
China's Stockpiling: Domestic Resilience, Global Influence

EXPLAINER - JANUARY 2026



Institut Montaigne is a leading independent think tank based in Paris. Our research and ideas aim to help governments, industry and societies to adapt to our complex world. Institut Montaigne's publications and events focus on major economic, societal, technological, environmental and geopolitical changes. We aim to serve the public interest through instructive analysis on French and European public policies and by providing an open and safe space for rigorous policy debates.

EXPLAINER - January 2026

China's Stockpiling: Domestic Resilience, Global Influence



This policy paper has been published within the framework of the Observatory of Multilateralism in the Indo-Pacific, a research and events programme initiated by the Directorate General for International Relations and Strategy (DGRIS) of the French Ministry for Armed Forces. Institut Montaigne contributes to this major programme alongside two other French think tanks, the Fondation pour la recherche stratégique (FRS) and the European Council on Foreign Relations (ECFR), as well as two French academic institutions, Sciences Po and Inalco.



Institut Montaigne's Explainers are analytical short-reads, setting out key facts and figures to make sense of the world we live in and how it is evolving.



Explainer

To understand the world in which we operate

Issue Paper

To break down the key challenges facing societies

Policy Paper

To provide practical recommendations

Exclusive Insights

Unique data-driven analyses and practical scenario exercises

Report

Deep-dive analyses and long-term policy solutions

Stockpiling has always been a determining factor in a country's ability to project power. However, in recent decades, the opening up of markets and territorial limits on conflicts have led us to favour resource flows over stockpiling. Unfortunately, it is now clear that this approach has left our critical dependencies vulnerable to foreign manipulation.

Although France—and Europe more generally—has been slow to rethink its economic security, the question of building up critical stockpiles has begun to attract attention. Against this background, we wanted to clarify and map the pressure China exerts on the global economy through its strategic stockpiles of raw materials.

Less spectacular than its monopoly policy or targeted export restrictions on rare earths, China's stockpiling strategy is a vitally important building block in its concept of national security. This strategy was designed with a dual objective: Defensively, it is intended to reduce the country's international dependence in the event of a blockade of maritime routes, while offensively, it is designed to act as a lever for manipulating world commodity prices. Such a system requires strong planning capabilities and excellent coordination between public and private actors.

By anticipating its own needs (of food and energy), controlling the needs of others (the extraction and refining of critical materials and minerals), influencing market logic (price manipulation and coercion), and making decisive choices (storage costs versus profitability), China is demonstrating both its hegemonic ambition and extraordinary planning capacity.

This policy paper, produced as part of the partnership between Institut Montaigne and the DGRIS, aims to serve a double purpose for decision-makers. On the one hand, it contributes to our much-needed collective lucidity about what is to come; on the other hand, it allows us to take Chinese practices into account in order to adapt to them as best we can.

Marie-Pierre de Bailliencourt,
Institut Montaigne's Managing Director

Foreword 5

Introduction 8

1 Food Commodities: China’s Flagship Stockpiles 15

**2 Energy Stockpiles: Massive Capacity
in the Face of Geopolitical Unrest** 22

**3 Metals And Minerals Stockpiling:
A Cushion against Trade Tensions?** 29

Conclusion 37

Appendixes 45

Acknowledgements 50

Pierre Pinhas

Pierre Pinhas joined Institut Montaigne in February 2023 as a Policy and Project Officer within the Asia programme. He is responsible for the quarterly publication *China Trends*, which seeks to understand China from a geopolitical, economic, and energy perspective, among others, drawing on Chinese-language sources. His research and work also focus on policies relating to raw materials, commodities and strategic stockpiles in European and Asian countries.

Before joining Institut Montaigne, he worked as an economic and strategic intelligence consultant at the China Desk of the *Agence pour la diffusion de l'information technologique*. He was then a *chargé de missions* on international and digital issues at the Ministry of Home Affairs. Pierre Pinhas holds a double master's degree from the School of Public Affairs at Sciences Po and the School of International Relations and Public Affairs at Fudan University.

Introduction

China's 2025 budget reveals the importance that the Chinese Communist Party attaches to strategic reserves. **The budget allocated to “grain, oil and gas, and other materials reserves” (粮油物资储备) stands at €16.7 billion**, representing a +6.1 percent year-on-year increase.¹ For food stocks alone, China's (declared) budget is nearly twenty times greater than that of all OECD countries combined!²

In Xi Jinping's China, the necessity of “cutting oneself off” from foreign dependencies is not just relevant to the technological realm³—securing the country's food, energy, and mining supplies is also crucial.⁴ In a speech on food security a few weeks after Russia's invasion of Ukraine, the Chinese leader defended the idea that it was **always better to “produce and store more” than needed**.⁵ Subsequently, in the context of

¹ “关于2024年中央和地方预算执行情况与2025年中央和地方预算草案的报告” [Report on the implementation of the 2024 central and local budgets and the draft central and local budgets for 2025], Government of the People's Republic of China, March 13, 2025, https://web.archive.org/web/20250903100557/https://www.gov.cn/yaowen/liebiao/202503/content_7013431.htm. A city like Shanghai also has a dedicated budget for food and energy stockpiles: “上海市2024年市级部门预算” [Shanghai municipal department budget for 2024], Government of Shanghai, February 2024, <https://web.archive.org/web/20250604150844/https://www.shanghai.gov.cn/cmsres/3c3ceb4d3f11644605ad6cdf1aeffd532/da13ed8c2b29fb5ca8153b4266aeeb55.pdf>.

² “Agricultural policy monitoring and evaluation: all data”, OECD Data Explorer, https://data-explorer.oecd.org/vis?tm=Agriculture%20Policy%20Monitoring%20and%20Evaluation%202024&pg=0&snb=13&dfs=dsDisseminateFinalDMZ&dffid=DSD_AGR_POLIND%40DF_MONEVA&dfag=OECD.TAD.ARP&dfvs|=1.1&dq=OECD.A.CPC_EX_TO.&pd=2014%2C&toTIME_PERIOD=false. Last updated on November 6, 2024.

³ In September 2025, an explicit reference to the intention to promote Chinese products on the domestic market was made in this document from the Ministry of Industry and Information Technology: “工业和信息化部 市场监督管理总局关于印发《电子信息制造业2025–2026年稳增长行动方案》的通知” [Notice of the Ministry of Industry and Information Technology and the State Administration for Market Regulation on issuing the “Action plan for stabilizing growth in the electronic information manufacturing industry for 2025–2026”], Government of the People's Republic of China, September 22, 2025, https://web.archive.org/web/20251007083212/https://www.gov.cn/zhengce/zhengceku/202509/content_7039199.htm.

⁴ Bulk commodities and raw materials still account for nearly 30 percent of China's imports: “国务院新闻办就2025年上半年进出口情况举行发布会” [State Council Information Office holds a press conference on import and export performance in the first half of 2025], Government of the People's Republic of China, July 14, 2025, https://web.archive.org/web/20250714174632/https://www.gov.cn/lianbo/fabu/202507/content_7031904.htm.

⁵ “习近平总书记谈粮食安全这个‘国之大者’” [General Secretary Xi Jinping on food security, an issue of national importance], Qishi, April 8, 2022, https://web.archive.org/web/20240524170630/https://www.qstheory.cn/zhuanyu/2022-04/08/c_1128542372.htm. See also Renmin University's analysis of the increase in grain stocks in various countries and the restrictions introduced on agricultural exports following Russia's invasion of Ukraine: “保障国家粮食安全：在增产与减损两端同时发力” [Safeguarding national food security: Focusing efforts on both boosting production and reducing losses], Research of Agricultural Modernization, May 4, 2023, https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-11/231206_Security_Translated_Materials.pdf?VersionId=6fp8hLXKckXfe.hFocOusAjaXa2txPwbP.

heightened tensions with the United States, China's desire to protect itself from the consequences of excessive dependence on foreign countries is easily understandable, as is its increasingly systematic use of policies to manipulate interdependencies for strategic competitive purposes.

In practice, however, has China actually been successful in **“respond[ing] to the uncertainty of the external environment with the certainty [and stability] of its production and supply,”**⁶ as a senior official at the head of the National Food and Strategic Reserves Administration put it? For a country with a population of 1.4 billion, the threat of armed conflict is not the only motivation for reducing foreign dependencies. For food commodities, political and social factors are relevant, whereas for energy, metal, and mineral stocks, the objective of ensuring the stability of supply chains and reducing price volatility takes precedence.⁷ **The concerns, therefore, vary depending on the resource being stockpiled.**

Since chronic food shortages were historically commonplace, China's tendency to build up stocks was the result of **a political concern that lasted for more than 2,000 years** and persisted throughout China's imperial history.⁸ For many of China's dynasties, grain reserves—mostly millet during the Han dynasty and wheat and rice during the Tang dynasty—were primarily a source of tax revenue and helped them cope with the consequences of crop failures, natural disasters, and wars.⁹

⁶ “丛亮：切实保障国家粮食安全” [Cong Liang: Effectively safeguarding national food security], Government of the People's Republic of China, July 8, 2022, https://web.archive.org/web/20250617093133/https://www.gov.cn/xinwen/2022-07/08/content_5700102.htm.

⁷ Not covered in this policy paper are the gold reserves managed by the People's Bank of China. They have been rising steadily for eleven months and highlight another motivation: That of becoming independent from the dollar monetary system and possible sanctions: “官方储备资产” [Official reserve assets], State Administration of Foreign Exchange, <https://www.safe.gov.cn/safe/2025/0206/25744.html>. Last accessed on January 7, 2026.

⁸ Pierre-Étienne Will and R. Bin Wong, “Nourish the people: The state civilian granary system in China, 1650–1850,” University of Michigan Press, 1991, <https://www.jstor.org/stable/10.3998/mpub.19044>.

⁹ This model even directly inspired American policies in the mid-twentieth century: Troy Rule, “Toward a more strategic national stockpile,” *Texas A&M Law Review*, 49, November 18, 2021, <https://scholarship.law.tamu.edu/cgi/viewcontent.cgi?article=1233&context=lawreview>.

The end of the Cold War further cemented the Chinese government's desire to systematically establish so-called strategic reserves throughout the country under a more structured **regulatory and planning framework**. Food commodities and mineral resources for military purposes were initially targeted in the early days of the People's Republic of China; with China's economic boom, stockpiling efforts shifted to energy and metals for industrial use.¹⁰

Historically, these **stockpiling policies have been motivated as much by an economic strategy that takes price fluctuations into account as by geopolitical and security considerations**.¹¹ In August 2021, Xi Jinping reasserted the need to “optimise the regulatory power of strategic reserves, strengthen raw material storage and regulation capacities, and better exploit the stabilising function of strategic reserves in the market.”¹² In 2025, price fluctuations in food commodities were noticeable, with a particularly marked downward trend in the pork sector.¹³ This trend partly explained the negative or stable consumer price figures and why the government intervened.¹⁴ And at the moment, these low prices also apply to wheat, oil, and, until recently, nickel. Thus, **to protect its consumers and producers from volatile prices, China does not hesitate to use the stabilising function of its reserves**.

¹⁰ Article 49 of the National Defense Law (2020) is dedicated to the strategic materials reserve system: “中华人民共和国国防法” [National Defense Law of the People's Republic of China], Ministry of National Defense of China, December 27, 2020, <https://web.archive.org/web/20250717140239/http://www.mod.gov.cn/gfbw/fjwx/jfjg/4876050.html>.

¹¹ See also Sichuan University's study on global food price variations and their impact on Chinese inflation: “International food price swings and their consequences for the Chinese economy,” SSRN, August 9, 2024, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4920692.

¹² “习近平主持召开中央全面深化改革委员会第二十一次会议强调” [Xi Jinping chaired the 21st meeting of the Central Committee for Comprehensively Deepening Reform and stressed], Xinhua, August 30, 2021, https://web.archive.org/web/20231209131413/http://www.news.cn/politics/leaders/2021-08/30/c_1127810407.htm

¹³ Hallie Gu, “Retreat in China pork prices points to weak consumer confidence,” Bloomberg, December 4, 2025, <https://www.bloomberg.com/news/articles/2025-12-04/retreat-in-china-pork-prices-points-to-weak-consumer-confidence>.

¹⁴ “2025年12月份居民消费价格同比上涨0.8%” [In December 2025, the consumer price index rose 0.8% year-on-year], National Bureau of Statistics of China, January 10, 2026, https://web.archive.org/web/20260109084330/https://www.stats.gov.cn/sj/zxfb/202601/t20260109_1962273.html.

In order to understand the importance of strategic reserves, it is essential to take into account the semantic imagery used to describe them in Chinese texts. **Chinese sources make abundant use of metaphors to describe strategic reserves**, referring to them as “ballast” (压舱石), “stabilisers” (稳定器),¹⁵ the metronome of the “world's granary” (天下粮仓),¹⁶ or “key defence lines” (关键防线).¹⁷ Some commentators even go so far as to suggest that the creation of these reserves is based on “a profound vision of rebuilding order” (它是基于对国际秩序重构的深刻洞察) and demonstrates that China is a “major country” (大国储备) in terms of stockpiles.¹⁸ However, this “vision” could sometimes be described as China-centric. For example, during the food crisis in 2022 with the start of the Russia-Ukraine war, China kept its own stocks well-furnished and did not export any grain products.¹⁹

China's strength, therefore, lies in its ability to match words with deeds. To effectively implement its stockpiling policy, **China brings together public administrations and private entities—at the risk, sometimes, of blurring the lines between them**. The National Food and Strategic Reserves Administration (NFSRA) (国家粮食和物资储备局), which reports directly to the National Development and Reform Commission (NDRC) and has existed in its current form since 2018,²⁰ is the institution

¹⁵ “持续提升国家战略物资储备治理效能” [Continuously enhance the governance effectiveness of national strategic material reserves], *Chinese Social Sciences Net*, February 21, 2025, https://web.archive.org/web/20250613084056/https://www.cssn.cn/skgz/bwyc/202502/t20250221_5848534.shtml.

¹⁶ Zhang Wufeng, “推动粮食和物资储备治理体系和治理能力现代化” [Advance the modernization of the governance system and governance capacity for grain and material reserves], *Baidu*, January 9, 2020, <https://web.archive.org/save/https://baijiahao.baidu.com/s?id=1655252084257394581&wfr=spider&for=pc>; Hongxing Lan, Weiwei He and Yuan Hu, “新时代打造更高水平‘天府粮仓’的理论内涵与实践路径” [The theoretical implications and practical pathways for building a higher-level “Tianfu grain storehouse” in the New Era], *World Agriculture*, October 2023, <https://web.archive.org/save/https://chn.oversea.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&filename=SJNY202310005&dbname=CJFDLAST2023>.

¹⁷ *Chinese Social Sciences Net*, *ibid.*, https://web.archive.org/web/20250613084056/https://www.cssn.cn/skgz/bwyc/202502/t20250221_5848534.shtml.

¹⁸ “国家粮食和物资储备局召开 物资储备领域‘十五’规划专家座谈会” [National Food and Strategic Reserves Administration holds an expert symposium on the 15th Five-Year Plan for strategic reserves], *National Food and Strategic Reserves Administration*, November 8, 2025, https://web.archive.org/web/20251112134352/https://www.lswz.gov.cn/html/xinwen/2025-11/08/content_290994.shtml.

¹⁹ “One reason for rising food prices? Chinese hoarding,” *Bloomberg*, January 5, 2022, <https://www.bloomberg.com/opinion/articles/2022-01-05/one-reason-for-rising-food-prices-chinese-hoarding>.

²⁰ “国务院机构改革方案” [Plan for the restructuring of State Council institutions], *Government of the People's Republic of China*, March 17, 2018, https://web.archive.org/web/20250807000204/https://www.gov.cn/guowuyuan/2018-03/17/content_5275116.htm.

responsible for planning.²¹ Although not immune to corruption,²² the NFSRA has demonstrated a remarkable ability to mobilise state resources via its twenty-six provincial agencies to ensure that China's entire territory is covered with storage capacity.²³ However, it is perhaps the NFSRA's interventions in global markets and influence on commodity prices that make it a strategically important institution for China.

In addition, **Beijing does not hesitate to rely on private or semi-private actors to support its efforts.** This is the case for reservoirs, silos, and warehouses. Specifically for food stocks, various private companies are involved but under the authority of a state-owned enterprise, Sinograin,²⁴ which is a public company and a rival of the agri-food conglomerate China National Cereals, Oils and Foodstuffs Corporation (COFCO). Sinograin was created in 2000 and has a quasi-ministerial aura, having been given almost exclusive responsibility for the management and regulation of Chinese food stockpiles.²⁵

²¹ The NFSRA is itself divided into twelve departments: General Office (Department of Foreign Affairs), Department of Grain Reserves, Department of Material Reserves, Department of Energy Reserves, Department of Emergency Material Reserves, Department of Legal Affairs and Institutional Reform, Department of Planning and Construction, Department of Financial Audit, Department of Safe Storage and Technology, Bureau of Law Enforcement Supervision, Party Committee, Department of Personnel Office of Retired Cadres: “司局子站” [Bureau sub-divisions], National Food and Strategic Reserves Administration, <https://web.archive.org/web/20250823230116/https://www.lswz.gov.cn/html/sjzz/index.shtml>. Last accessed on August 23, 2025.

²² “国家粮食和物资储备局党组坚决拥护中央纪委国家监委对张务锋涉嫌严重违纪违法问题进行纪律审查和监察调查” [The Party Leadership Group of the National Food and Strategic Reserves Administration firmly supports the Central Commission for Discipline Inspection and the National Supervisory Commission in conducting disciplinary review and supervisory investigation into Zhang Wufeng for suspected serious violations of discipline and law], National Food and Strategic Reserves Administration, June 15, 2022, https://web.archive.org/web/20220615080631/https://www.lswz.gov.cn/html/xinwen/2022-06/15/content_270675.shtml.

²³ The NFSRA is also planning on establishing seven regional emergency food aid centers spread out across the country and as follows: Beijing-Tianjin-Hebei region, Yangtze River Delta, Guangdong-Hong Kong-Macao Greater Bay Area, Chengdu-Chongqing region, Central China, Northwest China, and Northeast China: “国家粮储局谈我国粮食应急保障: 36个大中城市成品粮油储备持续保障15天以上市场供应量” [National Food Reserve Administration on China's grain emergency response: Finished grain and oil reserves in 36 major and medium-sized cities can sustain market supply for over 15 days], *The Paper*, October 14, 2025, https://web.archive.org/web/20260107164604/https://www.thepaper.cn/newsDetail_forward_31777161.

²⁴ “中储粮集团: “链”式改革守好大国粮仓” [Sinograin: Chain-based reform safeguards the nation's grain reserves], *The Paper*, January 5, 2026, https://web.archive.org/web/20260109171337/https://m.thepaper.cn/baijiahao_32320055.

²⁵ “A Chinese state-backed giant's rapid rise in global trading of food. Four-year-old COFCO International is already rivalling Western giants,” *The Economist*, February 2, 2019, <https://www.economist.com/business/2019/02/02/a-chinese-state-backed-giants-rapid-rise-in-global-trading-of-food>.

Nevertheless, these **massive stockpiling operations**—and the resulting market distortions—**are not without consequences for third countries**, as illustrated by the food crisis of 2021–2022 mentioned above and the surge in food prices for many African and Mediterranean countries. It is, therefore, legitimate to question the scale of these stocks, especially outside periods of conflict.

For certain raw materials, the **size of Chinese stockpiles can sometimes even hinder the ability of certain economies to secure supplies**, as demonstrated by the difficulties—to put it mildly—European companies have faced in accessing rare earths in recent months.²⁶ However, it would be a mistake for China to abandon such a policy, as, in addition to enabling the country to meet its own needs, it also allows it to maintain a dominant position in world markets in terms of volume control and indirect price setting.²⁷ **The ability to distort the global balance** between supply and demand **is a valuable strategic lever for the Chinese government**, which understands all too well that its strength no longer lies solely in what it buys, but above all in what it sells.

A summary of the three main categories of Chinese stockpiles (food, energy, metals, and minerals) is, therefore, of obvious geostrategic and economic interest for understanding China's position in global trade equilibriums. The purpose of this note is thus to understand the scope and nature of China's intentions behind its accumulation of large stockpiles—and, as some see them, as a sign of preparation for war with the United States. Ultimately, **even if China's strategy has specific features that are unique to the country's economy, politics, and**

²⁶ “European Business in China position paper 2025/2026,” European Union Chamber of Commerce in China, September 17, 2025, <https://www.eurochamber.com.cn/en/publications-position-paper>; “Germanium-mangel sorgt für ‘Entsetzen in der Industrie’” [Germanium shortage causes “horror in the industry”], Handelsblatt, September 26, 2025, <https://www.handelsblatt.com/finanzen/maerkte/devisen-rohstoffe/rohstoffe-germanium-wird-knapp-blankes-entsetzen-in-der-industrie/100152657.html>.

²⁷ Irina Patrahau, Anika Singhvi, Michel Rademaker, Hugo van Manen, René Kleijn and Lucia van Geuns, “Securing critical materials for critical sectors policy options for the Netherlands and the European Union,” The Hague Centre for Strategic Studies, December 2020, <https://hcss.nl/wp-content/uploads/2021/01/Securing-Critical-Materials-for-Critical-Sectors.pdf>.

demographics, understanding the driving forces behind it allows us to outline theoretical and practical avenues for consideration by France and the European Union—especially since their approaches to stockpiling are currently undergoing a major transformation in terms of the creation, composition, financing and governance of reserves.

1 Food Commodities: China's Flagship Stockpiles

For a country as populous as China, food stockpiles appear to be a **coherent public policy option—particularly for preventing any social crisis**. This is all the more true given that China has been a net importer of agricultural products since 2004 and the world's largest importer since 2021.²⁸ Simultaneously, China's food self-sufficiency rate²⁹ has fallen steadily since the beginning of the century, in part due to a diet that is increasingly diversified and, thus, increasingly moving away from food produced on Chinese soil.³⁰ Even though China's agricultural production has continued to grow in recent years, this increase has not offset the growth in imports³¹ and the need to provide daily rations in line with China's status as a developed country. A look at China's recent history, therefore, helps us understand how the building up of food stockpiles has continued to be an obvious policy for safeguarding its food security.

²⁸ Brian Hart, Bonny Lin, Hugh Grant-Chapman, Leon Li, Truly Tinsley, Peter Dazheng Huang and Claire Tiunn, "How severe are China's food security challenges?," Center for Strategic & International Studies, April 21, 2025, <https://chinapower.csis.org/china-food-security/>.

²⁹ According to the official definition of the Food and Agriculture Organization of the United Nations, this is the ratio of domestic production to domestic consumption.

³⁰ Kevin Dong, Mallie Prytherch, Lily McElwee, Patricia Kim, Jude Blanchette and Ryan Hass, "China's food security: key challenges and emerging policy responses," Center for Strategic & International Studies, March 15, 2024, <https://www.csis.org/analysis/chinas-food-security-key-challenges-and-emerging-policy-responses>.

³¹ "从'僵尸肉'事件看战略储备：我国暴露了部分漏洞，该如何解决？" [Strategic reserves in light of the "zombie meat" incident: How should China address the exposed vulnerabilities?], Baidu, April 2, 2025, <https://archive.is/31Wve>.

In 1990, China structured its grain reserve system around coordinated central government reserves and local reserves, while simultaneously seeking to promote synergies between government and private company stocks. Thirty-five years later, the relevance and importance of these reserves are more evident than ever. **The droughts** of 2022 in the Yangtze River basin **and the floods** of spring and fall 2025,³² which devastated production in the agricultural province of Henan, **served as stark reminders** of the potentially catastrophic consequences of climate change in China. This is particularly evident given that China is no more immune to climate change than any other nation,³³ whether in terms of rising sea levels, more intense heat waves, or more severe and frequent storms, droughts, and floods.³⁴ For example, **more than half of the arable land in China's agricultural regions has at least one crop whose yields are already trending downward.**³⁵

³² “华北雨季9月2日结束 持续时间和累计雨量创历史纪录” [The rainy season in Northern China ended on September 2, with both its duration and cumulative rainfall setting historical records], China Meteorological Administration, September 5, 2025, https://web.archive.org/web/20250923140107/https://www.cma.gov.cn/ztd/2025zt/20250418/2025041803/202509/t20250905_7318374.html.

³³ The logistics aspect of these stockpiles, particularly through the “Transport of grain from the north to the south” (北粮南运) mechanism, could be impacted by climate change: Baidu, *ibid*.

³⁴ Mei Mei Chu, “China’s food security dream faces land, soil and water woes,” Reuters, May 23, 2024, <https://www.reuters.com/world/china/chinas-food-security-dream-faces-land-soil-water-woes-2024-05-23/>; David Sandalow, Michal Meidan, Philip Andrews-Speed, Anders Hove, Sally Yue Qiu and Edmund Downie, “Guide to Chinese climate policy: China’s vulnerability to climate change 2022,” Oxford Institute of Energy Studies, October 14, 2022, <https://chineseclimatepolicy.oxfordenergy.org/book-content/background/impacts-of-climate-change-in-china/chinas-vulnerability-to-climate-change/>.

³⁵ Hongqiao Liu, Simon Evans, Zizhu Zhang, Wanyuan Song and Xiaoying You, “The Carbon Brief profile: China,” CarbonBrief, November 30, 2023, <https://interactive.carbonbrief.org/the-carbon-brief-profile-china/index.html>.

In his speech to the 2016 Central Economic Work Conference,³⁶ Xi Jinping had already emphasised the need to improve not only agricultural stockpiles, primarily cereals,³⁷ but also agricultural inputs (e.g. fertilisers)³⁸ or products suited to Chinese dietary habits (e.g. pork).³⁹ More fundamentally, his December 2020 speech on agriculture provides insights into the ideological framework underpinning his food stockpiling policy. This policy, like the goal of food diversification, **compels us to view food commodities as “strategic products [with] long-term political implications.”**⁴⁰

Xi Jinping's speeches—and, to a certain extent, those of the NFSRA directors—attest to the preeminence of this stockpiling policy, but there is a whole set of regulatory and legislative texts that also confirms the importance of these food stockpiles in the eyes of Chinese leaders. This **legislative arsenal has continued to grow** (see Appendix 1) and includes measures intended to anticipate risks earlier on. These texts

³⁶ “中央经济工作会议在北京举行 习近平李克强作重要讲话” [*The Central Economic Work Conference was held in Beijing. Xi Jinping and Li Keqiang delivered important speeches*], Government of the People's Republic of China, December 16, 2016, https://web.archive.org/web/20250122044842/https://www.gov.cn/xinwen/2016-12/16/content_5149018.htm.

³⁷ China's official definition of grains not only includes wheat, rice, and corn but also pulses (soybeans, black beans, etc.) and starchy food (potatoes, sweet potatoes).

³⁸ “关于进一步做好粮食和大豆等重要农产品生产相关工作的通知” [*Notice on further strengthening work related to the production of grain, soybeans, and other key agricultural products*], National Development and Reform Commission, March 18, 2022, https://web.archive.org/web/20230325165320/https://www.ndrc.gov.cn/xwdt/tzgg/202203/t20220318_1319508.html?code=&state=123.

³⁹ Since 2007, China has established strategic reserves of pork (fresh and frozen) under the auspices of the Ministry of Commerce and COFCO: Mindi Schneider, “Feeding China's pigs implications for the environment, China's smallholder farmers and food security,” Institute for Agriculture and Trade Policy, May 2011, <https://faculty.washington.edu/stevehar/Pigs-Schneider.pdf>. The whole is regulated: “完善政府猪肉储备调节机制做好猪肉市场保供稳价工作预案” [*Improve the government pork reserve adjustment mechanism and develop contingency plans to ensure stable pork supply and prices in the market*], National Development and Reform Commission, June 2021, <https://www.ndrc.gov.cn/xgk/zqfb/tz/202106/P020210609372056229138.pdf>. As recently as August 2025, the NDRC purchased pork in the hope that prices would rise again: “国家将于近期开展中央冻猪肉储备收储” [*The State will soon begin purchasing frozen pork for central reserves*], National Development and Reform Commission, August 21, 2025, https://web.archive.org/web/20250821120844/https://www.ndrc.gov.cn/fzgg/jgs/jgsjdt/202508/t20250821_1399950.html. This pork reserve is also attractive to consumers because the frozen option is less expensive for them.

⁴⁰ “习近平：坚持把解决好“三农”问题作为全党工作重中之重 举全党全社会之力推动乡村振兴” [*Xi Jinping: Resolutely prioritizing addressing issues related to agriculture, rural areas, and farmers as the overriding task mobilize the entire party and society to advance rural revitalization*], Government of the People's Republic of China, March 31, 2022, https://web.archive.org/web/20250524214942/https://www.gov.cn/xinwen/2022-03/31/content_5682705.htm.

demonstrate the central importance of food stockpiles to China's strategy focused on security and resilience issues. The Food Security Law is particularly interesting in that sense, since it lays out the concept of **“extreme thinking” (极限思维)** to enable China **to anticipate situations such as a grain embargo or a global food crisis**.⁴¹ Reading these legislative texts, a more military–strategic vision, as opposed to a purely commercial one, emerges.

Beyond words and regulatory frameworks, what is the actual situation on the ground from a quantitative perspective? The Chinese government,⁴² including the NFSRA, makes regular reference to having a **storage capacity of 730 million tons of grain**, but it is not possible to cross-check this figure against other unofficial sources, although approximations are available. According to an estimate by an American bank, China held 68.2 percent, 51.5 percent, and 35.4 percent of global stocks of corn, wheat, and soybeans, respectively, in 2024—confirmation, if any were needed, of the scale of these stocks and their potential impact on other countries.⁴³ Official Chinese statements are less explicit, simply stating that **rice and corn stockpiles are sufficient to meet the needs of a population of 1.4 billion for more than a year**.⁴⁴

⁴¹ *The CCP still has in mind the memory of the Hoover administration's (1929–1933) decision to use grain exports to support the Republican government against the warlords, and therefore understands perfectly how food exports can be weaponized. A few decades later, in 1973, the United States did not hesitate to impose an embargo on soybeans, for example. The concept of “extreme thinking” present in the Food Security Law continues to permeate official discourse: “国家粮食和物资储备局举行危险化学品仓库安全生产综合应急演练” [National Food and Strategic Reserves Administration conducts comprehensive emergency drill for hazardous chemicals warehouse safety], National Food and Strategic Reserves Administration, November 21, 2025, https://web.archive.org/web/20251204145039/https://www.lswz.gov.cn/html/xinwen/2025-11/21/content_291168.shtml.*

⁴² *“粮食市场供应充足 节粮减损成效显著——国新办发布会聚焦“十四五”时期粮食流通改革发展成效” [Adequate grain market supply and significant achievements in reducing food loss and waste —State Council Information Office's press conference highlights progress in grain circulation reform during the 14th Five-Year Plan Period], Government of the People's Republic of China, October 14, 2025, https://web.archive.org/web/20260107181223/https://www.gov.cn/lianbo/bumen/202510/content_7044394.htm.*

⁴³ *“Global commodities: Northern summer energy demand drives down global commodity availability —in fundamental contrast to the BCOM crunch,” J.P. Morgan, August 2, 2024, <https://markets.jpmorgan.com/research/email/-j27tjji/QIR3oU6oy50L-Lad7Og7xA/GPS-4762606-0>.*

⁴⁴ *“国家粮食和物资储备局召开粮食监测预警委员会全体会议” [The National Food and Strategic Reserves Administration convened a plenary meeting of the Grain monitoring and early warning committee], National Food and Strategic Reserves Administration, March 6, 2025, <https://archive.is/6gMXO>.*

Soybean stockpiles represent a striking example of **the adaptation of a Chinese policy to geopolitical fluctuations and illustrate the ongoing diversification of Chinese suppliers.**⁴⁵ Domestic soybean production is far from sufficient to meet the national demand for meat despite the agricultural policies introduced in Heilongjiang. Against the background of the persistent fear of a trade war with the United States and before a truce agreed at the end of October 2025 in Busan, China had mostly decided to do without US soybean imports for 2025.⁴⁶ Chinese soybean imports (12.9 million tons in September, 9.48 million tons in October, 8.11 million in November),⁴⁷ mainly from Brazil, have still allowed the country to fill in its stockpiles to a record number of forty-five million tons.⁴⁸ However, with this Brazilian gamble, **one dependency could replace another**, as the South American giant is also not immune to adverse weather conditions, political storms, or economic turmoil. This risk has not been overlooked by Chinese online articles, but they also point out that where this grain is concerned, the balance of power favours the buyer rather than the producer.⁴⁹

⁴⁵ Brad Setser [@Brad_Setser], X, November 2024, https://x.com/brad_setser/status/1853440302830223576.

⁴⁶ Hallie Gu and Clarice Couto, "China's soy crushers may be facing a winter without US beans," Bloomberg, August 27, 2025, <https://www.bloomberg.com/news/articles/2025-08-27/china-s-soy-crushers-may-be-facing-a-winter-without-us-beans?srnd=undefined>.

⁴⁷ Hallie Gu, "China's soy imports hit September record, despite avoiding US," Bloomberg, October 13, 2025, <https://www.bloomberg.com/news/articles/2025-10-13/china-s-soy-imports-hit-september-record-despite-avoiding-us>; "China's commodities imports broadly weaker as demand sags," Bloomberg, November 7, 2025, <https://www.bloomberg.com/news/articles/2025-11-07/china-s-commodities-imports-broadly-weaker-as-demand-sags>.

⁴⁸ "中美关税对峙中，中国抵制购买美国大豆" [Amid the US–China tariff standoff, China is boycotting the purchase of American soybeans], Lianhe Zaobao, September 9, 2025, <https://www.zaochenbao.com/news/opinion/202509/0951837.html>.

⁴⁹ "巴西大豆贸易暂停后，反制再度加码，中企面临压力，中方硬核回应" [Following the suspension of Brazilian soybean trade, countermeasures have been further escalated, putting pressure on Chinese enterprises. China has responded with a firm stance], Baidu, November 7, 2025, <https://web.archive.org/save/https://baijiahao.baidu.com/s?id=1848093884682797865&wfr=spider&for=pc>.

Nevertheless, there is still a downside to China's food stockpiling policy, namely grain losses, which can render the commodity unfit for consumption, particularly in the case of wheat.⁵⁰ According to data released by the NFSRA in 2023, the grain loss rate reached a record low of 1 percent, compared to 8 percent ten years earlier.⁵¹ This is certainly a particularly low percentage, but given the volumes involved, these losses remain significant. In 2023, losses (including during transport and processing) were almost equivalent to the grain production of Sichuan (36 million tons).⁵² The authorities therefore like to remind people that **“it is better to shed a thousand drops of sweat than to waste a single grain of rice”** (宁流千滴汗，不坏一粒粮).⁵³

Significant efforts to reduce grain loss have been undertaken at the national level, notably through a **gradual reduction in open-air storage**⁵⁴ and the widespread use of silos with temperature control in the storage environment.⁵⁵ The National Whole Grain Action Plan

⁵⁰ Shiyan Jiang, Hong Chen, Shuhan Yang, Yujie Wang and Ming Xu, “Assessment and scenario hypothesis of food waste in China based on material flow analysis,” *Urban Sustainability*, vol. 3(2), January 5, 2023, <https://www.nature.com/articles/s42949-022-00081-x>.

⁵¹ “五年来，粮食年产量稳定在一点三万亿斤以上——中国粮食安全得到有效保障” [Over the past five years, annual grain output has remained stable at over 1.3 trillion jin—effectively safeguarding China's food security], Government of the People's Republic of China, October 17, 2025, https://web.archive.org/web/20251022100150/https://www.gov.cn/lianbo/bumen/202510/content_7044708.htm; Wei Li and Lan Zhao, “The ‘butterfly effect’ of the Russia-Ukraine conflict and geopolitical risks to China's food security,” Center for Strategic and International Studies, May 4, 2023, https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-11/231206_Security_Translated_Materials.pdf?VersionId=6fjp8hXKCKXfe.hFocOusAjXa2txPwbP.

⁵² Wei Li and Lan Zhao, *ibid.*; “Bulletin on the national grain production in 2024,” National Bureau of Statistics of China, December 14, 2024, https://www.stats.gov.cn/english/PressRelease/202412/t20241219_1957784.html.

⁵³ “2025年中储粮工作会议暨党风廉政建设和反腐败工作会议召开” [The 2025 China National Grain Reserves Corporation Work Conference and the Conference on Party conduct, integrity, and anti-corruption work convened], *People's Daily*, January 13, 2025, <https://web.archive.org/web/20250708152948/https://finance.people.com.cn/n1/2025/0113/c1004-40400976.html>.

⁵⁴ The slogan “four in one” (四合一) regularly appears in official texts to synthesize the new storage technologies (measurement and control of grain condition, mechanical ventilation, circulation fumigation, and grain cooling) promoted and used in state warehouses: “深入推进粮食节约减损” [Deepening efforts to reduce food waste and losses], *People's Daily*, February 17, 2025, https://web.archive.org/web/20250709123718/https://paper.people.com.cn/rmlt/pc/content/202502/17/content_30060584.html.

⁵⁵ “国家粮食和物资储备局召开粮食监测预警委员会全体会议” [The National Food and Strategic Reserves Administration convened a plenary meeting of the Grain monitoring and early warning committee], National Food and Strategic Reserves Administration, March 6, 2025, <https://archive.is/ggMXO>.

(2024–2035)⁵⁶ and the implementation plan for cereal conservation in the livestock sector⁵⁷ are also part of these reduction efforts. Still, regional disparities persist: The **northwestern provinces record higher losses** because they have historically favoured the use of poorly protected warehouses and inadequately packaged bags.⁵⁸ There are also geographical disparities in the quantity of food commodities available in storage. China's northeastern provinces, also considered the cradle of Chinese agricultural production, are indeed better equipped with strategic stockpiles.⁵⁹

Despite these shortcomings, the image is clear: **China has gradually managed to build up remarkable food stockpiles** (see Appendix 2), enabling it, in the short term, to partially compensate for its growing but insufficient agricultural production and create the conditions for a certain degree of social stability. However, a number of geopolitical and climatic uncertainties continue to encourage China to increase its food storage capacity, a trend that is also visible in the energy sector, where the desire to protect itself or anticipate possible sanctions is striking.

⁵⁶ “全国粮食和物资储备工作会议在京召开” [The national conference on grain and strategic reserves held in Beijing], National Food and Strategic Reserves Administration, December 26, 2024, https://web.archive.org/web/20250617094255/https://www.gov.cn/lianbo/bumen/202412/content_6994708.htm.

⁵⁷ “农业农村部办公厅关于印发《养殖业节粮行动实施方案》的通知农办牧〔2025〕15号” [Notice of the General Office of the Ministry of Agriculture and Rural Affairs on issuing the Implementation Plan for the Livestock and Poultry Industry Grain Conservation Initiative No. 15 [2025]], Government of the People's Republic of China, April 25, 2025, https://web.archive.org/web/20250926174704/https://www.gov.cn/zhengce/zhengceku/202505/content_7022364.htm.

⁵⁸ Yi Luo, Dong Huang, Danyang Li and Laping Wu, “On farm storage, storage losses and the effects of loss reduction in China,” *Resources, Conservation and Recycling*, vol. 162, November 2020, <https://www.sciencedirect.com/science/article/abs/pii/S0921344920303797>.

⁵⁹ National Food and Strategic Reserves Administration, March 6, 2025, *ibid*.

2 Energy Stockpiles: Massive Capacity in the Face of Geopolitical Unrest

Oil and gas dominate China's energy reserves.⁶⁰ **Before 1993, the country was a net oil exporter**, and China was already richly endowed with coal resources, but its energy demand has continued to grow since then. With its economic development, the country has become an importer of gas and oil in the face of ever-increasing demand.⁶¹ Therefore, the idea of strategic energy reserves gradually gained ground in Chinese decision-making circles, and geopolitical considerations have become increasingly important over the years.

In 2003, a plan by the NDRC paved the way for the **creation of a national oil reserve, to be built over a fifteen-year period** with the clear objective of having ninety to one hundred days of storage capacity in the long term⁶²—a mandatory objective for member countries of the International Energy Agency. The first phase of construction focused on four sites in Dalian (Liaoning), Huangdao (Shandong),⁶³ Zhoushan,

⁶⁰ Uranium stockpiles are another issue, but due to their dual-use nature and the resulting lack of transparency surrounding them, they are not covered in this policy brief: Rachel Cheung, "Beijing's uranium edge," *The Wire China*, March 2, 2025, <https://web.archive.org/web/20250903081723/https://world-nuclear.org/our-association/publications/global-trends-reports/nuclear-fuel-report>. In 2022, it was still estimated that China had stockpiles of 132,000 tons of uranium, three times more than the United States: "Global scenarios for demand and supply availability 2023-2040," World Nuclear Association, August 8, 2025, <https://world-nuclear.org/our-association/publications/global-trends-reports/nuclear-fuel-report>.

⁶¹ With an increase in the number of fields exploitable, the trend is gradually reversing, and although the country continues to import 70 percent of its oil: Javier Blas, "Oil market outlook gets lost in (Chinese) translation," *Bloomberg*, April 22, 2025, <https://www.bloomberg.com/opinion/articles/2025-04-22/oil-market-outlook-gets-lost-in-chinese-translation>. Chinese gas production has also risen steadily since the beginning of the century, mainly in the northwestern provinces but also in the Sichuan Basin: John Kemp [@JKempEnergy], X, September 24, 2025, <https://x.com/jkempenergy/status/1970798246650941689>.

⁶² Gang Wu, Yi-Ming Wei, Chris Nielsen, Xi Lu and Michael B. McElroy, "A dynamic programming model of China's strategic petroleum reserve: General strategy and the effect of emergencies," *Energy Economics* vol. 34-4 p.1234-1243, July 2012, <https://www.sciencedirect.com/science/article/abs/pii/S0140988311002829>; Lei Zhang, "A comparative study of strategic petroleum reserve policies of major countries in the world," *Energy Policy*, vol. 195, December 2024, <https://www.sciencedirect.com/science/article/abs/pii/S0301421524003823>.

⁶³ China makes first announcement on strategic oil reserves," *Reuters*, November 20, 2014, <https://www.reuters.com/article/china-oil-reserves-idUSL3N0TA1QE20141120>.

and Zhenhai (Zhejiang). In October 2006, the Zhenhai site was the first to go into operation as part of a collaboration with Sinopec. The first phase per se was completed at the end of 2009, with Sinochem and the China National Petroleum Corporation (CNPC), two state-owned companies that play a central role in the Chinese hydrocarbon market, also contributing to the project.⁶⁴ Moving inland—and underground for obvious strategic reasons—the second phase of storage was completed in 2019, albeit with a slight delay.⁶⁵ The third and final phase should be completed soon, although **there is still some uncertainty about the precise and final storage capacity sought.**⁶⁶

Xi Jinping's arrival in power in 2013 served only to consolidate and prolong China's existing energy security policy. In a speech on energy production and consumption in June 2014, Xi Jinping emphasised the need to “strengthen the construction of oil and gas pipelines and oil and gas storage infrastructure.”⁶⁷ A few months later, these remarks took shape in legislative form through a regulation on national oil reserves.⁶⁸ The NDRC addressed this issue again in the spring of 2020, acknowledging, in the midst of the COVID-19 crisis, the need to not only improve the reserve system in the name of the country's energy security⁶⁹

⁶⁴ Michal Meidan, “China's SPR release: A test of mechanisms rather than a show of market might,” *The Oxford Institute for Energy Studies*, September 2021, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2021/09/Chinas-SPR-release.pdf>.

⁶⁵ Nan Xie, Zhijun Yan, Yi Zhou and Wenjun Huang, “China's optimal stockpiling policies in the context of new oil price trend,” *Energy Policy*, vol.105, June 2017, <https://www.sciencedirect.com/science/article/pii/S0301421517301489>.

⁶⁶ Gabriel Collins, “Energy stockpiling as a China strategic warning indicator,” Baker Institute, June 13, 2024, https://www.uscc.gov/sites/default/files/2024-06/Gabriel_Collins_Testimony.pdf.

⁶⁷ “习近平：积极推动我国能源生产和消费革命” [Xi Jinping: Actively promote China's energy production and consumption revolution], Government of the People's Republic of China, June 13, 2014, <https://archive.is/usofg>.

⁶⁸ “国家石油储备条例” [Regulations on National Petroleum Reserves], National Energy Administration, July 17, 2025, https://web.archive.org/web/20250717135603/http://www.nea.gov.cn/135402100_14646901162721n.doc.

⁶⁹ “关于加快推进天然气储备能力建设的实施意见” [Implementation opinions on accelerating the development of natural gas storage capacity], Government of the People's Republic of China, April 10, 2020, https://web.archive.org/web/20250717135826/https://www.gov.cn/zhengce/zhengceku/2020-04/26/content_5506189.htm. The power outages of 2021 and 2022 have once again reminded the Chinese leaders of the importance of energy security for national and provincial harmony: “China's bulging commodity stockpiles show depth of economic woes,” *Bloomberg*, September 2, 2024, <https://www.bloomberg.com/news/articles/2024-09-02/china-s-bulging-commodity-stockpiles-lay-depth-of-slowdown-bare>.

—but also to revive the national economy.⁷⁰ More recently, the Energy Law reiterates that the state must improve and coordinate both government and private energy reserve systems more effectively.⁷¹ This regulatory framework has thus played a decisive role in incentivising the development of storage capacity.

Estimates of current storage volumes suggest that **in the event of a short-term crisis, China’s emergency supplies would be sufficient**—however, if a prolonged embargo were to occur, these stockpiles would soon not be enough.⁷² Since the establishment of energy stockpiles in 2003, China’s storage capacity has grown rapidly. The authorities have consistently demonstrated **decisive and countercyclical commercial acumen** in filling storage during periods of low energy prices—an approach to prices that is less speculative for oil and gas than for metals or minerals.⁷³ Nevertheless, the days when China emptied its oil reserves (almost) in conjunction with the United States, Japan, and India to combat the high prices set by OPEC seem to be over.⁷⁴

⁷⁰ “Low oil prices add to global economic woes: China Daily editorial,” *China Daily*, April 6, 2020, <https://web.archive.org/web/20250717142954/https://www.chinadaily.com.cn/a/202004/06/W55e8b-2f1aa310128217284969.html>.

⁷¹ “Energy law of the People’s Republic of China,” NPC Observer, <https://npcobserver.com/legislation/energy-law/>. Last updated on December 4, 2024.

⁷² Gabriel Collins, “A maritime oil blockade against China—Tactically tempting but strategically flawed,” *Naval War College Review*, 2018, <https://digital-commons.usnwc.edu/nwc-review/vol71/iss2/6/>; Sai Chen, Yueting Ding, Yan Song, Ming Zhang and Rui Nie, “Study on China’s energy system resilience under the scenarios of long-term shortage of imported oil,” *Energy*, vol. 250-1, May 1, 2023, <https://www.sciencedirect.com/science/article/abs/pii/S0360544223002256>.

⁷³ Emma Li, “Chinese teapots face challenges in securing crude imports,” *Vortexa*, December 12, 2024, <https://www.vortexa.com/insights/freight/chinese-teapots-face-challenges-in-securing-crude-imports-despite-fresh-quotas/>; “China to boost oil imports to fill reserves, Energy Aspects says,” *Bloomberg*, July 15, 2025, <https://www.bloomberg.com/news/articles/2025-07-15/china-to-boost-oil-imports-to-fill-reserves-energy-aspects-says>.

⁷⁴ “China releasing some oil from strategic reserves after U.S. invite,” *Bloomberg*, November 18, 2021, <https://www.bloomberg.com/news/articles/2021-11-18/china-says-release-from-strategic-oil-reserves-in-the-works>; “President Biden announces release from the Strategic Petroleum Reserve as part of ongoing efforts to lower prices and address lack of supply around the world,” *White House*, November 23, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/23/president-biden-announces-release-from-the-strategic-petroleum-reserve-as-part-of-ongoing-efforts-to-lower-prices-and-address-lack-of-supply-around-the-world/>; “2021年11月24日外交部发言人赵立坚主持例行记者会” [November 24, 2021 foreign ministry spokesperson Zhao Lijian hosts regular press conference], Ministry of Foreign Affairs of the People’s Republic of China, November 24, 2021, https://www.fmprc.gov.cn/web/fyrbt_673021/jzhs_673025/202111/t20211124_10452621.shtml.

Once again, the impressive increase in China's storage capacity has not been without its flaws. A 2025 study by the State Council's research centre bears witness to this.⁷⁵ This study notably concludes that a **lack of sufficiently centralised planning led to the construction of duplicate infrastructure and the waste of certain land and storage resources**. However, these setbacks appear difficult to avoid in the context of the rapid development of energy stockpiles, and in any case, China continues to systematically seek ways to optimise its storage system.

Despite these shortcomings, and although China could only meet its needs for seven days in 2006,⁷⁶ it is clear that this figure has continued to climb since then. It rose to thirty-five days in 2011, eighty in 2019, and now stands at over ninety days.⁷⁷ With 30 to 40 billion cubic meters in reserve, according to sources,⁷⁸ gas is not far behind, with a promised supply of twenty-three days, eight more than five years ago.⁷⁹ Unlike their approach to crude oil, Chinese policymakers seem to view natural gas storage as a market regulation tool rather than an instrument for the country's energy security.⁸⁰ In any case, China is believed to

⁷⁵ Li Zuojun, Wang Sentiao and Tian Huimin, “智库论道 | 增强我国战略和应急物资储备能力” [Forum Think Tank: Enhance China's strategic and emergency material reserve capabilities], *China Economic Times*, November 18, 2024, <https://web.archive.org/web/20250613083350/https://baijiahao.baidu.com/s?id=1816048496718881100&wfr=spider&for=pc>.

⁷⁶ Certain Chinese academic studies indicate that this storage capacity paradoxically remained a cause for concern, as it was previously below the average observed in developed countries: Yin Xiong, “能源安全: 复杂多变形势下的中国政策选择” [Energy security: China's policy choices in a complex and fluctuating landscape], *China National Radio*, January 16, 2020, https://web.archive.org/web/20250717142653/https://m.cnr.cn/shenzhen/xw/dj/20200116/t20200116_524939801.html; Jing Chunmei, “俄乌冲突下的世界能源新变局与中国对策” [The new global energy landscape amid the Russia-Ukraine conflict and China's response], *China Center for International Economic Exchanges*, May 30, 2022, <https://web.archive.org/web/20250517061712/https://www.cciee.org.cn/Detail.aspx?newsId=19983&Tid=687>.

⁷⁷ “Why is Xi Jinping building secret commodity stockpiles?,” *The Economist*, July 23, 2024, <https://www.economist.com/finance-and-economics/2024/07/23/why-is-xi-jinping-building-secret-commodity-stockpiles>.

⁷⁸ “China's secret stockpiles have been a great success—so far,” *The Economist*, October 26, 2025, <https://www.economist.com/finance-and-economics/2025/10/26/chinas-secret-stockpiles-have-been-a-great-success-so-far>.

⁷⁹ *Ibid.*

⁸⁰ Gabriel Collins, “Energy stockpiling as a China strategic warning indicator,” *US-China Economic and Security Review Commission*, June 13, 2024, https://www.uscc.gov/sites/default/files/2024-06/Gabriel_Collins_Testimony.pdf.

hold more than 20 percent of the world's oil reserves, according to an American bank,⁸¹ with storage capacity having tripled in twenty years and expected to double again by 2027!⁸²

China's four major oil companies (CNOOC, PetroChina, Sinochem, and Sinopec) stored more than 750 million barrels of oil in 2024.⁸³ When government storage, which accounts for an additional third, is added, by fall 2025, **a total oil reserve of 1.2 billion barrels was almost within reach.**⁸⁴ If we also take into account underground storage facilities, we are approaching the symbolic milestone of 1.5 billion barrels—enough to cover 140–150 days of imports. To achieve such volumes, China is increasingly sourcing from countries under sanctions—with the promise of preferential tariffs—and is even becoming increasingly less secretive about Iranian imports via the port of Qingdao (Shandong) or via third countries such as Malaysia.⁸⁵ This trend is all the more evident given that many Chinese refineries do not depend on the dollar system.⁸⁶ Faced with growing geopolitical and price uncertainty,

⁸¹ *Global commodities: Northern summer energy demand drives down global commodity availability—in fundamental contrast to the BCOM crunch*, J.P. Morgan, August 2, 2024, <https://markets.jpmorgan.com/research/email-ij27tjjjOIR3oU6oy50L-Lad7Og7xA/GPS-4762606-0>.

⁸² Gabriel Collins, *ibid.*; “China aims to more than double energy storage capacity by 2027,” Bloomberg, September 12, 2025, <https://www.bloomberg.com/news/articles/2025-09-12/china-aims-to-more-than-double-energy-storage-capacity-by-2027>; Emma Li, “Reality check: China's appetite for a new stockpiling wave,” Vortexa, September 18, 2025, <https://www.vortexa.com/insights/chinas-appetite-for-stockpiling>.

⁸³ Emma Li, “Is SPR stockpile enough to support China's crude imports?,” Vortexa, July 4, 2024, <https://www.vortexa.com/insights/crude/is-spr-stockpile-enough-to-support-chinas-crude-imports/>; “China accelerates oil reserve site build amid stockpiling drive,” Reuters, October 7, 2025, <https://www.reuters.com/business/energy/china-accelerates-oil-reserve-site-build-amid-stockpiling-drive-2025-10-07/>.

⁸⁴ Emma Li, “Will China continue to build stock?,” Vortexa, June 10, 2025, <https://www.vortexa.com/insights/will-china-continue-to-build-stock/>; Alfred Cang and Serene Cheong, “China's oil stockpile build keeps traders guessing in Singapore,” Bloomberg, September 10, 2025, <https://www.bloomberg.com/news/articles/2025-09-10/china-s-oil-stockpiling-keeps-traders-guessing-at-appex>.

⁸⁵ “China's Iranian crude imports near record high again,” Vortexa, August 9, 2025, <https://web.archive.org/web/20250908230549/https://www.vortexa.com/insights/crude/chinas-iranian-crude-imports-near-record-high-again/>; Florence Yu, “China maintains Arctic LNG 2 imports, despite UK sanctions,” Vortexa, October 24, 2025, <https://www.vortexa.com/insights/china-maintains-arctic-lng-2-imports/>; Emma Li, “Sanctions tickle the Chinese giants, favour the teapots,” Vortexa, November 6, 2025, <https://www.vortexa.com/insights/sanctions-tickle-the-chinese-giants>.

⁸⁶ “China's secret stockpiles have been a great success—so far,” *The Economist*, October 26, 2025, <https://www.economist.com/finance-and-economics/2025/10/26/chinas-secret-stockpiles-have-been-a-great-success-so-far>.

this strategy of massive oil and gas storage, marked by pragmatism, is therefore likely to continue in the coming months.⁸⁷

Beyond known historical sites, **precise energy storage locations are not always easy to identify**—despite the efforts of some foreign researchers (see Appendix 3).⁸⁸ For obvious strategic and security reasons, China has opted for opacity in this respect.⁸⁹ Nevertheless, we know that just a few years ago, some Chinese academics emphasised the importance of building storage around the country's main coastal ports and petrochemical industrial bases, including for facilitating distribution at a later stage. They also highlighted the strategic importance of exploring underground options such as salt mine caverns and water-tight caverns.⁹⁰ Beyond geological considerations, this storage option has many advantages, including addressing the shortage of surface land space.⁹¹ Although more complex to implement from a technical standpoint,⁹² **underground storage also reduces China's vulnerabilities**—a welcome reality in the event of a conflict, as evidenced by the wars in Ukraine and Gaza—and could, in any case, prove appropriate for other energy sources, particularly hydrogen.⁹³ China already has operational underground crude oil storage facilities in Huangdao

⁸⁷ Siyi Liu, Florence Tan, Mohi Narayan and Jeslyn Lerh, “China to maintain oil stockpiling in 2026, Gunvor strategist says,” Reuters, September 8, 2025, <https://www.reuters.com/business/energy/china-maintain-oil-stockpiling-2026-gunvor-strategist-says-2025-09-08/>.

⁸⁸ Gabriel Collins, “Baker Institute China Energy Map,” Baker Institute, <https://www.bakerinstitute.org/chinas-energy-infrastructure>. Last updated in October 2024.

⁸⁹ Yongchang Chin, “China to boost oil imports to fill reserves, Energy Aspects says,” Bloomberg, July 15, 2025; <https://www.bloomberg.com/news/articles/2025-07-15/china-to-boost-oil-imports-to-fill-reserves-energy-aspects-says>.

⁹⁰ Wenli Fu, “Strategies for breaking through China's energy security constraints under the New Pattern,” Center for Strategic & International Studies, June 1, 2021, <https://interpret.csis.org/translations/strategies-for-breaking-through-chinas-energy-security-constraints-under-the-new-pattern/>.

⁹¹ *Ibid.*

⁹² Xilin Shi, Xinxing Wei, Chunhe Yang, Hongling Ma and Yinping Li, “中国盐穴型战略石油储备库建设的问题及对策” [Issues and countermeasures in the construction of China's salt cavern strategic petroleum reserve facilities], *Bulletin of Chinese Academy of Social Sciences*, No. 28-1, 99-111, November 20, 2022, <https://archive.is/ikvqp>.

⁹³ Zhanming Chen, “CMF中国宏观经济专题报告(第50期) 俄乌冲突和地缘政治动荡冲击下的能源价格” [CMF China macroeconomic special report (Issue 50) Energy prices amid the Russia-Ukraine conflict and geopolitical turmoil], *China Macroeconomy Forum*, June 15, 2022, <https://web.archive.org/web/20250717151045/http://ier.ruc.edu.cn/docs/2022-06/5449516135e14335989a074c2db3fbd6.pdf>.

(Shandong), Jinzhou (Liaoning), Huizhou, and Zhanjiang (Guangdong), which alone could store nearly 100 million barrels.⁹⁴

It is equally important to mention coal stockpiles. In addition to being richly endowed geologically, China has coal storage that can cover up to thirty-three days of domestic consumption.⁹⁵ In terms of volume, this stockpile represents nearly 200 million tons of coal, according to official figures.⁹⁶ The very existence of these stockpiles confirms that China's energy security efforts will continue to include coal in the short- and medium-term,⁹⁷ and a comprehensive strategy was accordingly published by the NDRC in April 2024, aiming at establishing a system of "easily accessible coal reserves."⁹⁸ By building up large energy stockpiles (see Appendix 4), Beijing is gradually shaping an economic system that protects the country against geopolitical risks, price fluctuations to a certain extent, and climate change.

⁹⁴ Gabriel Collins, *US-China Economic and Security Review Commission*, *ibid*.

⁹⁵ 全国统调电厂存煤处于历史最高水平 [Coal reserves at nationally monitored power plants have reached their highest level on record], Government of the People's Republic of China, November 16, 2023, https://web.archive.org/web/20250717141701/https://www.gov.cn/lianbo/bumen/202311/content_6915633.htm.

⁹⁶ “关于2024年国民经济和社会发展计划执行情况与2025年国民经济和社会发展计划草案的报告” [Report on the implementation of the 2024 National economic and social development plan and the draft 2025 National economic and social development plan], Government of the People's Republic of China, March 13, 2025, https://web.archive.org/web/20250717141907/https://www.gov.cn/yaowen/liebiao/202503/content_7013429.htm.

⁹⁷ “2025年11月份能源生产情况” [Energy production in November 2025], National Bureau of Statistics of China, December 15, 2025, https://web.archive.org/web/20251218161001/https://www.stats.gov.cn/sj/zxfb/202512/t20251215_1962070.html.

⁹⁸ “国家发展改革委 国家能源局关于建立煤炭产能储备制度的实施意见” [Implementation opinions of the National Development and Reform Commission and the National Energy Administration on establishing a coal production capacity reserve system], National Development and Reform Commission, April 2, 2024, https://web.archive.org/web/20240614034405/https://www.gov.cn/zhengce/zhengceku/202404/content_6944907.htm.

3 Metals and Minerals Stockpiling: A Cushion Against Trade Tensions?

Securing the supply of critical metals and minerals has become a priority for many governments. The growing importance of these resources in our production chains, the scarcity of some resources, and the concentration of extraction and refining capacities in certain countries make them a key issue in international relations. Countries with less raw materials or refining capacity need to build resilience and reduce their vulnerability, especially since **scarcity is problematic when imposed and resulting from coercive export restrictions**.

Faced with such supply constraints, **building up private and public stocks may seem like an obvious short-term solution**. In practice, however, such building up is complex due to fierce competition for strategic metals and minerals—including between Chinese players. Adding to this is the recent pressure exerted by China on foreign companies that might be tempted to start building up rare earth stockpiles. The delays in the export of rare earths licenses can even be interpreted as a way of **preventing the very creation of these stockpiles and these companies from entering into trading activities**—if not to push them to localise their production chains in China.⁹⁹ This recent development is reminiscent of the 2009–2010 episode when export quotas were put in place, mainly targeting Japan. However, the proliferation of such restrictions could have the opposite effect by accelerating—or at least triggering, albeit at a moderate pace—the search for alternatives and diversification.

China was not the first country to venture into stockpiling metals and minerals, but it has gradually distinguished itself through the regularity

⁹⁹ Joe Leahy and Ryan McMorrow, “China cracks down on foreign companies stockpiling rare earths,” *Financial Times*, August 15, 2025, <https://www.ft.com/content/9f9e222d-f351-4e0f-be9b-aab309562c6c>.

of its supplies and its updated needs.¹⁰⁰ According to an Australian think tank, **while the United States, Japan, and South Korea have stocks of metals and minerals, it is “China [that] calls the shots.”**¹⁰¹ As early as 2006, the chapter of the 11th Five-Year Plan devoted to land and resources thus referred to the essential need to “promote strategic reserves of energy *and* mineral resources.”¹⁰²

Once again, the blurring of lines between government and private entities has enabled China to establish itself as a benchmark, a pragmatic way of operating that is clearly visible in the recent revision of the Mineral Resources Law, chapter five of which explicitly emphasises the necessary link between government stockpiles and corporate stockpiles.¹⁰³ As a result, while Sinograin stands out for its food storage, the **China Mineral Resources Group has emerged at the forefront of corporate stockpiles of metals and minerals.**¹⁰⁴ There is no reason to believe that this trend will reverse, as the Chinese administration recently reiterated its support for the private sector. In September 2025, the central bank

¹⁰⁰ *Stockpiling of metals and minerals can also be seen as a means of stabilizing the yuan: Robin Brooks* [robin_j_brooks], X, September 28, 2025, https://x.com/robin_j_brooks/status/1972405855045005682.

¹⁰¹ Gregory Wischer, “China shows how Western governments should stockpile minerals,” *The Strategist*, March 6, 2024, <https://www.aspistrategist.org.au/china-shows-how-western-governments-should-stock-pile-minerals/>.

¹⁰² “中华人民共和国国民经济和社会发展第十一个五年规划纲要2006年3月14日第十届全国人民代表大会第四次会议批准” [Outline of the 11th Five-Year Plan for National economic and social development of the People's Republic of China approved by the 4th Session of the 10th National People's Congress on March 14, 2006], Government of the People's Republic of China, March 14, 2006, <https://archive.is/G4YIS>.

¹⁰³ “中华人民共和国矿产资源法” [Mineral Resources Law of the People's Republic of China], Government of the People's Republic of China, November 9, 2024, https://web.archive.org/web/20250404043124/https://www.gov.cn/yaowen/liebiao/202411/content_6985756.htm.

¹⁰⁴ The company has built up stocks of iron ore in more than a dozen Chinese ports: Katharine Gemmill and Alfred Cang, “Xi's giant iron ore trader is shaking up a \$130 billion market,” *Bloomberg*, June 20, 2025, <https://www.bloomberg.com/news/articles/2025-06-19/china-economy-xi-s-giant-iron-ore-trader-is-shaking-up-a-130-billion-market>. As proof of its influence and capacity to engage in power battles when necessary, in September 2025, it did not hesitate to ask the main Chinese steelmakers and traders to temporarily suspend their orders from BHP Group, the world's largest mining company: Alfred Cang and Katharine Gemmill, “China bans new BHP iron ore cargoes, escalating pricing dispute,” *Bloomberg*, September 30, 2025, <https://www.bloomberg.com/news/articles/2025-09-30/china-bans-all-bhp-iron-ore-cargoes-as-pricing-dispute-deepens>. In December 2025, the company was back in the news with public calls to limit hoarding and stockpiling of iron in ports in order to reduce the pricing power of mining companies and foreign traders: Alfred Cang and Katharine Gemmill, “China's iron ore buyer seeks new port rules to tighten its grip,” *Bloomberg*, December 12, 2025, <https://www.bloomberg.com/news/articles/2025-12-12/china-s-iron-ore-buyer-seeks-new-port-rules-to-tighten-its-grip>.

and the NDRC instructed financial institutions to continue providing capital support to mining companies for the creation of metal and mineral stockpiles.¹⁰⁵ In addition, industry associations, whose political independence is only relative, provide additional support to strategic sectors identified by the administration.¹⁰⁶ They are also consulted by the NFSRA prior to its calls for tenders for the supply of metals and minerals.¹⁰⁷

The institutional framework seems well established, but what about the composition of these stockpiles? During the 2010s, with the clear objective of supporting industry and employment during periods of economic slowdown, the now defunct State Reserve Bureau—the predecessor of NFSRA—already stored many resources (aluminium, antimony, cadmium, cobalt, copper, tin, gallium, germanium, indium, molybdenum, tantalum, rare earths, tungsten, zinc, and zirconium).¹⁰⁸ In addition, **some older government lists even included up to thirty-four strategic metals and minerals.**¹⁰⁹

In 2016, a more precise definition of these metals and minerals was given via the National Plan for Mineral Resources: “those essential to China's economy, to national defence, and to strategic emerging industries; minerals for which China can regulate the international market; or minerals that are rare in China and pose significant security risks.”¹¹⁰

¹⁰⁵ “中国人民银行等七部门联合印发《关于金融支持新型工业化的指导意见》” [The People's Bank of China and six other departments jointly issued the “Guiding opinions on financial support for New Industrialization”], Government of the People's Republic of China, August 5, 2025, https://web.archive.org/web/20250901063739/https://www.gov.cn/lianbo/bumen/202508/content_7035298.htm.

¹⁰⁶ “Commission updates report on state-induced distortions in China's economy,” European Commission, April 10, 2024, https://policy.trade.ec.europa.eu/news/commission-updates-report-state-induced-distortions-chinas-economy-2024-04-10_en.

¹⁰⁷ Gregory D. Wischer, “How China's mineral stockpiling could indicate it is preparing to invade Taiwan,” US-China Economic and Security Review Commission, June 13, 2024, https://www.uscc.gov/sites/default/files/2024-06/Gregory_Wischer_Statement_for_the_Record.pdf.

¹⁰⁸ “Global stocks of selected mineral-based commodities,” United States Geological Survey, October 18, 2016, <https://pubs.usgs.gov/sir/2016/5152/sir20165152.pdf>.

¹⁰⁹ “我国战略性矿产资源管理制度梳理及政策建议” [Review of China's strategic mineral resource management system and policy recommendations], China Mining Magazine, February 2025, <https://archive.is/B8dAf>.

¹¹⁰ “全国矿产资源规划（2016–2020年）” [National Mineral Resources Plan (2016–2020)], National Development and Reform Commission, May 11, 2017, https://web.archive.org/web/20250630000226/https://www.ndrc.gov.cn/jgz/fzlgz/gjzjzgh/201705/t20170511_1196755.html.

Does this classification demonstrate a desire to use its comparative advantage in certain metal markets more systematically?¹¹¹ In theory, this new definition has the merit of reducing the list of strategic metals and minerals to twenty-four;¹¹² **in practice, the definition has the advantage of being able to encompass all minerals or metals at any given time if China's priorities and objectives were to change.**¹¹³ Among the new raw materials added to existing stocks in recent years are therefore nickel,¹¹⁴ lithium¹¹⁵ and—less well known—titanium dioxide.¹¹⁶

Rare earth stockpiles are a case apart and result from an initiative initially launched by the central government to tackle the proliferation of illegal operators. In 2014, the State Reserve Bureau purchased nearly 10,000 tons of rare earths from the six largest Chinese companies in the sector and required them to stockpile part of their own production.¹¹⁷ By 2017, warehouses dedicated to rare earths had an estimated capacity of 100,000 tons.¹¹⁸ More recently, the Chinese mining group

¹¹¹ Emmanuel Hache and Frédéric Jeannin, “Les stocks stratégiques de métaux critiques” [Strategic stocks of critical metals], Observatory for the security of energy flows and materials, October 2023, <https://www.defense.gouv.fr/sites/default/files/dgris/Rapport%20n%C2%B03%20-%20Les%20stocks%20strat%C3%A9giques%20de%20m%C3%A9taux%20critiques.pdf>.

¹¹² With the National Plan for Mineral Resources (2016–2020), China had identified twenty-four “strategic” mineral resources, including six energy-related (oil, gas, shale gas, coal, coalbed methane, uranium) resources, fourteen metal-bearing resources (iron, chromium, copper, aluminum, gold, nickel, tungsten, tin, molybdenum, antimony, cobalt, lithium, rare earths, and zirconium), and four others (phosphorus, potash, crystalline graphite, and fluorine); Liu Yuchen, Miao Qi, Meng Gang, Lin Bolei, Chen Min and Qu Junli, “我国战略性矿产资源管理制度梳理及政策建议” [Review of China's strategic mineral resource management system and policy recommendations], *China Mining Magazine*, vol. 34(2), February 2025, <http://www.chinaminingmagazine.com/cn/article/pdf/preview/10.12075/j.issn.1004-4051.20242309.pdf>.

¹¹³ *China Mining Magazine*, *ibid*.

¹¹⁴ Edwin Shri Bimo, “China expands strategic reserve of industrial metals as Indonesia, Philippines tighten supply,” *China Global South Project*, March 24, 2025, <https://chinaglobalsouth.com/2025/03/24/china-expands-strategic-reserve-of-industrial-metals-as-indonesia-philippines-tighten-supply/>.

¹¹⁵ “China to add cobalt, copper in boost to state metal reserves,” *Bloomberg*, March 21, 2025, <https://www.bloomberg.com/news/articles/2025-03-21/china-to-add-cobalt-copper-in-boost-to-state-metal-reserves>.

¹¹⁶ “钛白粉纳入国家战略资源储备 产业链条羽翼渐丰” [Titanium dioxide included in National Strategic Resource reserves industrial chain gains momentum], *Cailian Press*, August 27, 2021, <https://web.archive.org/web/20250729120956/https://www.cls.cn/detail/822818>.

¹¹⁷ Yuzhou Shen, Ruthann Moomy and Roderick G. Eggert, “China's public policies toward rare earths, 1975–2018,” *Mineral Economics*, vol. 33, p.127–151, January 2020, <https://link.springer.com/article/10.1007/s13563-019-00214-2>.

¹¹⁸ “Strategic Petroleum Reserve oil releases: October 2021 through October 2022,” *US Congress*, April 22, 2022, <https://www.congress.gov/crs-product/IN11916>.

China Nonferrous Metal Mining Group (CNMC) announced that it was preparing to build three stockpiles containing rare and precious metals.¹¹⁹ A few other countries have publicly announced rare earth stockpiles, with South Korea and Japan being two examples,¹²⁰ while India has only recently taken such a step,¹²¹ and the United States, a pioneer in this field, is once again engaging in this practice.¹²²

Regardless of the metal or mineral stored, one thing is certain: China's ability to intervene in international markets has been strengthened by the diversity and depth of its stockpiles. In particular, **the Chinese government did not hesitate to actively intervene during the 2008 economic and financial crisis.**¹²³ At that time, aluminium and zinc stockpiles had increased to absorb unsold products from Chinese producers. Other interventions subsequently followed: in 2012–2013, to combat low metal prices; in 2015–2016, in response to sluggish demand; in 2021, to curb soaring commodity prices.¹²⁴ These transactions carried

¹¹⁹ "China's CNMC plans rare, precious metals stockpiles," Reuters, October 14, 2025, <https://www.reuters.com/world/asia-pacific/meweeek-chinas-cnmc-plans-rare-precious-metals-stockpiles-2025-10-14/>.

¹²⁰ "S. Korea to beef up critical metals stockpile," *The Korea Herald*, August 5, 2021, <https://www.koreaherald.com/article/2666659; < 独自 > 政府がレアメタルの備蓄強化へ 新型コロナもリスク、中国依存脱却急ぐ> [(Exclusive) The government reinforces the stockpiles of rare earths. The novel coronavirus also represents a risk factor, and it hastens to reduce the dependency on China], *The Sankei Shimbun*, March 14, 2020, <https://www.sankei.com/article/20200314-7A4IQJJUBRZ5BQ3BC6HW4BZCI/>.

¹²¹ "India to decide on rare earth magnet subsidy scheme within 20 days: Kumaraswamy," *The Economic Times*, June 24, 2025, <https://economictimes.indiatimes.com/industry/auto/auto-news/india-to-decide-on-rare-earth-magnet-subsidy-scheme-within-20-days-kumaraswamy/articleshow/122044450.cms?from=mdr>.

¹²² Camilla Hodgson, Steff Chávez and Aime Williams, "Pentagon steps up stockpiling of critical minerals with \$1bn buying spree," *Financial Times*, October 12, 2025, <https://www.ft.com/content/cd5244eb-a8e9-42bc-8939-71ba0fefa057>; "MP Materials announces transformational public-private partnership with the Department of Defense to accelerate U.S. rare earth magnet independence," *MP Materials*, October 7, 2025, <https://mpmaterials.com/news/mp-materials-announces-transformational-public-private-partnership-with-the-department-of-defense-to-accelerate-u-s-rare-earth-magnet-independence/>; "US Antimony Corp wins \$245 million Pentagon contract to build defense stockpile," *Reuters*, September 23, 2025, <https://www.reuters.com/markets/commodities/us-antimony-corp-wins-245-million-pentagon-contract-build-defense-stockpile-2025-09-23/>; "US moves to restore stockpiling 'panic button' in EV metals fight with China," *Mining.com*, February 18, 2024, <https://www.mining.com/web/us-moves-to-restore-stockpiling-panic-button-in-ev-metals-fight-with-china/>.

¹²³ "Column: A brief history of China's metals stockpiling programmes," *Reuters*, May 1, 2020, <https://www.reuters.com/article/dUSKBN22D56W/>.

¹²⁴ "Explainer: What we know about China's metals reserves release," *Reuters*, June 17, 2021, <https://www.reuters.com/world/china/what-we-know-about-chinas-metals-reserves-release-2021-06-17/>.

out by the NFSRA provided relief to local producers but, in most cases, had a negative impact on world market prices.¹²⁵ Beyond domestic considerations, **China does not hesitate to make a more tactical use of its strategic stockpiles**, which critics would describe as hegemonic and destabilising.

But how large are these stockpiles that give the Chinese government such capacity to intervene? **Uncertainty and approximation are the order of the day when attempting to estimate the quantities of strategic metals and minerals stored**, starting with lithium, for which public data are virtually nonexistent. Iron and aluminium, produced locally in abundance, offer a glimmer of hope and allow for some estimates. In September 2025, the quantities of **iron and aluminium** stockpiled were estimated at 142 million tons and between 650,000¹²⁶ and 900,000 tons,¹²⁷ respectively, down from 2024 for the former, up for the latter.¹²⁸

Another commodity of interest with a relatively quantifiable stockpile is **nickel**, which is essential for the manufacturing of lithium-ion batteries. China's nickel stockpiles have continued to grow, particularly in response to production surpluses on international markets. Beijing is said to have purchased nearly 100,000 tons of nickel since December 2024, adding to the existing storage estimated at between 60,000 and 100,000 tons.¹²⁹ According to Sohu, a Chinese news site, citing estimates

¹²⁵ Commission updates report on state-induced distortions in China's economy," European Commission, April 10, 2024, https://policy.trade.ec.europa.eu/news/commission-updates-report-state-induced-distortions-chinas-economy-2024-04-10_en.

¹²⁶ "Aluminium", Shanghai Metals Market, <https://www.metal.com/Aluminum>. Last accessed on October 10, 2025.

¹²⁷ Gregory D. Wischer, "China shows how Western governments should stockpile minerals," *The Strategist*, March 6, 2024, <https://www.aspirstrategist.org.au/china-shows-how-western-governments-should-stockpile-minerals/>.

¹²⁸ "Dry bulk shipping bi-weekly industry report", Breakwave Advisors, December 9, 2025, <https://static1.squarespace.com/static/5a4d1d26e5dd5b537a6647c5/t/69370cbf594be71f855b85b8/1765215423998/Breakwave+Dry+December+9+2025+Report.pdf>.

¹²⁹ A. Anantha Lakshmi, Harry Dempsey, Cheng Leng and Camilla Hodgson, "China boosts nickel reserves as tensions with US simmer," *Financial Times*, July 7, 2025, <https://www.ft.com/content/3af62de7-d7db-49c0-b8e5-a5cc0f80b8e2/>.

from (unidentified) military experts, this would be enough to enable the People's Liberation Army to cope with a high-intensity conflict lasting three to six months.¹³⁰ It should also be noted that in 2024, Beijing alone already accounted for more than 60 percent of global nickel demand.¹³¹

However, the **information available for copper and cobalt is more trend-based than volumetric and is sometimes quite speculative.** For **copper**, often presented as the benchmark for the health of the global economy, Chinese stockpiles have been depleted in recent months to meet the demand for batteries, mainly for electric vehicles, but also increasingly for aerospace and electric grids.¹³² This has not prevented China from continuing to hold nearly 92 percent of global stocks,¹³³ a share that can be explained, in part, by the fact that the country absorbs nearly 60 percent of demand.¹³⁴ Fluctuations in copper prices on international markets are therefore regularly attributed to changes in Chinese stocks, as was observed in 2021 in particular.¹³⁵ Conversely, in the case of **cobalt**, public orders have continued to accelerate and accumulate, increasing government stockpiles.¹³⁶ The export quotas

¹³⁰ “10万吨战备资源入库，中国战略储备的家底，让整个西方开了眼界” [100,000 tons of combat-ready resources have been added to strategic reserves, revealing China's stockpile that has opened the eyes of the entire Western world], Sohu, July 14, 2025, <https://archive.is/f4V2i>.

¹³¹ “Global critical minerals outlook 2025,” International Energy Agency, May 21, 2025, <https://iea.blob.core.windows.net/assets/a33abe2e-f799-4787-b09b-2484a6f5a8e4/GlobalCriticalMineralsOutlook2025.pdf>.

¹³² China's copper stockpiles shrink again in hint at demand upturn,” Mining.com, June 28, 2024, <https://www.mining.com/web/chinas-copper-stockpiles-shrink-again-in-hint-at-demand-upturn/>; “Chinese copper inventories post record weekly drop,” Bloomberg, April 25, 2025, <https://www.bloomberg.com/news/articles/2025-04-25/copper-heads-gor-third-weekly-gain-as-global-supplies-tighten>. Despite strong demand linked to electrification, current mining projects point to a potential 30 percent supply shortfall by 2035 due to declining ore grades, rising investment costs, limited resource discoveries, and long implementation timelines: International Energy Agency, *ibid*.

¹³³ “Global commodities: Northern summer energy demand drives down global commodity availability—in fundamental contrast to the BCOM crunch,” J.P. Morgan, August 2, 2024, <https://markets.jpmorgan.com/research/email/sj27tjjj/OIR3oU6oy50L-Lad7Og7xA/GPS-4762606-0/>.

¹³⁴ International Energy Agency, *ibid*.

¹³⁵ “China is using its currency to stockpile copper and grains,” Nasdaq, January 26, 2021, <https://www.nasdaq.com/articles/china-is-using-its-currency-to-stockpile-copper-and-grains-2021-01-26>.

¹³⁶ Pratina Desai, “Exclusive: China state stockpiler aims to buy up to 15,000 T of cobalt, sources say,” Reuters, May 24, 2024, <https://www.reuters.com/markets/commodities/china-state-stockpiler-aims-buy-up-15000-t-cobalt-sources-say-2024-05-23/>; “China takes advantage of cobalt's low price to boost strategic reserve,” China Global South Project, October 23, 2023, <https://chinaglobalsouth.com/2023/10/23/china-takes-advantage-of-cobalts-low-price-to-boost-strategic-reserve/>.

recently introduced by the Democratic Republic of Congo could slow this trend,¹³⁷ but storage still stands at around 10,000 tons today,¹³⁸ with China accounting for around 70 percent of global demand this time.

For at least the next ten years, which is the time needed to break its monopoly, **China's dominance in storage, extraction, and refining is undeniable** (see Appendix 6).¹³⁹ It also has a decisive footprint in metal and mineral extraction countries, which it skillfully coordinates: Between 2000 and 2021, China provided nearly €54.7 billion in financial aid to some twenty emerging or developing countries for metal and mineral extraction and exploitation projects.¹⁴⁰ These investments mainly concerned cobalt and copper, but nickel and lithium were also involved to some extent. Geographically speaking, South American and African countries have benefited from these investments, but Indonesia and—at certain times—Australia are also worth mentioning. China has thus chosen to build a geopolitical strategy for the mining and refining industries¹⁴¹ that gives it real market power and, in turn, allows it to dictate to others whether or not they can build up stockpiles of strategic metals and minerals.

¹³⁷ Annie Lee et William Clowes, “Congo’s cobalt export shock spurs rally and doubts over supply,” *Bloomberg*, October 13, 2025, <https://www.bloomberg.com/news/articles/2025-10-13/congo-s-cobalt-export-shock-spurs-rally-and-doubts-over-supply>.

¹³⁸ “中国加速战略储备关键矿产铜价持续攀升” [China accelerates strategic stockpiling of key minerals as copper prices continue to climb], *Sina*, March 25, 2025, <https://web.archive.org/web/20250729121854/https://finance.sina.com.cn/money/future/wemedia/2025-03-25/doc-ineqvkku7161035.shtml>.

¹³⁹ International Energy Agency, *ibid.*; “地缘经济论 | 第四章 金属, 工业化与地缘经济竞争 [Geopolitical economics | Chapter four: Metals, industrialization and geopolitical economic competition], *Perspectives of CICC*, September 20, 2025, <https://archive.ph/7lsj4>.

¹⁴⁰ New AidData report, dataset track China’s investments in critical minerals,” *AidData*, January 28, 2025, <https://www.aiddata.org/blog/new-aiddata-report-dataset-track-chinas-investments-in-critical-minerals#:~:text=According%20to%20a%20first%20Dof.and%20credit%20for%20%20%E2%80%9Ctransition%20mineral%E2%80%9D:> “Cover story: China’s hunt for strategic new energy minerals,” *Caixin Global*, February 13, 2023, <https://www.caixinglobal.com/2023-02-13/cover-story-chinas-hunt-for-strategic-new-energy-minerals-101997177.html>.

¹⁴¹ Joseph Dellatte, “Cleantech: Reducing Europe’s strategic dependence on China,” *Institut Montaigne*, July 2025, <https://institutmontaigne.org/ressources/pdfs/publications/note-cleantech-reducing-europes-strategic-dependence-on-china.pdf>.

Beijing is able to meet two key objectives with its strategic stockpiles. On the one hand, **they reduce the country's vulnerability to the risk of a major conflict** with the United States. Historically, stockpiling has never been anecdotal or undertaken for purely economic and social reasons. From Germany's massive stockpiling of coal prior to the outbreak of the Second World War to Russia's accumulation of grain before its invasion of Ukraine, stockpiling has always been part of **strategic preparedness**. The same is true for China, which is seeking to establish its superiority over the United States in the event of a Taiwan contingency and to strengthen its grip on its neighborhood.

Furthermore, **China's ambitious stockpiling policies allow it to influence not only prices but also international flows of raw materials and products.** In the context of increasing conflict—without going as far as a worst-case scenario in Asia—it is inevitable that China will increasingly be tempted to use these stockpiles as a tool. China has stocks that are sufficiently well-furnished to allow it to turn them into instruments of economic coercion at any time using two levers: the creation of structural dependencies and the possibility of directly manipulating prices. From a European perspective, **ignoring the possibility that these stockpiles could be used in the near future for more deterrent purposes would be unwise.** To begin with, China's stockpiles of critical metals and minerals could allow it to thwart European rearmament efforts, among other things.

When it comes to managing raw materials, there are countless examples of the Chinese leadership's strategic foresight. Beijing is mobilising its resources to serve its avowed geopolitical ambitions and is methodically positioning itself to gain the upper hand. **Its stockpiling policy is part of a long-term investment aimed at building large-scale resilience** and is not limited to raw materials—it is a comprehensive strategy that also includes manufactured goods and medical

equipment. These stockpiles, therefore, demonstrate Beijing's ability to play a decisive upstream role in production and supply chains. They also illustrate the decisive nature of its capabilities for extracting and refining critical materials.

Although stockpiling is in itself rational and legitimate, it is the scale of China's storage of resources that raises questions. The precise composition of China's stockpiles at any given moment is subject to imperfect estimates hampered by Chinese officials' aversion to transparency—not to mention the obfuscation of Beijing's strategic intentions. With this in mind, in order to gain a better understanding of China's intentions, it is necessary not only to **continuously monitor the nature and size of Chinese stocks** but also to identify irregular variations in supply or sudden changes in imports and exports.¹⁴² **The systemic opacity of the available data**—an opacity that is openly advocated for by Chinese experts and enforced by government authorities—**will, in any case, remain a challenge.**¹⁴³

¹⁴² Two researchers from the Colorado School of Mines recommend relying on five indicators: direct and publicised storage, NFSRA government tenders, information leaks, sectorial reports, and any other market indicators such as significant fluctuations in imports. Gregory Wischer also recommends monitoring three trends to determine whether China is stockpiling for strategic reasons beyond military expansion: stockpiling when domestic mining producers are not facing profitability issues, apparent mineral consumption higher than actual consumption, and significant increases in mineral imports: Gregory Wischer and Morgan Bazilian, "Monitoring China's mineral stockpiling and understanding its military implications," *The Diplomat*, 26 July 2024, <https://thediplomat.com/2024/07/monitoring-chinas-mineral-stockpiling-and-understanding-its-military-implications/>.

¹⁴³ "中国囤积战略物资引发西方的猜忌：为大规模战争做准备吗？" [China's stockpiling of strategic materials sparks Western suspicion: Is it preparing for large-scale war?], Baidu, August 19, 2024, <https://web.archive.org/web/20250613082917/https://baijiahao.baidu.com/s?id=1807781294562460422&wfr=spider&for=pc>.

What lessons can France and the European Union draw from these Chinese policies at a time when our industrial and geostrategic vulnerabilities are becoming increasingly apparent? In certain critical sectors (food, water, energy, pharmaceuticals, digital, defence, aerospace), **there is debate in Europe about building up stockpiles as a short-term tool to strengthen our resilience.** As the studies by DG GROW,¹⁴⁴ the Niinistö report on Europe's civil and military preparedness,¹⁴⁵ the recent recommendations of the European Committee of the Regions,¹⁴⁶ and the European Union's stockpiling strategy presented in July 2025 demonstrate,¹⁴⁷ there is no shortage of European proposals. On a practical level, the European Union can even boast of its successes in terms of coordination and interoperability in the creation of gas¹⁴⁸ and medical equipment stockpiles.¹⁴⁹

However, replicating these European successes in a more systematic way will require three trade-offs: identifying and prioritising needs; agreeing on the cost and distribution of the financial effort between public actors and businesses; and finding the appropriate scale of implementation and governance. For the latter, the **principle of subsidiarity** immediately appears to be the obvious path to follow. Thereafter, for each of these three challenges, the implications at both the national and European levels, for public decision-makers and private companies, need to be considered.

¹⁴⁴ "Stockpiling of non-energy raw materials," DG Enterprise and Industry, March 2012, https://www.mmta.co.uk/wp-content/uploads/2017/02/stockpiling-report_EU-DG-Enterprise-and-Industry-Mar-2012.pdf

¹⁴⁵ Sauli Niinistö, "Safer together: Strengthening Europe's civilian and military preparedness and readiness," European Commission, March 20, 2024, https://commission.europa.eu/document/download/5bb2881f-9e29-42f2-8b77-8739b19d047c_en?filename=2024_Niinisto-report_Bo.

¹⁴⁶ "Strengthen farmers' position in the agri-food supply chain," European Committee of the Regions, May 15, 2025, <https://cor.europa.eu/en/our-work/opinions/cdr-0032-2025>.

¹⁴⁷ "EU stockpiling strategy: Boosting the EU's material preparedness for crisis," European Commission, July 9, 2025, https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/stockpiling_en.

¹⁴⁸ "Gas storage," European Commission, https://energy.ec.europa.eu/topics/energy-security/gas-storage_en, last accessed on September 20, 2025.

¹⁴⁹ "COVID-19: Commission creates first ever rescEU stockpile of medical equipment," European Commission, March 19, 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_476.

IDENTIFYING AND PRIORITISING NEEDS

First, **implementing a stockpiling policy requires action at the national level.** This is the most appropriate scale for identifying needs for raw materials and commodities. Nevertheless, it should be kept in mind that **the needs of manufacturers will not always be the same as those of the state,** and different industrial sectors may themselves have different needs. A country's ability to determine its stockpiling needs must, therefore, prioritise systematic cooperation between the public and private sectors, with continuous feedback from the field. At a time of budgetary restrictions for certain European countries, stockpiling obsolete materials or ones that run counter to technological developments would be particularly inappropriate.¹⁵⁰ At any rate, stockpiling the entire inventory of agricultural products consumed on the European continent or the thirty-four metals and minerals deemed critical by Brussels seems unrealistic in practice.

At the European level, and as provided for in the March 2025 Civil Preparedness Strategy, assessing risks and threats among experts from the Directorates-General or determining what corresponds to the “resilience of vital societal functions” may nevertheless be useful in anticipating potential knock-on effects.¹⁵¹ One thing remains certain: Further prioritisation—or at least clarification—of our political priorities must be accompanied by a clear assessment of the economic and military threats facing Europe. This is all the more true as these same threats will need to guide our choices in terms of stockpiling. **The composition of stocks in Europe must therefore be dictated by the objective of strengthening our defence and civil protection capabilities as well as our industrial ecosystem.**

¹⁵⁰ Emmanuel Hache and Frédéric Jeannin, *ibid.*

¹⁵¹ Joint Communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on the European preparedness union strategy,” *EUR-Lex*, March 26, 2025, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025JC0130>.

FINANCING AND COST ALLOCATION

In times of pressure on public finances, French stockpiling policy requires us to consider **practical financing solutions to cover costs as effectively as possible**. The 2022 Varin report proposed establishing a dedicated investment fund.¹⁵² The option of linking these stocks to a central purchasing body and an entity managing metals is also worth exploring.¹⁵³ Another avenue to consider is that of the 2023 French parliamentary information report on the war economy, which suggested tax exemptions for all or part of the fixed assets of companies in the defence industrial base in order to encourage or oblige them to build up strategic stocks.¹⁵⁴ Shared military and civilian stocks are a related issue that might be addressed at a later stage.

In any case, **stockpiles cannot be built without a contractual commitment from the state**. While large companies are better able to mobilise capital, specific solutions must be devised for SMEs in order to **break with just-in-time** thinking and comply with contractual clauses on the acquisition and maintenance of stocks. **In a spirit of complementarity and solidarity** between economic actors and public authorities, it is therefore essential to conceptualise in advance the **tactical distribution of supply, cash flow, and storage costs**.

¹⁵² “Le Gouvernement dévoile sa stratégie pour sécuriser l’approvisionnement en métaux critiques” [The government unveils its strategy to secure the supply of critical metals], The Ministry of Economics, Finance and Industrial and Digital Sovereignty, January 11, 2022, <https://www.economie.gouv.fr/gouvernement-devoile-strategie-securiser-approvisionnement-metaux-critiques>.

¹⁵³ Vincent Donnén, “Vers une ère métallisée : renforcer la résilience des industries par un mécanisme de stockage stratégique de métaux rares” [Towards a metal-based era: strengthening industrial resilience through a strategic storage mechanism for rare metals], French Institute of International Relations, May 2022, https://www.ifri.org/sites/default/files/migrated_files/documents/atoms/files/donnen_ere_metalisee_2022.pdf.

¹⁵⁴ Christophe Plassard, “Rapport d’information déposé en application de l’article 146 du règlement, par la commission des finances, de l’économie générale et du contrôle budgétaire sur l’économie de guerre, n° 1023” [Information report submitted pursuant to Article 146 of the Rules of Procedure by the Committee on finance, general economy, and budgetary oversight on the war economy, No. 1023], National Assembly, March 29, 2023, https://www.assemblee-nationale.fr/dyn/16/rapports/cion_fin/116b1023_rapport-information.

More innovative financing mechanisms can also be considered, and there is **no shortage of foreign initiatives** that may serve as examples. For instance, in **Switzerland**, the federal government sets quantity and storage requirements and **acts as a guarantor for special loans granted to companies** to enable them to build up the stocks required by law. These same companies can then become the owners of the stocks and set up guarantee funds to cover the storage costs incurred and the risks associated with price fluctuations.¹⁵⁵

The **Japanese solution of joint loans**, with interest financed by the state, should not be ruled out, nor should the **potential for joint borrowing or mutual funds at the European level**. However, at this stage, the European Union's financial contribution remains theoretical, as no specific budget has been earmarked for the creation of civilian stocks in the next multiannual financial framework. Funding for military stocks could be considered through the Security Action for Europe (SAFE)¹⁵⁶ or the European Defence Industry Programme (EDIP) regulations. The European institutions themselves recognise that funding must come primarily from the Member States—this is not just a question of respecting the scope of national security and considering it a national competence but also because the stocks are located in the Member States and not in Brussels.

¹⁵⁵ “Strategic stockpiling,” Federal Office for National Economic Supply, March 29, 2023, <https://www.bwl.admin.ch/en/strategic-stockpiling>.

¹⁵⁶ “Council Regulation (EU) 2025/1106 of 27 May 2025 establishing the Security Action for Europe (SAFE) through the reinforcement of the European defence industry instrument,” EUR-Lex, May 28, 2025, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202501106#:~:text=This%20Regulation%20establishes%20the%20Security,the%20European%20defence%20industry%20in.

THE SCALE OF IMPLEMENTATION AND GOVERNANCE

The final key choice to make concerns the distribution of roles between Member States and the institutions in Brussels and between public decision-makers and private companies. A stockpiling policy has already been initiated at European Union level, but it lacks any real coordination or interoperability. A stockpile is only useful if it can be mobilised quickly in times of crisis. Against this backdrop, the central question of the practical governance of these stocks must be addressed. Stockpiling should remain the responsibility of Member States, who themselves must remember that economic actors are best placed to manage these stocks on a day-to-day basis. Nevertheless, **a map of storage locations at the European level, enabling better networking between cross-border regions and neighbouring countries, would be particularly relevant.** Why not also consider, on a case-by-case basis, inter-country alliances with a nonbinding solidarity mechanism similar to the deployment of Canadair aircraft during forest fires?

Significant **challenges remain in terms of the composition, (re)distribution, management, and fairness** of these stocks at the European level, but in times of crisis, anticipating the latter challenge is most important. Not all countries have the same budgetary constraints or food, energy, and critical material needs. The practicality of pooling, therefore, requires a **level of convergence and mutual understanding in terms of defence and civil protection.** Ultimately, it is also hoped that good practices will spread, such as favouring storage locations close to defence-related industrial clusters, for example. Pooling efforts in extraction, refining, and recycling to achieve critical mass should not be ruled out, either.

Therefore, with supply and price stability as its guiding compasses, a **“European COFCO,” strictly responsible for purchasing food, energy, and mineral raw materials for European countries, could prove**

useful. Joint or group purchases could constitute a first line of defence against price fluctuations in an extremely competitive and volatile global market.¹⁵⁷ Conversely, a **“European Sinograin”**, responsible for the mutualised storage of commodities and raw materials, seems less suitable at present than granular storage at the country and regional levels to respond to crises. The **Critical Raw Materials Centre**, presented in December 2025, is therefore very—some would say overly—ambitious, as its remit is to “monitor, jointly purchase, and store minerals” with specific funds from 2026 onwards.¹⁵⁸ In the short term, an entity focusing exclusively on joint raw material purchases is therefore a priority, as it would give the European Union and its member countries real leverage in global markets.

Faced with these challenges, one thing is certain: They are not unique to European countries. China itself, in the context of provincial budget restrictions and supply chain tensions, is facing them and acknowledges the scale of the dilemma.¹⁵⁹ It is certainly **always difficult to estimate the gains a policy prevention will yield, and stockpiling is no exception to this rule.** In light of the choices that will be made after the upcoming domestic elections and given the European Commission's increased ambitions, particularly through the REsourceEU initiative, **stockpiling is undeniably a cost. However, in a world in which geopolitics and geoeconomics play a greater role than ever before, is this not the price we must pay to reduce our dependencies?**

¹⁵⁷ “We willen onze risico’s beperken als het tot een groot conflict komt tussen China en de VS” [We want to limit our risks in the event of a major conflict between China and the US], *Nieuwe Rotterdamse Courant*, December 5, 2025, <https://www.nrc.nl/nieuws/2025/12/05/we-willen-onze-risicos-beperken-als-het-tot-een-groot-conflict-komt-tussen-china-en-de-vs-a4914509>.

¹⁵⁸ “REsourceEU Action Plan – Accelerating our critical raw materials strategy to adapt to a new reality,” *European Commission*, December 3, 2025, https://single-market-economy.ec.europa.eu/document/download/01c448d6-dc93-40d7-9afe-4c2af448d00c_en.

¹⁵⁹ “智库论道 | 增强我国战略和应急物资储备能力” [Forum Think Tank: Enhance China's strategic and emergency material reserve capabilities], *China Economic Times*, November 18, 2024, <https://web.archive.org/web/20250613083350/https://baijiahao.baidu.com/s?id=1816048496718881100&wfr=spider&for=pc>.

Appendix 1 • Recent legislation and regulations relating to food stocks

Nom en français	Nom en chinois	Objectifs principaux
Regulation on the Administration of Central Grain Reserves (2016). ¹⁶⁰	中央储备粮管理条例	General provisions on the management of grain reserves, quantity, quality, and storage safety, the duties and obligations of approved companies, and grain reserves' role in macroeconomic regulation.
Measures for the Supervision and Administration of Grain Quality and Safety (2021). ¹⁶¹	政府储备粮食质量安全管理办法	Standardise quality controls for grain stockpiles and define which grains or oils are eligible for storage within the broader goal of food security.
Food Security Law (2023). ¹⁶²	粮食安全保障法	Strengthen central and local food distribution and processing systems, including in case of emergency situations.
Administrative Rules for Reporting Matters Related to the Security Risks of Government Grain Reserves (2025). ¹⁶³	政府粮食储备安全风险事项报告管理办法	Define the risks, irregularities, or governance issues that could threaten the security of government grain reserves and warrant reporting, and specify the procedures for such reporting.

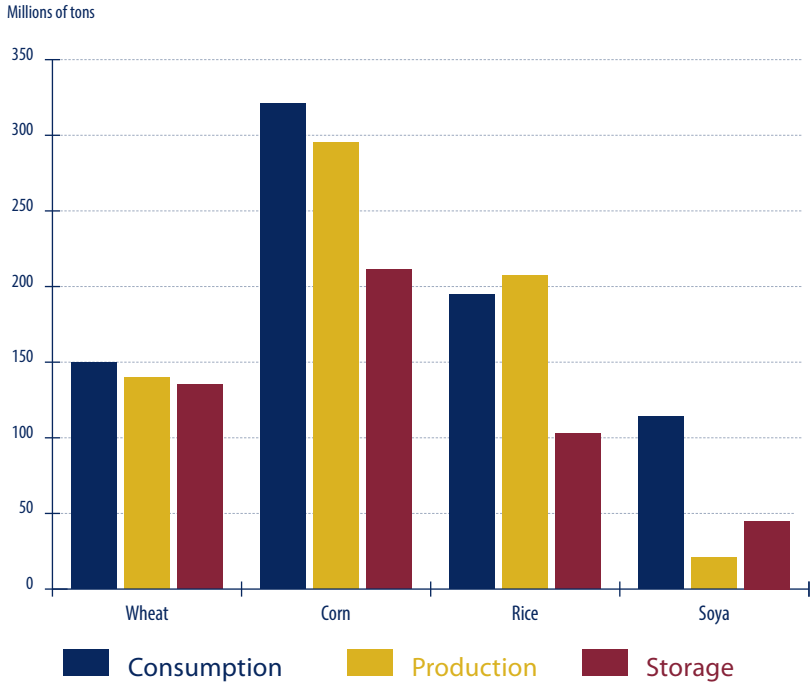
¹⁶⁰ “中央储备粮管理条例” [Regulations on the management of central reserve grain], National Food and Strategic Reserves Administration, June 12, 2018, https://web.archive.org/web/20250529124353/https://www.lswz.gov.cn/html/zcfb/2018-06/12/content_215137.shtml.

¹⁶¹ “粮食和储备局关于印发《政府储备粮食质量安全管理办法》的通知国粮发规〔2021〕30号” [Notice of the State Administration of Grain and Reserves on issuing the “Quality and safety management measures for government reserve grain” State Grain Administration Regulation [2021] No. 30], Government of the People's Republic of China, February 6 2021, https://web.archive.org/web/20250421002219/https://www.gov.cn/gongbao/content/2021/content_5623067.htm.

¹⁶² “中华人民共和国粮食安全保障法” [Food Security Law of the People's Republic of China], Government of the People's Republic of China, December 30, 2023, https://web.archive.org/web/20250708152100/https://www.gov.cn/yaowen/liebiao/202312/content_6923387.htm.

¹⁶³ “政府粮食储备安全风险事项报告管理办法（试行）” [Administrative measures for reporting incidents related to the security risks of government grain reserves (Trial)], National Development and Reform Commission, October 9, 2025, https://web.archive.org/web/20251010165320/https://www.ndrc.gov.cn/xxgk/zcfb/fzggwl/202509/t20250930_1400839.html.

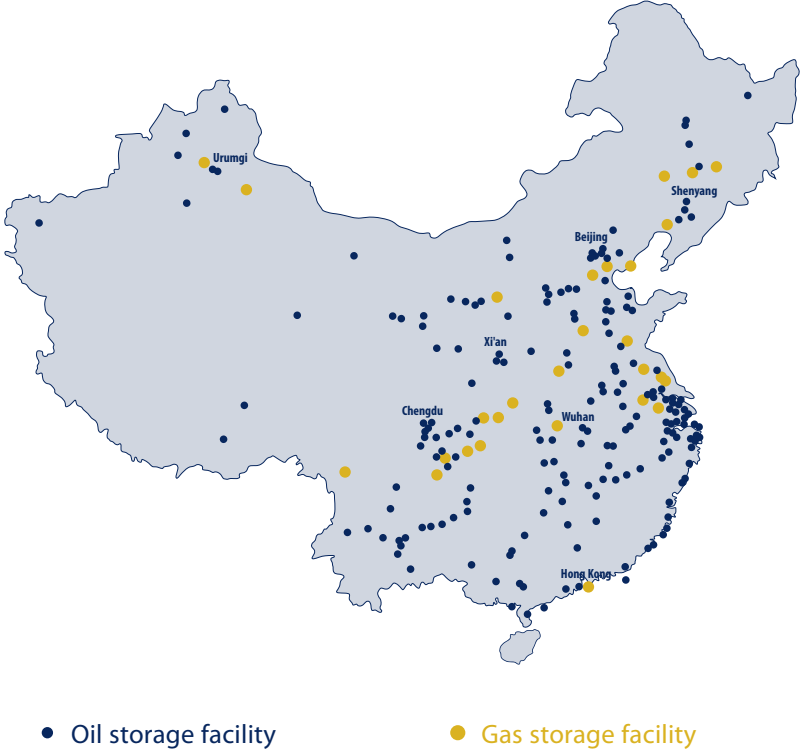
Appendix 2 • Amount of grain consumed by China each year and estimated storage (in millions of tons)



Note: Data for the consumption and storage of maize, wheat, rice and soya beans is for 2024.

Source: United States Department of Agriculture, Government of the People's Republic of China, Lianhe Zaobao, S&P Global, Sohu.

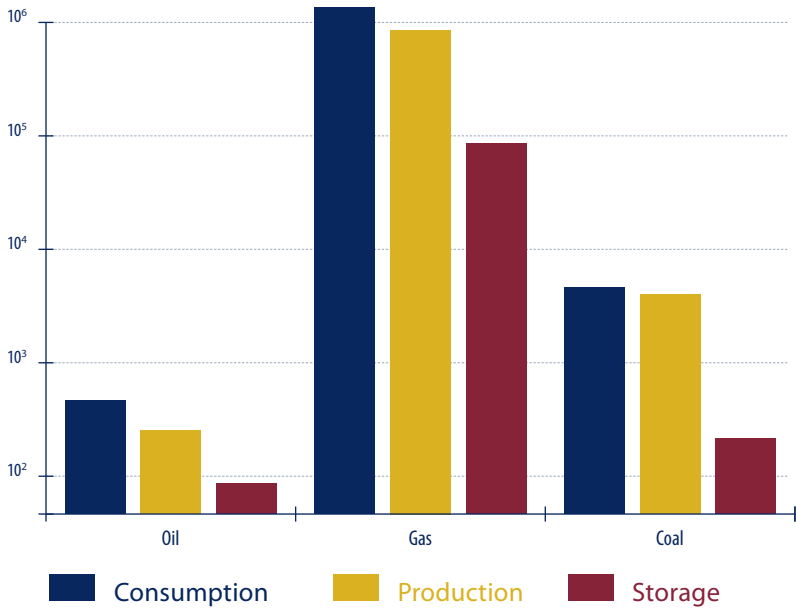
Appendix 3 • Gas and oil storage facilities (as of 2024)



Source: Baker Institute China Energy Map.

Appendix 4 • Amount of energy consumed by China each year and estimated storage (in millions of tons)

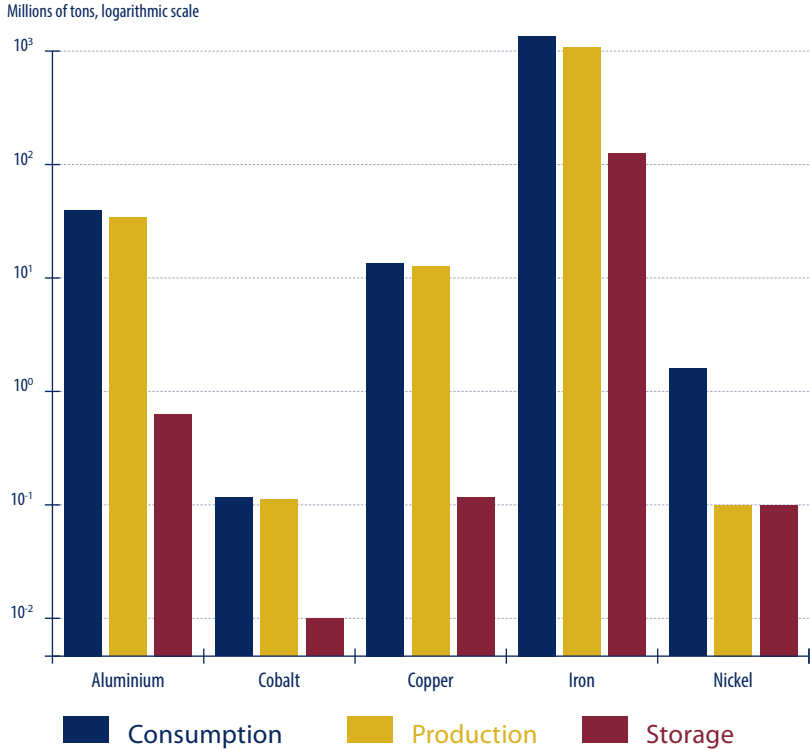
Millions of tons, logarithmic scale



Note: Data for oil consumption is for 2024, but data for oil storage is from September 2025. Data for gas storage is an estimate. Data for coal consumption is for 2024, but data for storage is for 2023. The conversion from barrels to litres is based on that of the International Energy Agency, i.e. one barrel equals 159 litres.

Source: National Energy Administration, International Energy Agency, National Development and Reform Commission, Bloomberg, Vortexa, author's own calculations.

Appendix 5 • Amount of metals and minerals consumed by China each year and estimated storage (in millions of tons)



Note: Data for aluminium consumption and storage are for September 2025. The data for cobalt consumption are for 2024, but the data for storage are for 2025. The data for copper consumption is for 2024, but the data for storage is for September 2025. The data for iron consumption is for 2024, but the data for storage is for September 2025. The data for nickel consumption is for 2024, but the data for storage is for July 2025.

Source: China Nonferrous Metals Industry Association, Breakwave Advisors, International Copper Study Group, Mercuria, Xinhua, Reuters, Sina.

Acknowledgements

The author would like to express his sincere gratitude to all those who participated in discussions, whether planned or impromptu, and for the richness of their contributions. This note would not be what it is without the diversity of perspectives offered by the different stakeholders: European and French officials, European and non-European experts on raw materials and commodities, unions representing the storage industries, and private financing actors-involved in stockpiling.

The author would also like to thank his colleagues from the Asia and Europe programmes at the Institut Montaigne: **Mathieu Duchâtel**, **François Godement**, **Joseph Dellatte**, **Claire Lemoine**, **Rosalie Klein**, **Hugo Jennepin Reyero** and **François Chimits** for their valuable comments on the various drafts of this note. He would also like to thank **Tamaki Sawai** and **Mélodie Serres** for their contributions to this work. Finally, he thanks **David Mulrooney** for his expert editing throughout the writing process, and **Matthieu Mercier** for all his work on the layout and visuals of this publication.

All responsibility for the analyses and recommendations made in this document remains with the author.

*Institut Montaigne welcomes thoughts and ideas
on how to address these issues collectively
and put forward recommendations which serve
the public interest.*





Institut Montaigne
59 rue La Boétie, 75008 Paris
Tél. +33 (0)1 53 89 05 60
institutmontaigne.org/en

Printed in France
Legal filing: January 2026
ISSN: 1771-6756

ABB France	Deloitte	iQo	Raise
AbbVie	Domia Group	ISRP	Renault
Accenture	Edenred	Jeantet Associés	Ricol Lasteyrie
Accor	EDF	Johnson & Johnson	Rivolier
Accuracy	EDHEC Business	Jolt Capital	Roche
Actual Group	School	Kairos	Roche Diagnostics
Adeo	Edmond de Rothschild	Katalyse	Rokos Capital Management
ADIT	Ekimetrics France	KPMG S.A.	Rothschild & Co
Air Liquide	Engie	Kyndryl	RTE
Allianz	EQT	La Banque Postale	Safran
Amazon	ESL Rivington	La Compagnie Fruitière	Sanofi
Amundi	Eurogroup Consulting	Lazard	SAP France
Antidox	Everest Insurance International	LCH SA	Schneider Electric
Antin Infrastructure Partners	FGS Global	Lenovo ISG	SERB
ArchiMed	FIVES	Linedata Services	Pharmaceuticals
Ardian	Forvis Mazars	Lloyds Europe	Servier
Arthur D. Little	Gide Loyrette Nouel	L'Oréal	SGS
August Debouzy	Google	LVMH	SIER Constructeur
AXA	Groupama	M.Charraire	SNCF
Bain & Company France	Groupe Bel	Média-Participations	SNCF Réseau
BearingPoint	Groupe Berkem	Mediobanca	Sodexo
Bessé	Groupe BPCE	Mercer	SUEZ
BNP Paribas	Groupe M6	Meridiam	Synergie
Bolloré	Groupe Orange	Meta	Teneo
Bouygues	Hameur et Cie	Microsoft France	The Boston Consulting Group
Brousse Vergez Brunswick	Henner	Mistertemp'	Tilder
Capgemini	Hitachi Energy France	Mitsubishi France S.A.S	Tofane
Capital Group	Hogan Lovells	Moody's France	TotalEnergies
CAREIT	Howden	Morgan Stanley	TP ICAP
Carrefour	HSBC Continental Europe	Natural Grass	Transformation Factory
CEO2CEO	IBM France	Naval Group	Unicancer
Consulting	IFPASS	Nestlé	Veolia
Chubb	Incyte Biosciences France	OCIRP	Verian
CIS	Institut Mérieux	ODDO BHF	Verlingue
Clariane	International SOS	Orano	VINCI
Clifford Chance	Interparfums	o9 Solutions	Vivendi
CNP Assurances	Intuitive Surgical	PAI Partners	Vodafone Group
Cohen Amir-Aslani	Ionis Education Group	Pergamon	Wavestone
Conseil supérieur du notariat		Polytane	White & Case
D'Angelin & Co.Ltd		Publicis	Willis Towers
Dassault Systèmes		PwC France	Watson France
Delair		& Maghreb	Zurich
		Qualisocial	

“It is better to shed a thousand drops of sweat than to waste a single grain of rice,” as the Chinese saying goes. This mentality is heads-on reflected in China's budget for food stockpiles, which is twenty times larger than the sum dedicated to food stockpiling by all OECD countries! Every effort is made at the highest level of government, both politically and financially, to ensure a comprehensive safety net in the face of geopolitical turmoil. One thing is clear, the whole country is mobilised since China's approach to building strategic reserves also concerns energy, metals, and critical minerals.

China's reasons for engaging in stockpiling may vary from one commodity to another: political and social cohesion, supply chain resilience or price stability. However, these motivations all converge on two strategic objectives: reducing domestic vulnerabilities at home and creating dependencies abroad. As history shows—including on the European continent—the stockpiling of raw materials is never neutral.

Therefore, in order to put in place a stockpiling policy useful in times of crisis, France and the European Union will need to reach a three-fold consensus: identify and prioritise needs, agree on how to share the cost of these efforts, and define the scale of implementation and governance. Of course, stockpiling is an undeniable cost—but in a world in which geopolitics and geoeconomics play a greater role than ever before, is this not the price we must pay to reduce our dependencies?



10 €

ISSN: 1771-6756

NCL2601-01