nonrenewable windfall and should have been treated as such. Instead, from the perspective of local governments, land sales became a reliable source of income, one that increased almost every year. Local authorities came to treat it as an integral—and indispensable—part of how they funded themselves.

Some of the income from land sales went straight into local governments' budgets to supplement spending on education, healthcare, and the wages of state employees. The rest enabled local authorities' infrastructure construction projects. While those projects were typically funded with debt, land sales provided the revenue that allowed authorities to cover the interest payments.

However, the recent collapse in land sales has left local authorities permanently short of cash.

The Funding Shortfall

All land in China is state owned. Local authorities expropriate it—typically from farmers, but also from people living in slums or old neighborhoods in the cities—level it, and sell it to property developers to build homes, shopping malls, or office towers.

At the market's peak in 2021, local governments earned RMB 8.7 trillion from land sales, equivalent to 50 percent of government (central and local) tax receipts that year. However, local authorities had little discretion over how most of that income was used.

Acquiring land and preparing it for sale is hugely expensive. Local governments must first compensate and relocate the residents that the land was taken from. Any existing structures must then be torn down, the debris cleared and the land leveled, and basic infrastructure—like roads and sewers—installed.

LGFVs typically do the work of clearing the land and installing infrastructure. Local authorities are not supposed to take on debt to cover these expenses. What usually happens is the demolition and construction work is outsourced to an LGFV, which borrows to fund the work. After the local government sells the land, it uses the proceeds to pay the LGFVs for any costs incurred.

According to Lou Jiwei, China's finance minister from 2013 to 2016, in 2021, 70 percent of what local governments earned from land sales went toward covering these costs.²¹⁹ That was up from 60 percent the previous year. (Lou reports that, in some places, costs account for 90 percent. Other researchers say they sometimes go up to 100 percent.²²⁰)

That might seem like an unreasonably high figure. After all, rezoning agricultural land for residential use massively inflates its value, generating a windfall for local governments. However, residential land typically accounts for well below half of all urban land local authorities sell each year. A large portion of the land local authorities expropriate is converted into industrial land, which local governments sell at cost—and, if they can get away with it, below cost—to manufacturing, industrial, or logistics companies as a way to attract investment. Consequently, most of the land sold by local governments each year does not generate any profit.

Based on Lou's numbers, local governments earned RMB 2.61 trillion in profit from land sales in 2021 after costs. According to the estimations of the authors of this report, about half of this went directly into local governments' general public budgets to cover day-to-day expenses.²²¹ The other half was used to support new infrastructure investment and cover interest payments—both the interest on bonds issued by local governments and the interest on hidden debts—accumulated by LGFVs and other state firms that borrowed on behalf of local governments.²²²

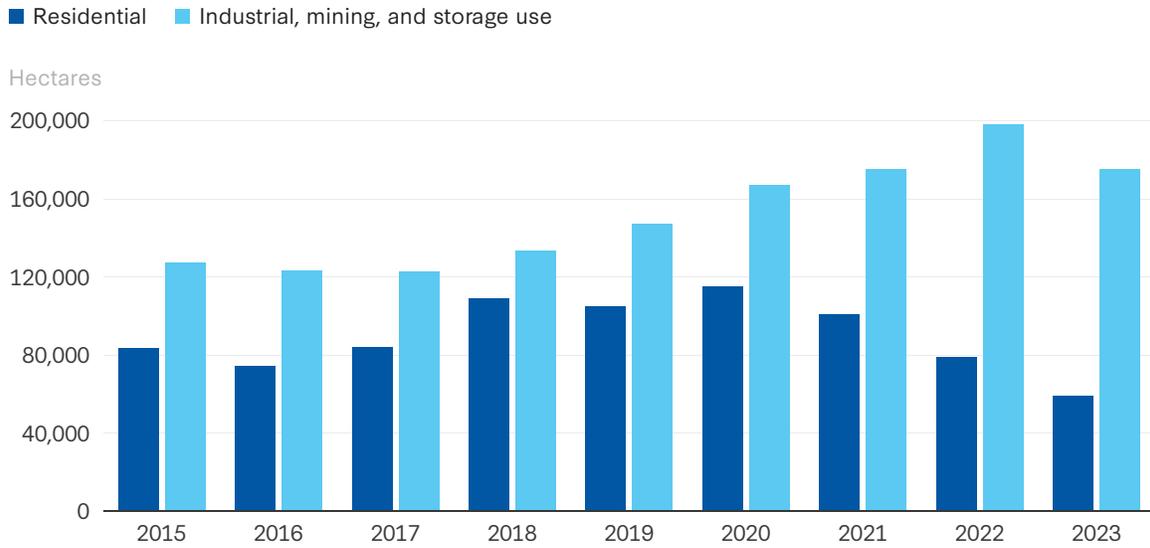
Since then, land sales have fallen sharply. The authors estimate that, after costs, local governments earned RMB 1.46 trillion from land sales in 2024, RMB 1.15 trillion less than they did in 2021.²²³

The situation, however, is likely even worse than the headline numbers suggest. According to China Real Estate Information Corp. (CRIC), an independent real estate data provider, many cities have inflated their revenues by encouraging LGFVs to purchase land. In 30 major cities monitored by CRIC, LGFV land purchases accounted for 46 percent of residential land plots sold between January 2021 and May 2024.²²⁴

Much of this land sits idle: LGFVs have commenced construction on only 22 percent of plots they acquired since 2021. In other words, rather than generating real fiscal revenue, this mechanism uses

Figure 8.1: Amount of Land Transferred Annually by Use

Most of the land local governments expropriate each year gets zoned for industrial use—but residential land makes far more money.



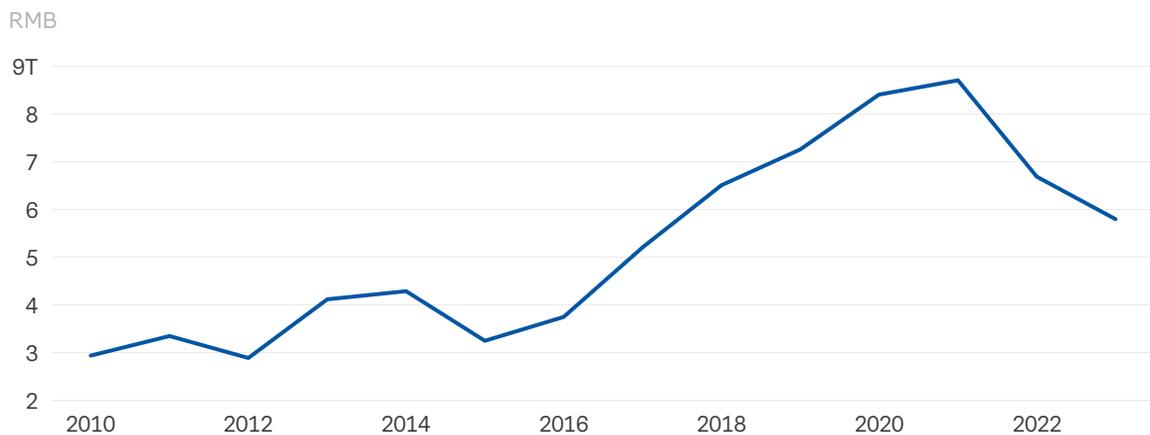
Source: “CN: Land Supply: ytd: Residential, Quarterly” and “CN: Land Supply: ytd: Industrial, Mining & Storage Use, Quarterly,” Ministry of Natural Resources, via CEIC.

LGFV borrowing to create a short-term cash flow for local governments while in reality increasing the overall level of off-the-book liabilities.

While the biggest impact on local government finances has been from the decline in land sales, it is not the only source of fiscal stress. China has five property-related taxes (deed tax, land

Figure 8.2: Annual Income Earned from the Transfer of Land Use Rights

Revenue generated by local governments from land sales peak in 2021.

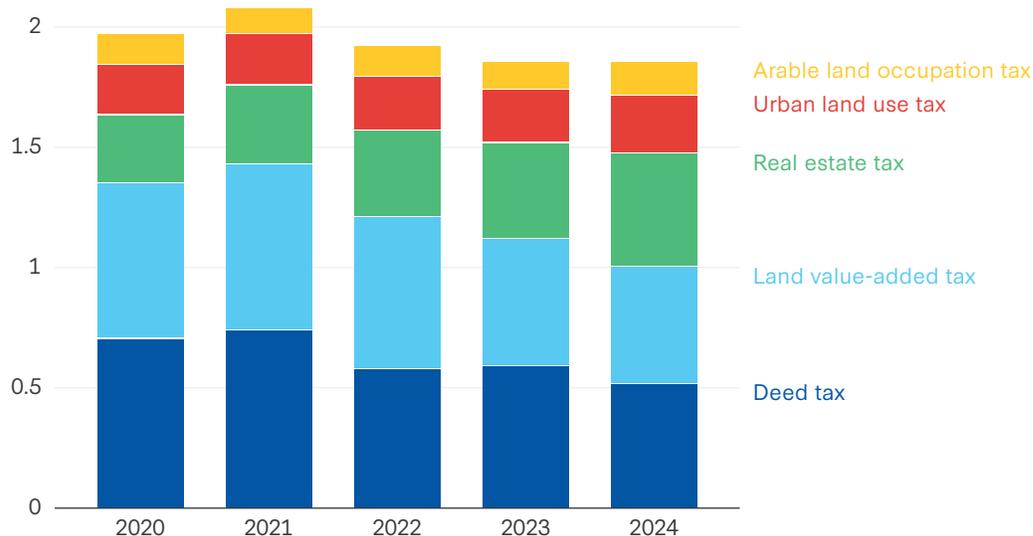


Source: CEIC; and Ministry of Finance.

appreciation tax, property tax, urban land usage tax, and farmland occupation tax) that are collected directly by local governments. In 2021, those taxes raised RMB 2.08 trillion, accounting for 25 percent of all local government tax revenue. In 2024, they raised only RMB 1.86 trillion.

Figure 8.3: Annual Revenue from China’s Five Property-Related Taxes

Revenue from property-related taxes has declined since the housing market peaked in 2021.



Source: CEIC; and Ministry of Finance.

In addition to the five taxes, value-added tax (VAT), corporate income tax, and personal income tax generate property-related revenue. According to the China Tax Yearbook, which is published annually by the tax bureau, once all these additional taxes are taken into account, property generated RMB 2.3 trillion in tax revenue in 2020—its peak—and fell to RMB 1.7 trillion in 2022 (the most recent period for which data is publicly available), a decline of RMB 600 billion. Revenue from property-related taxes has likely declined further as the housing market has continued to weaken.

China’s housing market boom had a pro-cyclical impact on government finances. When demand was rising, local governments were able to sell more land and generate more tax revenue. That allowed them to spend—and borrow—far more than would otherwise be possible, and to do so without raising taxes. The extra spending and borrowing helped stimulate economic activity.

Those forces are now working in reverse. The authors estimate that in 2023, local governments generated RMB 2 trillion less in revenue from land sales and property-related taxes than they did in 2021.

This decline has left a huge hole in local governments’ budgets, which were already overstretched. Even before the housing market peaked, many local authorities were struggling to cover their debts. Some used borrowed money to make interest payments on other debt. Others put off paying arrears owed to contractors and suppliers, using the cash they saved to make interest payments.

Moreover, many LGFVs generate their own income, separate from what they receive from local governments. Some manage public infrastructure and earn fees from its usage. Others run commercial construction businesses. Regardless of the exact source of their income, as the economy slowed, so did their revenue, exacerbating the funding shortfall created by the decline in land sales.

This could have resulted in defaults and a collapse in government spending had Beijing not stepped in to plug the hole.

Half a White Knight

China's central government transfers a significant amount of revenue to local authorities every year. Central and local governments each collect about 50 percent of general public budget revenues (which includes taxes, fees, and levies), but almost all expenditures—about 80 percent—are spent by local governments.

As local government revenues have fallen, transfers from Beijing have risen. In 2022, Beijing transferred RMB 9.7 trillion to local governments, up 18 percent from 2021 when the housing market peaked. In 2023, transfers increased to RMB 10.3 trillion, up more than RMB 2 trillion from 2021, and more than enough to cover the decline in taxes and land sales. However, transfers dipped in 2024, with central authorities handing over only RMB 10.0 trillion to local governments.

And yet, these transfers have not been enough. Authorities typically put a positive spin on their financial situation, but in the second half of 2024, some local governments issued warnings that, despite Beijing's best efforts, financial default was still a possibility.

“Land sales revenue is the primary source of funds for debt repayment,” the government of Huaiji County, in Guangdong Province, said in a budget report.²²⁵ “Default risks will arise if this year's land revenue falls short of expectations.”

“A wall of [debt] maturities is approaching, and the burden of repayment is substantial,” the authorities of Dadukou District in Chongqing wrote.²²⁶ “The expected drop in land revenue and shrinking funds for debt repayment is raising the risk of default.”

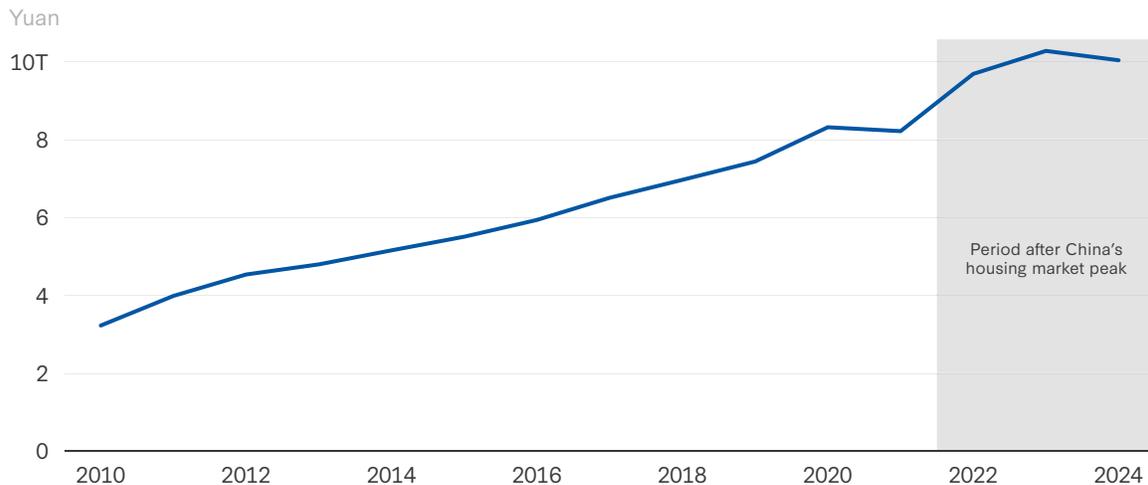
Since 2021, there have been more than 100 instances of local governments defaulting on debt raised from shadow banking institutions, like trusts. Meanwhile, the Shanghai Commercial Paper Exchange—a unit of the PBoC—identifies almost 90 LGFVs as serial defaulters on commercial acceptance drafts, a type of trade finance.

As of today, there have been no defaults on any of the LGFVs' publicly traded bonds—although there have been some close calls. In May 2023, the Yunnan provincial government stepped in at the last minute to provide RMB 1.2 billion in funds so that two LGFVs owned by the city of Kunming could make interest payments on their bonds.

The consequences for defaulting on commercial acceptance drafts and shadow banking loans are relatively low. The legal recourse of debtholders is limited, and they tend to negotiate with the LGFV

Figure 8.4: Annual Transfer of Funds from the Central Government to Local Governments

Central government transfers to local governments have surged since 2022, after the housing market peaked. Annual transfer of funds from the central government to local governments, in trillions of yuan.



Source: CEIC; and Ministry of Finance.

and wait for payment rather than going to court. However, defaulting on a bond triggers a technical default on all other outstanding bonds and could trigger a financial crisis.

In the event of a default, investors would immediately demand that all LGFVs pay higher interest rates to better reflect the risk of holding LGFV debt. When LGFVs sell new bonds after their old ones mature, they would find they can only do so at much higher interest rates. Some LGFVs might find they cannot sell new bonds at all because no one trusts their ability to repay. More and more LGFVs would find they cannot borrow the money they need, resulting in a cascade of defaults that forces the central government to intervene to bail out the local governments.

Beijing repeatedly says its “baseline” priority is to avoid systemic financial risk—code for a financial crisis—and it has implemented a number of measures that reduce that risk (which are discussed below).²²⁷ Consequently, the biggest threat posed by the dire state of local government finances is not default and crisis, but fiscal austerity.

Austerity with Chinese Characteristics

When a government imposes austerity policies, it reins in public spending to ensure it can meet its debt payments. Following the 2009 eurozone crisis, governments in a number of European countries, most notably Greece and the United Kingdom, implemented austerity policies. In Greece—where an austerity program was forced upon the government by the IMF and European

creditors—authorities cut public sector salaries and bonuses, reduced pensions, hiked taxes, and reduced spending on public services like education, healthcare, and defense.

In the United Kingdom, the Conservative government imposed austerity policies to bring down the budget deficit and reduce the country's debt relative to the size of its economy. Authorities cut public sector jobs and welfare payments; reduced funding for local governments, schools, police, and the National Health Service; and raised taxes.

Chinese-style austerity sometimes looks similar to this. In places where local governments are exceptionally indebted and dependent on property for both taxes and economic growth, there has been widespread anecdotal evidence of state employees—including bus drivers, street sweepers, teachers, and bureaucrats—having their compensation cut. Sometimes it is their bonuses, other times their monthly take-home salary, and sometimes their social security contributions.²²⁸ Elsewhere, the problem for most local governments is not that spending has fallen, but that it is still rising.

China differs from the United Kingdom and Greece in that austerity is not explicit government policy. Beijing has told local governments to tighten their belts, but that mostly relates to extravagances like spending on banquets and the use of government cars. There has been no central directive to reduce spending on government services. If anything, Beijing wants local authorities to spend more—on vocational schools to produce workers capable of staffing more advanced factories, on welfare programs that encourage people to have larger families, and on grants and subsidies for scientific research and development.

Since 2021, local government spending on welfare, education, and science and technology, among other things, has risen. Beijing's transfer payments have not been enough to both make up the shortfall in local government revenue and fund an expansion in spending. But the power to impose taxes resides exclusively in Beijing, so local governments are unable to roll out new taxes or increase tax rates. Moreover, Beijing controls how much local authorities can borrow each year to supplement their budgets, so local authorities cannot simply raise as much as they need by issuing bonds.

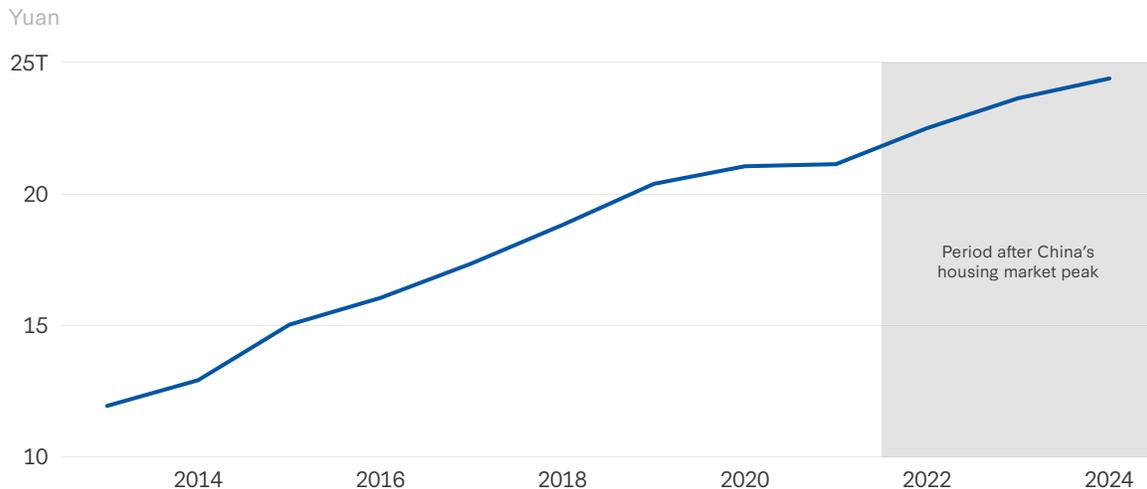
Beijing's position has been that local governments must take responsibility for their own difficulties. In January 2023, the Ministry of Finance said that when it came to local government debt allowances, it would be guided by the principle of “whoever has the child, he or she will take care of it”—in short, no bailouts.²²⁹

Later that year, Minister of Finance Liu Kun clarified that “provinces should take overall responsibility” for dealing with subnational debt.²³⁰

Chinese austerity, therefore, differs from the European version in that it is not an exercise in cutting expenditures. It is about increasing some expenditures when there is not adequate funding, requiring major cuts to spending elsewhere.

Figure 8.5: Local Government Annual Budget Expenditure

Local government spending continued to rise after 2021, despite a decline in revenue from land sales and property-related taxes.



Source: CEIC; and Ministry of Finance.

Local governments have tried to make ends meet by delaying certain expenditures, particularly by withholding payments to suppliers and contractors. Local governments are a central part of the economy of many counties and cities, not just through their provision of services but also through their funding of public works projects. They are a crucial source of construction work, which has become all the more important given the housing slump.

One way for local governments to conserve cash is to withhold payments to LGFVs. In such situations, LGFVs prioritize making interest payments—particularly on bonds—and delay paying their bills. Consequently, LGFVs’ arrears have surged since 2021. Rising arrears can have an outsized impact on a community, as suppliers and contractors find themselves without the cash to pay their own suppliers or even their staff.

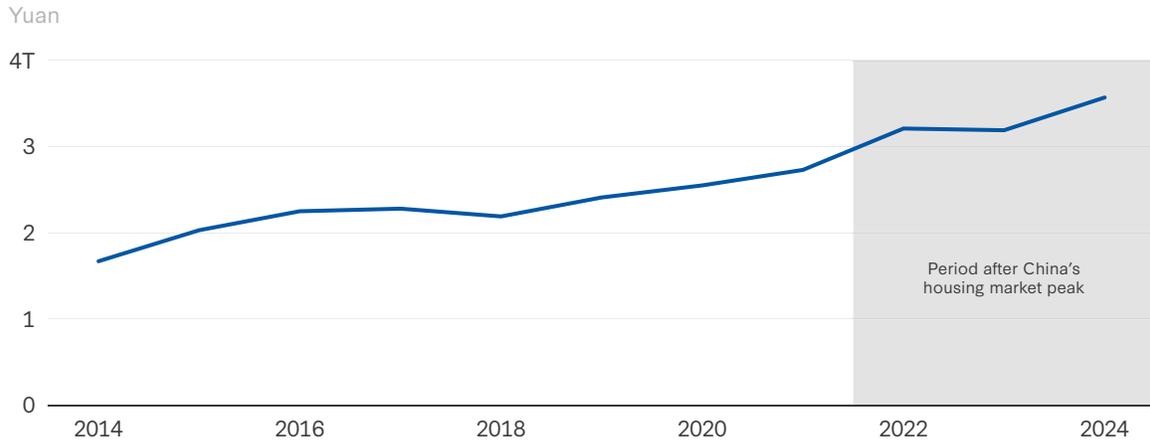
The greatest source of public consternation over Chinese-style austerity has been the increase of arbitrary fees and fines. Fees and fines have long been used by local authorities to make up shortfalls in fiscal revenue, and they are a particular source of frustration among private sector businesspeople who bear their brunt.

Local authorities throughout China have resorted to fees and fines since the housing slump. In 2024, local governments collectively generated RMB 3.57 trillion worth of non-tax revenue, a category largely made up of fees and fines on businesses, up RMB 840 billion (or 31 percent) from 2021. In 2024, non-tax revenue made up 29.9 percent of general public budget revenue generated by local governments, up from 24.6 percent in 2021.

In some instances, authorities have imposed fines in ways unique to local circumstances. In Nanning, Guangxi Province, the mayor apologized after a backlash by the public against excessively

Figure 8.6: Local Governments' Annual "Non-Tax" Revenue

Local governments have resorted to fees and fines to make up for the decline in revenue from land sales and property-related taxes.

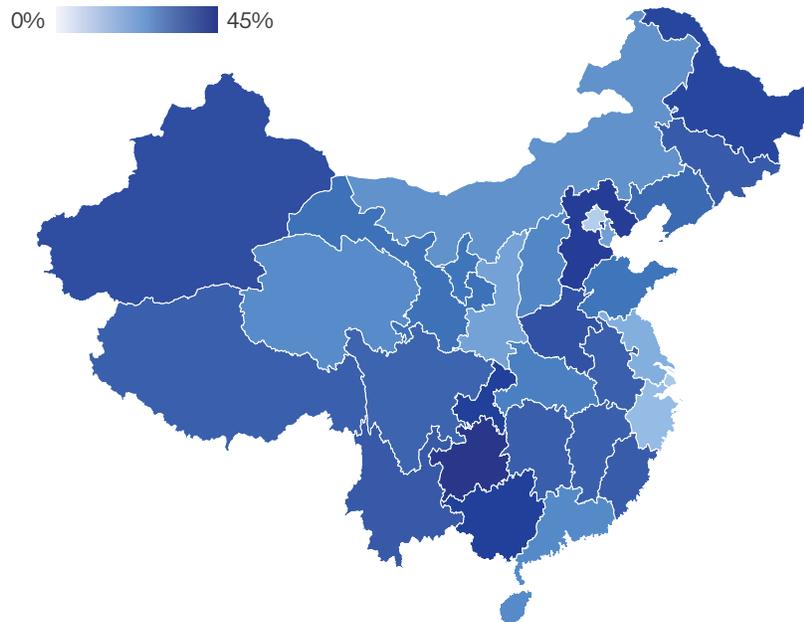


Note: "Non-tax" revenue is an official category that includes fees, fines, profits from centrally owned financial firms, and returns on state-owned assets.

Source: CEIC; and Ministry of Finance.

Figure 8.7: Non-Tax Revenue as a Percentage of Total Ordinary Budget Revenue, by Province

Some of China's provinces have come to rely on non-tax revenue more than others.



Source: CEIC; and Ministry of Finance.

high parking fees.²³¹ Nanning Huibo, the company responsible for public parking in the city, is owned by the municipal government. In 2022, Huibo pledged its 25-year right to collect parking fees as collateral for two RMB 1 billion bank loans. Huibo itself did not need the loans—it borrowed them on behalf of the Nanning government.²³² Huibo posted a loss in 2022, and it seems that the company hiked fees to cover the loans' interest payments.

In other instances, local governments throughout the country are pursuing a similar approach to each other. One such approach is the pursuit of corporate back taxes. Sometimes, local authorities pursue firms in other cities or provinces for years' worth of unpaid taxes—real or imagined—a practice the Chinese press have labeled “long-range fishing.” In December 2024, the *Financial Times* cited a government document which said that over the previous year, “10,000 enterprises in the city of Guangzhou had faced law enforcement from other areas, with the vast majority of cases involving private enterprises and a rather clear profit-seeking motive.”²³³

But whether in China or Europe, austerity is widely resented. In Greece and the United Kingdom, the public bore the brunt of austerity policies through substandard public services and lower incomes for public servants. In China, ordinary people have been hurt as well. Many government employees have seen their incomes decline, and those that have not worry they might.

But the burden has mostly been borne by the private sector. Businesses do not know if they will get paid for government contracts, and they worry they will be gouged with fines. Austerity has undermined business confidence, bred resentment against the authorities, and created an incentive for anyone with wealth to get their money out of the country.

Bringing an End to Austerity

In the short term, there is only one way to end austerity policies. Local governments are suffering from a permanent decline in income, and the funding gap can only be filled by raising taxes or borrowing more. The central government is reluctant to raise taxes for fear of further dampening economic growth, and local authorities are ill-equipped to materially increase their borrowing. The only solution, then, is for central authorities to load up on more debt and further ramp up transfer payments.

Li Daokui, dean of the Academic Center for Chinese Economic Practice and Thinking (ACCEPT), an economic think tank at Peking University, argues that the central government should borrow at least RMB 20 trillion and use it to take over local government debt.²³⁴ He estimates that local authorities owe RMB 10 trillion in unpaid wages to public servants and in arrears to suppliers and contractors. Relieving the stress on those firms and households would help boost consumption and restore confidence—potentially unleashing a significant amount of household and business consumption.

Meanwhile, Bai Chong'en, dean of Tsinghua University's School of Economics and Management, has proposed that Beijing should help local governments cover losses incurred during the Covid-19 pandemic. According to Bai, the pandemic left local governments RMB 4.3 trillion worse off. His

estimate is based on comparing local governments' spending and income between 2020 and 2022 against their likely levels had the pandemic never occurred.²³⁵

Bai's argument is that the pandemic was an unforeseen catastrophe and that the costs should be borne by central authorities. Moreover, many of the costs incurred by local authorities during that period were in part the direct result of policies decided in Beijing, and so Beijing should take responsibility.

Bai's recommendation is far more modest than Li's but is interesting because it tries to frame a fiscal transfer in such a way that does not violate Beijing's principle of "no bailouts for local governments." Beijing has not publicly commented on Bai's suggestion, but the idea has been supported by other academics and government advisers.

Alternatively, Beijing could plug the funding hole under the auspices of long-awaited tax reforms. One of the decisions that emerged from the CCP's Third Plenum—a meeting that happens every five years to make key economic reforms—in July 2024 was that the central government would assume more responsibility for funding expenditures that currently fall to local governments. Additionally, the plenum decided that local governments would be given direct control over more taxes and hinted that their share of tax revenue might even increase. Such a change has the potential to be a bailout in disguise. If local government incomes increase as their expenditures are reduced, they might be able to get their finances in order.

It is unclear, however, whether Beijing envisions tax reform as a solution to the local government austerity problem. At the time of writing, Beijing had not made progress on the plenum's tax reforms.

Regardless of the mechanism, the basic equation will not change: Some level of government needs to borrow more in order to make up the shortfall in local government funding.

Reducing the Debt Burden

Beijing has not entirely abdicated responsibility for dealing with local government debt. Even though it insists the solution must ultimately lie with the provinces, it has worked to lessen the potential for default by migrating debt to more credit-worthy borrowers. Central authorities have also pursued policies that reduce local governments' interest payments, thereby lessening the burden of servicing debt. Specifically, Beijing has used four main tools to reduce local governments' debt servicing costs: the PBoC's special purpose vehicle (SPV); turning hidden debt into explicit debt; restructuring and refinancing for China's most distressed governments; and asset sales.

THE PBOC'S SPECIAL PURPOSE VEHICLE

In mid-September 2023, the PBoC set up an SPV for the purpose of providing emergency loans to LGFVs that are unable to pay their debts.²³⁶ The loans are provided for no more than two years.

The PBoC is not permitted to lend directly to market entities, so it uses the SPV as an intermediary through which it can channel credit to LGFVs. Other central banks have similar facilities. In

October 2022, the U.S. Federal Reserve set up an SPV to buy newly issued bonds directly from local governments as a way to make up for any shortfall in demand for municipal debt from private investors during the pandemic.

The PBoC has never publicly acknowledged the existence of this facility. The notice announcing its creation was distributed internally but reported by the Chinese press.²³⁷ Consequently, there is no data on how much officials have lent through the SPV, or even whether they have used the SPV at all. Still, the mere existence of the facility has had a huge impact on reducing LGFVs' cost of borrowing.

By promising to help any LGFV pay its debts, the PBoC is, in effect, providing LGFVs with a state guarantee. Investors who previously doubted an LGFV's ability to service its debt—or a provincial government's capacity to bail out its LGFVs—can now trust that the central bank will ensure the debt will be honored. That makes LGFVs less risky, thereby driving down the return investors demand on their bonds.

For most provinces, LGFV bond spreads were already narrowing prior to the PBoC's (unconfirmed) launch of the SPV. But for all except the most financially robust provinces—such as Zhejiang, Jiangsu, and Fujian—the SPV accelerated the decline.

The decline in yields differed in size depending on the perceived risk of the borrower. Immediately prior to the SPV's launch, bonds issued by LGFVs from Guizhou—one of the most heavily indebted and financially overstretched provinces—were trading at a spread of about 800 basis points above the benchmark rate. That meant if a Guizhou LFGV issued a bond, it would have to pay investors an annual return of about 10.7 percent (at the time, the yield on 10-year Chinese government bonds—the benchmark rate—was 2.69 percent). By the end of 2023, the spread had narrowed to 600 basis points, which translated into an annual interest rate of 8.8 percent on newly issued bonds.²³⁸

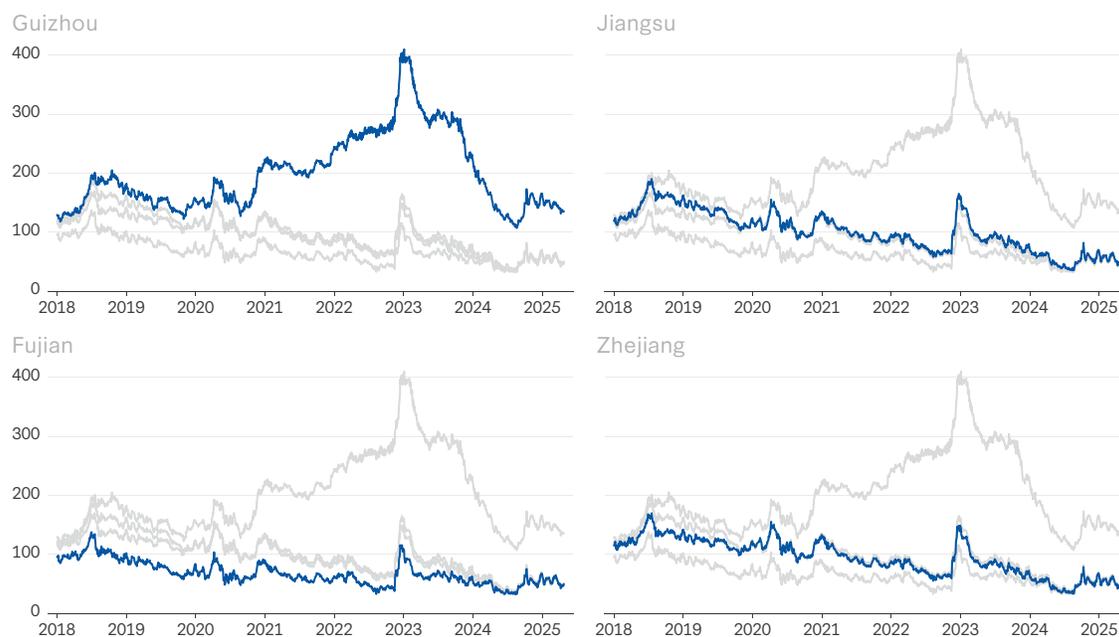
That was much higher than what LGFVs from financially robust provinces had to pay. For instance, the spread for Zhejiang LGFVs was 80 basis points at the end of 2023 (an interest rate of about 3.2 percent). Still, it represented a huge decline in the cost of new funding for Guizhou LGFVs.

Spreads continued to decline in 2024, hitting their lowest point in August. For most provinces, spreads not only declined but converged with each other, a sign that investors no longer see a material difference in risk between provinces. There are still some outliers, like Guizhou, Yunnan, Inner Mongolia, Guangxi, Gansu, Liaoning, and Heilongjiang, which are perceived as being riskier. But by August 2024, spreads for all other provinces were between 30 and 80 basis points. At their high point in February 2023, they ranged from 110 (for Shanghai) to 500 (for Tianjin).

This shift was not entirely due to the PBoC's SPV; other measures have also made LGFVs less likely to default.

Figure 8.8: Spread on AAA-Rated Bonds Issued by LGFVs from Guizhou Compared to Zhejiang, Fujian, and Jiangsu

The spreads on bonds issued by LGFVs from risky provinces—like Guizhou—are still higher than other provinces, but have narrowed significantly.



Note: The spread is the average difference between the yield on all AAA-rated bonds issued by LGFVs in each province over the benchmark yield on comparable Chinese government bonds.

Source: “Negotiable certificates of deposit,” China Central Depository and Clearing, via Wind Information.

TURNING HIDDEN DEBT INTO EXPLICIT DEBT

China has gradually been turning hidden debt into explicit debt by allowing local governments to issue “refinancing” bonds. Refinancing bonds are used to repay debt accumulated by LGFVs and other state firms that borrowed on behalf of local governments.

This process has two advantages. First, it reduces the total outstanding debt of LGFVs and SOEs, thereby making it more manageable. Second, local governments are more creditworthy than LGFVs, which means they are able to borrow at lower interest rates.

Beijing started experimenting with these kinds of bond swaps in 2019, when it permitted a handful of small, heavily indebted provinces to issue a relatively small amount of refinancing bonds.²³⁹ This program was gradually expanded in 2020 and 2022, before being rolled out nationwide on a much bigger scale in late 2022.

According to the Ministry of Finance, local governments borrowed more than RMB 2.2 trillion to buy out hidden debt in 2023, and RMB 1.2 trillion in the first 10 months of 2024.²⁴⁰ In November 2024, Beijing launched a massive expansion of the plan, clearing local authorities to issue RMB 10 trillion over five years (2024-2028) to pay down hidden debts.

RESTRUCTURING AND REFINANCING FOR CHINA'S MOST DISTRESSED GOVERNMENTS

Not all of China's local governments are equally as indebted or equally distressed. In early 2024, Beijing identified 12 provinces as being in particularly dire financial straits, and authorities have granted them special treatment. The provinces are clustered in the northeast rustbelt (Liaoning, Jilin, Heilongjiang), southwest (Yunnan, Guizhou, Guangxi), and far west (Qinghai, Ningxia, Gansu). The list also includes Inner Mongolia and the municipalities of Chongqing and Tianjin. Taken together, these provinces accounted for only 18 percent of China's GDP in 2024.

These provinces are allowed to negotiate with banks to reduce the interest rate on their loans and extend the maturities on these debts. They are also allowed to repay funds borrowed from shadow banking institutions—which typically have relatively high interest rates—with new bank loans.²⁴¹

Beijing later granted the same privileges to distressed towns and cities in provinces not on the list if those places deemed it necessary.

There are limits to how much new debt the 12 provinces, as well as any town that avails itself of the special treatment, can take on. They are allowed to borrow to fund essential infrastructure and projects Beijing has prioritized—like affordable housing—but any other public works projects are off limits.²⁴²

ASSET SALES

Beijing is also hoping to ease local governments' financing issues by having them sell some of the vast array of assets they own. In addition to land, local governments own mineral and forestry rights, as well as equity in more than 100,000 state-owned firms.

“We must . . . encourage local governments and financing platforms to raise resources to repay debts by liquidating or selling assets,” PBoC Governor Pan Gongsheng said in November 2023.²⁴³

Some cities are already trying to sell off some of those assets to plug their funding gaps. In June 2024, Chongqing's economic planning agency said it was working to resolve its debt problems by “smashing our pots and pans to pieces and selling them as scrap”—an idiom that, in this case, refers to aggressively selling off assets.²⁴⁴ That sentiment has been echoed by Chongqing's municipal districts, one of which mentioned the sale of operation rights of parking spaces and garbage disposal sites as part of efforts to “sell everything.”

In the first half of 2024, Chongqing's non-tax revenue rose 31.2 percent year over year, driven by asset sales. Over the same period, tax revenue fell 2.8 percent. Local authorities in Qinghai and Inner Mongolia have also reduced their debt by selling or leasing out state assets.

Can these measures reduce local governments' debt payments enough to fix their funding problems? It seems unlikely.

Selling state assets will prove difficult in the current economic environment, particularly if multiple local governments kick off sales at the same time. The CCP has a deep reluctance to see state assets sold too cheaply. A nationwide sale of state assets would undoubtedly suppress prices.

“The problem is that the current general environment is one of insufficient domestic demand and low asset prices,” writes Zhang Bin.²⁴⁵ “Selling assets on the market at this time will create added pressure on the market.”

Meanwhile, savings from lower interest rates have so far been moderate. The Ministry of Finance said that the RMB 2 trillion of refinancing bonds issued in the last two months of 2024 helped local governments bring down debt servicing costs by over 2 percentage points, with some localities cutting costs by more than 2.5 percentage points.²⁴⁶ That is a meaningful reduction, but it applies to less than 3 percent of total local government debt.²⁴⁷ Assuming similar savings are earned on refinancing bonds every year, this report estimates that in 2025, local governments’ interest bill will be about RMB 160 billion lower than in 2021.²⁴⁸ That is not insignificant, but it pales in comparison to the shortfall in local government budgets, as represented by the increase in fee income and arrears.

The decline in spreads on LGFV bonds has significantly reduced pressure on local governments. However, LGFVs only realize the benefit of the lower costs when their bonds mature and they need to issue new bonds to replace the old ones. As long as spreads stay low, LGFVs will eventually be able to refinance all their bonds at lower rates, but that takes time.

Moreover, according to the IMF, bonds account for less than 20 percent of all LGFV debt, which means the narrower spreads affect only a small portion of local government debt.²⁴⁹ About 80 percent of LGFV debt is held by banks, mostly as bank loans. However, the 12 most distressed provinces and a handful of struggling cities have been allowed to negotiate lower interest rates on their loans with their banks.

The biggest savings come from broader interest rate cuts from the PBoC, as these moves affect the broadest range of debt. Bank loans to LGFVs for infrastructure projects usually use the five-year loan prime rate (LPR) as a benchmark. The LPR typically declines whenever the PBoC cuts its key policy rate.²⁵⁰ Consequently, rate cuts immediately result in lower funding costs on LGFVs’ bank loans.

Cutting the policy rate also reduces the yield on 10-year government bonds, which function as the benchmark for pricing both LGFV and local government bonds. Such moves do not affect existing bond yields, but they make it cheaper to replace old bonds.

That said, the pace of interest rate cuts has been slow over the past couple of years. At the end of 2024, the five-year LPR was 3.6 percent, down from 4.7 percent at the end of 2021—the result of seven rounds of interest rate cuts from the PBoC. Meanwhile, the yield on 10-year Chinese government bonds was 1.7 percent at the end of 2024, down from 2.8 percent at the end of 2021. Debt financing costs will continue to decline as the bond refinancing program expands, as LGFVs refinance their bonds at narrower spreads, and as the PBoC cuts interest rates further. But even as some costs decline, local governments’ annual expenditures will continue to rise, as will investment in infrastructure that will require new borrowing.

While lower funding costs are welcome, they are not a solution to local governments’ funding crisis.

“The ebb of land finance cannot be dealt with simply by reducing economic expenditures,” Bai Chong’en wrote in 2024.²⁵¹ “The financial pressure it brings to local governments requires systematic countermeasures.”

Deflating the Debt Away

It is often written that China’s debts are so large that the government will never be able to pay them off. That is likely true—but, importantly, full repayment is not the goal. That would be a hugely costly endeavor, and governments seldom, if ever, deal with debt crises by paying off all their debt. As such, it is fair to assume that, in the long term, Beijing would like to deal with the problem by deflating the debt away.

Deflating the debt is not about reducing the absolute size of the total debt load, but rather about reducing the relative size of the debt as measured by the debt-to-GDP ratio. Not to be confused with debt deflation, where price deflation makes it harder for borrowers to repay their debt, deflating the debt makes the overall outstanding debt load less consequential without it necessarily shrinking.

There are two main ways to accomplish this goal. The first is through inflation. As prices go up, the relative size of the debt goes down. When prices increase, firms adapt by increasing prices, and households adapt by demanding higher wages. Higher corporate profits and wages translate into more tax revenue for the government. A dollar or a yuan does not buy as much as it used to, but everyone has more of them. Meanwhile, the value of a loan remains the same amount regardless of inflation, so inflation shrinks the size of a loan relative to the income of the borrower.

The other avenue is through heightened economic growth, which is how Beijing dealt with its last debt crisis. At the turn of the century, as much as 40 percent of bank loans in China were nonperforming. Over the next decade, however, real GDP growth averaged 10.6 percent, which meant that in 2010, the economy was more than two and half times larger than it was in 2000. Profits, incomes, and government tax revenue had ballooned in size, but the legacy debt from the 1990s was unchanged. What had once seemed like an insurmountable debt load that might cripple the economy was no longer a major burden.

Beijing is unable to replicate the experience of the early 2000s, a period in which China’s economy was supercharged by its accession to the WTO and the liberalization of the housing market. Instead, Beijing is striving for a combination of inflation and somewhat elevated economic growth to reduce the debt burden. However, even this modest approach is proving to be a challenge.

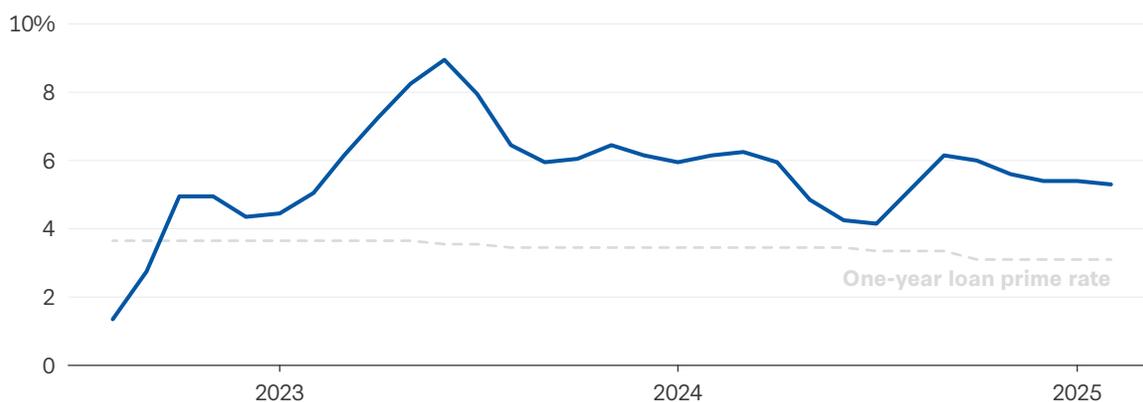
In 2024, Beijing set a real GDP target of “around 5 percent” growth and an inflation target of 3 percent growth, which together would deliver nominal GDP growth of 8 percent. Authorities achieved their GDP target, driven by especially strong export growth. However, the consumer price index (CPI) rose only 0.2 percent, the same as in 2023. The producer price index (PPI)—which measures the price of goods businesses sell to each other—was even worse. The PPI was deflationary in 2024 for the second year in a row, contracting 2.2 percent following a 3.0 percent contraction in 2023.

In 2024, nominal GDP growth was only 4.2 percent, roughly half Beijing’s 8 percent target, and lower than real GDP because of deflationary price movements. Moreover, debt continued to increase—not decrease—relative to the size of the economy. According to data from the Bank for International Settlements (BIS), by mid-2024, China’s debt-to-GDP ratio was 291.9 percent, up from 260.1 percent at the end of 2021, coinciding with the onset of the housing slump.²⁵²

To deflate the debt, Beijing needs to get rid of price deflation while maintaining moderate economic growth. To that end, it could cut interest rates more aggressively, which would lift profits and disposable income and could push up the price of goods. However, despite more than two years of PPI deflation, authorities have been reluctant to cut rates more aggressively.

Figure 8.9: One-Year Loan Prime Rates and Real Cost of Credit

Despite interest rate cuts, the real cost of credit remains elevated due to producer price deflation.



Source: CEIC; People’s Bank of China; National Bureau of Statistics; and Trivium.

China’s Fiscal Challenge

The challenge faced by local governments is that their revenue dropped suddenly, and the additional support provided by Beijing is not enough to cover their growing expenditures. Beijing’s efforts have focused on reducing debt servicing costs. The savings will increase in coming years—but so will local government spending.

Local governments have responded by forcing the additional costs mostly onto firms, either by withholding payment for goods and services already provided, or by imposing arbitrary fees and fines on them.

Unwinding these fiscal austerity policies requires the central government to increase its borrowing and take responsibility for some local government liabilities. However, that is only a short-term solution. In the longer term, Beijing needs to deflate away the stock of local government debt with a combination of growth and inflation.

China's ability to manage these challenges will depend on the strength of export growth, whether domestic demand can rebound, and Beijing's willingness to sufficiently increase borrowing. It will also depend on whether China can avoid a financial crisis, something many foreign observers have for years assumed is highly likely. The next chapter assesses whether Beijing can maintain financial sector stability as it works through its debt problems.

Challenges—Banking Sector Stability

The risk that China’s banking sector might experience a crisis has been a topic of discussion for decades. However, despite the doomsayers, it remains highly unlikely that China will experience a financial crisis.

This was not always the case. In the wake of the global financial crisis, credit growth rapidly expanded in China, resulting in a lot of wasteful investment. Facilitating the growth in credit was the emergence of a shadow banking system, which banks used to hide nonperforming loans (NPLs) and to get around regulations that would have curtailed credit growth and limited risk.

The result was an increasingly opaque and complex financial system, one explicitly designed by financial institutions to escape regulatory oversight. For a period, China’s financial system looked increasingly like that of the United States prior to Lehman Brothers’ bankruptcy. Banks grew dependent on each other and other financial institutions for funding, which they used to make shadow banking loans—such that if there were a Lehman-like loss of faith in the system, vast amounts of credit extended through shadow banking would immediately contract.

As the financial system got bigger, more complex, more levered, and more speculative, China faced the mounting risk that knock-on effects from seemingly minor or insignificant shocks could quickly spread in unexpected ways.

The PBoC has always stood ready to intervene in the markets. But in 2016, the IMF worried that the ever-increasing opacity and complexity of the Chinese financial system meant that “vulnerabilities are difficult to locate and targeted support may be more difficult to deliver.”²⁵³

The complexity of the financial system had gotten to a point where, in the event of a crisis, the fear was that government rescue efforts might be insufficient, too slow, and ill-designed to tackle the magnitude of the challenge. Ultimately the risk was that something could happen on a scale and at a speed that exceeded the central government's ability to assert control, and that the underlying trust that underwrites the stability of the entire system would collapse.

However, these dynamics no longer describe China's financial system. In late 2016, Beijing launched its "deleveraging" campaign, which massively reduced the complexity of the financial system, put regulators in a better position to manage risk, and generally diminished the likelihood of a crisis. Officials did that by dismantling the shadow banking system, pushing banks to aggressively dispose of NPLs, recapitalizing struggling banks, and overhauling banks' corporate governance.

Shadow Banking

Shadow banking still exists in China, but the sector has been significantly diminished. Starting in 2017, the complex interbank lending networks—the part of the Chinese financial system that looked most like the pre-Lehman United States—were dismantled. Lending by trust companies, the earliest and most well-established pillar of the shadow banking system, contracted. Person-to-person, or P2P lending—a form of online lending—disappeared entirely under intense regulatory pressure. And wealth management products—short-term investment products sold by banks to their customers—went from being an opaque, poorly regulated corner of shadow banking where banks regularly hid NPLs to an entirely transparent market that mostly invests in corporate bonds, where investors can monitor changes in the value of the funds daily.

Nonperforming Loan Disposals

It is difficult to know just how many bad loans China's banks accumulated during the credit boom that followed the global financial crisis. Official NPL data has never been a fair representation of bank asset quality, as it typically paints a far rosier picture of the banking sector's health than is actually the case.

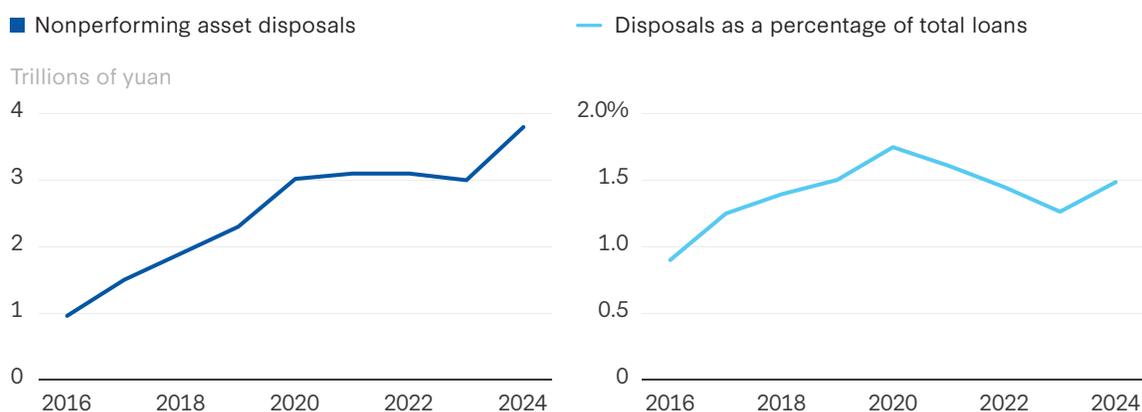
Following the launch of the deleveraging campaign, banks' NPL ratios remained basically unchanged at around 1.6 percent of total assets. But starting in 2017, the banks started to ramp up their NPL disposals.

In the five years from the start of the deleveraging campaign to the peak of the housing market (2017-2021)—at which point a new wave of NPLs started forming—China's banks disposed of almost RMB 12 trillion worth of bad loans, equivalent to 11 percent of total loans outstanding at the end of 2016.

That is not an insignificant amount. During crises, NPL levels typically peak at 20 percent of total outstanding loans in developed economies.²⁵⁴ It is not a perfect comparison, but these numbers nonetheless show that, for an economy not dealing with a crisis, Beijing made real strides toward paring back bad debt.

Figure 9.1: Total Annual Nonperforming Loans Assets and Disposals as a Percentage of Year-End Total Outstanding Loans

Banks' nonperforming asset disposals surged in 2024, but relative to bank lending, they remained well below their peak.



Source: CEIC; National Financial Regulatory Administration; and state media.

Bank Recapitalization

In addition to NPL disposals, Beijing has aggressively recapitalized the banking sector.

This recapitalization started in 2019 with a spate of bank bailouts. Baoshang Bank, a city commercial bank based in Inner Mongolia, was taken into receivership by the central bank and banking regulator. Hengfeng Bank, a joint-stock bank from Shandong Province, was bailed out with a combination of provincial and central government funds after a former chairman was sentenced to death for corruption. Huarong Asset Management, while not technically a bank—it is known as a “bad bank,” which disposes of distressed assets at banks—was bailed out by Citic Group, a centrally owned state firm.

In addition to bailouts, authorities have also played an active role in ensuring small banks—a group that includes city and rural commercial banks, rural credit cooperatives, and village banks—are adequately capitalized. Initially, local governments recapitalized small banks by mobilizing whatever resources they had at their disposal. In some instances, LGFVs would buy banks' shares; in others, local utilities or other financial institutions would invest. Occasionally, local governments' finance bureaus would inject funds.

However, by 2020 the financial resources of local authorities were stretching thin. That year, the Ministry of Finance permitted provincial governments to recapitalize local banks by issuing bonds. It allocated provincial governments a quota of RMB 200 billion in SPBs that they could use to replenish bank capital.

Authorities also approved additional quotas of RMB 150 billion in 2021 and RMB 200 billion in 2022, for a combined total of RMB 550 billion. At the end of 2023, RMB 491.3 billion of the bonds had been issued.

Also starting in 2020, Beijing launched a wave of bank mergers, bringing together small, weak financial institutions to create new, better managed, and better capitalized banks.

From 2020 to 2024, 26 bank mergers were launched, involving 135 banks. Most of the mergers involved credit cooperatives, which are among the smallest financial institutions in China. Still, the wave of mergers consolidated many of China's more risky banks.

Measuring Banking Sector Risk

In short, China's financial system is far safer than it was prior to the launch of the deleveraging campaign in 2017. That said, gauging the health of China's banks is difficult. As noted above, NPL data is unreliable. And without knowing the true state of banks' overall loan quality, it is difficult to say whether the banks are adequately capitalized or provisioned.

Rather than try to measure risk based on the health of banks' balance sheets, this report looks at how the banks perceive the risk of lending to each other. To do that, the authors analyzed changes in coupon rates on negotiable certificates of deposit (NCDs) issued by banks.

NCDs are essentially short-term bonds with maturities between one and twelve months that banks sell in the interbank market. Even though the interbank market includes insurance companies, trusts, and other financial institutions, it is dominated by banks. Hence, the yield on NCDs primarily reflects the price at which banks are willing to lend to each other.

Importantly, NCDs are not secured. So if a borrower defaults, investors that hold the NCDs have no recourse to collateral. In this way, NCDs act like short-term bonds.

The interest rate a bank pays on its NCDs—the coupon—is a reflection of how other banks perceive the risk of lending to it. A low coupon means the bank is perceived by its peers as being pretty safe; a high coupon means it is risky.

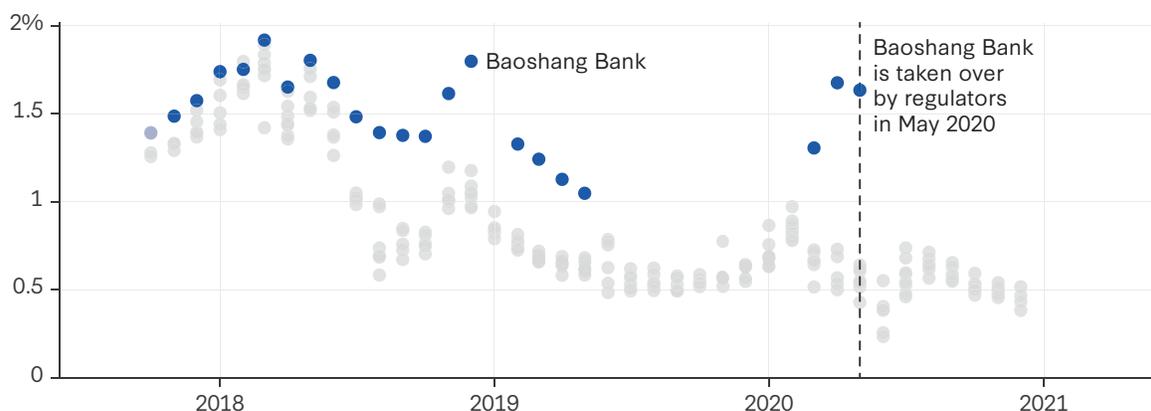
The market did not always work this way. Even though it has always been the case that some banks are better managed than others, with better asset quality and higher levels of capital, traditionally it was assumed that all banks were equally backed by the state. Not only was it inconceivable that a bank would collapse, but it was assumed that in the rare case a bank might default, the state—and not the bank's creditors—would bear the cost.

That changed in 2019, when Baoshang Bank was taken into receivership. Baoshang was a AAA-rated city commercial bank based in Inner Mongolia. In May 2019, the PBoC and the China Banking and Insurance Regulatory Commission took over the bank following mismanagement by a Chinese tycoon who had surreptitiously taken control of the bank.

The move came as a surprise to most observers. However, the banking sector was already well aware of Baoshang’s problems. In August 2018, 10 months prior to the takeover, investors in China’s interbank markets started demanding significantly higher coupons for NCDs issued by Baoshang—far higher than any other AAA-rated city commercial bank. Its coupon remained far above the bank’s peers until the takeover.

Figure 9.2: Spread on One-Year NCDs Issued by Baoshang Bank Compared to Those Issued by AAA-Rated City Commercial Banks from Guangdong, Zhejiang, and Jiangsu

Almost two years before Baoshang Bank was taken over by regulators, the interbank market realized the bank was riskier than its peers.



Note: The spread is the difference between the NCD’s coupon and the yield on one-year Chinese government bonds (CGBs). The Guangdong banks are Dongguan Bank, Bank of Guangzhou, and Zhuhai Bank. The Zhejiang Banks are Bank of Wenzhou, Tailong City Commercial Bank, Bank of Hangzhou, Bank of Ningbo, and Taizhou Bank. The Jiangsu banks are Bank of Nanjing, Bank of Jiangsu, and Bank of Suzhou.

Source: Wind; and China Central Depository and Clearing.

In short, not only did the NCD market recognize that there was something wrong with Baoshang almost a year before its takeover, but lenders also recognized that the local authorities—in this case the Inner Mongolia provincial authorities—might not have sufficient resources to prevent a collapse from occurring. Clearly, they were right.

The Baoshang takeover permanently changed the way NCDs were priced. Banks perceived as risky must now pay a higher coupon on their NCDs. The risk is not that a bank will collapse and creditors will lose everything, but rather, that if a bank has to be bailed out, creditors will have to bear some of the cost.

When the authorities assumed control over Baoshang, they guaranteed most of the bank’s obligations to deposit-holders and bondholders through the PBoC’s Deposit Insurance Fund, China’s version of the U.S. Federal Deposit Insurance Corporation. However, banks that had lent to Baoshang did not get all their money back.

The government never publicly disclosed how much of a loss banks had to swallow, but the Bank of Gansu disclosed that the Deposit Insurance Fund guaranteed 90.7 percent of the 1.45 billion yuan it had deposited at Baoshang. Bank of Gansu recognized a loss on the remainder. This was the first time that banks had been forced to accept losses on funds lent to another Chinese bank, and it destroyed the long-held assumption that all banks are implicitly, and entirely, backed by the state.

By differentiating between banks' risk levels, the NCD market gives unparalleled insight into whether China's banking system is becoming more or less risky—at least from the perspective of the banks themselves.

In conducting research for this report, the authors focused on China's AAA-rated banks. Hundreds of banks have issued NCDs, but most are small. At the end of 2024, 82 AAA-rated commercial banks had issued 12-month NCDs. Almost all of them rank among China's 100 biggest banks, which collectively account for about 80 percent of total banking assets.

The authors calculated the spread of 244,000 NCDs issued by banks from 2014—when banks first started issuing NCDs—until the end of January 2025, using the yield on one-year Chinese government bonds as the risk-free rate. The dataset was narrowed to 12-month NCDs, the most commonly issued and the longest maturity, meaning that default risk considerations play a greater role in pricing.

Based on this analysis, this report finds that China's safest banks—the six state-owned commercial banks—all issue NCDs with similar coupons.²⁵⁵ The coupons on NCDs issued by the 12 joint-stock banks are slightly higher.²⁵⁶ The coupons for city and rural commercial banks are higher still, but there is more divergence among this cohort. Most AAA-rated city and rural commercial banks are able to issue NCDs with coupons in a range of 20 basis points from each other, but following the Baoshang takeover, 11 of them—mostly from financially distressed provinces—had to pay higher coupons.

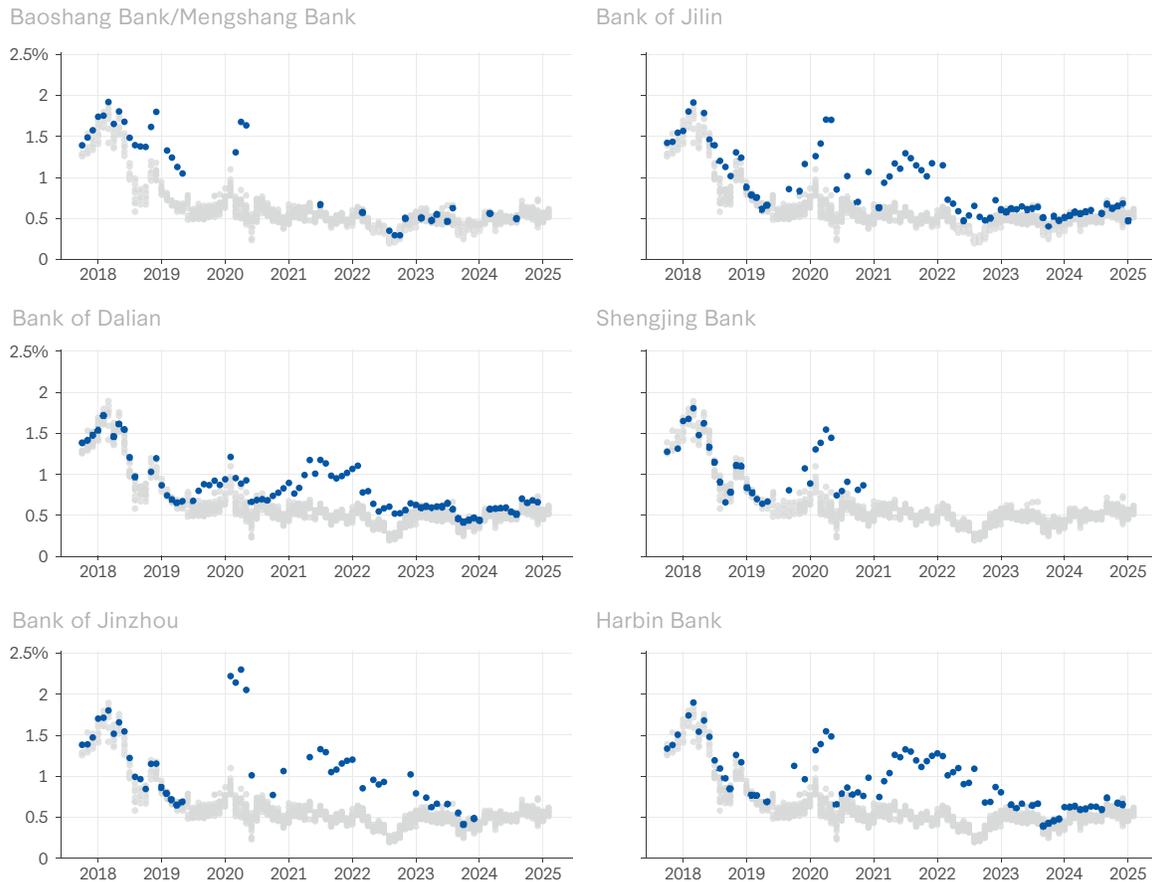
This situation persisted until mid-2023. Since then, the spreads on those 11 banks' NCDs have converged with the other banks. Today, they can issue NCDs at a yield comparable to their peers. The authors believe this overall improvement in risk-pricing is due to state-led recapitalization of banks, aggressive NPL disposals, the reining in of off-balance-sheet risks, and improvements in bank corporate governance.

That is not to say the banks are healthy by international standards. For example, Bank of Jinzhou, which received a state bailout in 2020, was on track to be forcibly delisted from the Hong Kong Stock Exchange in July 2024 for “substantive issues.” The bank chose to delist voluntarily in January of that year rather than be forced off the exchange.

Still, China's other banks no longer think Bank of Jinzhou, or any of the other 10 problematic banks, will default.

Figure 9.3: Spreads on One-Year NCDs Issued by AAA-Rated Banks in China’s Northeast—Liaoning, Jilin, Heilongjiang, and Inner Mongolia—Compared with Other AAA-Rated Banks

The spread on NCDs diverged in 2019, reflecting an increase in perceived risk. But since late 2024, they have converged again.



Note: Grey dots represent AAA-rated city and rural commercial banks from Guangdong, Zhejiang, Jiangsu, Shandong, Fujian, and Jiangxi provinces. After restructuring, what remained of Baoshang Bank was relaunched as Mengshang Bank.

Source: Wind; and China Central Depository and Clearing.

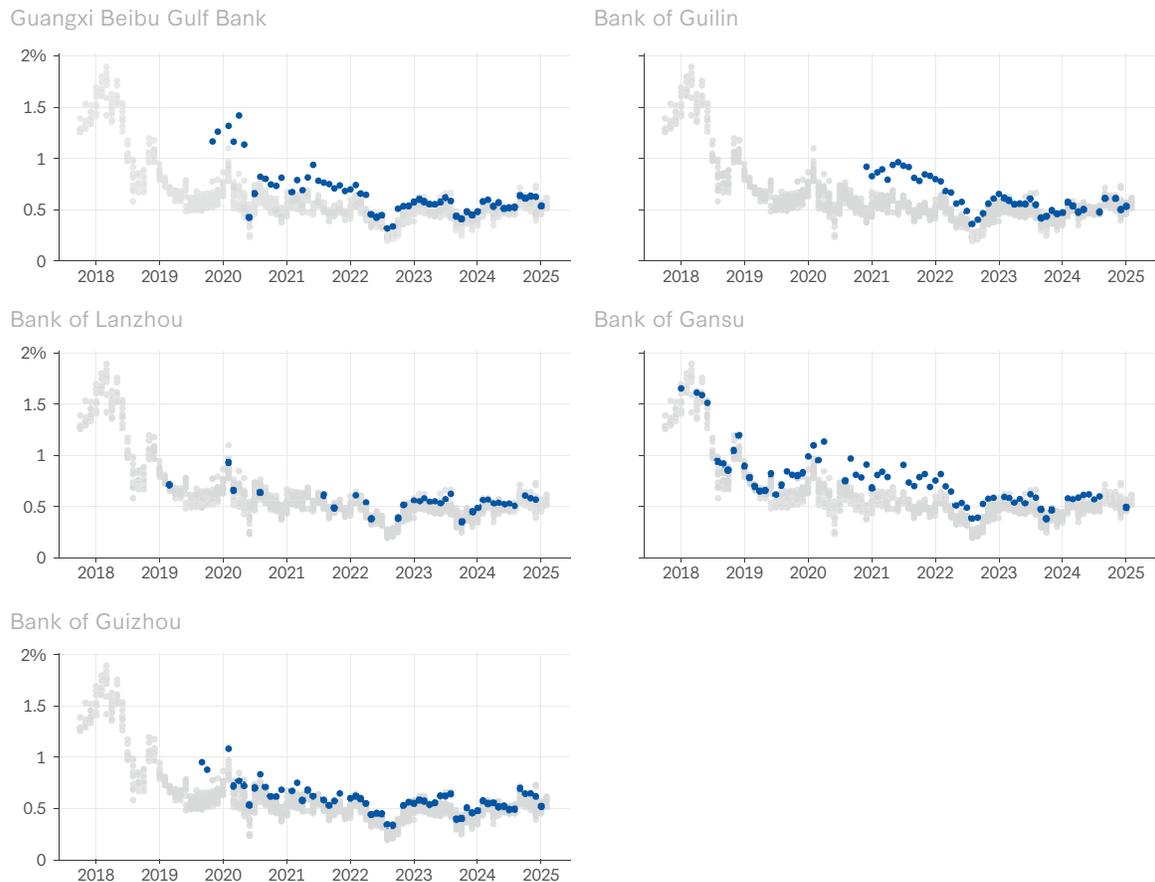
The Next Phase of Recovery

Most of the regulators’ efforts to clean up China’s banking sector have been aimed at dealing with the legacy of shadow banking and excessive lending during the decade that followed the global financial crisis. However, they now have to deal with the fallout from the housing slump.

“With falling housing prices, real estate companies face cash flow difficulties, land auction revenue is declining, local hidden debts will be exposed, and local land fiscal revenue is declining,” Lou Jiwei, China’s former finance minister, wrote in mid-2024.²⁵⁷ “Banks, especially small and medium-sized financial institutions, face risks.”

Figure 9.4: Spreads on One-Year NCDs Issued by AAA-Rated Banks in China’s West—Guangxi, Guizhou, and Gansu—Compared with Other AAA-Rated Banks

The spread on NCDs diverged in 2019, reflecting an increase in perceived risk. But since late 2024, they have converged again.



Note: Grey dots represent AAA-rate city and rural commercial banks from Guangdong, Zhejiang, Jiangsu, Shandong, Fujian, and Jiangxi provinces.

Source: Wind; and China Central Depository and Clearing.

Banks have undoubtedly experienced an increase in property developers and LGFVs defaulting on their loans since the housing market peaked in late 2021. However, the full extent of the deterioration in loan quality has not shown up on banks’ books. That is doubtless because regulators have permitted banks to exercise forbearance in their treatment of loans to developers and LGFVs—that is, they do not need to recognize certain distressed loans as being nonperforming.²⁵⁸

That risk is evident in a number of AA-rated banks whose NCD spreads are significantly wider than their peers. Most notably, the spread on Bank of Langfang’s NCDs spiked in March 2021, about the same time China Fortune Land became the first major property developer to default on its debt. China Fortune Land was based in Langfang, Hebei Province.

China's smaller banks do not pose a systemic risk to China's financial system, but they nonetheless present a challenge that needs to be managed.

Property

The risk to banks posed by the recent collapse in housing demand is likely fairly moderate. There are regulatory caps on how much banks can lend to property developers. China's biggest banks can lend as much as 10 percent of their total loans to developers. The smallest banks are limited to 5 percent. Of China's listed banks (of which there are about 60), most are well under these upper regulatory limits. Even if half of those bonds defaulted, the banks could feasibly absorb the losses. Banks' main exposure to the property sector is through home mortgages, which are less likely to experience default.

Prior to the housing market peaking in 2021, more than 90 percent of all commercial housing in China was sold while still being built, usually between one and three years prior to completion. Funds raised from such "presales" accounted for 40 percent of developers' total funding.

Unlike in other countries, where a buyer might only pay a small percentage of the full purchase amount prior to delivery, in China people paid the full purchase price up front. They typically funded their purchase with mortgages.

Presales are effectively zero-interest loans to developers, which artificially lower development costs and incentivize overbuilding. Indeed, presales essentially shift the cost of development funding to homebuyers, who pay interest on mortgages taken out to buy homes they have not yet received.

Developers were supposed to use the funds raised from presales to complete the homes they had just sold, but they routinely used them to start new projects in the hope of capturing as much of the market as possible.

"The amount of land that Chinese real estate developers have acquired is astronomical," says Mao Zhenhua, codirector of Renmin University's Institute of Economic Research.²⁵⁹ "If the land sold to developers were to be developed according to their previous plans, it is doubtful that the Chinese market would have enough demand for it."

After the housing market peaked in 2021—the result of a government policy known as the "three red lines," which limited developers' borrowing—many developers found they did not have the cash to finish many of the homes they had sold in advance.

In response, homeowners throughout the country threatened a mortgage boycott—that is, they would not pay the interest on their loans until they had received the homes they were promised.

At its peak in 2021, about 40 percent of all bank loans were home mortgages, but about two-thirds of these were concentrated in China's big six banks, which are better positioned to absorb losses than smaller banks. Still, this high concentration of mortgage lending in the banks made the mortgage boycott a significant risk to bank revenue and overall asset quality.

Authorities quickly headed off the threat that the boycott posed to banks by promising to buyers that all presold homes would eventually be delivered. That process is still ongoing. The challenge is ensuring developers have the cash to finish their projects.

Regulators have encouraged banks to lend to projects they deem viable, but that has not been enough. In 2024, the central bank set up a loan facility to provide local governments with cheap funding to acquire developers' unsold housing inventories and convert them into affordable housing for migrant workers. Authorities also allowed local governments to buy back idle land from developers, using funds raised by issuing bonds. Both programs have made slow progress, largely because developers and local governments have struggled to agree on an appropriate price for both the land and the unsold housing inventory.

Ultimately, responsibility might need to shift from local governments to the central authorities. Meng Xiaosu, a former SOE chairman who oversaw housing reforms in the 1990s, argues that local SOEs are ill-positioned to carry out the task of converting developers' inventory into affordable housing.²⁶⁰ To ensure buybacks are financially viable, Meng argues that Beijing should set up a national body, funded directly by the central government, to acquire and manage the excess housing inventory. Yao Yang, a Peking University professor and member of the prominent Finance 40 Forum, contends that the state should establish a policy bank dedicated to funding property acquisitions.²⁶¹ Zhu Baoliang, chief economist at the State Information Center, supports setting up a specialized financial institution, adding that the China Development Bank could facilitate its formation.²⁶²

In short, then, the threat to banks from property developers' financial woes is minimal, and government efforts will likely keep it that way.

Local Government Debt

LGFV debt likely poses a bigger challenge to banks than property. The IMF estimates that 80 percent of LGFVs' RMB 60.4 trillion in debt at the end of 2023—or RMB 48.3 trillion—was held by banks, mostly in the form of loans. That translates into about 20 percent of banks' outstanding loans. The risk of those loans is likely concentrated in small, regional banks where local officials can exert political power to influence where loans are directed.

Banks' exposure has likely increased. As noted in Chapter 8, regulators have called upon banks to provide loans to LGFVs in the most heavily indebted provinces so that they can repay shadow banking debts. Banks are also required to restructure—that is, reduce the interest rate and extend the maturity of—LGFV loans in those same provinces. This also means that banks will end up extending more debt to some of the weakest borrowers.

Undoubtedly, some of those loans have already turned bad (i.e., the borrowers are struggling to pay the interest), but banks are unlikely to dispose of these bad loans. They will keep them on their books, where they will generate less income than they should but will not pose a threat to financial stability; regulators have proven adept at identifying banking sector problems and dealing with

them before they become widely known outside of the banking system. However, these bad loans will reduce bank profits.

The Challenge of Declining Bank Profitability

In this new era, the biggest challenge the banking system poses for authorities is not financial instability, but weak profitability.

Banks are required by regulators to maintain a minimum amount of risk-adjusted capital against their loans. As bank lending expands, so does the amount of capital banks need to hold.

Banks can accumulate core tier-1 capital—the highest-quality type of capital—by retaining earnings or by selling new shares to investors. As such, banks have been mostly dependent on their own profits to maintain adequate capital levels.

But maintaining capital levels through profit has become increasingly difficult. Bank profits have been squeezed in recent years by narrowing net interest margins, the gap between the interest rate banks charge for loans and the interest rate they pay for funding. Banks mostly fund themselves with deposits and, to a lesser extent, funds borrowed from other banks (primarily by selling NCDs).

Over the last few years, the PBoC has repeatedly cut lending rates, reducing the cost for firms and households to take out a loan. However, banks' deposit rates have not fallen by as much. Consequently, banks have progressively been earning less and less on their loans, which has eroded their profits. In theory, the PBoC could boost bank profits by guiding banks to sharply cut their deposit rates, but that is an unlikely solution, as Chinese households are already frustrated by the low return on their financial assets. Even if net interest margins are not compressed any further, bank profits will remain low, making it hard to replenish capital.

Banks can also replenish core tier-one capital by selling new shares. But China has a rule that requires banks to sell new shares at a price no less than the value of net assets per share (their “book value”). The rule is designed to prevent state assets from being sold for less than the sum of their parts. However, the market value of all but a small handful of banks has been less than net assets per share for years. Consequently, any investors buying new shares issued by those banks must do so at inflated prices for noncommercial reasons.

That all but excludes the private sector from playing a role in replenishing the core capital of most banks. Instead, responsibility has fallen squarely upon the state. However, many overstretched local authorities have found it increasingly difficult to muster the necessary resources. As mentioned above, from 2020 to 2022, Beijing stepped into the gap by granting provincial governments an annual quota of SPBs they could use to replenish bank capital.

Many local governments are desperate for additional funding for a range of issues, not least to put an end to austerity measures, so funding additional debt in order to maintain bank capital levels is not feasible. In September 2024, the minister in charge of China's financial regulator (the National Financial Regulatory Administration), Li Yunze, acknowledged the problem.

“In recent years, large commercial banks have mainly relied on their own profit retention to increase capital,” he said.²⁶³ “But . . . net interest margins have narrowed, and profit growth has slowed.”

In March 2025, the Ministry of Finance purchased RMB 500 billion worth of new shares issued by China’s big four banks—the Industrial and Commercial Bank of China, China Construction Bank, Bank of China, and Agricultural Bank of China—to replenish their core tier-one capital.²⁶⁴ The ministry funded the investment by issuing bonds.

Over the coming years, it is inevitable that China’s banks will need further support from the state to maintain their capital levels. They can minimize the amount of capital they need by not disclosing the full extent of their NPLs—something they are already likely doing, in compliance with Beijing’s forbearance policies. They can further minimize the amount of capital they need by reducing the relative amount of NPLs they dispose of annually, which they have also been doing in recent years—NPL disposals as a percentage of total loans peaked in 2020 (see Figure 9.1).

Even with employing such tricks, banks will find they still need state help to replenish their capital.

Authorities have not published an official accounting of just how much state funding has been used to replenish the capital of China’s banking sector. Including the RMB 500 billion announced by Li Qiang in March 2025, this report’s estimates put the figure at over RMB 1.255 trillion.²⁶⁵ The funds come from a range of sources—debt raised by the central government, debt raised by provincial governments, the central bank’s deposit insurance fund, and a range of state-owned firms.

Spread out over five years and shared among a range of different institutions, this burden has not been especially onerous. Assuming that risk within the financial system has genuinely diminished in recent years, there may be fewer large-scale bailouts in the next decade like those of Baoshang Bank, Hengfeng Bank, and Huarong Asset Management (which collectively required RMB 200 billion in state capital to resolve their troubles).

The most likely outcome is that the state will push banks to maintain a constant but low-intensity disposal of NPLs while providing a constant but relatively small-scale replenishment of capital.

The challenge to the government will not be that the costs are unbearable. Rather, it is that recapitalization will need to be funded by government borrowing, at a time when Beijing already finds itself needing to borrow far more than it is comfortable with.

2035

Scenarios for China's Economic Future

Given the changes China's economy is undergoing and the challenges it faces, what is it likely to look like in a decade? This chapter outlines what the best-case scenario would look like if Beijing manages to achieve its goals. It also outlines the worst-case scenario, if Beijing's new growth model fails to deliver. It then outlines the considerations and forces that will likely shape the path China actually takes and shares what the authors of this report think is the most likely outcome.

Best Case: Beijing Realizes Its Vision

In the best-case scenario, Beijing's model of productivity-led growth delivers a stream of innovative new products that are in high demand globally. Despite U.S. protectionism, Chinese goods are so entrenched in global supply chains that exports continue to rise. Meanwhile, China produces traditional manufactured goods ever more efficiently, allowing Chinese firms to cut prices and raise profits.

In such a scenario, a more productive manufacturing sector leads wages to increase as firms hire fewer but more skilled workers. Moreover, the global success of China's manufacturers creates more high-paying, white-collar jobs in everything from finance and engineering to marketing and design.

Higher incomes lead households to spend more on goods and services such as travel, pets, cars, and eating out. Such spending creates new jobs, pushing up wages and redistributing wealth to households from firms who need to pay more to retain employees.

The combination of more profitable firms and higher wages translates into a broader tax base. Government tax revenue increases faster than nominal economic growth, giving authorities the resources to expand spending on welfare.

The success of China's manufacturing drive creates a generation of innovative Chinese tech firms that launch IPOs on the Shanghai and Shenzhen stock exchanges. Beijing's corporate governance reforms have the desired effect, and Chinese investors plough their savings into the stock market. Beijing gets its desired "slow bull" market and share valuations increase.

The combination of a rising stock market, higher wages, and an expansion in welfare spending further boosts household spending and reduces the need for China to maintain aggressive export growth. Broad-based optimism also translates into higher housing prices—although they do not return to their previous highs.

In such a scenario, Beijing achieves most of its broader economic goals. Progress is made toward the common prosperity vision and reducing inequality. By 2035, GDP per capita doubles from 2020 levels. The country's rapidly aging population still presents a challenge for future decades, but Beijing has created an economy that will be better able to fund the needs of a larger number of retirees with a smaller number of workers.

Moreover, Beijing has reduced its macro debt burden. Although borrowing increases early on to cover the funding shortfall from the housing market slump, by 2035 real GDP growth of around 5 percent annually, along with inflation—for both consumer and producer prices—of 2 percent annually, has served to facilitate a decline in the debt-to-GDP ratio.

Worst Case: Things Fall Apart

In the worst-case scenario, global pushback results in Chinese exports falling. Developed economies aggressively diversify their supply chains and impose trade barriers against Chinese components in products assembled in other countries. Beijing remains committed to its vision of economic transformation, and so continues to drive investment in innovation and manufacturing. The result is industrial overcapacity, which leads to deflation becoming entrenched.

In an effort to secure market share both at home and overseas, firms keep cutting prices. Profits remain low, and there is little scope for pay raises or bonuses. Consequently, neither firms nor employees enjoy the benefits of productivity gains—nor does the government. The tax base does not expand, and government revenue growth is not enough to fund a material expansion of the welfare system. People remain skeptical of the stock market and share prices stay flat.

With disposable income growth only middling, households are pessimistic about their economic future. They save aggressively to cover the medical bills of their parents, to prepare for their own underfunded retirements, and to make up for the wealth they lost when the housing market slumped.

Beijing still strives to double per capita GDP by 2035, but because exports have been a drag on growth, not a driver, it needs to raise more debt to stimulate domestic demand. Beijing declines to expand welfare spending with debt, except for programs aimed at encouraging families to have more children. Instead, it prefers to spend on investment—in infrastructure, new factories, and R&D—all of which exacerbates overcapacity problems. China's debt-to-GDP ratio goes up through a combination of more central government borrowing and persistent deflation.

Meanwhile, there are many other demands on the government's resources. Authorities need to borrow heavily to deal with the fiscal hole left by the housing market decline, a recurring expense. They need to recapitalize the banks and fund the buyout of developers' land and unsold inventory to ensure developers have the cash they need to finish presold housing.

Beijing needs to significantly ramp up spending—not just once, but annually—to realize its GDP goals. However, it balks at borrowing so much so quickly. Instead, it ramps up slowly—but that has its own costs. Austerity continues to drag on the economy as local governments squeeze firms for more cash. The housing market adjustment continues to drag on. And weak domestic demand further entrenches deflation.

There is no wealth redistribution, putting the goal of common prosperity further out of reach. Beijing says it has been reaching its GDP growth targets, but people are not feeling the benefits.

Youth unemployment remains high, creating a generation of people who feel like they have been left behind. Retirees worry about their future. Businesspeople look for ways to protect their money from local bureaucrats. Public trust in China's political system starts to erode.

By 2035, China looks as though it is experiencing its own version of Japan's lost decade, with weak growth, persistent deflation, weak asset prices, and high government borrowing.

At its root, the worst-case scenario for China is one in which global demand for Chinese exports declines and domestic demand remains weak. Zhang Bin, a deputy director of the Institute of World Economics and Politics at CASS, explains it best:

The direct impact of insufficient demand is pressure on residents' income and employment growth, pressure on profits and debt repayment for enterprises, the downward pressure on the valuation of stocks and real estate, and the pressure posed by bad debts on the risk of financial institutions. In an environment of insufficient demand, even if the efficiency of industrial upgrading and economic resource allocation is good . . . because demand cannot keep up, everyone is willing to work but the number of good job opportunities is reduced, everyone works hard but income and profit are difficult to grow, and economic growth lacks a sense of gain. If the pressure of income and profit growth lasts for a long time, expectations and confidence in the future will also weaken.²⁶⁶

What Factors Will Determine China's Path?

Neither the best-case scenario nor the worst-case scenario is likely. Instead, China's economic trajectory over the next decade is likely to be somewhere in between. The path it takes will be determined by the choices made in Beijing, as well as choices made in the United States and the European Union.

For China to realize its vision—one where productivity growth in manufacturing lifts incomes and enables an expansion of welfare—China needs to ensure that demand for its manufactured goods grows sufficiently quickly. It also needs to ensure that demand for those manufactured goods translates into higher profits, greater household wealth (through higher wages, bonuses, dividends, and stock valuations), and a broader tax base.

China is likely to achieve productivity gains in manufacturing through innovation and industrial upgrading. It is also likely that China keeps innovating and commercializing those innovations, leading to global success in new industries, whether that be biotech, the “low-altitude economy” (i.e., drones and flying cars), or something else. Meanwhile, industrial upgrading and automation will lead to cost savings.

However, recent history shows that increased productivity in new industries does not guarantee the rising wages and tax base necessary to set China on a sustainable trajectory. As of early 2025, China's most successful industries have succeeded in innovating and upgrading, but they have also seen declining profitability due to price wars and unconstrained competitive pressures.

Notably, Chinese companies (largely private or hybrid) now wholly dominate global battery, NEV, solar component, and wind turbine manufacturing thanks to both their technological leadership and their ability to achieve economies of scale. However, since roughly 2021, each industry has seen steady declines in profit margins, despite moving up the value chain, as companies slash prices to compete for market share. Margins will improve only when more firms exit the market.

Meanwhile, revenue from corporate income taxes peaked in 2022 and declined in 2023 and 2024. The Ministry of Finance said the drop was due to a decline in corporate profit.²⁶⁷ (Personal income tax revenue also declined, but that was primarily due to tax exemptions introduced in 2023.)

China needs to be able to extract more wealth from selling manufactured goods such that profits, wages, and tax revenue can all increase. The extent of those gains, and the breadth of firms and households who benefit, will depend on how much China's manufacturing firms can sell, and at what price.

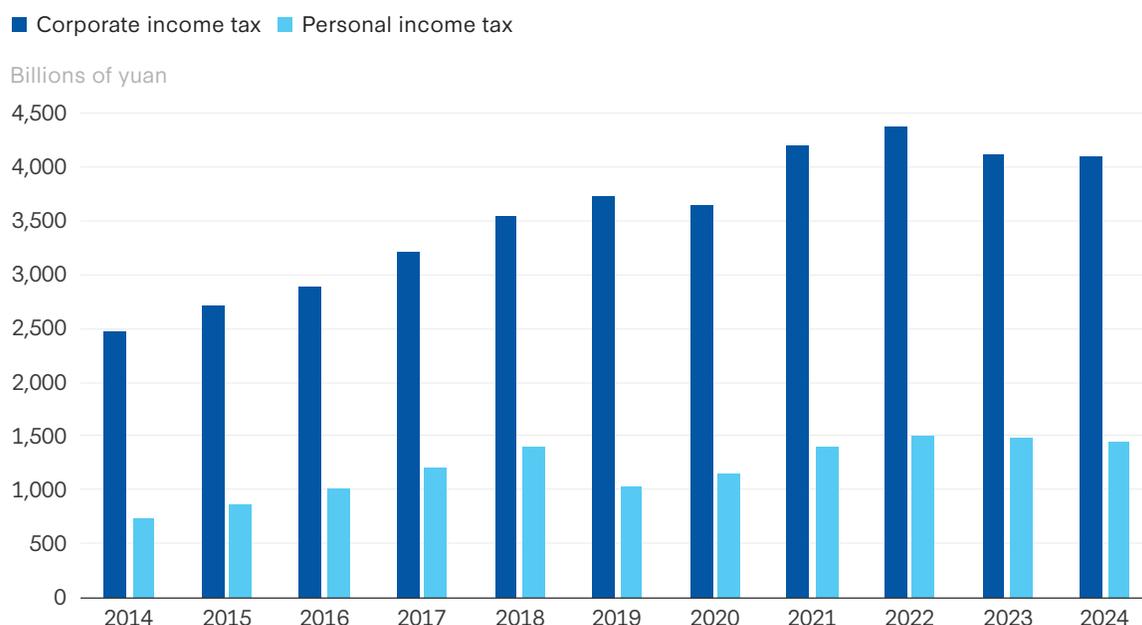
That will be determined by (1) whether Beijing deals with overcapacity; (2) how much China can export; and (3) whether domestic demand can improve.

OVERCAPACITY

Beijing accepts overcapacity as part of its growth model. In a 2024 essay in the *Economic Times*—the CCP's leading publication on economic matters—the Development Research Center argued that it

Figure 10.1: Annual Corporate Income Tax and Personal Income Tax Revenue

Corporate and personal income tax revenue has declined since peaking in 2022.



Source: CEIC; and Ministry of Finance.

is not uncommon for producers of innovative new products to lose money until market demand catches up, noting that Korean LCD panel producers lost money for years.

“Even under such circumstances, Korean companies still invested billions of dollars in the construction of large-size LCD panel production lines based on the expectation of huge market demand in the future,” the report noted.²⁶⁸

Beijing sees overcapacity as the cost of achieving a dominant market position. It has seen how intense competition drives innovation and efficiency.

But Beijing ultimately needs to oversee a reduction in capacity. Only once China’s pool of more than 100 NEV car companies—already reduced from nearly 300 in years prior—is whittled down to a mere handful will the winners enjoy reasonable profits. Meanwhile, much of the overcapacity China is dealing with has nothing to do with innovation and efficiency but is simply the fallout from the collapse in housing demand. China will never again need as much steel as it did in 2021, at the peak of housing construction. Some mills will have to close.

So far, Beijing’s efforts have been limited to calling for firms to engage in less cutthroat pricing. In February 2025, the State Administration for Market Regulation (SAMR) called a meeting with a group of car makers, tech companies, and solar component manufacturers, after which it promised to “proactively resolve issues hindering fair competition.”²⁶⁹

Dealing with overcapacity will involve shutting down factories and merging firms. There will be negative consequences, like higher unemployment and NPLs. But it will allow the remaining firms to sell lower volumes at higher prices, resulting in higher profits and more taxes.

EXPORT GROWTH

Even though reducing overcapacity will allow Chinese firms to realize the financial benefits of their productivity gains, tariffs from the United States—and, to a lesser extent, the European Union—threaten to erode them.

For China, the worst-case scenario is that tariffs make Chinese-made goods too expensive, causing U.S. and EU buyers to stop buying them altogether. In some cases that will be unavoidable. Many small Chinese manufacturers are already operating with wafer-thin margins, meaning they have little to no capacity to lower prices. Tariffs will thus make it relatively cheaper for Americans to buy those goods from non-Chinese firms.

In other cases, Chinese firms will shoulder the entire burden of the tariffs so that U.S. buyers do not go elsewhere. And in others, the burden of higher tariffs will be shared between the U.S. and EU buyers (who will pay more) and the Chinese sellers (who will charge less). For many products, U.S. buyers will struggle to find a replacement for Chinese imports. Chinese manufacturers are so integral to the supply chain for so many products that it will take years to develop alternative sources of supply at sufficiently low prices.

The ultimate impact on China will not be clear for years and will depend on several factors. First, it will depend on whether the United States and European Union institute further trade barriers. Second, it will depend on the speed at which alternative sources of supply can be developed to replace China. And third, it will depend on whether the U.S. public balks at the price they are being asked to pay, prompting a partial rollback of current or future tariffs.

Despite so much uncertainty, one thing is clear: Chinese firms, with support from Beijing, will do everything they can to increase exports. On a firm level, that will include building more factories overseas to get around trade barriers. They will also expand into any market where Chinese products are still welcome, where they will take over the market share of companies from the United States, European Union, Japan, South Korea, and any other developed economy with advanced manufacturing. And finally, they will cut prices whenever necessary.

On a governmental level, Beijing will pursue new free trade agreements and deepen existing ones. And even if China does not launch an explicit Green Marshall Plan like the one advocated by Peking University's Huang Yiping (see Chapter 6), it will provide increasing support for the Global South to purchase Chinese exports. Beijing already provides support for the construction of wind farms and solar plants overseas through the China Development Bank and the Export-Import Bank of China, its policy banks.

At the very least, Chinese authorities will likely get creative with pursuing overseas investment in a way that benefits China's manufacturers. For instance, Beijing might support NEV exports by subsidizing the construction of recharging piles overseas, installing renewable power sources to

supply those piles, and building out power lines to ensure countries are adequately electrified to support larger NEV fleets.

Given that Chinese firms already account for such a high level of global industrial capacity, it is difficult to imagine that China can sustain annual export growth for an entire decade. Still, it seems likely that Beijing will be able to push export growth for at least a few years yet. It will also be aided by import substitution efforts, whereby China increasingly produces for itself manufactured goods it used to import.

WEAK DOMESTIC DEMAND

The more Chinese firms can sell domestically, the less they need to export. However, domestic demand has been weak since Covid.

Beijing has tried to make up for weak demand with subsidies and investment programs that are squarely aimed at creating demand for manufacturers. In the second half of 2024, Beijing provided RMB 150 billion in subsidies to bring down the prices of white goods, cars, and home electronics, all manufactured goods with long supply chains. In 2025, Beijing promised an additional RMB 300 billion, funded by the issuance of government bonds.

It also provided support for industrial upgrading, making it cheaper for Chinese firms to purchase new, more productive, more energy efficient equipment.

Both programs are short-term measures and will likely become less effective at boosting demand as time goes on. As noted in Chapter 7, these programs bring forward future demand as people and businesses take advantage of the subsidies to buy something today that they would otherwise have bought next year or the year after.

China's authorities are also creating demand for China's innovative cleantech companies by making decarbonization and green transition goals a major part of the growth model. Notably, they are investing heavily in large-scale desert renewable energy and offshore wind projects, as well as pumped storage hydropower and inter-provincial ultra-high voltage power transmission projects linking remote renewables projects with population and industrial hubs across central and coastal provinces.

However, many of these new facilities are merely replacing existing, polluting sources of power generation. While the government can drive demand for cleantech industries with regulations that demand the greening of China's power grid and industrial production, someone has to bear the cost. In some cases, the cost is borne by local governments that need to borrow more to build the new facilities. In other cases, it is companies (both private and state owned) that are required to increase investment—not to meet rising demand, but out of compliance with government rules.

For example, on March 18, 2025, the NDRC and other central planners issued guidelines outlining plans to implement mandatory green electricity certificate consumption quotas in six industries, ranging from steel and petrochemicals to data centers.²⁷⁰ The document indicates these quotas will rise until, by 2030, the targeted industries' renewable energy consumption (proven by the

certificates) must exceed the national average. This effort will create a direct financial transfer from these industries to renewable energy manufacturers and generators.

Such measures create domestic demand while helping Beijing meet its goals for reducing carbon emissions. Given that local governments have found it increasingly difficult to find worthwhile new infrastructure projects to invest in, state-driven investment to create a cleaner, greener China is a worthwhile investment. Still, the cost needs to be borne by someone, in the form of either government borrowing or higher costs—and lower profits—for firms. In the case above, authorities are driving investment in green electricity by forcing firms to use renewable sources of energy, even if it is not the cheapest form of power available.

Ultimately, the primary source of sustainable demand is households. The ultimate purpose of almost all industrial products is to meet household demand. A factory that makes machine tools provides a production line to a steel company that supplies raw material to a company to make engine components for car companies. The profits of the machine tool maker are ultimately dependent on how many cars are sold. Government spending can help—in this case, by purchasing a fleet of cars—but demand for manufactured goods, regardless of their role in the supply chain, is mostly determined by individuals and families.

Consequently, what China really needs is a sustained and permanent increase in household spending.

The authors of this report believe domestic demand in China has weakened relative to the pre-Covid years for three key reasons: Chinese-style austerity is squeezing firms and undermining business confidence; China's rapidly aging population is becoming an increasingly onerous financial burden on people born during the one-child era; and the housing market slump has eroded household wealth.

The solution to all three is the same: The government needs to borrow more.

How Much Is Beijing Willing to Spend?

China's central government has always been wary of borrowing too much. Traditionally, Beijing capped the official annual budget deficit at 3 percent of GDP. In 1992, the Maastricht Treaty, which created the European Union, required that its members limit their budget deficits to 3 percent of GDP. Since then, being able to keep deficits to 3 percent or below has been seen as a sign of sound public finances.

While Beijing kept its official budget deficit to 3 percent for years, that never reflected the true extent of government borrowing. Local governments borrowed extravagantly, and the policy banks—China Development Bank, the Export-Import Bank of China, and the Agricultural Development Bank of China—borrow extensively from the domestic bond market to fund Beijing's policies. Additionally, since 2007, Beijing has repeatedly issued “special treasury bonds,” which are no different from ordinary treasuries, except that the Ministry of Finance does not include the debt in its accounting of the deficit. Their exclusion is justified on the grounds that the bonds are used for one-off expenses, like capitalizing the sovereign wealth fund or building hospitals during the

Covid-19 pandemic. However, in 2024 the Ministry of Finance said it would issue special treasury bonds annually for several years, thereby making them a recurring source of debt, not a one-off.

Beijing realizes it can no longer maintain even the illusion of fiscal prudence. Boosting domestic demand requires more government borrowing. In 2025, the Ministry of Finance set the target budget deficit at 4 percent of GDP, the highest level in over 30 years. Additionally, it promised to issue RMB 1.8 trillion in special treasury bonds.

“Expanding domestic demand is related to both economic stability and economic security. It is not an expedient measure, but a strategic move,” Xi Jinping said in a speech to the Central Economic Work Conference in December 2024.²⁷¹ “We must speed up the filling of domestic demand, especially consumption shortcomings, so that domestic demand can become the main driving force and stabilizing anchor for economic growth.”

Given weak growth in tax revenue, the permanent decline of another key source of public revenue (i.e., land sales and property-related taxes), and a reluctance to impose new taxes or hike tax rates given the economy’s weakness, the only way Beijing can expand domestic demand is by borrowing. However, the demands on the central government’s balance sheet are increasing. The speed with which Beijing reconciles itself to funding those demands will shape China’s economic trajectory over the next decade.

SUSTAINING INFRASTRUCTURE

At the bare minimum, Beijing needs to borrow enough to sustain infrastructure investment. With the collapse in housing, infrastructure has been an incremental but important source of work for construction companies and their suppliers. A decline in infrastructure construction would be a drag on the economy. Traditionally, local governments were responsible for funding infrastructure investment, but that is becoming increasingly difficult. In the future, Beijing will need to play an increasingly central role in ensuring infrastructure investment does not decline.

Infrastructure is partly funded through local governments’ SPBs, partly from the central government’s special treasury bonds, and partly from the central government’s budget. If authorities need to generate at least some growth from infrastructure, that amount will need to increase annually.

RECOVERING FROM A FISCAL HOLE

Beijing needs to deal with the fiscal hole left by the housing market slump. In the authors’ thinking, the central government needs to provide local authorities with enough funding to ensure they can cover expenditures without resorting to arbitrary fees and fines. As noted in Chapter 8, in 2024, local governments’ non-tax income (a rough proxy for revenue from fees and fines) was RMB 840 billion higher than in 2021. If that increase in revenue had been funded by central government borrowing instead, the official budget deficit for 2024 would have been about 3.5 percent instead of 3 percent.

Central authorities would have to borrow a similar amount every year to make up the funding shortfall left by the collapse in land sales—unless they choose to engage in real austerity and start

pushing local governments to cut expenditures. Still, Beijing could probably assume the burden without too much stress. A recurring budget deficit is generally regarded as unsustainable when it exceeds 5 percent of GDP.

However, central borrowing alone will not be enough for Beijing to fully deal with austerity. The central government also needs to borrow enough to pay the arrears owed by local governments to their suppliers and contractors, as well as the unpaid wages owed to state employees. As noted in Chapter 8, Li Daokui, dean at an economic think tank at Peking University and member of the PBoC's monetary policy committee, puts this figure at RMB 10 billion, roughly 7 percent of China's GDP in 2024.²⁷²

RESTORING HOUSEHOLD CONFIDENCE

It is less clear how much Beijing needs to spend to relieve the burden of retirees' healthcare costs on their children. In the five years from 2019 to 2023, government spending on healthcare increased about 8 percent annually. Tax revenue over that period on average rose only 3 percent each year. Given the accelerating number of people over the age of 65, Beijing will likely have to increase the pace at which it expands healthcare spending just to maintain the current quality of care.

Beijing also wants to put the housing crisis behind it. To that end, it wants to make sure that every home that was sold off the plan gets delivered to the buyers. Additionally, it wants to remove the glut of excess housing supply that is suppressing prices and deterring people from buying.

Beijing is encouraging local governments to buy back from developers land they no longer need and to acquire inventory they cannot sell and turn it into affordable housing. That will give developers the cash with which to complete unfinished projects. Meanwhile, buying unsold inventory takes a proportion of empty housing off the commercial market, potentially helping stop the decline of home prices.

The challenge is finding the right price. Local governments want to pay as little as possible, in part because they are already financially overstretched, and in part to ensure that the affordable housing they create is financially viable. But developers are reluctant to sell too low and risk not having enough cash to meet all their obligations.

Beijing might need to set up a property bank. It might have to overpay for developers' idle land and unsold inventory, but it would ensure developers have enough cash to finish their projects and repay their debts. However, the central government would have to fund such a bank and bear the associated losses.

There are plenty of other potential demands on the government's balance sheet. It needs to keep funding innovation and research. It needs to continue providing resources to recapitalize the banks. It might have to support exports with some sort of Green Marshall Plan.

All of these measures are triage. Unwinding austerity, boosting healthcare spending, soaking up excess housing, and recapitalizing the banks are about halting the forces that are dampening

consumer spending and dragging down growth. A Green Marshall Plan is not that different—it is a partial solution to the overcapacity that is suppressing profits.

These measures would boost the economy, but they are unlikely to inflate consumption above pre-Covid levels. If Beijing wants consumption to take a greater role in driving the economy, it needs to fund a wealth redistribution program—such as equalizing services for migrant workers. Based on estimates from Chinese academia, that could cost anywhere between RMB 700 billion and RMB 1.3 trillion annually.²⁷³

Given how much China spends on infrastructure, that seems like a reasonable cost for Beijing to bear. However, given everything else Beijing needs to borrow for, it looks unlikely.

In the end, the degree to which weak domestic demand continues to drag on the economy comes down to how much is Beijing willing to borrow, what it is willing to spend on, and how quickly it will increase borrowing.

Beijing will likely continue to borrow to maintain infrastructure investment, as well as to fund programs that support purchases of manufactured goods, such as the consumer subsidy and industrial upgrading programs.

Authorities will continue to recapitalize banks with debt. It will be a low-level annual expense that the state is willing to pay in the interests of financial sector stability. It seems unlikely that Beijing will pursue a Green Marshall Plan—it is more likely to lend to other countries rather than borrow itself to fund exports. Still, if export growth is not strong enough, it should not be ruled out.

Beijing will be slow to deal with the forces that have dragged down households' willingness to spend. Dealing with local governments' funding shortfall will require a big increase in borrowing by Beijing. Even if the central government reconciles itself to the need to bail out local authorities, it is unlikely to do it in one hit. The process will be slow as Beijing tries to do as little as possible.

To the extent Beijing spends more on social security and public services, the decision will be complicated by having to choose between many competing priorities. For example, it wants to spend more to equalize public services for migrant workers; it has identified spending to boost birth rates as a question of national security; and the pension fund needs to be topped up just to get it through to 2035.

As explained in Chapter 3, it is highly unlikely that Beijing will fund a large-scale expansion of welfare with debt. It will undoubtedly increase spending incrementally, but it will not be enough to relieve the financial pressures on the one-child generation and have a transformational effect on household consumption.

Monetary Policy

Government borrowing is the most important tool available to Beijing, but it is not the only one: It could also cut interest rates.

At the moment, real interest rates are high. Inflation reduces the real cost of interest rates; deflation does the opposite. By eroding corporate revenues, deflation increases the relative burden of interest payments.

Cutting interest rates is the textbook tool for dealing with deflation. It reduces firms' debt servicing costs, thereby freeing up cash for other expenses. For listed companies, that should translate into higher share prices.

Lower interest rates also free up disposable income for anyone with a home mortgage and make it more appealing for would-be homebuyers to purchase property. If home prices rise as a result, existing homeowners will feel wealthier and be more likely to spend.

Finally, rate cuts reduce the debt servicing costs of local governments, making it easier for them to manage their shortfall in revenue. Meanwhile, for a central government wary of borrowing more, lower interest rates reduce the burden of taking on additional debt.

Some Chinese economists have called for the PBoC to cut rates until the economy returns to health. At the beginning of 2025, Beijing's key policy rate—the interest rate on seven-day reverse repurchase agreements it sells to banks daily—was 1.7 percent. In theory, rates could go as low as zero, giving the PBoC plenty of space to cut.

But Beijing has been reluctant to cut rates for several reasons.

In April 2024, Zou Lan, deputy director of the PBoC's monetary policy department (he was promoted to PBoC deputy governor in 2025), said that cutting rates complicates efforts to deal with overcapacity by “reducing the impetus for structural adjustment” (i.e., it helps keep firms alive that should otherwise go bust).²⁷⁴ Furthermore, by reducing firms' expenses, interest rate cuts can worsen overcapacity by freeing companies to cut prices further.

A few months later, Zou added that another constraint on cutting rates is banks' record low net interest margins, saying rate cuts are constrained by “the speed at which deposits are being diverted into asset management products.”²⁷⁵

As outlined in Chapter 9, the PBoC is wary of cutting rates for fear of further eroding bank profits, which would further shift responsibility for recapitalizing the banks onto the government. Falling interest rates force savers to take their deposits out of the banks and put them into other assets where they will potentially get a better return. As their deposit base shrinks, banks need to raise interest rates on deposits to attract back savings. But with lending rates falling, that further squeezes net interest margins, thereby eroding bank profits.

One of the great challenges for Japan's central bank during the 1990s and 2000s was that cutting interest rates did not stimulate borrowing. Instead, credit contracted through much of the period, even after the Bank of Japan pushed its policy rate below zero.

Beijing does not feel compelled to cut interest rates to stimulate borrowing. Credit growth has slowed in recent years, but bank loans nonetheless grew 8 percent in 2024. Crucially, firms in those

parts of the economy Beijing wishes to encourage have not been reluctant to borrow. Bank lending to industrial firms expanded aggressively throughout 2023-2024, even though real borrowing costs were pushed up by deflationary producer prices. Lending to infrastructure projects has also grown strongly.

Lending to both industry and infrastructure has been driven by political considerations. Beijing's net-zero goals have driven investment in renewable energy, its productivity drive has driven investment in industrial upgrading, and its innovation drive has driven the creation of new factories. Beijing may also be reluctant to cut rates for fear of weakening China's currency. Throughout 2023 and 2024, the PBoC worked actively to prevent the dollar from strengthening much beyond RMB 7.2. Beijing may have a number of reasons for not wanting the yuan to depreciate. President Trump has threatened more tariffs if the yuan falls. Meanwhile, Beijing has been trying to promote the international use of the yuan, and it sees the relative stability of the yuan as a major selling point. And a decline in the yuan would likely trigger an upsurge in capital flight out of the Chinese economy, something Beijing has long taken pains to avoid.

Beijing clearly does not think it needs to cut rates aggressively. Incremental cuts are likely in coming years. However, as government debt increases relative to the size of the economy, Beijing will be more comfortable with cutting rates as a way to reduce the cost of a rising deficit. Beijing might also be driven to cut as corporate credit demand weakens. Currently, credit growth is being sustained by politically driven investment in industry and infrastructure. Without robust final demand, maintaining rapid industrial investment will be difficult, prompting Beijing to cut interest rates further.

It is worth noting that the Bank of Japan did not cut its policy interest rate to zero until 1999, nine years after Japan's property bubble burst. Were China to follow a similar trajectory, rates would not go to zero until 2030.

Does China Face Its Own Lost Decade?

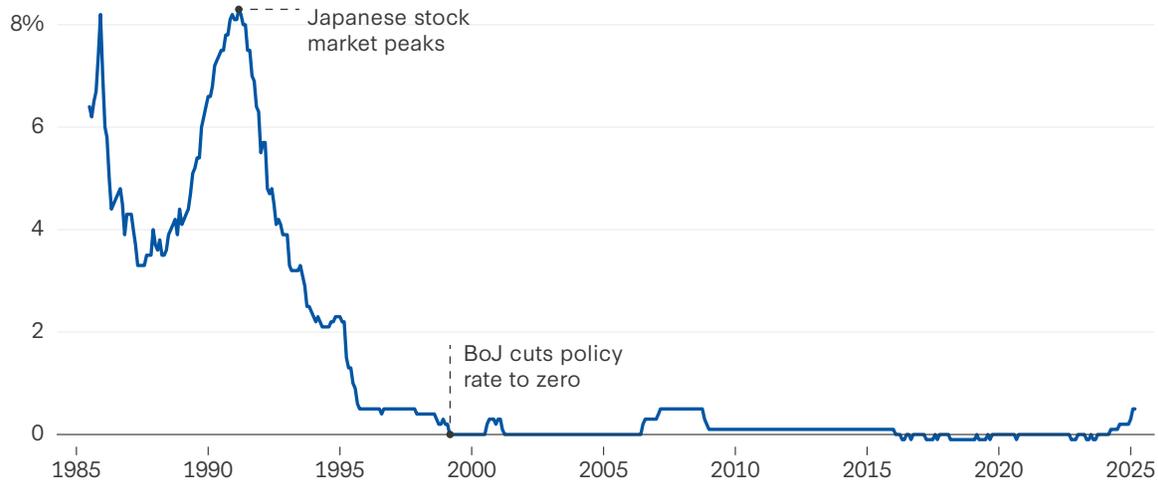
After the collapse of Japan's housing and stock markets at the beginning of the 1990s, the Japanese economy slid into two decades of weak growth and deflation. It is often argued that China risks experiencing something similar to Japan's lost decades.

Part of the difficulty in drawing parallels with Japan is confusion over what exactly caused Japan's malaise. At times, people have argued that it was due to Japan's banks, which, over-encumbered with bad loans, pared back lending, thereby undermining the economy's ability to grow. Others have argued that it was due to a decline in productivity as Japanese firms failed to adapt to an increasingly globalized world. And others still believe that the fault lies with policymakers' failure to adequately deploy the tools at their disposal to convince the market that the government was capable of creating inflation.

However, the most compelling explanation—and the one this report deals with—is that of the “balance sheet recession” by Richard Koo, an economist at Nomura.²⁷⁶

Figure 10.2: Japan's Uncollateralized Overnight Call Rate, Monthly Average

The Bank of Japan did not cut its policy interest rate to zero until about nine years after the stock market peaked.



Source: "Call Money Market Data," Bank of Japan, accessed June 26, 2025, <https://www.boj.or.jp/en/statistics/market/short/mutan/index.htm>.

In Koo's telling, the collapse in Japanese asset prices left firms with lopsided balance sheets. The shares and property they held—their assets—were no longer worth as much as they used to be. However, their liabilities—the money they borrowed to purchase those assets—had not changed at all. In effect, Japanese firms were insolvent: Even if they sold all of their assets, they would not be able to repay their debts.

In response, Japanese companies stopped borrowing and started repaying what they owed. As they prioritized debt repayment, firms invested less. They cut bonuses and reduced salaries where they could.

What made sense for individual firms was a disaster for the economy. Credit contracted, domestic demand shrank, and prices started falling, ushering in a period of deflation. Falling prices reduced firms' revenue, making it harder for them to repay their debts and reinforcing weak demand.

What was particularly notable about the Japanese experience is that conventional monetary policy did not work. The conventional remedy for an economic slowdown is to cut interest rates. If rates are cut far enough, eventually firms and households will start borrowing again, and that will create economic activity.

However, the Bank of Japan cut interest rates to zero, and firms were still unwilling to borrow. Some economists argued that in a deflationary environment, interest rates of zero are still too high—after all, revenues are declining even as the debt remains the same—creating a disincentive for firms to borrow. Paul Krugman argued that the Bank of Japan should have deployed

unconventional measures to convince the Japanese public it was willing to do whatever it took to generate inflation.²⁷⁷

Koo's argument is that in a balance sheet recession, monetary policy is ineffective. Instead, the government needs to borrow and spend to make up for firms' retrenchment. That buys time for firms to repair their balance sheets while mitigating the extent of the economic slowdown.

China's challenges exhibit characteristics similar to a balance sheet recession. Like in Japan, the collapse in property prices has eroded household wealth and undoubtedly diminished people's willingness to spend money. But that is the extent of the similarities.

In China, there have been no signs yet that firms are paying back debt. Rather, as outlined throughout this report, the decline in housing prices has resulted in a collapse in government revenue. Local authorities do not have enough money to meet all their spending obligations, so they are withholding payment from state employees, contractors, and suppliers and imposing arbitrary fees and fines on firms. That is squeezing the finances of firms and households, undermining confidence, and weakening demand.

Additionally, China's demographics are already likely contributing to weaker demand. That was not the case for Japan during its lost decades. Japan's housing market peaked in 1990, but its population did not start shrinking until 2009, almost 20 years later.

Even though the causes of their economic difficulties are different, might China nonetheless experience a lost decade similar to those of Japan?

China certainly faces the threat of persistent deflation, but not because of corporate deleveraging. If domestic demand remains chronically weak, and international demand is eroded by tariffs or even a global recession, prices will remain low. Beijing could provide some relief if it starts closing factories that supply overcapacity industries, but that will take time and political will.

Like in Japan, interest rates are unlikely to have much effect in reviving domestic demand. Industrial overcapacity is a disincentive for firms to invest. Lower rates might drive housing demand in tier-one and some tier-two cities, but in most of the country—which is plagued with shrinking populations and excess supply—housing demand will remain weak. Many firms feel squeezed by local government austerity, making them disinclined to invest. And weak domestic demand also makes firms less likely to take out loans to expand their operations.

Koo argued that the only way out for Japan was significantly higher government spending. The same is true of China. The only way for Beijing to turn around chronically weak domestic demand is for the central government to spend more, which will entail increased borrowing. The extent of China's difficulties will be determined by how much Beijing borrows, and how quickly.

That said, China has an advantage Japan did not. At the time of Japan's stock and housing markets crash, Japanese brands were globally recognized. Japan's electronics and car companies had established a reputation for quality and innovation throughout the 1980s, causing panic in the United States at the prospect of losing the mantle of global leadership.

China still has space to catch up. It has space to create globally respected brands. It has space to drive down costs with innovation and industrial upgrading. It has space to build multinational firms that have factories around the world supplied by China.

That will create growth, high-paying jobs, and opportunities for many people in China. It also means that the next 10 years will not look as though they were “lost” for China. But they will nonetheless be difficult.

What This Report Might Have Gotten Wrong

The challenge with making 10-year forecasts is that a lot can change. Throughout this report, the authors have attempted to connect the trajectory China is currently on to where it is likely to end up in 2035. However, plenty of things can alter that trajectory. There are three things in particular that could radically change China’s course:

1. **Beijing pivots.** It is conceivable that Beijing could radically change its position on local government bailouts, funding welfare with debt, and cutting rates to zero. Xi Jinping seems committed to the current model of economic development, but if the model fails to deliver, Xi might pivot—either willingly, or under intense political pressure. Under such conditions, Beijing might cut rates to zero and significantly ramp up debt as a way to spur growth and redistribute wealth.
2. **A global recession takes hold.** If the global economy slides into recession and international trade declines, China will be forced to stimulate domestic demand. During the Asian financial crisis and the global financial crisis, Beijing resorted to investment in housing and infrastructure, neither of which are viable in the face of another crisis. China’s authorities might ramp up borrowing and distribute it to households as a way to drive domestic demand.
3. **The stars align for the export-led model.** Currently, it looks as though the United States’ “Liberation Day” tariffs imposed on China will at least be semi-permanent, and EU trade barriers on Chinese exports may increase as well. But public frustration with inflation and supply disruptions could result in authorities in both places soft-pedaling further measures or even rolling back existing barriers. That could result in Chinese firms generating higher profits, greater tax payments, and more high-paying jobs. The benefits of those gains could then accrue in a meaningful way, as Beijing becomes less reluctant to spend on welfare, and higher incomes translate into more domestic spending.

The Most Likely Scenario

Notwithstanding such potential changes, the following is what the authors of this report believe to be the most likely end point of China’s current economic trajectory.

The great irony of the next decade is that China’s economy will appear both strong and weak at the same time.

Domestically, China's economy will look strong in that GDP continues to grow 4.5-5 percent annually (or at least Beijing says it does), but it will feel weak as the benefits of that growth are not widely felt.

Beijing will gradually ramp up borrowing, but consumption will remain weaker than the pre-Covid period. That is partly because Beijing will continue to prioritize spending on investment, but also because it will move too slowly to deal with the structural forces dragging growth down.

Beijing will eventually unwind austerity policies. However, the process will be slow and it will take years before Beijing is willing to increase borrowing to a level that (1) makes up for the shortfall in local government revenue; (2) is enough to pay employees and firms what they are owed by local governments; and (3) ensures that local governments are adequately financed such that they can cover their annual expenses without resorting to gouging firms with fees and fines.

The process will take time partly because it will require a complete overhaul of how revenues are spent and how responsibilities are shared between levels of government. Moreover, Beijing will be reluctant to increase borrowing by so much, so quickly, particularly when it is to help local governments it does not want to bail out.

Spending on welfare will increase, but only as much as Beijing thinks it can afford. Authorities will continue to talk about the need to equalize public services for migrant workers, but there will not be a holistic solution. The one-child generation will continue to struggle under the burden of their parents' healthcare bills. And as the decade wears on, that same generation will become increasingly concerned about needing to provide for themselves in retirement as the pension system becomes less reliable as a safety net. Consequently, they will prioritize saving over spending.

From outside, China's export machine will make the economy look strong. Some Chinese companies will become globally recognized brands, producing innovative products that are in high demand. The first wave of innovative products—NEVs, batteries, and solar components—will be followed with subsequent waves. Around the world, countries will compete for investment from Chinese factories.

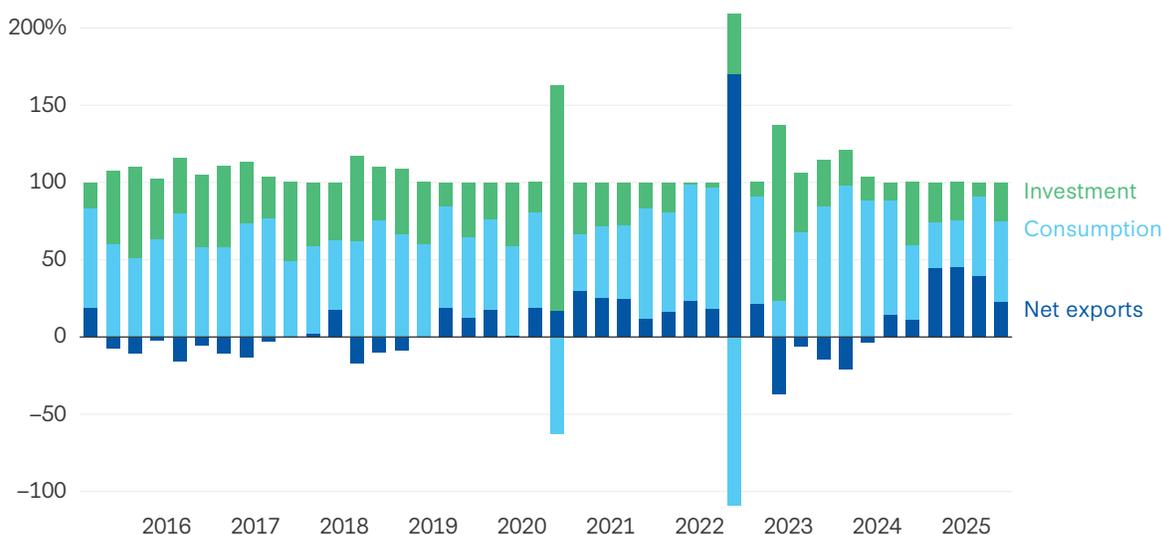
Beijing will deal with overcapacity within the next few years—at least in some industries—such that some firms start generating higher profits, wages, and taxes. Some firms will be able to raise prices. There will be higher-paying blue-collar jobs, newly created white-collar jobs, more profitable firms, and perhaps more tax revenue for Beijing.

Resources will continue to flow aggressively into innovation and industrial upgrading, but with domestic demand still weak, the export market will remain disproportionately important in achieving Beijing's 4.5-5 percent annual GDP growth targets. (Beijing will continue to announce that it has achieved its annual growth target, even in years where that seems unlikely.) By prioritizing manufacturing-led growth, Chinese firms will push to expand exports as aggressively as possible, cutting prices to secure market share.

Crucially, it is not just exports that will help Beijing reach its growth target, but net exports. Not only will exports continue to grow, but imports will decline, the result of import substitution—whereby China increasingly produces for itself industrial products it used to buy from overseas—and weak domestic demand.

Figure 10.3: Contribution of Net Exports, Final Consumption Expenditure, and Gross Capital Formation (Investment) to Quarterly GDP Growth

Since 2019—when lending to manufacturers accelerated—the contribution of net exports to economic growth has increased.



Source: CEIC; and National Bureau of Statistics.

Despite the economy posting robust economic growth, most people will not feel the benefits. People experience growth through higher incomes, rising asset prices, better public services, and more employment opportunities. Some people—those with the right skills and who live in the right places—will enjoy all of that. However, the rising tide will no longer lift all boats. Most people will feel left behind.

The winners will include people who own property in China’s tier-one and tier-two cities. The economic opportunities in those cities will expand, attracting migrants and driving up housing prices. Those cities will require more housing and new infrastructure, creating a need for more investment. In the rest of the country, shrinking populations and excess housing will keep prices suppressed. Homeowners in the rest of the country will see their wealth stagnate, while those in the biggest cities enjoy capital gains.

Meanwhile, wages for frontline workers in industrial firms will increase, but the nature of industrial work will change. Labor-intensive manufacturing jobs will decrease, replaced by jobs that require more highly skilled technicians capable of operating more complex machines. The

new technicians will be paid very well, but low-skilled workers, with fewer opportunities available in both manufacturing and construction, will end up in lower-paying services jobs. Meanwhile, new white-collar jobs will be created to support the expansion of more high value-added manufacturing companies.

The government will incrementally expand welfare programs in an effort to share the successes of China's manufacturing advancement more equitably. However, given that it will likely have to ramp up borrowing in the coming years just to deal with the shortfall in funding from the collapse in housing demand, Beijing is unlikely to be willing to fund a broad-based expansion in public services. Tax revenues will rise as some Chinese firms start to generate robust profits from developing new export markets, but it will not be enough to materially diminish the amount of new debt Beijing needs to take on each year.

Eventually, the PBoC will cut interest rates to zero, but it will be incredibly reluctant to do so, not least because it will seem like an acknowledgment of economic failure. However, lower deposit rates will prompt people to look for higher returns in stocks, causing stock prices to rise. Corporate governance reforms and the emergence of a wave of globally successful innovative firms will create additional momentum for rising prices.

A wave of innovative, high-productivity new manufacturing firms will list on China's domestic stock exchanges, spawning a generation of wealthy tech founders. Beijing will do everything it can to support a resurgence of the stock market, but given the headwinds facing the economy, it will struggle to create a "slow bull" market like that of the United States. Nonetheless, it will create opportunities for some firms and investors.

As for Beijing's goals outlined in Chapter 4, Beijing will avoid the middle-income trap, but it will struggle to make progress toward common prosperity. In fact, inequality is likely to worsen. China will be less dependent on the rest of the world for imports of high-value, innovative manufactured goods, but its dependence on exports for growth will make its economy less secure in other ways. Meanwhile, rather than decline, China's debt-to-GDP ratio will continue to increase.

CHINA AND THE WORLD

Developed economies—particularly the United States and European Union—will increasingly panic as China exports new, innovative goods. Much as was the case during the 1980s with Japan's rise, the West will fear that it is falling behind, giving rise to existential dread, regardless of whether it is wholly warranted.

Trade relations will remain complex. The United States imposed tariffs of 145 percent on all Chinese imports in April 2025, only to partially reduce them for 90 days. The level will likely change again as China and the United States negotiate, but some level of tariff is likely to become a permanent part of the trade relationship.

The European Union is also trying to reduce its dependence on Chinese goods, but efforts are complicated by the dependence of many EU firms, and German industrial firms in particular, on selling their products in China. However, Chinese demand for European goods—both those

exported from the European Union and those made by European firms in China—is already declining and will continue to fall as China’s population ages and shrinks, its government pursues a policy of import substitution, and innovative Chinese firms squeeze out European competition. As European sales to China decline, the European Union will feel less constrained from imposing new trade barriers.

China will try to weaken EU resolve with strategic investments. As China becomes less important to Germany, Beijing will try to develop allies by building car factories in places like Hungary and Spain.

In most of the world, China’s surge of higher-quality exports will be welcomed. Over time, misgivings will mount about the size of the trade deficit many countries are building with China, but initially they will not be a source of tension.

Rather than compete with local production, in most cases China’s new exports will erode the market share of firms from the United States, European Union, Japan, and South Korea. In countries like Thailand and Mexico where U.S., EU, and Japanese carmakers have factories, local authorities will encourage investment by Chinese firms. In Thailand, Chinese electric vehicle makers are already building production facilities, filling a gap left by the exit of smaller Japanese automakers like Suzuki and Subaru.

Other countries will impose barriers to deter imports from China but will encourage Chinese investment. To that end, Turkey imposed 40 percent tariffs on Chinese vehicle imports in 2024, and Brazil imposed a tariff of 18 percent on electric vehicle imports.

China will further boost its influence in the Global South. Many developing countries have long looked to China as a role model for successful development. China’s moral authority will only be reinforced as it develops its own technology and global brands.

As China develops globally recognized consumer brands, its soft power will become stronger. Germany’s reputation for quality engineering is closely tied to Mercedes-Benz, BMW, Audi, and Bosch. Japan’s reputation for quality, innovation, and design is linked to Sony, Nintendo, Toyota, and Honda. As people increasingly choose to buy Chinese vehicles because they are better than the available options, not just because they are inexpensive, they could well start to think of China more warmly.

Additionally, if China launches a Green Marshall Plan, then it will assume a degree of moral leadership in the Global South that the United States will find difficult to replicate. By facilitating the green transition in countries that cannot do it alone, Beijing will build significant goodwill while simultaneously finding an outlet for its overcapacity.

DOMESTIC REVERBERATIONS

The next 10 years will be a period of rising national pride as Chinese brands become increasingly successful. But it will also be a period of mounting disillusionment.

The past 40 years were a period of rising opportunity for everyone in China. Hard work and sacrifice promised a better life for ordinary people and their children. Over the next 10 years, there

will be clear winners. The rest of the public will not necessarily be losers—rather, they will just move sideways.

The avenues for wealth creation have narrowed. No longer is home ownership a path to wealth or even financial security. The benefits of internal migration are diminishing as well. The next generation of rural migrants who move to cities will still find better-paying opportunities than they would at home, but the service sector jobs available to them—as couriers for food companies or caretakers for the elderly—will pay less than the construction or manufacturing jobs their parents moved for.

The winners will be concentrated in China’s tech sectors. Chinese authorities will continue to provide funding and policy for the development of hard sciences and tech hardware. For Chinese nationals that used to go abroad for research opportunities, China will offer opportunities they cannot get elsewhere.

The combination of government support and incentives and the potential to get rich off of IPOs in Shanghai and Shenzhen—or by selling out to bigger, acquisitive Chinese firms—will create a generation of wealthy Chinese tech executives.

China’s middle class will no longer feel as well off or financially secure as they used to. Already, the cost of overseas travel or an overseas education has moved beyond the reach of many people. Even though the yuan has not depreciated excessively, the rest of the world has experienced inflation while China has struggled with deflation. As long as that divergence persists, the spending power of Chinese people overseas will diminish.

Meanwhile, the pressures of needing to take care of aging parents, the insecurity created by an underfunded pension system, and the uncertainty posed by a shrinking population will weigh increasingly on people’s confidence and outlook for the future as the decade progresses.

Reflecting on the experience of Japan, former Bank of Japan Governor Masaaki Shirakawa observed that “companies and households will act based on the expectation that the population or domestic market will continue to shrink. Since pensions and retirement funds rely on generations of labor, and the labor force is shrinking, the elderly have no sense of security. Therefore, society is strongly disturbed.”²⁷⁸

Public unease and frustration with entrenched inequality and economic uncertainty will mount, but it will not pose a challenge to political stability. The state will likely try to rechannel this frustration as resentment against the United States and European Union for trying to keep China down.

The biggest winners—the innovators and executives at firms developing advanced technology—will have one foot in and one foot out of China. While the next decade will be one of great promise and opportunity, China’s long-term future will look increasingly uncertain. The consequences of China’s aging will have a far greater impact on China’s economy in the following decade (2035-2045), and dealing with the elderly will be far more difficult given that China’s debt-to-GDP ratio will have climbed well above 300 percent.

Those who can afford it will still seek to send their children overseas for an education and encourage them to seek overseas residency as a hedge against a worsening of economic conditions or a tightening of political conditions in China. People will also continue to seek ways to get their savings out of China, in part to find better returns than are available in China's low-interest-rate environment, but also to protect their wealth from the threat of higher taxes as Beijing is forced to spend more on an aging population.

In short, over the next decade, China's economic trajectory will look very different from what we are used to. Its economic model will radically change as it drives into innovation and advanced manufacturing. That will exacerbate tensions with the United States and European Union, even as China becomes a greater presence throughout the rest of the world.

However, the ability of this new economic model to create a richer, more equitable China will be limited by weak domestic demand. Boosting domestic demand will require Beijing to borrow far more aggressively than what it is comfortable with. Its debt levels will rise, but only slowly, such that weak demand continues to drag on the economy indefinitely.

The net result is that China will continue to grow in ways that create higher-paying jobs and exciting opportunities for a certain portion of the population, but the benefits will not be widely shared. Moreover, rising government debt will undermine confidence in the state's ability to manage the challenges of the next decade.

Conclusion

China needs a new growth model to replace the debt-fueled investment in housing and infrastructure that drove its rapid economic expansion over the past two decades.

Economists typically argue that the only viable alternative is a consumption-led model, where household consumption becomes the primary driver of growth. However, achieving this would require a significant redistribution of wealth from firms to households, likely through a large-scale expansion of state spending on welfare and public services.

Such an expansion would need to be funded by either increased tax revenue or expanded government borrowing. Yet, given the persistent weakness of the Chinese economy since the Covid-19 pandemic, it seems unlikely that Beijing will significantly increase taxes. At the same time, Xi Jinping and other senior officials have repeatedly indicated that the government will not fund an expansion of welfare through debt. As a result, a shift toward a consumption-driven economy seems unlikely in the short term.

Moreover, Beijing's goal for its new economic model goes beyond simply generating growth. It must also support key political objectives. With China's population rapidly aging, the new model must raise incomes enough to maintain rising living standards, even as the shrinking working-age population shoulders increasing responsibility for supporting a growing number of retirees. The model must also promote more equitable wealth distribution, enabling China to advance Xi's common prosperity agenda. In addition, it must also help China permanently avoid the middle-income trap, reduce its debt-to-GDP ratio, and enhance economic security by ensuring China can produce any industrial product it might need.

The model Beijing has settled on to deliver progress on all of these goals centers on industrial upgrading and innovation, aiming to generate productivity gains that translate into increased profits, higher incomes, and an expanded tax base. In essence, Beijing envisions an economy in which manufacturing firms generate higher profits either by successfully commercializing innovative new products or by cutting costs through automation and advanced manufacturing. Higher profits, in turn, will translate into new white-collar jobs as firms spend more on R&D, design, marketing, finance, and a range of other services. Meanwhile, wages for frontline factory workers will rise as demand increases for more technically skilled labor.

Higher profits and incomes will in turn expand tax revenue, enabling the state to spend more on welfare and public services. The result, in theory, will be a more consumption-oriented economy as households are enabled to spend far more than they do today.

However, this model relies on China being able to find buyers for its ever-expanding output of manufactured goods. By global standards, Chinese households accrue a relatively small share of national income. Consequently, Chinese households consume far less than their peers in other countries. Changing this dynamic now would require large-scale wealth redistribution which, as this report explains, is unlikely to happen in the short term. That leaves exports.

China already exports a huge amount of manufactured goods. Asking the world to absorb even more will be challenging—even more so following the recent U.S. tariffs on Chinese imports. Nevertheless, exports are so important to Beijing’s vision of economic transformation that China is likely to aggressively pursue export growth.

To mitigate against trade barriers, China has increasingly focused on exporting more intermediate goods—components, materials, and chemicals that are used to produce finished products abroad. It is also seeking to establish more bilateral trade agreements and join more multilateral free trade groups. Chinese firms will likely build more factories overseas to get around trade barriers while expanding aggressively into the Global South, where their advanced manufactured goods—such as cars and white goods—will gain market share at the expense of firms from the United States, European Union, Japan, and other developed economies. Finally, if export growth still falls short, China’s authorities may consider launching a Green Marshall Plan to fund developing countries’ green transitions, increasing demand for Chinese cleantech and related services.

Still, China cannot rely solely on exports to drive its economy. Household consumption must also grow—ideally no slower than the economy’s overall growth. Yet consumption has remained sluggish since the pandemic and will likely remain so.

This report finds that consumption has weakened because the decline in housing prices has permanently eroded household wealth. Additionally, China’s aging population is weighing on the consumption of middle-aged people, who must shoulder the increasing healthcare costs of their aging parents.

Moreover, local government austerity policies are weighing on domestic demand. The collapse in housing demand has permanently reduced local government income from land sales and

property-related taxes. The central government has increased financial transfers to help cover the shortfall, but they have not been enough.

In other countries, austerity policies lead governments to cut spending. In China, local governments have continued to increase spending by increasing revenue from the collection of fees and fines. They have also conserved cash by not paying suppliers and contractors on time or in full. Such actions have further undermined confidence, particularly given the arbitrary nature of the behavior.

Beijing could fix many of its problems by increasing borrowing. It could ensure local governments are adequately funded and pay local governments' arrears by borrowing more. It could relieve the financial pressure on middle-aged people by issuing debt to fund an expansion of healthcare. It could expand exports by funding a Green Marshall Plan with debt. And it could reduce the importance of exports by borrowing more to spend on welfare.

However, as noted earlier, Beijing does not want to fund welfare with debt. Moreover, it has explicitly said it does not want to bail out local governments. China's debt levels are already at elevated levels, and in the coming decades they will likely rise higher as demographic pressures force Beijing to borrow more to fund pensions and healthcare. Ideally, Beijing would like to reduce the relative debt burden now so that it has space to borrow more in the future.

The net effect of China's need to relentlessly expand exports, combined with the structural problems suppressing domestic demand, is that over the next decade China will experience a two-track economy that sees ongoing strengthening of the external sector, even as domestic demand remains tepid.

The United States and other advanced economies will be highly concerned as Chinese firms roll out innovative new products. And even if Chinese products are priced out of the U.S. market due to trade barriers, Americans will watch with a sense of unease as Chinese companies make continuous technological strides.

Inside of China, the drive into advanced manufacturing and innovative new products will create higher-paying jobs. But in an environment of rising trade barriers and tepid domestic consumption, firms may be forced to cut prices to increase sales, eroding profits. Chinese firms will develop more globally respected brands, but thin margins will constrain the expansion of the tax base, limiting Beijing's capacity to expand welfare. People may feel proud of Chinese firms' global successes but also feel a growing sense of unease and even disillusionment as the economy's promise of broad opportunity and rising well-being begins to fade.

China is unlikely to descend into crisis in the next 10 years, but neither is it poised for uninterrupted economic ascent. China's new economic model relies on other countries buying more of its manufactured goods to sustain growth. The United States is already pushing back, and other countries will eventually follow. Beijing may be able to blunt some of the fallout by encouraging Chinese firms to build factories overseas and launching a Green Marshall Plan. But the only insurance it has against weakening exports is domestic demand, which is weak and likely to remain so.

The irony is that over the next decade, the Chinese economy will be strong and weak at the same time. From the outside, China will appear strong as it exports increasingly sophisticated manufactured goods to the rest of the world. But from within, it will feel relatively weak, as the government supports domestic demand with debt, and ordinary people experience only marginal improvements in their well-being.

Regardless of the dimensions of China's economy in 2035, the next 10 years will undoubtedly be defined by Beijing's efforts to deal with a rapidly aging population, as well as the debt accumulated under the old growth model, while trying to sustain manufacturing growth in the face of changes in global attitudes to free trade. Those efforts will result in an economy radically different from today, in ways that will pose new challenges to China's leaders—and the rest of the world.

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