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Opportunities and Challenges Facing China's Development

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Abstract: China's economy has achieved high-speed, export-driven growth over the past three decades, becoming the world's second-largest economy. However, population aging, industrial overcapacity, and geopolitical tensions are creating pressure to shift the economic development model from quantity to quality. This paper examines the goals of China's Five-Year Plans, the Dual Circulation Strategy, technological self-reliance, the role of free trade zones, and future development prospects. It also analyzes structural economic transformation through the examples of steel production and coal sector consumption, with particular attention to implications for Mongolia. The findings suggest that China is entering a new stage of development characterized by high-quality growth, technological innovation, green transition, and greater reliance on domestic demand. Policies such as the Dual Circulation Strategy, technological self-reliance, and the development of New Quality Productive Forces are becoming the primary drivers of long-term economic transformation. At the same time, structural challenges—including population aging, weak domestic consumption, industrial overcapacity, real estate sector difficulties, and increasing international trade pressures—continue to pose significant risks to sustainable growth. The study further indicates that ongoing changes in China's steel and energy sectors are likely to reduce long-term demand growth for traditional raw materials while increasing demand for strategic minerals and technology-related resources. These developments present both challenges and opportunities for Mongolia, highlighting the need to diversify exports, expand value-added industries, and strengthen economic cooperation with China in manufacturing, logistics, energy, and technology sectors.

Keywords: China, economic strategy, dual circulation, technological self-reliance, free trade zones, Belt and Road Initiative, steel production, coal market.



Introduction

China's economic development over the past four decades has produced one of the fastest growth rates in world economic history. Through market reforms, policies attracting foreign investment, and an export-oriented manufacturing model, the country developed into the world's second-largest economy.

At the same time, the challenge of modern China's development has evolved beyond merely sustaining economic growth — it has transformed into a long-term development model integrating structural reform, technological advancement, and national security. As researchers Justin Yifu Lin and Xiaobing Wang have noted, the "Dual Circulation Strategy" is grounded in New Structural Economics theory, aiming to develop the domestic market as the primary driver of growth while maintaining international economic integration.¹

Lijun Su and Junshang² Liang published an article in the SAGE Journal conducting research on "Understanding China's New Dual Circulation Development Strategy," concluding that the US–China trade conflict accelerated the adoption of the dual circulation policy.³

Barry Naughton (2021) has argued that China's economy is transitioning from a phase of high-speed growth to a new phase of quality growth based on productivity, innovation, and technological advancement. This transition involves not only a restructuring of the economy, but the formation of a new model of state industrial policy, a national innovation system, and technological security.⁴

In recent years, as US–China strategic competition has intensified and export restrictions on high-technology products have increased, China has placed economic security and technological self-reliance at the center of its development policy. As a result, the "Dual Circulation Strategy" has become not merely an economic strategy, but a comprehensive development concept for ensuring national security and industrial stability. The following policies occupy a central place in China's development research.⁵

This study seeks to answer the following research question: How is China's transition toward high-quality, innovation-driven development reshaping its economic structure, and what opportunities and

¹ Barry Naughton, *The Rise of China's Economy* (Cambridge, MA: Harvard University Press, 2021).

² They are scholars who research the economy, political economy, and development strategy of the PRC, and one of their most cited works is a study that theoretically explains the PRC's 'Dual Circulation Strategy'.

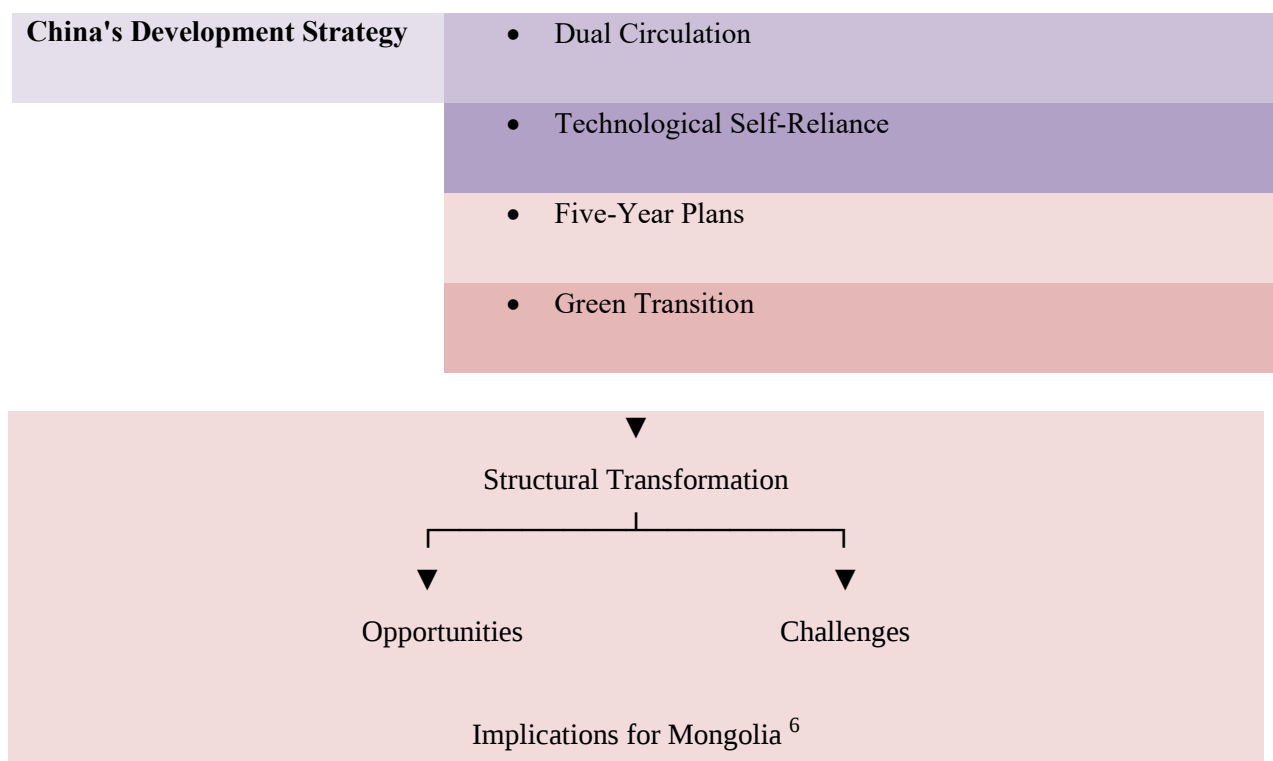
³ Lijun Su. *Understanding China's New Dual Circulation Development Strategy: A Marxian Input-Output Analysis*. 2021.

⁴ Barry Naughton, *The Rise of China's Economy* (Cambridge, MA: Harvard University Press, 2021), 45–49.

⁵ Lijun Su and Junshang Liang, "Understanding China's New Dual Circulation Development Strategy," *Review of Radical Political Economics* 53, no. 4 (2021): 590–599

challenges does this transformation create for Mongolia?

Figure 1. Conceptual Framework of the Study



Theoretical and Conceptual Framework

This study is grounded in three complementary theoretical perspectives: New Structural Economics, Structural Transformation Theory, and Innovation-Driven Development Theory.

First, the analysis draws upon New Structural Economics developed by Justin Yifu Lin, which argues that sustainable economic development depends on the continuous upgrading of industrial structures in accordance with a country's evolving

factor endowments and comparative advantages. According to this perspective, governments play an important role in facilitating industrial transformation, technological upgrading, and infrastructure development. China's Dual Circulation Strategy and industrial modernization policies can be understood as efforts to promote a new stage of structural upgrading in response to changing domestic and international economic conditions.

⁶ Developed by the author based on Lin & Wang (2022), Naughton (2021), and China's 14th and 15th Five-Year Plans.

Second, the study employs Structural Transformation Theory, which explains economic development as a process of reallocating resources from lower-productivity sectors to higher-productivity sectors. Historically, China's rapid growth was driven by the transfer of labor from agriculture to manufacturing and export-oriented industries. However, as labor costs rise and demographic conditions change, economic growth increasingly depends on productivity gains, technological innovation, and the expansion of high-value-added industries. The transition from investment- and export-led growth toward consumption- and innovation-led development represents a new phase of structural transformation.

Third, the study is informed by Innovation-Driven Development Theory, which emphasizes technological progress as a key determinant of long-term economic growth. Drawing upon the works of Joseph Schumpeter and contemporary innovation economics, this perspective highlights the importance of research and development,

technological self-reliance, human capital, and innovation systems. China's policies promoting semiconductors, artificial intelligence, electric vehicles, renewable energy technologies, and New Quality Productive Forces reflect a strategic effort to strengthen innovation capacity and improve international competitiveness.

Based on these theoretical perspectives, the study conceptualizes China's current development strategy as a multidimensional transition from a quantity-based growth model toward a quality-oriented development model characterized by innovation, technological upgrading, domestic demand expansion, green transformation, and economic security. The framework further assumes that structural changes in China's economy will generate both opportunities and challenges for neighboring countries, particularly Mongolia, through their effects on trade patterns, commodity demand, investment flows, and regional economic integration.

Research Methodology

This study employs a qualitative research approach combined with descriptive and comparative analytical methods to examine the opportunities and challenges facing China's contemporary development strategy.

Several analytical methods are employed in the article. First, document analysis is used to examine China's major policy documents, including the 14th and 15th Five-Year Plans, the Dual Circulation Strategy, and policies related to technological

self-reliance and industrial upgrading. Second, comparative analysis is applied to assess changes in China's development model by comparing the characteristics of the export-led growth period with those of the current innovation-driven development phase. Third, sectoral analysis is conducted to evaluate structural changes in the steel and coal industries, which serve as representative sectors reflecting broader economic transformation. Finally, policy analysis is used to assess the implications of China's

economic transition for Mongolia's trade structure, mineral exports, and long-term development prospects.

The analytical framework of the study is grounded in New Structural Economics, Structural Transformation Theory, and Innovation-Driven Development Theory.

These theoretical perspectives provide a basis for understanding how China's transition toward high-quality growth, technological innovation, and green development is reshaping its economic structure and influencing regional economic relationships.

I. The Development Policies of China

Dual Circulation Strategy and Technological Self-Reliance: As the global economic and geopolitical environment has rapidly changed in recent years and US–China strategic competition has deepened; China's development policy has been significantly affected. In particular, restrictions placed on exports of high-technology products and semiconductors brought the issue of industrial security to the forefront of national development policy.

In this context, China began implementing the "Dual Circulation Strategy," which aims to develop an internal circulation based on domestic markets, consumption, and innovation, while maintaining an external circulation based on exports, investment, and international trade.

The Dual Circulation Strategy was officially announced in 2020 and became China's core medium- and long-term development strategy. Within this

framework, domestic consumption, services, and technological innovation were set as the primary drivers of economic growth.

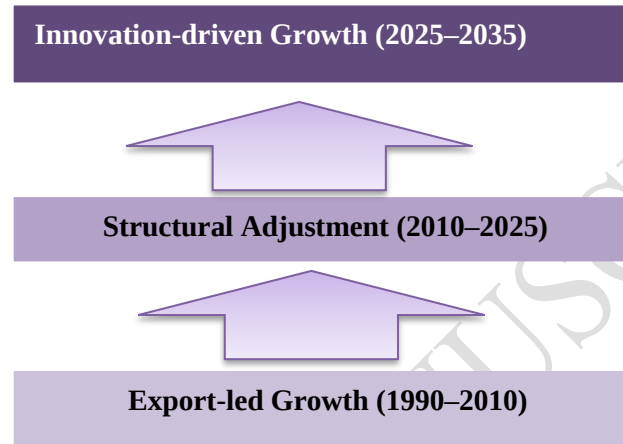
China's domestic consumption as of 2024 accounts for approximately 38–40% of GDP, which remains below the levels of developed nations. Therefore, policies to increase middle-class incomes, strengthen social security systems, and expand the services sector are being actively implemented.⁷ The urbanization rate reached 66% in 2023, with a target of 75% by 2035 — viewed as one of the key mechanisms for expanding domestic consumption.⁸

Alongside this, the concept of "New Quality Productive Forces" has been put forward, aiming to shift from a growth model based on traditional labor and capital to one based on high technology, artificial intelligence, the digital economy, and green manufacturing.

⁷ National Bureau of Statistics of China (NBS), Statistical Communiqué of the People's Republic of China 2024 (Beijing: NBS, 2024).

⁸ NBS, Statistical Communiqué of the People's Republic of China 2024.

Figure 2. Transformation of China's Development Model⁹



China's economic growth rate has been gradually slowing since 2010, with 2024 growth coming in at 4.8% — below the average of the previous decade.¹⁰ In response, China is aiming to shift its development policy from "high-speed growth" to "high-quality growth." The main strategic directions include:

- Increasing innovation capacity
- Expanding domestic consumption
- Supporting the development of the services sector
- Developing a green economy
- Accelerating technological renewal
- Improving manufacturing productivity¹¹

As US–China technological competition has intensified, China has come to regard technological security as a critical component of national security. Under "Made in China 2025" and the 14th Five-Year Plan, China set a target of meeting 70% of its domestic semiconductor needs domestically by 2025. By 2030, it aims to become a world leader in artificial intelligence, new materials, energy storage technology, and smart manufacturing.¹²

As of 2024, China accounts for over 60% of global electric vehicle production and approximately 75% of lithium battery production, demonstrating the growing technological competitiveness of the country.¹³

⁹ Developed by the author based on Naughton (2021), IMF (2024), and NDRC (2021).

¹⁰ International Monetary Fund (IMF), *World Economic Outlook: Navigating Economic Shifts* (Washington, DC: IMF, 2024).

¹¹ NDRC, *The 14th Five-Year Plan for Economic and Social Development*.

¹² NDRC, *The 14th Five-Year Plan for Economic and Social Development*.

¹³ International Energy Agency (IEA), *Global EV Outlook 2024* (Paris: IEA, 2024).

II. China's Economic Growth and Structural Transformation

China's export-oriented manufacturing model sustained high economic growth for over 20 years from 1990 to 2010. The large-scale shift of labor from agriculture to manufacturing, combined with rapid urbanization, supported productivity growth.

Since joining the World Trade Organization in 2001, China's exports surged and it became the center of global manufacturing networks. As of 2023, China accounts for approximately 31% of global

Industrial Overcapacity and Energy/Steel Production: China remains the world's largest steel producer, having produced a total of 1.005 billion tons of crude steel in 2024. Domestic steel consumption was approximately 863 million tons, indicating that production capacity significantly exceeded demand. Research shows that overcapacity in the steel sector has

manufacturing output — higher than the combined output of the United States, Japan, and Germany.¹⁴

The key drivers of this growth were cheap labor, rapid urbanization, foreign direct investment, large-scale infrastructure investment, and the expansion of export manufacturing. However, these same factors created structural problems over the long term, including weak domestic consumption, excessive expansion of the real estate sector, and debt burdens.¹⁵

reached approximately 140–200 million tons.¹⁶

This situation is directly linked to the real estate sector crisis and the slowdown in growth of construction and infrastructure investment. As a result, domestic demand for steel has declined, producer profitability has deteriorated, and debt burdens have been rising.

¹⁴ United Nations Industrial Development Organization (UNIDO), Industrial Development Report 2024 (Vienna: UNIDO, 2024).

¹⁵ Rhodium Group, China's Productivity Challenge (New York: Rhodium Group, 2023).

¹⁶ China Iron and Steel Association (CISA), Annual Steel Industry Report 2024 (Beijing: CISA, 2024).

Table 1. China's Steel Production, Consumption and Excess Capacity (2024)¹⁷

1	Production	1.005 billion tons
2	Consumption	863 million tons
3	Excess Capacity	140–200 million tons

To reduce the pressure of excess production, China has pursued a policy of increasing exports. Steel exports reached 117.06 million tons in 2024, up 25.1% year-on-year, but the United States, European Union, South Korea, Vietnam, Malaysia, and other countries have intensified protective and anti-dumping measures.¹⁸

According to S&P Global research, 29 trade investigations related to Chinese steel products were launched in 2024–2025, and as a result, steel exports are projected to decline to 102.6 million tons in 2025.¹⁹ China plans to remove approximately 50 million tons of capacity from the market annually between 2025 and 2030 in order to reduce excess production capacity.²⁰

Energy Transition and Changes in the Coal Sector: China is the world's largest coal producer and consumer, accounting for more than half of total global coal consumption on its own. However, as a result of carbon emission reduction targets and the growth of renewable energy, the structure of coal consumption has begun to change.

According to The Coal Hub's long-term projections, thermal coal consumption is expected to peak in 2025–2026, after which it will gradually decline. Coking coal consumption is expected to decline steadily over the medium and long term, linked to the slowdown in steel production growth.²¹ Projections indicate that coking coal consumption will decline by an average of 0.6% per year through 2050, which highlights the need for attention to the future prospects of Mongolia's coal exports.

On the other side, China now accounts for approximately 80% of global solar panel production and over 60% of wind turbine production, demonstrating that the

¹⁷ China Iron and Steel Association (CISA), 2024; S&P Global Commodity Insights, 2024.

¹⁸ CISA, Annual Steel Industry Report 2024.

¹⁹ S&P Global, China Steel Export and Anti-Dumping Measures Report (Singapore: S&P Global, 2024).

²⁰ National Development and Reform Commission (NDRC), Industrial Capacity Reduction Policy Document (Beijing: NDRC, 2024).

²¹ The Coal Hub, Coal Outlook 2025–2050 (London: The Coal Hub, 2024).

structural transformation of its energy system is accelerating.²²

III. Challenges and Reforms Facing China's Development

While a new model for China's economic growth is taking shape, several major challenges remain over the medium and long term.

First, population aging is intensifying and the working-age population is declining, which risks lowering the potential rate of economic growth. Some projections suggest the working-age population could fall by around 100 million people by 2035.²³

Second, the real estate sector crisis is negatively affecting economic growth. In 2024, residential property investment declined by 9.8%, directly affecting demand for construction materials, steel, cement, and coal.²⁴

Third, growing industrial overcapacity and trade protection measures are putting pressure on the export-driven growth model.

Fourth, technology export restrictions imposed by the United States and allied countries pose certain risks to the development of China's high-technology manufacturing.²⁵

Fifth, the slowdown in foreign direct investment growth and the relocation by

multinational companies of portions of their supply chains to Southeast Asia and India are increasing competitive pressure.²⁶

Development Plans and Economic Reform: China's economic reform strategy is defined by the targets laid out in the 14th (2021–2025) and 15th (2026–2030) Five-Year Plans. The 14th Five-Year Plan identified innovation-driven growth, expanding domestic consumption, technological renewal, and reducing carbon emissions as its priority directions.²⁷ The 15th Five-Year Plan focuses on accelerating the development of high-technology manufacturing, artificial intelligence, semiconductors, new materials, and energy storage technology.²⁸

The core goal of these plans is not to increase the speed of economic growth, but to improve productivity, innovation, and technological capacity. **The Role of Free Trade Zones:** China has been making extensive use of free trade zones within its framework of economic reform and investment attraction policy. The Shanghai Free Trade Zone, the Hainan Free Trade Port, and similar zones have become key sites for

²² International Energy Agency (IEA), *World Energy Outlook 2024* (Paris: IEA, 2024).

²³ Rhodium Group, *China's Productivity Challenge* (New York: Rhodium Group, 2023).

²⁴ National Bureau of Statistics of China (NBS), *Statistical Communiqué of the People's Republic of China 2024* (Beijing: NBS, 2024).

²⁵ MERICS, *China's Industrial Policy in the New Era* (Berlin: MERICS, 2023).

²⁶ Ministry of Commerce of the People's Republic of China (MOFCOM), *China Foreign Investment Statistical Bulletin 2024* (Beijing: MOFCOM, 2024).

²⁷ National Development and Reform Commission (NDRC), *the 14th Five-Year Plan for Economic and Social Development* (Beijing: NDRC, 2021).

²⁸ NDRC, *policy planning documents for the 15th Five-Year Plan framework*, 2025.

improving the investment environment, reducing trade costs, and experimenting with financial liberalization.²⁹ Research shows that foreign direct investment in free trade zones is relatively higher than in other regions, and the concentration of high-technology manufacturing has increased.³⁰

Free Trade Agreements and Regional Integration: China has actively participated in international trade integration over the past twenty years, concluding free trade agreements with ASEAN, Australia, New Zealand, Switzerland, South Korea, and others.³¹

The implementation of the Regional Comprehensive Economic Partnership (RCEP) is significant for deepening regional

supply chains, reducing trade costs, and enhancing export competitiveness. Belt and Road Initiative: remains the main pillar of China's external economic policy. Under this initiative, major infrastructure projects are being implemented across Eurasia, Central Asia, South Asia, and Africa. This provides China with opportunities to redirect excess production capacity to foreign markets, ensure stability in raw material supply, and create new trade corridors.³² At the same time, maintaining a dominant position in the supply of rare earth elements, battery raw materials, and strategic minerals is becoming a crucial component of China's long-term development strategy.

Conclusion

This research shows that China's economy is transitioning from a traditional growth model based on exports, investment, and cheap labor to a new development model driven by innovation, technology, domestic consumption, and green development. This transition is not merely a structural economic change — it is a strategic transformation that redefines China's position in global manufacturing, trade, and technological competition.

The Dual Circulation Strategy, the technological self-reliance strategy, the concept of New Quality Productive Forces, and the targets of the 14th and 15th Five-Year Plans all demonstrate that China is gradually

shifting the sources of its economic growth from external markets to domestic consumption, innovation, and high-technology manufacturing. In particular, sectors such as semiconductors, artificial intelligence, electric vehicles, energy storage systems, and new materials are projected to become the primary drivers of economic growth over the next decade.

However, this transition will not be easy. Population aging, a declining working-age population, the real estate sector crisis, industrial overcapacity, debt burdens, and geopolitical competition remain the principal risks constraining China's medium- and long-term growth. For instance, in 2024, China's

²⁹ World Trade Organization (WTO), Trade Policy Review: China (Geneva: WTO, 2023).

³⁰ Ministry of Commerce of the People's Republic of China (MOFCOM), China Foreign Investment Statistical Bulletin 2024.

³¹ WTO, Trade Policy Review: China.

³² United Nations Conference on Trade and Development (UNCTAD), Global Commodities Outlook (Geneva: UNCTAD, 2023).

steel production exceeded domestic demand by approximately 140–200 million tons, and if the real estate sector does not fully recover, this excess capacity is likely to persist. As a result, profitability in the manufacturing sector is set to decline and export competition will intensify further.

In the coal sector, China's thermal coal consumption is expected to peak in the near term, but growth will slow as renewable energy use increases. Coking coal demand is expected to decline over the medium and long term due to structural changes in steel production. If the projections of The Coal Hub and the IEA prove correct and coking coal consumption declines by an average of 0.6% per year through 2050, consumption could shrink by approximately 14–16% from current levels. This represents a direct risk to Mongolia's export revenues, given its reliance on the market of the world's largest coking coal importer.

For Mongolia, both the risks and the opportunities arising from structural changes in China's economy must be considered simultaneously. On the risk side, demand for traditional raw materials such as coal and iron ore are likely to stabilize or decline over the long term. The coal sector, which constitutes the majority of Mongolia's export revenues, remains highly dependent on changes in China's steel production and energy structure. If China manages to reduce its steel production capacity by 200 million tons by 2030, there could be significant downward pressure on demand for coking coal imports.

On the other hand, opportunity factors are also growing. The rapid expansion of China's high-technology manufacturing, energy transition, electric vehicles, batteries, and renewable energy sectors is expected to support long-term demand for minerals such as copper, rare earth elements, and fluorspar. Therefore, Mongolia needs to gradually diversify its export structure away from coal and develop new growth sectors including strategic minerals, processing industries, renewable energy, and logistics services.

Going forward, Mongolia's economic competitiveness will depend not only on raw material exports, but on the extent to which it can participate in manufacturing, transport logistics, energy, and digital economy cooperation aligned with China's new development strategy. Therefore, expanding bilateral economic cooperation beyond trade volume to encompass manufacturing networks, investment, and technology cooperation is viewed as a critical direction for Mongolia's long-term development.

Thus, while the next phase of China's economic development will be anchored in high technology, innovation, and green transition, the quality of growth and the outcomes of structural reform will depend greatly on demographic trends, financial stability, and the international relations environment. For Mongolia, accurately assessing this transition and reforming its export structure, industrial policy, and regional cooperation in line with long-term trends will be the foundation of economic security and sustainable growth.

References

- Su, Lijun, and Junshang Liang. 2024. "Understanding China's New Dual Circulation Development Strategy." *Journal of Asian Public Policy* 17 (2): 215–232.
- Lin, Justin Yifu, and Xiaobing Wang. 2022. *China's New Development Paradigm: Domestic Circulation and High-Quality Growth*. Beijing: Peking University Press.
- Naughton, Barry. 2021. *The Rise of China's Industrial Policy, 1978–2020*. Mexico City: Universidad Nacional Autónoma de México.
- International Monetary Fund (IMF). 2024. *World Economic Outlook: Navigating Economic Shifts*. Washington, DC: IMF.
- International Energy Agency (IEA). 2024. *Coal 2024: Analysis and Forecast to 2027*. Paris: IEA.
- National Development and Reform Commission (NDRC). 2021. *The 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Long-Range Objectives Through 2035*. Beijing: NDRC.
- National Bureau of Statistics of China (NBS). 2024. *Statistical Communiqué of the People's Republic of China on the 2024 National Economic and Social Development*. Beijing: NBS.
- China Iron and Steel Association (CISA). 2024. *Annual Report on China's Steel Industry Development*. Beijing: CISA.
- S&P Global Commodity Insights. 2024. *China Steel Exports and Global Trade Measures Report*. Singapore: S&P Global.
- The Coal Hub. 2024. *Coal Outlook 2025–2050*. London: The Coal Hub.
- United Nations Industrial Development Organization (UNIDO). 2024. *Industrial Development Report 2024*. Vienna: UNIDO.
- World Trade Organization (WTO). 2023. *Trade Policy Review: China*. Geneva: WTO.
- Ministry of Commerce of the People's Republic of China (MOFCOM). 2024. *China Foreign Investment Statistical Bulletin 2024*. Beijing: MOFCOM.
- Rhodium Group. 2023. *China's Productivity Challenge*. New York: Rhodium Group.
- Brookings Institution. 2023. *China's Economic Transition and Structural Challenges*. Washington, DC: Brookings Institution.
- United Nations Conference on Trade and Development (UNCTAD). 2023. *Global Commodities Outlook*. Geneva: UNCTAD.
- U.S. Geological Survey (USGS). 2024. *Mineral Commodity Summaries 2024*. Reston, VA: USGS.

