



China Through the Lens of Risk

Building a Strategic Assessment

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About the China Strategic Risks Institute

The China Strategic Risks Institute (CSRI) is a non-profit, non-partisan research institute providing objective and unfiltered analysis of the risks and opportunities posed by the rise of the People's Republic of China. We aim for our research to be accessible to the general public, with recommendations for policymakers, international businesses and NGOs. The CSRI does not offer corporate consultancy services and is not a political campaign or lobbying group.

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Foreword

It is my pleasure to present you with *China Through the Lens of Risk: Building a Strategic Assessment*, the first published work of the China Strategic Risks Institute (CSRI).

In an era of increasing geopolitical uncertainty, there is a pressing need for policy makers to come to an informed and balanced assessment of the challenges posed by the rise of the People's Republic of China.

In this paper, CSRI sets out its mission to foster a broader, more nuanced debate on how democratic countries relate with China. Drawing on expertise from across the globe, our team of advisers have set out to explore this question through the framework of risk. From economics to security, geopolitics, legal risks and the environment, this report examines the complex dynamic between risk and opportunity that permeates our interactions with China.

Whether it is unpacking the strategic and ethical risks posed by reliance on China's solar supply chains, the impact on businesses from Xi's authoritarian crackdown or a realistic assessment of the opportunities to engage with China on biodiversity, we hope that this paper gives you a sense of our ambition and determination to tackle some of the most challenging policy issues of our time. Our research will always be based on how we can best protect democratic values, rule of law and human rights.

Our team remains on hand to discuss any further questions you may have on the report. We look forward to hearing your thoughts and reflections as CSRI begins its important work.

A handwritten signature in black ink, consisting of two distinct parts. The first part is a stylized, cursive 'D' followed by a wavy line. The second part is a more complex, angular signature that appears to be 'Kwok'.

Dennis Kwok
Executive Chairman, China Strategic Risks Institute

Executive Summary

Andrew Yeh

The rise of the People's Republic of China presents the most significant foreign policy challenge of the twenty-first century. Across all spheres, from the economy, to technology, security and the environment, engaging with an increasingly dominant China is both necessary and unavoidable.

For much of the last decade, liberal democracies turned a blind eye to the growing risks posed by the Chinese government's tightening authoritarianism at home and growing assertiveness abroad. The slow awakening to this reality has been accompanied by an increasingly heated policy debate in democratic capitals. Today, this debate is at risk of polarisation. On one side are those to whom any engagement with China is seen as dangerous and morally compromised. On the other side there are those who see concerns as driven by a belligerent anti-China agenda, providing unhelpful 'background noise' to what could be a stable and fruitful relationship.

China through the lens of risk

By analysing the debate in terms of risk, this report hopes to contribute towards a broader and more nuanced discussion. Risk as a concept is not black and white – there is high risk, low risk and everything in between. A risk framework provides a common language understood by governments, businesses and citizens alike, and can be applied across economics, politics, security, ethics and more. While risk can be mitigated and reduced, it can rarely be fully eliminated, and so a risk framework does not lend itself to extreme solutions. And of course, as any entrepreneur can tell you, risk must always be balanced against opportunity. The presence of risk does not rule out prospects for cooperation or engagement.

Analysing risk does not necessitate passing value judgements, but that does not mean this endeavour is a value-less approach. The China Strategic Risks Institute sees the advance of human rights, democracy and the rule of law to be of universal benefit. Upholding these ideals is at the core of our common interest, and so we understand strategic risks to be the collection of economic, political and security factors that make it difficult for democratic countries to uphold these goals.

This report analyses strategic risks in relation to China in sectors across geopolitics, economics, security, technology and the environment. In doing so a number of overlapping themes emerge.

Supply chains dependency

The first theme throughout this report is the urgent need for democratic countries to better manage their supply chain risks. Chun-Yi Lee's article examines the resilience of global semiconductor supply chains. Taiwan plays an indispensable role in semiconductor production globally, producing over 70% of the world's semiconductors and over 90% of the most advanced chips. Beijing's military threats against Taiwan pose a major risk to the semiconductor supply chain, with ramifications for nearly every manufacturing sector. There are no quick fixes to this vulnerability. The complexity of the semiconductor production means that onshoring an end-to-end domestic supply chain would be slow and hugely expensive. Instead, risks must be mitigated by effective 'friend-shoring' initiatives, which ensure that all stages of production are covered between like-minded partnering countries, whilst still ensuring countries safeguard Taiwan's security as a pre-eminent strategic priority.

The solar supply chain presents similar challenges, with the added complexity of China's dominance across all stages of solar production – set to reach 95% of global solar manufacturing capacity by 2025. Just as Europe has learned the dangers of reliance on Russian gas following the invasion of Ukraine, so democratic countries find themselves dependent on China for a technology pivotal to the green transition. The importance of the Xinjiang Region to this supply chain – producing 45% of the world's solar grade polysilicon – adds an additional layer of ethical risk.

State sponsored forced labour is endemic to Xinjiang and nearly all major solar firms based in the region are implicated. Reducing this reliance requires both demand and supply side solutions. Governments must strengthen modern slavery legislation to penalise firms complicit in forced labour abuses while supporting manufacturers to develop alternative supply chains elsewhere, particularly by addressing the high energy costs which drive solar producers to Xinjiang's cheap and dirty coal based energy.

Growing business risks

The second theme running through this report is the growing risks to businesses operating in China and Hong Kong posed by an increasingly politicised economy. Dennis Kwok and Kevin Yam write on what Xi Jinping's new national security regime means for Hong Kong's status as an international financial centre. Hong Kong's national security legislation is vaguely defined and broadly interpreted, creating a restricted and uncertain business environment. Not only do businesses in the city face an increased risk of entanglement within shifting legal jurisdictions, but also trials and rulings from a judiciary that prioritises Beijing's political aims.

As shown in the treatment of media mogul Jimmy Lai, Hong Kong – once prized by businesses for its adherence to the rule of law – is now subject to the same rule by law system seen in mainland China. As businesses, capital and workers exit Hong Kong, the city is likely to adapt to a diminished regional role as the financial hub for China's growing 'Greater Bay Area'.

Xi's regime also poses significant risks to those investing in China. As covered by Sam Goodman's article, last year's crackdown on tech firms demonstrates the significant governance risks present for foreign investors. Through legal changes, state subsidies and embedding of Chinese Communist Party branches in company structures, the line between the party-state and private enterprise is increasingly blurred. This presents challenges for prospective investors attempting to undertake due diligence on Chinese firms and leaves investors more exposed to the whims of the Chinese state. Governments must both advise investors on the full nature of this risk and protect taxpayers from any ensuing fallout. Reviewing and cutting investment guarantees for China – schemes which shift the financial risk of private investments onto taxpayers – is a necessary first step in this direction.

Aside from legal and political changes, structural challenges within China's economy also present a new set of risks for foreign businesses operating in the country. Despite optimism as restrictive COVID measures are lifted, high debt, an inflated real estate sector and a declining working age population could all dampen China's growth in the long term. While China's economy is unlikely to face a sudden crisis, foreign businesses could still be impacted by a weakened Chinese consumer market and exposed assets. As highlighted in Margaret McCuaig-Johnston's article on Canada's Indo-Pacific Strategy, governments and businesses can mitigate economic risks of dependency on Chinese markets by seeking out new opportunities for trade and investment in the region. By setting out dedicated funding for its flagship "Trade Gateway in South East Asia" initiative, the Canadian government is helping its firms access new markets in this region. Diversifying supply chains, consumer bases and investment portfolios is key to helping businesses manage their China risks.

Technological dominance

The third and final theme across this report is the risk posed by China's growing technological dominance. As analysed by Charles Mok, China's Digital Silk Road initiative has enabled its technology giants to become world leaders in areas from 5G to artificial intelligence. From this position it is seeking to normalise state surveillance within the global internet architecture, as seen through proposals such as Huawei's new IPv6+ internet standards. Crucially, this comes at a time when democratic countries already cannot agree on harmonising tech and data regulations between themselves. Together, the EU, US and other democratic countries have significant regulatory power that can be used to set global standards on protecting user privacy and limit the role of the state. So far, much of this influence remains underutilised.

China's growing technological dominance also carries a security risk. Dean Cheng's article tracks the rapid transformation of China's People's Liberation Army (PLA) into a modern fighting force with a global reach. By 2027, the PLA will be both quantitatively and qualitatively on par with any likely adversary. The most pressing risk is that this changes the Chinese government's calculus on Taiwan. As emphasised by Sheryn Lee's article, war in the Taiwan Strait would have a catastrophic impact on the global economy and, if it successfully annexes Taiwan, gives China a strategically important route out of the first island chain.

Deterring China from taking military action against Taiwan is thus of paramount importance to global security and stability, and must be at the centre of any government's foreign policy for the region. Such deterrence should not be limited to military support alone. This report recommends that the international community builds a broader concept of deterrence to safeguard Taiwan's security. Governments should signal to China that military action against Taiwan would lead to the same range and severity of economic sanctions as used against Russia following the invasion of Ukraine. At the same time, by increasing economic and cultural exchange with Taiwan, democratic countries can push back against Beijing's attempts to weaken Taiwan through international isolation. Trade and investment, academic partnerships and political exchanges with Taiwan can all help shift Beijing's cost-benefit analysis when contemplating actions against the island.

Strategic engagement

Understanding the strategic risks posed by the rise of China does not preclude strategic engagement with Beijing. Regima Lam writes on the success of Canada's cooperation with China in leading global initiatives on biodiversity. In areas of shared interest, governments can still carve out space for working with China. This is not just desirable, but necessary for the myriad of global risks presented by climate change, pandemics, food insecurity and other challenges. Governments acting to mitigate against strategic risks need not be seen as acting provocatively towards Beijing.

“The majority of the recommendations made in this report are neither policies towards nor against China, but policies for a world in light of China and its growing global role.”

Indeed, the Chinese government understands the language of strategic risk only too well, and it too is acting to secure its core interests. The majority of the recommendations made in this report are neither policies towards nor against China, but policies for a world in light of China and its growing global role. Only by building a full assessment of the strategic risks can policy makers navigate this new reality.

Andrew Yeh is the Deputy Director of the China Strategic Risks Institute.

1. China's growing technological dominance: what does China want?

Charles Mok

Key Point Summary

- China's 'Digital Silk Road' initiative is exporting China's techno-authoritarian model globally, while enabling its technology giants to become world leaders in areas from 5G to artificial intelligence – including technologies with dual use civil and military applications.
- Chinese state backed companies are leading efforts to normalise state surveillance within global Internet architecture. Huawei's new IPv6+ proposal to the International Telecommunications Union (ITU) would enable closer state monitoring of how citizens use the Internet.
- By submitting Huawei's proposals to the ITU – a UN body – the Chinese government is deliberately trying to undermine the existing multi-stakeholder Internet standard-setting process. This takes regulatory power away from civil society groups, and gives it instead to multilateral forums that the Chinese government has greater influence over.
- Democratic countries should push back against China's attempts to re-write tech norms by establishing global regulatory standards which limit the role of the state and protect user privacy. This must include harmonising existing data regulations, such as between the EU and the US, and establishing joint regulations for emerging sectors such as artificial intelligence.

China's growing global tech dominance

In a matter of decades China has transformed itself into a technological superpower. Once a byword for low quality, cheap manufacturing, today Chinese technology products are desired not only for their price, but also their world leading capabilities. Yet the Chinese state hasn't overseen the rapid rise of its technology giants solely for the purpose of its own domestic development. Rather, the Chinese government plans to use its growing influence to cement the leading position of its technology firms and extend its governance model globally. Two examples of this campaign are its Digital Silk Road (DSR) initiative and its attempts to revamp the global processes of technology standards and norm setting.

Building the Digital Silk Road

The DSR was initiated in 2015 as a part of China's ambitious and broad-ranging Belt and Road Initiative (BRI).¹ By providing considerable state-backed investment, the DSR enables Chinese technology firms to enter the markets of targeted BRI countries – the majority of which are situated in the global south. Observers differ as to whether the DSR is a “masterplan by Beijing to deploy its techno-authoritarian model” globally or simply a reflection of the demand for such surveillance enabling technologies from BRI countries themselves.² Either way, China stands to gain. The DSR has allowed Chinese firms to export their technologies en masse across the globe, a position from which the Chinese government hopes to influence global technology adoption and standards.³

Chinese companies involved in DSR projects provide governments with dual-use products for military and commercial purposes. These often include tools for digital repression, such as “next generation national firewall” infrastructure projects that give governments active surveillance capabilities and data analytic features.⁴ In Uganda and Zambia, Huawei technicians have assisted governments in intercepting encrypted communications and tracking the locations of political opponents.⁵

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1. McBride J., Berman, N. & Chatzky, A. (2023), *China's Massive Belt and Road Initiative*, Council on Foreign Relations, <https://www.cfr.org/background/chinas-massive-belt-and-road-initiative>
 2. Kurlantzick, J. & West, J. (2020), *Assessing China's Digital Silk Road Initiative*, Council on Foreign Relations, <https://www.cfr.org/china-digital-silk-road/>
 3. Greene, R. & Triolo, P. (2020), *Will China Control the Global Internet Via its Digital Silk Road?*, Carnegie Endowment for International Peace, <https://carnegieendowment.org/2020/05/08/will-china-control-global-internet-via-its-digital-silk-road-pub-81857>
 4. China Digital Space (n.d.), 'Shu Zi Si Chou Zhi Lu' [Digital Silk Road], <https://chinadigitaltimes.net/space/数字丝绸之路>
 5. Parkinson, J., Bariyo, N. & Chin, J. (2019), 'Huawei Technicians Helped African Governments Spy on Political Opponents', *The Wall Street Journal*, 15 Aug 2019, <https://www.wsj.com/articles/huawei-technicians-helped-african-governments-spy-on-political-opponents-11565793017>

The DSR has played a large part in enabling Chinese companies to rapidly gain global market share in areas such as 5G networks, cloud, data analytics, artificial intelligence and even satellite positioning and navigation. Tanzania, Cameroon, Kenya, Nigeria, Ethiopia, Guinea, Côte d'Ivoire and Sierra Leone all took on Chinese government financing to acquire network infrastructure projects from Huawei and ZTE, with funding amounts of US\$30-337 million.⁶ Huawei today occupies around 30% of the global 5G market.⁷ Similarly, Chinese firms have made major innovations in artificial intelligence technologies, including an AI emotion-detection software to aid the surveillance and repression of Uyghurs in China's Xinjiang region.⁸

Resetting global tech governance

The success of Chinese technology vendors such as Huawei – not only in developing BRI countries but also in many parts of the western developed world – has further reinforced the Chinese government's desire to instil China's techno-authoritarian control philosophy as a universally accepted global norm. Beijing aims to change both the technological standards and the process by which these standards are set.

In recent years, China – represented by its leading advocate Huawei – has been actively proposing two new and related conceptual standards: the so-called 'New IP' and 'IPv6+'. Huawei, along with several other China state-backed actors, submitted these proposals to the International Telecommunication Union (ITU) for discussion in 2019 and 2022 respectively.⁹ These proposals, while highly technical in nature, pose major ramifications to the future of global cyberspace. ICANN, the global multi-stakeholder administrator of Internet resources, warned that Huawei's New IP advances a stronger regulatory binding between an IP address and a user, making "pervasive monitoring" of an Internet user's activity by governments and other actors much easier.

6. Agbebi, M. (2022), *China's Digital Silk Road and Africa's Technological Future*, Council on Foreign Relations, https://www.cfr.org/sites/default/files/pdf/Chinas%20Digital%20Silk%20Road%20and%20Africas%20Technological%20Future_FINAL.pdf

7. Slotta, D. (2023), *Number of 5G base stations in China from 2019 to 2022*, Statista, <https://www.statista.com/statistics/1119453/china-5g-base-station-number/>; Alsop, T. (2022), *Mobile base station vendor market share worldwide from 2019 to 2022*, Statista, <https://www.statista.com/statistics/1134472/global-mobile-base-station-vendor-market-share/>

8. Wakefield, J. (2021), 'AI emotion-detection software tested on Uyghurs', *BBC*, 26 May 2021, <https://www.bbc.co.uk/news/technology-57101248>

9. Bertuzzi, L. (2022), 'China rebrands proposal on internet governance, targeting developing countries', *EURACTIV*, 6 Jun 2022, <https://www.euractiv.com/section/digital/news/china-rebrands-proposal-on-internet-governance-targeting-developing-countries/>

Under the proposals, websites, social media platforms and other content providers will also know the identity of everyone who connects to them.¹⁰ The Internet Society, a leading nonprofit organisation monitoring internet freedoms, pointed out that the New IP proposal would result in fragmenting the Internet into two: the “old” and the “new”, with the new Internet converted into one big surveillance engine.¹¹

The process by which Huawei made its proposal also illustrates a deliberate attempt by the Chinese government to undermine the existing multi-stakeholder Internet standard-setting process. By strategically taking the case to the ITU, a body under the United Nations, the Chinese government is seeking to shift the power balance in global Internet regulation away from civil society groups and towards nation states.

Traditionally the Internet standards have been set through a process that involves multiple groups such as the Internet Engineering Task Force (IETF), Internet Architecture Board (IAB), Internet Research Task Force (IRTF), World-Wide Web Consortium (W3C), Institute of Electrical and Electronics Engineers (IEEE) – all with longstanding involvement from civil society, private sector and academia, and not driven by nation states.¹²

“The Chinese government is seeking to shift the power balance in global Internet regulation away from civil society groups and towards nation states.”

By trying to set up an alternative standard-setting route to gradually replace this existing norm, China aims not only to control the Internet within its own border, but would like to see its techno-authoritarianism justified by international bodies and its model and philosophy exported to the rest of the world. Without that, China would consider a free and open Internet outside its Great Firewall to remain as a threat to its own regime stability and existence.

10. Durand, A. (2020), *New IP*, ICANN, <https://www.icann.org/en/system/files/files/octo-017-27oct20-en.pdf>

11. European Telecommunications Network Operators (2020), *ETNO position paper on the New IP proposal*, <https://www.etno.eu/library/positionpapers/417-new-ip.html>

12. Montgomery, M. & Lebryk, T. (2021), ‘China’s Dystopian “New IP” Plan Shows Need for Renewed US Commitment to Internet Governance’, *Just Security*, 13 Apr 2021, <https://www.justsecurity.org/75741/chinas-dystopian-new-ip-plan-shows-need-for-renewed-us-commitment-to-internet-governance/>

Conclusion

China's global technology influence campaign is a battle for the soul of the Internet. This competition takes place across all Internet related technologies, norms, operating principles and philosophies. How this plays out will determine whether the future of the Internet will be one that is free, open and secure, or another reality that is controlled, censored and surveilled by centralised authoritarian regimes, dictating only their versions of the truth.

Recommendations

(1) Establishing global regulatory standards

Regulatory regimes related to data transfer and privacy currently differ widely across democratic countries. Until these regulations are harmonised, democratic countries will not be able to effectively establish global norms and standards around these issues.

The EU's General Data Protection Regulation (GDPR) is widely considered to be the standard bearer in data and privacy protection in the world and provides a unified regulation across Europe. This is in sharp contrast to the U.S., which has a patchwork of state legislations without any unified federal privacy protection legislation. Countries that exist outside the EU can still seek to formally align domestic regulations with the EU's GDPR, as the UK has done. Other attempts to harmonise regulations across borders include the US led Global Cross-Border Privacy Rules initiative with Canada, Japan, Korea, Taiwan and other APEC members. Democratic governments must work to expedite these negotiations, thereby both securing a high standard of data protection and enabling free flows of data.

Harmonising regulations is particularly important for emerging technologies, such as artificial intelligence, with governments otherwise at risk of lagging behind developments and new risks in the sector. While the EU is formulating its 'AI Act', the US is yet to propose any specific regulations on the sector. Meanwhile, US technology firms, reportedly with backing from the US government, have lobbied EU policy makers to drop provisions aiming to safeguard the fundamental rights of users.¹³

13. Schyns, C. (2023), *The Lobbying Ghost in the Machine*, Corporate Europe Observatory, https://www.corporateeurope.org/sites/default/files/2023-02/The%20Lobbying%20Ghost%20in%20the%20Machine_1.pdf

(2) Countering surveillance technologies

Democracies must find ways to effectively counter efforts by authoritarian states to develop technologies that aid state monitoring, surveillance and repression. This can be achieved by expanding targeted sanctions and regulatory actions against surveillance products, technologies and platforms from countries such as China to deter their proliferation and further advancement.

While Hikvision has been the most high profile case, with bans or restrictions on the use of its surveillance camera equipment in the US, UK and Australia, this represents only the tip of the iceberg. Chinese technology firms have played a leading role in aiding the Chinese government's repression of Uyghurs in the Xinjiang Region, including developing artificial intelligence driven surveillance cameras capable of racial profiling. Governments should seek to establish regulatory regimes similar to the US Entity List, which limits the transfer of technologies to firms identified as aiding repression and surveillance in the region.

(3) Investing in open technology research

Governments must increase their investment in open technology research and development, particularly in the areas of privacy-preserving, anti-surveillance and anti-censorship technologies such as encrypted communication apps and anti-tracking systems. Other countries can seek to replicate the US Agency for Media's Open Technology Fund, which provides funding for developing technologies to circumvent censorship and protects journalists and audiences' security and privacy online.¹⁴ The US CHIPS and Science Act and the EU's Horizon programme provide opportunities for further funding research and development in this sector.¹⁵

Charles Mok is a Visiting Scholar at Stanford University's Global Digital Policy Incubator and a former member of the Hong Kong Legislative Council representing the Information Technology sector (2012-2020).

14. U.S. Agency for Global Media (n.d.), *Open Technology Fund*, <https://www.usagm.gov/networks/otf/>

15. European Commission (n.d.), *Horizon Europe*, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en

2. Deterring war across the Taiwan Strait

Sheryn Lee

Key Point Summary

- China's threats to annex Taiwan by military force poses a major strategic and economic risk. Conflict could expose more than US\$2 trillion in global economic activity. A successful annexation of Taiwan would allow China to project its military power well into the South China Sea and the South Pacific.
- Taiwan's military deterrence and defence faces a number of challenges, not least a US\$19 billion backlog in arms transfers from the US – its sole major weapons supplier. Taiwan's other partners remain hesitant to arm Taiwan for fear of reprisals from Beijing.
- Governments must make an unambiguous economic deterrent to annexation. Democratic countries should signal to the Chinese government that occupying Taiwan by force will be met with the same severe sanctions regime as imposed on Russia following the invasion of Ukraine.
- Democratic countries can support Taiwan by building a broader concept of deterrence. Developing deeper trade, diplomatic and cultural ties with Taiwan would counteract China's attempts to isolate Taiwan and weaken China's disinformation campaign about Taiwan.

What would be the global ramifications of China annexing Taiwan?

The prospect of Chinese military action against Taiwan is not a remote possibility. President Xi Jinping has repeatedly reiterated the Chinese Communist Party's desire to 'reunify' the island with the mainland and refuses to rule out the use of force to do so. Top US intelligence officials claim that Xi has ordered the Chinese military to have the capabilities ready to invade Taiwan by 2027.¹⁶

Economic risks

It is difficult to understate the global economic fallout should China annex Taiwan by military force. The outbreak of conflict in the Taiwan Strait would lead to a slowdown in the regional economy and cause major disruption to global trade routes – almost half of the world's container ships pass through the Taiwan Strait.¹⁷ It is estimated that the conflict could cause US \$2.5 trillion in annual losses to the global economy, before including the impact of any ensuing military, political or economic response from Taiwan's partners.¹⁸

Disruption will be particularly acute in semiconductor supply chains, with Taiwan currently producing over 70% of the world's total supply and 90% of the most advanced chips.¹⁹ A conflict or economic blockade around Taiwan would cause global shortages in agriculture and mining equipment, medical devices, automobiles, mobile communications and much more. The impact on other countries would range from employment losses to shortages of hospital equipment and inflation across consumer goods.

16. Martina, M. & Brunnstrom, D. (2023), 'CIA chief warns against underestimating Xi's ambitions toward Taiwan', *Reuters*, 3 Feb 2023, <https://www.reuters.com/world/cia-chief-says-chinas-xi-little-sobered-by-ukraine-war-2023-02-02/>

17. Varley, K. (2022), 'Taiwan Tensions Raise Risks in One of Busiest Shipping Lanes', *Bloomberg*, 2 Aug 2022, <https://www.bloomberg.com/news/articles/2022-08-02/taiwan-tensions-raise-risks-in-one-of-busiest-shipping-lanes#xj4y7vzkg>

18. Vest, C., Kratz, A. & Goujon, R. (2022), *The Global Economic Disruptions from a Taiwan Conflict*, Rhodium Group, <https://rhg.com/research/taiwan-economic-disruptions/>

19. Kohlmann, T. (2022), 'How Taiwanese semiconductors reign supreme', *Deutsche Welle*, 4 Aug 2022, <https://www.dw.com/en/how-taiwanese-semiconductors-are-key-for-global-high-tech/a-627005>

Strategic risks

Taiwan's important placement in the South China Sea means that successful annexation of the islands would give the Chinese government a major strategic advantage. Control of Taiwan would allow China to break out of the first island chain, which Chinese military strategists see as acting as a barrier to projecting China's power further into the Pacific.²⁰ It would give China control over vital sea lanes and bring its military power closer to South Korea, Japan, Vietnam and the Philippines, most of whom it has ongoing territorial disputes with.

Needless to say, the greatest costs in any conflict would be borne by the Taiwanese people. A war over Taiwan would incur high human losses – as much as 10,000 people in the first weeks – and the destruction of Taiwanese infrastructure and cities.²¹ As one of Asia's most successful democracies, the annexation of Taiwan would be a major loss to the cause of democracy and human rights in the region.

How can Taiwan deter Chinese military action?

Military deterrence

Successful deterrence relies on Taiwan's military developing effective asymmetric capabilities for coastal defence. As demonstrated in the Ukraine War, equipment such as unmanned submersibles, sea mines and attack drones, as well as anti-ship, air-to-surface and land-attack missiles, are key to maximising defensive advantages against an aggressor. Asymmetric capabilities could prevent the PLA from establishing beachheads on Taiwan's shore and exploit the vulnerabilities of an invading Chinese force, such as its military supply and logistics support.

“If deterrence of China fails, the global market would bear great costs regardless of the outcome and timeframe of the conflict.”

20. Yoshihara, T. (2012), 'China's Vision of Its Seascape: The First Island Chain and Chinese Seapower', *Asian Politics & Policy*, 4(3), pp. 293-314, <https://doi.org/10.1111/j.1943-0787.2012.01349.x>

21. Agence France-Presse (2023), 'Taiwan invasion by China would fail, but at huge US cost, analysts' war game finds', *The Guardian*, 10 Jan 2023, <https://www.theguardian.com/world/2023/jan/10/taiwan-invasion-by-china-would-fail-but-at-huge-us-cost-analysts-war-game-finds>

Taiwan's military transformation is likely to proceed at a slow pace without firm and sustained international support. The US has long been the major weapons supplier to Taiwan, with all of Taiwan's military procurement relied on it from 2016 to 2020.²² As of 2022, the combined total of arms sales under the current and previous US administrations total more than US \$21 billion,²³ while the recently passed Taiwan Policy Act promises approximately US \$4.5 billion in security assistance over the next four years.²⁴ However, undermining Washington's pledges to enhance Taiwan's defence is an almost 19 billion USD backlog of arms transfers, a situation exacerbated by diverted resources to Ukraine.²⁵ Should US arms fulfilments continue to be delayed, Taiwan's armed forces will face difficulties to maintain key defence requirements such as air defence and sea denial.

There is scope for other democratic countries to sell more arms to Taiwan, and doing so would give Taiwan access to a cheaper and broader range of weapons. However, the threat of political and economic repercussions from China means that such support is limited and is unlikely to replace Taiwan's reliance on US supplies. Instead, other democratic countries can focus on building their military presence and defence partnerships in the region. Japan's significantly revised National Security Strategy designated Taiwan as an "extremely important partner",²⁶ while Japan's military and coast guard is also increasing its presence around Okinawa and the southwestern island chain that connects to northern Taiwan. A key lesson learned from the Ukraine war is that such partnerships should include effective intelligence sharing on China's military plans.

Economic deterrence

Western powers were quick to place stringent economic sanctions on Russia following the invasion of Ukraine in 2022. Sanctions were designed to weaken Russia's ability to finance the war and target the military, political and economic elites responsible for the invasion. Measures against Russia included freezing of Russia's Central Bank's foreign assets, import bans on oil and gas and the expulsion of banks from the SWIFT international payments system.²⁷

22. Nakamura, R. (2022), 'U.S. in talks with Taiwan to coproduce American weapons: sources', *Nikkei Asia*, 19 Oct 2022, <https://asia.nikkei.com/Politics/International-relations/Taiwan-tensions/U.S.-in-talks-with-Taiwan-to-coproduce-American-weapons-sources>

23. Forum on the Arms Trade (2022), *U.S. Arms Sales to Taiwan*, <https://www.forumarmstrade.org/ustaiwan.html>

24. Flatley, D. & Ognanovich, N. (2022), 'US Senate Panel Approves \$4.5 Billion Weapons Deal for Taiwan', *Bloomberg*, 15 Sep 2022, <https://www.bloomberg.com/news/articles/2022-09-14/senate-panel-set-to-take-up-taiwan-bill-that-makes-biden-uneasy?leadSource=uverify%20wall>

25. Chang, E. (2022), 'Taiwan has nearly US\$19 billion in arms sales backlogged in US', *Taiwan News*, 28 Nov 2022, <https://www.taiwannews.com.tw/en/news/4733798>

26. National Security Council (2022), *National Security Strategy of Japan*, <https://www.cas.go.jp/jp/siryoku/221216anzenhoshou/nss-e.pdf>

27. Eichengreen, B. (2022), *Sanctions, SWIFT, and China's Cross-Border Interbank Payments System*, CSIS, <https://www.csis.org/analysis/sanctions-swift-and-chinas-cross-border-interbank-payments-system>

The international community should make clear to the Chinese government that military action against Taiwan would be met with a similarly robust and sustainable set of economic sanctions in response. Measures could include:

- Freezing foreign currency reserves held by the People's Bank of China, currently estimated at \$3.2 trillion;²⁸
- Freezing of assets belonging to state owned companies, and private firms linked to the People's Liberation Army, such as Huawei;²⁹
- Expulsion of Chinese banks from SWIFT, and CHIPS and other Western clearing houses;
- Travel bans and asset freezes for senior Chinese Communist Party members and their families, including business elites;
- Export restrictions on critical technologies and dual use goods, many of which could be preemptively applied to prevent China from developing key military capabilities.

Due to the significantly higher volume of trade between China and the rest of the world, the impact of such sanctions on global trade and capital flows would be much greater than the fallout from Russia's invasion of Ukraine. It is also notable that China's network of state owned companies and proxy asset holders is much more extensive than Russia's. If deterrence of China fails, the global market would bear great costs regardless of the outcome and timeframe of the conflict. As highlighted elsewhere in this publication, governments must advise banks and businesses on the dangers of overreliance on access to Chinese markets to mitigate against these geopolitical risks.

28. Lee, A. (2022), 'China's forex reserves fall by US\$26 billion amid ongoing capital outflows following Russian invasion of Ukraine', *South China Morning Post*, 7 Apr 2022, <https://www.scmp.com/economy/economic-indicators/article/3173454/chinas-forex-reserves-fall-us25-billion-amid-ongoing>

29. U.S Department of Defense (2021), 'DOD Releases List of Chinese Military Companies in Accordance With Section 1260H of the National Defense Authorization Act for Fiscal Year 2021', 3 Jun 2021, [Press release] <https://www.defense.gov/News/Releases/Release/Article/2645126/dod-releases-list-of-chinese-military-companies-in-accordance-with-section-1260/>

Moving towards a broader concept of deterrence

Beijing's efforts to 'reunify' Taiwan with mainland China do not rely on military means alone. The Chinese government aims to block Taiwan from forming diplomatic, economic and cultural ties with other countries to minimise resistance to any future action taken against Taiwan. China's trade sanctions against Lithuania following the opening of a Taiwan Representative Office in Vilnius, or its blocking of Taiwan from taking part in the World Health Assembly, are all demonstrative of this strategy.

By pushing back against China's attempts to exclude Taiwan from the international community, democratic countries can help strengthen Taiwan's position and signify to Beijing that taking action against Taiwan would not go unnoticed or unchallenged. This broader concept of deterrence allows all democratic countries to play a part in supporting Taiwan, not just those that are able to offer military support.

“Beijing's efforts to 'reunify' Taiwan with mainland China do not rely on military means alone.”

Deepening diplomatic exchange

The COVID-19 pandemic exposed the cost of excluding Taiwan from key multilateral institutions. While Taiwan was a prime model in stopping the spread of the virus, China continued to block its participation in the World Health Organization and World Health Assembly. Similarly, despite being a manufacturer of green technologies, Taiwan was excluded from COP27 and other U.N. Framework Convention on Climate Change forums.

Democratic countries must continue to push for Taiwan's meaningful participation in multilateral institutions, as called for in the 2021 G7 communique. However, as such success may be unlikely in the short term, governments must pursue alternatives. Democratic countries should seek to follow the US, Australia and Japan in joining Taiwan's Global Cooperation and Training Framework (GCTF). The GCTF allows Taiwan and its partners to share expertise on issues such as the digital economy and good energy governance.

Taiwan as a key trade partner

Taiwan is the world's 18th largest economy and consistently ranks among the world's best destinations for investment.³⁰ Governments can make the most of these trade opportunities by working towards bilateral trade agreements with Taiwan. For instance, concluding the EU-Taiwan bilateral investment agreement would lower barriers and increase transparency for Taiwanese investment in the EU market and vice versa. Greater funding for regional trade outreach offices, as seen in the Canadian Trade Gateway in Southeast Asia initiative, can also support businesses in making further connections into Taiwan.

While Taiwan's inclusion in the CPTPP and RCEP trade regimes will remain politically contentious due to China's objections, those CPTPP and RCEP members could work towards ensuring Taiwan's market will not be disadvantaged. This is because Taiwan – unlike China – already meets many of the high standard rules and market access commitments.

People to people ties

Taiwan has a developed university sector and a thriving civil society sphere.³¹ This presents numerous opportunities for academic partnerships and cultural exchange which demonstrate to a broader audience that Taiwan is a distinct democratic polity from mainland China. Governments can support track 1.5 dialogues with Taiwan, with successful examples including an Australia-Taiwan dialogue on the low-emissions technologies trade and a US-Japan-Taiwan dialogue focused on improved communication between respective coast guards.

A key focus of these discussions can be showcasing Taiwan's experience of building democratic resilience. Taiwan's civic sphere has been at the forefront of the Chinese state sponsored cyber-attacks, disinformation campaigns and espionage. Through initiatives such as the New Southbound Policy (NSP), Taiwan hopes to partner with civil society groups, think tanks and local governments to build democratic resilience across Asia and Oceania. Similarly, as countries around the world seek to reduce the role of Chinese state-backed Confucius Institutes in Chinese language teaching, partnerships with Taiwanese educational institutions represent a vital resource for countries looking to boost their China-related competencies without deepening links with the Chinese state.

30. Ministry of Economic Affairs of the Republic of China (2021), 'Taiwan Ranked as the Fourth-best Destination for Investment in the 1st BERI Report in 2021', 31 May 2021, [Press release], https://www.moea.gov.tw/MNS/english/news/News.aspx?kind=6&menu_id=176&news_id=95959

31. Economist Intelligence Unit (2023), *Democracy Index 2022: Frontline democracy and the battle for Ukraine*. London: EIU

Conclusion

A broader concept of deterrence recognises that Taiwan's ability to avert China's military aggression depends not only on its defence capabilities but also enlarging Taiwan's role in the international community. By pushing for Taiwan's greater participation in multilateral institutions and by deepening political, economic and cultural links, democratic countries can raise the costs to China of military action while strengthening Taiwan's position.

Recommendations

- **Democratic countries must build a robust economic deterrence against China's invasion of Taiwan.** Senior officials should signal that prospective economic sanctions would include freezing the foreign assets of key Chinese state banks, companies and party officials, while placing restrictions on China's ability to access international finance.
- **Governments should deepen diplomatic exchanges with Taiwan.** Governments should voice support for Taiwan's inclusion in multilateral institutions such as the World Health Organisation (WHO), International Civil Aviation Organization (ICAO), the International Labor Organisation (ILO) and the U.N. Framework Convention on Climate Change, while also participating in alternative forums with Taiwan – such as the Global Cooperation and Training Framework (GCTF).
- **Policymakers should work to increase trade with Taiwan.** This can take place through exploring bilateral trade and investment agreements and funding regional trade offices to support businesses looking to increase trading activity in the region.
- **Democratic countries should boost people-to-people ties with Taiwan.** Governments should work to explore new opportunities to deepen academic partnerships and cultural exchange with Taiwan, including through Taiwan's New Southbound Policy and track 1.5 dialogues on the environment, public health and other areas. Taiwanese educational institutions can offer alternatives to China's state backed Confucius Institutes.

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3. Does Hong Kong's national security regime threaten its status as a financial hub?

Dennis Kwok, Kevin Yam and Audrey Huxley

Key Point Summary

- Xi Jinping's national security agenda poses new risks for businesses operating in Hong Kong. Legislation passed in the name of 'national security' is vaguely defined, broadly interpreted and all-encompassing, creating a restricted and uncertain business environment.
- Among new risks emerging for businesses in Hong Kong are the undermining of the city's once respected common law system, growing uncertainty over national security clauses in land lease contracts, and repercussions for businesses failing to stay within political red lines.
- As businesses, capital and workers exit Hong Kong, the city's status as an international financial centre is under threat. As differences between the city and the mainland become increasingly blurred, Hong Kong is likely to adapt to a new regional role as the financial hub for China's growing 'Greater Bay Area'.
- Businesses must seek to rebalance their trade and investment activities in the region, mitigating against the growing legal risks in China and Hong Kong. Governments should monitor and advise businesses on risks emerging from legal changes in China and Hong Kong, while seeking meaningful accountability for those undermining the rule of law in Hong Kong.

Hong Kong's new national security regime

President Xi Jinping repeated the term “security” ninety one times in his keynote speech at last year’s 20th National Congress of the Chinese Communist Party (CCP).³² Xi’s speech indicated a drastic shift in Beijing’s political priorities. Gone is the era of “reform and openness,” as heralded by Deng Xiaoping in the early 1980s. In its place, a new national security-based agenda has emerged.

In Hong Kong, Xi’s national security agenda is seen most prominently in the direct imposition of the Hong Kong National Security Law (NSL) in June 2020. While in other countries “national security” concerns typically comprise acts such as terrorism and extremism, the CCP’s expansive definition also encompasses “non-traditional” fields such as economy, culture and the information space.³³ As this concept is vaguely defined yet all-encompassing, every aspect of Hong Kong society can come under its jurisdiction and be easily implicated. This includes finance, economic activities and all legal proceedings, whether civil or criminal.

What are the new risks facing businesses in Hong Kong?

Businesses are not left unscathed by Hong Kong’s new national security regime. Once valued by international firms for its open economy and upstanding legal system, today Hong Kong offers businesses very different prospects. Understanding the business risks posed by these changes will prove crucial for companies and individuals hoping to continue their operations in Hong Kong in this new era.

Eroding rule of law

The implementation of the NSL in Hong Kong marks a significant departure from a judiciary committed to fair trials, common law, and international human rights jurisprudence. While Hong Kong’s Court of Final Appeal previously affirmed separation of powers within the legal system, the current Chief Justice has since declined to guarantee its existence.³⁴

32. Lin, B., Hart, B., Funairole, M.P. & Lu, S. (2022), *China’s 20th Party Congress Report: Doubling Down in the Face of External Threats*, Center for Strategic and International Studies, <https://www.csis.org/analysis/chinas-20th-party-congress-report-doubling-down-face-external-threats>

33. Hellström, J. (2021), *Security*, China Media Project, https://chinamediaproject.org/the_ccp_dictionary/security/

34. inmediahk.net (2021), ‘Gei Ze Zat Ji Jin Ci Mou Tai Saam Kyun Fan Lap Zoeng Geoi Nang: Bin Zo Hou Zing Zi Faa, M Sik Hap Ping Leon’ [The reporter questioned that the speech did not mention the separation of powers Zhang Juneng: It has become very political and not suitable for comment], 11 Jan 2021, <https://www.inmediahk.net/node/1080146>

Notably, when businesses encounter legal issues, Article 47 of the NSL gives the government the overarching authority to intervene in both civil and criminal court proceedings.³⁵ Once this Article is invoked, the decision is not amenable to judicial review, and overrides any local legislation and court decisions.

As a result, not only do businesses in Hong Kong face an increased risk of entanglement within shifting legal jurisdictions, but also trials and rulings from a judiciary that prioritises Beijing's political aims. Companies entering into contracts with Chinese counterparts can no longer assume that Hong Kong's courts will judge their case impartially should a dispute arise. The NSL has eroded the firewall that existed between Hong Kong's independent judiciary and the Chinese state, with increasing resemblance to the Party-controlled courts of the mainland.

“Once valued by international firms for its open economy and upstanding legal system, today Hong Kong offers businesses very different prospects.”

Growing legal uncertainty

One specific area where individuals and companies face uncertainty is within land leases. The Hong Kong government's Lands Department has inserted a national security clause into tender documents, which effectively enables the government to disqualify land bidders on national security grounds and terminate short term leases, with no judicial remedy.³⁶ Foreign buyers would be well-advised to take this factor into account. A determination made on these grounds could result in the loss of hundreds of millions worth in investments under the guise of national security, while provisions under the NSL could allow such laws to be applied retrospectively.

The legal uncertainties reach even further. China's anti-sanctions law empowers Beijing to seize assets from entities that implement sanctions against China or refuse to comply with Beijing's countermeasures. This law aims to deter economic sanctions similar to those implemented by democratic powers against Russia over Ukraine, in the event of military action against Taiwan.³⁷

35. The Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region, [https://www.elegislation.gov.hk/fwddoc/hk/a406/eng_translation_\(a406\)_en.pdf](https://www.elegislation.gov.hk/fwddoc/hk/a406/eng_translation_(a406)_en.pdf).

36. Pang, J. & Kwok, D. (2023), 'Hong Kong Adds Security Law Clauses to Land Sales, Property Stocks Drop', *Reuters*, 13 Feb 2023, <https://www.reuters.com/world/asia-pacific/hong-kong-adds-security-law-clauses-to-land-sales-property-stocks-drop-2023-02-13/>

37. Lam, J. (2021), 'Anti-Sanctions Law: What Is It and Should Hong Kong Multinationals Be Worried?', *South China Morning Post*, 17 Aug 2021, <https://www.scmp.com/news/hong-kong/politics/article/3145394/chinas-anti-sanctions-law-what-it-how-will-it-take-effect>

In this scenario, firms with a large footprint in both China and the West may find themselves caught between requests by democratic governments to freeze Chinese state linked assets, and threats of countermeasures from Beijing should they do so. Along with new updates to an espionage law and Xi's aim to reduce Chinese dependence on foreign technology by 2025, these legal obstacles may place companies' assets in the midst of political crossfire.

Political red lines

As a whole, Beijing is sending a clear message to individuals and companies operating in Hong Kong: stay within the political red lines or risk severe financial and legal repercussions. The fate of Jack Ma, once the poster boy for a new wave of successful Chinese tech entrepreneurs, illustrates this case. Following comments Ma made criticising government regulators in November 2020, authorities halted the IPO of Ma's Ant Group on the Hong Kong and Shanghai stock exchanges, forcing its break up and causing Ma to flee into exile.³⁸ Similarly, in June 2021, Next Media, one of Hong Kong's most successful media businesses, had its assets frozen on the demand of Hong Kong's Secretary for Security.³⁹ This act forced Next Media to cease operations within days. Beyond the high profile cases, small businesses deemed politically out of line by the government are facing constant official harassment and persecution, with some shutting down as a result.⁴⁰

Of course, the added challenge is that the supposed 'red lines' are unclear and constantly shifting. Hong Kong's NSL is vaguely defined and broadly interpreted, while minor civil infractions in one area can become the basis for further criminal charges. This can be seen in the case against Jimmy Lai, owner of Hong Kong's then leading independent newspaper outlet, Apple Daily. Lai was recently sentenced to more than 5 years imprisonment in what was essentially a civil dispute over a land lease between his company and the Hong Kong government.⁴¹ However, the wide ranging NSL and the pro-prosecution judiciary ensured that the civil land law dispute was elevated into a criminal trial. Navigating these changing red lines will be a major challenge for any business operating in Hong Kong.

38. Yang, J & Wei, L. (2020), 'China's President Xi Jinping Personally Scuttled Jack Ma's Ant Ipo', *The Wall Street Journal*, 13 Nov 2020, <https://www.wsj.com/articles/china-president-xi-jinping-halted-jack-ma-ant-ipo-11605203556>

39. Walker, T. (2021), 'No Money, No News': Asset Freeze, Arrests Signal End for Hong Kong's Pro-Democracy Paper', *Voice of America*, 22 Jun 2021, https://www.voanews.com/a/press-freedom_no-money-no-news-asset-freeze-arrests-signal-end-hong-kongs-pro-democracy-paper/6207299.html

40. The Standard (2021), 'Pro-Democracy Clothing Brand Chickeeduck to Quit Hong Kong', 18 Nov 2021, <https://www.thestandard.com.hk/breaking-news/section/4/183124/Pro-democracy-clothing-brand%2%A0Chickeeduck%2%A0to-quit-Hong-Kong>

41. In *HKSAR v Lai Chee-ying & Wong Wai-keung* [2022] HKDC 456, District Judge Chan convicted Jimmy Lai on two criminal charges of fraud over the breach of a non-alienation restriction under a lease signed between Apple Daily Printing Limited and the Hong Kong Science and Technology Park Corporation. The non-compliant land use in question concerned a certain space of around 60 square metres within the newspapers' headquarters

Can Hong Kong remain a financial hub?

As new legal risks emerge for businesses in the current political environment, some have argued that it is time to rethink Hong Kong's status as an international financial centre. Due to these risks, many Chinese as well as international investors are choosing to relocate their assets and companies, leading to a capital flight out of China and Hong Kong. Unlike before, wealthy mainlanders are no longer putting their private wealth in Hong Kong, but are instead sending their assets and their families to Singapore and beyond, with private wealth management firms following them.⁴² A number of American and European companies are looking to reduce their presence in the city by moving their senior posts out of Hong Kong.⁴³

This capital flight has corresponded with a brain drain from the city. Hong Kong's financial regulator admitted that it was suffering from a 12% loss of its staff in 2021, while more than 150,000 Hong Kongers have moved to the UK since the introduction of the BN(O) resettlement scheme.⁴⁴ Unless this trend changes, it will have a negative impact on Hong Kong's future as a leading financial and business centre, as capital and talent flow out of the city.

Writing off Hong Kong's status as an international hub moving forward would be simplistic. The reality is that its direction is being re-oriented. As Hong Kong's reliance upon China deepens, its status is shifting from a global financial centre to a regional role focused on the Greater Bay Area (GBA) region. The GBA covers China's prosperous Guangdong region and together has a GDP worth US\$ 2 trillion – roughly the same size as South Korea's entire economy.⁴⁵

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42. Ruehl, M. & Lewis, L. (2023), "The Lure of Singapore: Chinese Flock to 'Asia's Switzerland'", *Financial Times*, 15 Jan 2023, <https://www.ft.com/content/62845c24-1e45-483c-95d1-b2c5d4c07337>; Ruehl, M. & Wiggins, K. (2023), "Longtime China investor Anatole to open 'outpost' in Singapore", *Financial Times*, 19 Mar 2023, <https://www.ft.com/content/1c9fe4ee-64a5-47af-916d-c61ea289d421>
 43. Yiu, P. (2022), 'Global Companies Moving Top Posts out of Hong Kong: Survey', *Nikkei Asia*, 17 Aug 2022, <https://asia.nikkei.com/Spotlight/Coronavirus/Global-companies-moving-top-posts-out-of-Hong-Kong-survey>
 44. Finews.asia (2022), 'SFC's Brain Drain Threatens Hong Kong Hub Status', 17 Feb 2022, <https://www.finews.asia/people/36334-sfc-s-brain-drain-threatens-hong-kong-hub-status>; Bloomberg (2023), 'Hongkongers Mark Two Years in UK Under BNO Visa', *Yahoo*, 31 Jan 2023, <https://www.yahoo.com/now/hongkongers-mark-two-years-uk-222159498.html>
 45. Biswas, R. (2022), 'China's Greater Bay Area Becomes Key Mega Region in Global Economy', *S&P Global*, 11 Nov 2022, <https://www.spglobal.com/marketintelligence/en/mi/research-analysis/chinas-greater-bay-area-becomes-key-mega-region-in-global-economy-June22.html>

Mainland banks and financial institutions have already been playing an increasingly dominant role in Hong Kong in the past decade. Measures such as removing the hard border between Shenzhen and Hong Kong could see even more mainland businesses and professionals relocating to Hong Kong. Although Beijing intends to reduce dependence on US dollar transactions in the long run, the slow internationalisation of the RMB means that the USD-HKD peg will remain as it is for the foreseeable future.

Recommendations

Doing business in Hong Kong today carries far greater legal and political risks than ever before. Hong Kong's new national security regime does not just have ramifications for political activists and civil society groups, but restricts actions of all those operating in the city. As Hong Kong begins to lose status as an international financial hub founded on the rule of law, businesses and governments must thoroughly assess and mitigate against these risks.

- **Businesses should avoid over-reliance on Hong Kong and China based trade and investment activities.** Instead, businesses should diversify to new markets in the region to mitigate against growing legal risks.
- **Governments should publish and regularly update business risk advisories for Hong Kong and China.** This is particularly important as new laws develop, such as the proposed new national security legislation for Hong Kong to target misinformation, activities of foreign organisations and internet controls.⁴⁶
- **Democratic countries should actively monitor individuals responsible for the administration of law and justice, utilising mechanisms through the United Nations.** Judges in common law jurisdictions should resign from Hong Kong's Court of Final Appeal to avoid legitimising its eroded independence under the NSL.

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46. The so called unofficial Hong Kong national anthem "May Glory be to Hong Kong", which was widely played during the 2019 protests, was accidentally played in a few international sporting events, prompting local officials and politicians in Hong Kong to call for the investigation against Google for possible breach of the HK NSL; ,Siu, D. & Pang, J. (2022), 'Google refused Hong Kong request over protest anthem - HK official', *Reuters*, 12 Dec 2022, <https://www.reuters.com/technology/google-refused-hong-kong-request-over-protest-anthem-hk-official-2022-12-12/>

4. What COP15 teaches us about environmental cooperation with China

Regina Lam

Key Point Summary

- Biodiversity loss is a growing environmental risk globally, with over a million plant and animal species at risk of extinction. Detrimental ecosystem changes can have negative ramifications for economic well-being, public health and resource competition.
- China's leadership of COP15, the UN's Biodiversity Conference, demonstrates the opportunities and limitations of cooperating with China on environmental issues. While the conference achieved tangible results, civil society groups and journalists were given limited access to opaque negotiations.
- COP 15 shows that environmental collaboration, if carried out in separation from other issues, does not require compromising on values and strategic interests on other fronts. Through leading by example, democratic countries can cooperate on environmental issues while countering China's soft power goals.

COP15, a rare success?

The United Nations Biodiversity Conference CBD-COP15 in Montreal last December saw a historic deal to halt and reverse biodiversity loss under an increasingly rare collaboration between China and Canada.⁴⁷ Canada co-hosted the second phase of the conference, which was moved from Kunming to Montreal after repeated pandemic-related delays.

The adoption of the landmark Kunming-Montreal Global Biodiversity Framework was greeted with optimism from many delegates attending the conference.⁴⁸ The framework mobilises \$200 billion per year to protect 30% of the world's land and of the ocean by 2030. Countries also pledged to phase out harmful subsidies in agriculture, fisheries, and fossil fuel sectors that drive biodiversity loss. The agreement is the largest international commitment in land and ocean conservation in history.

The celebration of a successful collaboration was an outlier against an otherwise testing time for Sino-Canadian relations. In the weeks leading up to COP15, Canadian intelligence services concluded that China interfered in Canada's federal elections and its police charged an employee at Canada's largest electricity producer for spying for China.⁴⁹ Canada also released its Indo-Pacific Strategy, in which the government described China as an "increasingly disruptive global power".⁵⁰

Carving out areas of shared interest

The relative success of COP15 suggests there is still common ground for the west to cooperate with China on environmental governance despite heightened geo-political tensions. Cooperation can yield positive outcomes if both parties can identify an area of shared interest and create a working relationship with clear focus and sufficient communication.

47. Koop, F., Lam, R. & Xia, Z. (2022), *COP15 reaches historic agreement to protect biodiversity*, China Dialogue, <https://chinadialogue.net/en/nature/cop15-reaches-historic-agreement-to-protect-biodiversity/>

48. Convention on Biological Diversity (2021), *Kunming-Montreal Global biodiversity framework*, <https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf>

49. Cooper, S. (2022), 'Canadian intelligence warned PM Trudeau that China covertly funded 2019 election candidates: Sources', *Global News*, 7 Nov 2022, <https://globalnews.ca/news/9253386/canadian-intelligence-warned-pm-trudeau-that-china-covertly-funded-2019-election-candidates-sources/>; Scherer, S. & Chiacu, D. (2022), 'Worker at Canada's largest electricity producer charged with spying for China, police say', *Reuters*, 15 Nov 2022, <https://www.reuters.com/world/americas/hydro-quebec-worker-charged-with-spying-help-china-canadian-police-say-2022-11-14/>

50. Global Affairs Canada (2022), *Canada's Indo-Pacific Strategy*, Ottawa: Government of Canada, <https://www.international.gc.ca/transparency-transparence/assets/pdfs/indo-pacific-indo-pacifique/indo-pacific-indo-pacifique-en.pdf>

Biodiversity collapse, a pressing human existential crisis, is a clear example of a shared interest. The world's populations of mammals, birds, fish, amphibians and reptiles declined by 69% on average between 1970 and 2018,⁵¹ while approximately one million species out of eight million are threatened with extinction globally.⁵² The loss of biodiversity increases the risk of wildlife diseases spilling over into humans, threatens global food security and water resources, and undermines local communities' livelihood and wellbeing.

China's soft power goals

As with many other countries, the Chinese government has recognised that accelerated biodiversity loss and ecosystem degradation poses major risks to the country's development and security and is under mounting pressure to address the ecological crisis.⁵³

Democratic countries should also acknowledge the extent that cooperation with China on environmental issues serves Beijing's soft power goals. At COP15, Chinese officials sought to raise the international profile of Xi's signature vision of an "ecological civilisation" as part of efforts to "tell China's story well," or in other words, strengthen China's international discourse power.⁵⁴ From Beijing's perspective, holding discourse power allows them to articulate China's worldviews, set the agenda in international arenas, and position itself as a "rule-maker" instead of a "rule-taker." And, of course, the perception of power can be capitalised to boost the government's legitimacy at home too. The achievements of COP15 have been framed as a victory of Xi's ecological vision and China's leadership in the international environmental scene.⁵⁵

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51. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (eds) (2022), *Living Planet Report 2022: Building a nature-positive society*, Gland: WWF, https://wwfint.awsassets.panda.org/downloads/embargo_13_10_2022_lpr_2022_full_report_single_page_1.pdf
 52. Brondizio, E.S., Settele, J., Díaz, S., & Ngo, H.T. (eds). (2019), *Global assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, Bonn: IPBES. <https://doi.org/10.5281/zenodo.3831673>
 53. Wang, C. (2021), How to strengthen China's ecological redlines?, China Dialogue, <https://chinadialogue.net/en/nature/how-to-strengthen-chinas-ecological-redlines/>; The State Council Information Office of the PRC (2021), Zhong Gu De Sheng Wu Duo Yang Xing Bao Hu [Biodiversity Conservation in China], 8 Oct 2021, http://www.gov.cn/zhengce/2021-10/08/content_5641289.htm
 54. Buckley, L. (2021), Engaging with China's ecological civilisation, Green Economy Coalition, Green Economy Coalition-IIED, <https://www.greeneconomycoalition.org/assets/reports/GEC-Reports/GEC-IIED-China- EcoCivilisationPaper-A4-Feb21-V4b.pdf>
 55. The Ministry of Ecology and Environment of the PRC (2023), Sheng Tai Huan Jing Bu Zhao Kai "Sheng Wu Duo Yang Xing Gong Yue" Di Shi Wu Ci Di Yue Fang Da Hui Di Er Jie Duan Zong Jie Hui Yi [The Ministry of Ecology and Environment Holds the Second Phase Summary Meeting of the Fifteenth Conference of the Parties to the Convention on Biological Diversity], 12 Jan 2023, https://www.mee.gov.cn/ywdt/hjywnews/202301/t20230112_1012384.shtml

Yet this may be a small price to pay to secure China's cooperation. China is one of the most biodiverse countries and home to more than 35,000 species of higher plants, 6,000 species of vertebrates, and 10% of the world's invertebrates.⁵⁶ It also faces one of the most severe biodiversity declines due to industrialisation and urbanisation. China's active contribution is crucial to global biodiversity conservation efforts.

Upholding accountability and transparency

COP15 is not the first UN environment conference hosted by China, but it was the first time China hosted a UN environment negotiation with such weight and international attention.⁵⁷ It exposed the inexperience of China's presidency in leading a UN negotiation, while a perceived lack of preparation and the low visibility of Chinese officials also drew criticism from attendees who observed it as "a leadership vacuum".⁵⁸

"China's active contribution is crucial to global biodiversity conservation efforts."

Crucially, the Chinese government's limited engagement with the press made the "leadership vacuum" more evident. Generally, the host country of a UN conference is expected to hold regular press briefings to report on the progress of the meetings and answer questions from journalists. These briefings are vital to ensure the transparency, accountability and integrity of the negotiation progress. However, the Chinese presidency only appeared in a handful of irregular press conferences during the two-week summit in Montreal.

The lack of transparency also made it much harder for international civil society organisations to follow the progress of negotiations. Although China was able to forge consensus by putting forward a balanced final non-paper in the last days of the summit, observers felt like they were being kept in the dark. The Chinese government is more likely to see a free press as a hindrance, rather than an aid to a successful negotiation.

56. Convention on Biological Diversity (n.d.), *Country profile: China*, <https://www.cbd.int/countries/profile/?country=cn>

57. United Nations Convention to Combat Desertification (2017), *Official documents: COP-13 Ordos, China 2017*, <https://www.unccd.int/official-documents/cop-13-ordos-china-2017>

58. Greenfield, P. & Weston, P. (2022), 'COP15 half-time report: China prompts fears of new 'Copenhagen moment'', *The Guardian*, 13 Dec 2022, <https://www.theguardian.com/environment/2022/dec/13/cop15-half-time-report-china-prompts-fears-of-new-copenhagen-moment>

While the Chinese government engaged Chinese civil society groups during the COP15 process, such groups are customarily required to operate within the Chinese government's red lines and help push its soft power agenda. As highlighted elsewhere in this publication, the Chinese government generally prefers to conduct negotiations at the nation state level rather than involving non-state stakeholders, over which it has little influence.

China's presidency was also accused by several African countries, including the Democratic Republic of the Congo, Cameroon and Uganda, of forcing the agreement through despite DRC's objection. Right before COP15 President Huang Runqiu announced the framework's adoption, the DRC negotiator openly rejected the deal and demanded more biodiversity protection funding from developed countries to developing countries. After Huang disregarded the rejection on procedural grounds, the DRC then appeared to have withdrawn their objection after a closed-door discussion. Attempts to settle disputes behind closed doors risk undermining the procedural legitimacy of such agreements. Democratic countries should be aware of the risk and maintain oversight on the integrity of the proceedings.

As governments seek to cooperate with China on climate change, ensuring active media scrutiny and spaces for civil society engagement are vital to ensuring the transparency and integrity of the outcome.

Systemic constraints on China's engagement

China's insufficient understanding of multilateral negotiation and the bureaucratic constraints faced by Chinese officials caused the leadership shortcomings at COP15. While engaging with China, democratic politicians must understand that the UN's decision-making processes are fundamentally different from the Chinese governance system.

As noted by Li Shuo, Senior Global Adviser at Greenpeace China, Chinese officials may find the UN negotiation rule book and the tactics of lobbying, negotiating and shaping consensus unfamiliar. They are also restrained by bureaucratic politics and agendas at home, which leaves them little room to manoeuvre. Therefore, sufficient preparation and communication ahead of the official talks is essential to secure consensus and a smooth collaboration.

At COP15, China's attitude of flexibility and complaisance helped it overcome the leadership challenges. Its presidency was willing to give bigger roles for other countries, including Canada, to co-lead the talks, and the arrangement led to some critical breakthroughs in the negotiation.

Not compromising on values, but leading by example

Some argue that cooperating with China on environmental issues would allow Beijing to leverage the relationship to advance its interests in other fields. COP15 proves that this does not need to be the case. At the same time as leading a major multilateral agreement with China, Canada's Foreign Minister Melanie Joly was able to set out the Canadian government's Indo-Pacific Strategy – which seeks to counter China's growing threats against Taiwan and criticises the Chinese government's human rights abuses.⁵⁹

The experience of Montreal showed that environmental collaboration, if carried out strictly in separation from other contentious issues, does not require compromising on values and principles on other fronts. Crucially, international media security and civil society engagement should be present to ensure that values, such as transparency and freedom of speech, are upheld.

“The environmental collaboration, if carried out strictly in separation from other contentious issues, does not require compromising on values and principles on other fronts.”

It has been considered that China's soft power gain through environment engagement may further boost Beijing's legitimacy and empower its coercion. In that case, the democratic countries could seek to counter China by competition, and the most healthy and productive way to do so is to lead by best practice at home. As an example, the role of the United States at COP15 was heavily limited by the fact that it was not even a member of the Convention on Biological Diversity.

COP15 offers a lens to look beyond the zero-sum narrative on China. Democratic countries can both cooperate and compete with China simultaneously. A balanced use of both approaches is essential to addressing existential environmental threats to the planet.

59. Asia Pacific Foundation of Canada (2022), *Foreign Affairs Minister Mélanie Joly Previews the Government of Canada's Upcoming Indo-Pacific Strategy in Advance of Diplomatic Trip to Asia*, <https://www.asiapacific.ca/publication/foreign-minister-melanie-joly-previews-indo-pacific-strategy>

Recommendations

- **Policy makers should continue to identify areas of shared interest for environmental cooperation with China.** Clear separations between environmental issues and other issues can ensure that progress can be made without compromise on values or strategic goals.
- **Governments should set clear guidelines for safeguarding transparency and accountability in multilateral forums.** Opportunities for press scrutiny and civil society engagement must be included when negotiating the structure of these meetings.
- **Officials should take into account China's constraints.** Negotiating tactics should include an awareness that Chinese officials often face bureaucratic constraints and have little room to manoeuvre while engaging in global environmental governance. Preparation and communication in advance are essential to ensuring consensus at the official conference.
- **Democratic countries must lead by example.** By competing with China to set the standard for international action on environmental issues, democratic countries can counter the Chinese government's use of the environment for soft power goals.

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5. Clean energy's dirty secret: how can solar cut its dependence on Xinjiang forced labour?

Andrew Yeh

Key Point Summary

- State sponsored forced labour is endemic to China's Xinjiang region, where labour transfer schemes and the use of conscripted and prison labour take place within an environment of extreme surveillance and coercion against Uyghurs and other minority ethnic and religious groups.
- Global solar power supply chains are highly dependent on inputs from Xinjiang, with the region responsible for 45% of the world's solar grade polysilicon – the key material in 95% of solar panels.
- China's global share in all key manufacturing stages of solar panels is predicted to rise to 95% by 2025, with Xinjiang playing a major role. This poses both an ethical and strategic risk to countries seeking to transition to green energy.
- Following the enactment of the US Uyghur Forced Labor Prevention Act, other governments must act urgently to strengthen modern slavery legislation to avoid becoming dumping grounds for goods made with Uyghur forced labour.
- Increasing capacity in solar production to reduce reliance on Xinjiang supply chains is a strategic and moral imperative for democratic countries. Governments must work to reduce high energy and operational costs to increase domestic solar production.

Xinjiang's role in the global solar supply chain

China's north-western Xinjiang region plays a major role in the global solar supply chain. Firms based in Xinjiang play a key role at each stage of the production process, from raw materials to finished product.

- Raw materials: Xinjiang is estimated to hold 10% of China's vein quartz reserves, a key raw material input for metallurgical grade silicon, which is then refined into solar grade polysilicon. The world's largest metallurgical grade silicon producer, Xinjiang Hoshine, is also based there.⁶⁰
- Polysilicon: At least 45% of all solar grade polysilicon – the primary material in 95% of solar panels – is produced in Xinjiang, with over 30% of the world's supply produced elsewhere in China.⁶¹
- Ingots, wafers, cells and modules: Polysilicon is melted and shaped into ingots, which are in turn sliced into wafers, which are used to construct the photovoltaic cells which make up solar panels. Chinese firm Jinkosolar is the world's 2nd largest producer of solar panels, with a 12.6% global market share in 2019. Jinkosolar produces 42% of its ingots and wafers in its Xinjiang factories.⁶²

What are the risks posed by Xinjiang's solar supply chains?

Ethical risks

State-sponsored forced labour is endemic to the Xinjiang Uyghur Autonomous Region and is present in practically all industrial activity in the region.⁶³ Since 2016, the Chinese government has interned upwards of one million Uyghurs and other minority ethnic and religious groups in Xinjiang in so-called 'vocational training centres', with many detainees required to work at commercial factories built within or near the detention facility.⁶⁴ Additionally, the Chinese government has enlisted 2.6 million Uyghurs and other minority groups in 'labour transfer schemes' which send workers to farms and factories in the region or elsewhere in China.

60. Murphy, L. & Elimä, N. (2021), *In Broad Daylight: Uyghur Forced Labour and Global Solar Supply Chains*, Sheffield, UK: Sheffield Hallam University Helena Kennedy Centre for International Justice, pp.20, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/pdfs/evidence-base/in-broad-daylight.pdf>

61. Ibid, pp.7.

62. Ibid, pp.38.

63. Murphy, L. & Elimä, N. (2022), *Agricultural Sector Forced Labor in the Xinjiang Uyghur Autonomous Region*, Sheffield Hallam University Helena Kennedy Centre for International Justice, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/pdfs/shu-hkc---unsp-call-for-input-forced-labor-in-ag-sector-final.pdf>

64. Ibid.

While the Chinese government claims that participation is voluntary, in practice many participants are unable to refuse or exit jobs assigned to them by the government.⁶⁵ Nearly all solar firms in the region are directly linked to either or both of these programmes, including all four of Xinjiang's polysilicon producers and the world's second largest solar panel producer, Jinkosolar.⁶⁶

By sourcing from Xinjiang's solar supply chain, companies are thus knowingly being exposed to an extremely high risk of complicity in forced labour abuses. Companies registered in the UK, Germany, France, Australia and elsewhere are legally required to develop their own internal policies on preventing modern slavery in their supply chains, while some companies also choose to have their own policies on corporate social responsibility and sustainable development goals. Sourcing from Xinjiang will likely put companies in contradiction of these policies, as well as falling below the ESG standards expected by shareholders and consumers.

Strategic risks

Xinjiang's role in solar panel supply chains is part of a broader trend in which solar markets have become highly dependent on Chinese production. China has cemented itself as a global leader in solar power production in a relatively short period of time, going from importing 95% of its polysilicon to producing over 75% of the world's supply in under two decades. Analysts estimate that China's share in all the key manufacturing stages of solar panels exceeds 80% today, and for key elements including polysilicon and wafers, this is set to rise to more than 95% by 2025.⁶⁷

China's dominance in the industry comes at a time when solar power is of growing strategic importance. Solar power is the lowest cost option for new renewable electricity generation in most of the world and a key component of attempts to transition towards green energy. The IEA calculates that for the world to reach Net Zero Emissions by 2050, solar generation capacity will have to triple by 2030.⁶⁸

65. Ibid.

66. Murphy, L. & Elimä, N. (2021), In Broad Daylight: Uyghur Forced Labour and Global Solar Supply Chains, Sheffield, UK: Sheffield Hallam University Helena Kennedy Centre for International Justice, pp.7, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/pdfs/evidence-base/in-broad-daylight.pdf>

67. IEA (2022), 'The world needs more diverse solar panel supply chains to ensure a secure transition to net zero emissions', 7 July 2022, [Press release] <https://www.iea.org/news/the-world-needs-more-diverse-solar-panel-supply-chains-to-ensure-a-secure-transition-to-net-zero-emissions>

68. IEA (2022), *Solar PV*, IEA, Paris <https://www.iea.org/reports/solar-pv>, License: CC BY 4.0.

As governments across the West scramble to meet climate change commitments, the strategic implications of dependence on Chinese supply are clear. Just as the dependence of Europe on Russian gas was painfully exposed following Russia's invasion of Ukraine, so reliance on China's solar panels could restrict democratic countries' room for manoeuvre in an escalating geopolitical crisis. This dependency could reduce democratic countries' willingness to resist Beijing's interests where needed, and increase the Chinese government's ability to weaponise the threat of choke-points in these key supply chains. Last year, EU Commissioner Thierry Breton warned that Europe risked replacing dependency on Russian fossil fuels with dependency on China's solar power.⁶⁹

“Xinjiang’s role in solar panel supply chains is part of a broader trend in which solar markets have become highly dependent on Chinese production.”

Environmental risks

The production of solar grade polysilicon is an energy intensive process, with electricity accounting for around 40% of a manufacturer's operating cost.⁷⁰ Xinjiang is particularly attractive to solar manufacturers due to its abundance of cheap, coal-based energy. Electricity rates in Xinjiang are as low as \$0.03 per kwh, less than half the average US rate in 2021.⁷¹ However, this also means that solar panels produced in Xinjiang will carry a larger carbon footprint than those produced by a greener energy mix. While coal power accounts for over three quarters of Xinjiang's electricity generation, Germany (also a major solar producer) uses coal power for just a third of its electricity mix.⁷² Xinjiang's solar production is cheap but carries a hidden environmental cost, diminishing the environmental benefits that solar panels bring to energy production.

69. Breton, T. (2022), *Europe's efforts for a green industrial destiny*, European Commission Speech, 9 Dec 2022, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_7619

70. Murtaugh, D. (2021), 'Why It's So Hard for the Solar Industry to Quit Xinjiang', *Bloomberg*, 10 Feb 2021, <https://www.bloomberg.com/news/articles/2021-02-10/why-it-s-so-hard-for-the-solar-industry-to-quit-xinjiang#xj4y7vzkg>

71. Ibid; Statista Research Department (2023), *Average retail electricity price for industrial consumers in the United States from 1970 to 2021*, Statista, <https://www.statista.com/statistics/190680/us-industrial-consumer-price-estimates-for-retail-electricity-since-1970/>

72. Romei, V. & Arnold, M. (2022), 'Germany turns to coal for a third of its electricity', *Financial Times*, 7 Sep 2022, <https://www.ft.com/content/9d3c8af8-ae00-4dc5-9e85-579681450c9c>; IEA (2022), *Power generation, export and electricity demand in Xinjiang province, 2019*, <https://www.iea.org/data-and-statistics/charts/power-generation-export-and-electricity-demand-in-xinjiang-province-2019>

How can solar clean its supply chains?

The solar industry's dependence on Xinjiang supply chains poses major ethical, strategic and environmental risks. Cutting this reliance requires a range of demand and supply side solutions, both giving solar producers incentives to move production out of Xinjiang while also developing alternative supply chains elsewhere.

Strengthening modern slavery legislation

Most democratic countries have some form of modern slavery legislation, but it is rarely effective in stopping the import of goods made with forced labour. For example, while the UK's Modern Slavery Act requires companies to publish a modern slavery statement outlining their efforts to remove forced labour from its supply chains, it provides no powers to penalise companies that fail to implement their plans. By contrast, the new German Supply Chain Due Diligence Act is much stronger in penalising companies that fail to take adequate actions to avoid, prevent or remedy forced labour abuses in supply chains.⁷³

In the proposed EU mandatory due diligence legislation, businesses which fail to take adequate steps to eliminate modern slavery from their supply chains could be liable to pay damages to those impacted and company directors could face disqualification.⁷⁴ Such legislation could be further strengthened by establishing minimum standards of supply chain disclosure. By requiring companies to trace and publish their full supply chains, consumers, civil society organisations and law enforcement agencies will be much better placed to scrutinise forced labour risks.

An alternative approach is the US Uyghur Forced Labor Prevention Act which places a presumptive rebuttal on all goods made in Xinjiang. While such an area based approach is unusual, by transferring the burden of proof onto firms it can be highly effective in forcing companies to move supply chains away from regions of high risk. The comparative effectiveness of the US Uyghur Forced Labor Prevention Act means that any country that does not have a comprehensive strategy to exclude Uyghur forced labour from its markets will find itself a dumping ground for the products that can no longer be imported into the U.S.⁷⁵

73. Rödl & Partner (2023), *The new German Supply Chain Due Diligence Act (LkSG) – what needs to be done*, <https://www.roedl.com/insights/supply-chain-act-due-diligence-obligations>

74. Connellan, C., Forwood, G., Killick, J., McGarry, C., Catelle, W.D. & Fustes, G.G. (2022), *European Commission issues major proposal on due diligence obligations to protect human rights and the environment across supply chains*, White & Case, <https://www.whitecase.com/insight-alert/european-commission-issues-major-proposal-due-diligence-obligations-protect-human>

75. CSIS (2022), *Responding to Egregious Abuses in Xinjiang: Latest State of Play*, <https://www.csis.org/analysis/responding-egregious-abuses-xinjiang-latest-state-play>

Developing alternative solar supply chains

Despite China's growing dominance, the US, South Korea, Japan and Germany remain important players in the solar industry. In recent decades governments in these countries have focussed largely on state investment in research and development initiatives, or by boosting demand for solar panels through 'feed in tariffs' and other consumer incentives. To increase production capacity across the solar supply chain, governments will need to address supply side issues, including supporting capital expenditure and reducing operational costs for solar firms.

“A ‘Friend-shoring’ approach may be more appropriate, with like minded countries working together to ensure that all stages of production are covered between the partnering countries.”

While the EU's recently announced Solar PV Industry Alliance aims to facilitate further investment in the solar sector, industry leaders have pointed out that without dedicated funds to build and run solar factories European manufacturers will still struggle to compete with the benefits gained by Chinese firms.⁷⁶ Measures to achieve this could include subsidised energy prices for solar producers, particularly in the energy intensive process of producing solar grade polysilicon, and loans, grants or tax-credits for building, expanding and operating solar production facilities. The US government's tax incentives for solar manufacturers could see the US become the cheapest cost region for solar power production globally.⁷⁷

The international solar supply chain is complex and it may be beyond the budgetary constraints of any one government to seek to on-shore the end to end production process. In these cases a 'Friend-shoring' approach may be more appropriate, with like minded countries working together to ensure that all stages of production are covered between the partnering countries. Initiatives designed to increase resilience of semiconductor supply chains, such as the 'Chip 4 Alliance' between the US, Taiwan, Japan and South Korea, could be replicated by key solar manufacturing countries or multilateral bodies such as the G7.

76. SolarPower Europe (2022), *New EU effort to build enough solar panels to power 9 million homes a year*, <https://www.solarpowereurope.org/press-releases/new-eu-effort-to-build-enough-solar-panels-to-power-9-million-homes-a-year>

77. Bettoli, A., Nauc ler, T., Nyheim, T., Schlosser, A. & Staudt, C. (2022), *Building a competitive solar-PV supply chain in Europe*, McKinsey & Company, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/building-a-competitive-solar-pv-supply-chain-in-europe>

Recommendations

- **Strengthen modern slavery legislation and enforcement.** Adding penalties for companies and their directors who fail to remove forced labour abuses from supply chains will provide a clear incentive for firms to implement their modern slavery action plans. Establishing minimum standards of supply chain disclosure will ensure that firms know and are held accountable for their supply chains.
- **Support alternative solar supply chains.** Governments should provide grants, loans or tax credits for firms looking to build or expand solar production capacity, and reduce high operational costs for solar producers through subsidised energy prices – particularly at the early, energy-intensive stages of supply chains.
- **Foster international supply chain cooperation.** Multilateral solar initiatives should be formed to identify areas for increased trade, investment and research collaboration at different stages of the solar supply chain. For example, the EU's Solar PV Industry Alliance could be replicated at a G7 level, or between major solar producers such as the US, South Korea, Germany and Japan.

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6. Securing the semiconductor supply chain in an era of geopolitical uncertainty

Chun-Yi Lee and Leo Shaw

Key Point Summary

- Semiconductors are the building blocks of modern life: From smartphones to energy networks and advanced weapons systems, having a resilient supply of semiconductors is vital to world prosperity and security.
- China's threats against Taiwan pose a catastrophic risk to the semiconductor supply chain: Analysts predict that disruption to semiconductor foundries in Taiwan could cost US\$490 billion in revenue for electronic device manufacturers annually, with knock-on effects for supply chains in nearly all manufacturing sectors.
- Onshoring semiconductor supply chains is not viable: The complexity of the semiconductor production means that creating an end-to-end domestic supply chain would be slow and hugely expensive. Instead, governments should pursue 'friend-shoring' strategies whereby partners benefit from specialisation and comparative advantage.
- Safeguarding Taiwan's security is key to supply chain security: Taiwan's indispensable role in semiconductor supply chains means that maintaining peace across the Taiwan strait must be a part of any countries' semiconductor strategy. Democratic countries should work to deter Beijing's aggression against Taiwan through increased political, economic and defence cooperation in the region.

What are semiconductors?

Semiconductors (commonly referred to as 'chips') are components that enable electronic devices to function. They are found in nearly all electronic goods, not only laptops and smartphones, but also cars, fridges and traffic lights. Demand for semiconductors is set to grow rapidly in the coming decades, with the components vital to development of technologies in smart devices, green energy and next generation communications infrastructure such as 5G networks. Semiconductors will also play a vital role in the future of the military industrial sector, with advanced weapons systems, artificial intelligence and space all dependent on the development of semiconductors. The total global semiconductor market in 2022 was valued at 601 billion US dollars.⁷⁸

What are the risks posed by semiconductor supply chain disruption?

The foundational role played by semiconductors in nearly all industries means that disruption to international semiconductor supply chains has knock on effects across the global economy.

The need for a stable supply of semiconductors was put into sharp relief at the onset of the COVID-19 pandemic, as lockdown restrictions created bottlenecks and shortages in labour intensive stages of the semiconductor production process. It is estimated that these shortages impacted 169 industries globally,⁷⁹ with costs to the automotive industry alone estimated to total \$210 billion in fallen revenues and the lost production of 7.7 million vehicles in 2021.⁸⁰

Given the vital role played by semiconductors in defence and dual use technologies, countries that cannot guarantee a resilient supply of semiconductors risk their prosperity, security and have a reduced room for manoeuvre when rising to meet new challenges.

78. Gartner (2023), Gartner Says Worldwide Semiconductor Revenue Grew 1.1% in 2022, 17 January 2023, [Press Release] <https://www.gartner.com/en/newsroom/press-releases/2023-01-17-gartner-says-worldwide-semiconductor-revenue-grew-one-percent-in-2022>

79. Ihsaan Fanusie (2021), 'Supply chain issues causing 'unprecedented' non-recession inventory slump: JPM', *Yahoo Finance*, 10 August 2021, <https://uk.finance.yahoo.com/news/jp-morgan-supply-chain-bottlenecks-causing-unprecedented-non-recession-inventory-slump-165650327.html?guccounter=1>

80. Jin, H. (2022), 'Automakers, chip firms differ on when semiconductor shortage will abate', *Reuters*, 4 February 2022, <https://www.reuters.com/business/autos-transportation/automakers-chip-firms-differ-when-semiconductor-shortage-will-abate-2022-02-04/>

What would the impact of military action against Taiwan have on global semiconductor supply chains?

The prospect of Chinese military action against Taiwan is not a remote possibility. President Xi Jinping has repeatedly reiterated the Chinese Communist Party's desire to 'reunify' the island with the mainland and refuses to rule out the use of force to do so.⁸¹

It is difficult to understate the detrimental impact that Chinese military action or economic blockade against Taiwan would have on global semiconductor supply chains. The Taiwan Semiconductor Manufacturing Co. (TSMC) alone is responsible for around 60% of the world's semiconductor production by revenue,⁸² and over 90% of production in the most advanced semiconductors (defined as those less than 10 nanometers in size).⁸³ Some of the world's largest tech firms, including Apple, Amazon and Google rely on Taiwan-based contract manufacturers for nearly 90 percent of their chips.⁸⁴

“It is difficult to understate the detrimental impact that Chinese military action or economic blockade against Taiwan would have on global semiconductor supply chains.”

According to expert estimates, a full-scale disruption of semiconductor foundries in Taiwan would have an annual spillover impact of a US\$490 billion in lost revenue for electronic device manufacturers across different markets.⁸⁵ Such disruption would be a major contributing factor to the US government's reported estimates of \$2.5 trillion in annual losses to the global economy should China blockade Taiwan.⁸⁶

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81. Agence France-Presse (2023), 'China's warplane incursions into Taiwan air defence zone doubled in 2022', *The Guardian*, 2 Jan 2023, <https://www.theguardian.com/world/2023/jan/02/chinas-warplane-incursions-into-taiwan-air-defence-zone-doubled-in-2022>
 82. Counterpoint (2023), *Global Semiconductor Foundry Revenue Share: Q4 2022E*, <https://www.counterpointresearch.com/global-semiconductor-foundry-market-share/>
 83. Hille, K. (2021), 'TSMC: how a Taiwanese chipmaker became a linchpin of the global economy', *Financial Times*, 24 Mar 2021, <https://www.ft.com/content/05206915-fd73-4a3a-92a5-6760ce965bd9>
 84. Arcuri, G. & Lu, S. (2022), *Taiwan's Semiconductor Dominance: Implications for Cross-Strait Relations and the Prospect of Forceful Unification*, CSIS, <https://www.csis.org/blogs/perspectives-innovation/taiwans-semiconductor-dominance-implications-cross-strait-relations>
 85. Varas A., Varadarajan, R., Goodrich, J. & Yinug, F. (2021), *Strengthening Global Semiconductor Supply Chain In An Uncertain Era*, Semiconductor Industry Association/Boston Consulting Group, https://www.semiconductors.org/wp-content/uploads/2021/05/BCG-x-SIA-Strengthening-the-Global-Semiconductor-Value-Chain-April-2021_1.pdf
 86. Hille, K. & Sevastopulo, D. (2022), 'US warns Europe a conflict over Taiwan could cause global economic shock', *Financial Times*, 10 November 2022, <https://www.ft.com/content/c0b815f3-fd3e-48-07-8de7-6b5f72ea8ae5>

The impact would be more than short term disruption. Taiwan has achieved its position as the world's leading advanced semiconductor manufacturer through five decades of accumulating capital investment and technical expertise. Taiwan is unique in having comprehensive manufacturing capabilities across different stages of semiconductor production and has a large talent pool of engineers at differentiated levels of expertise. Analysts predict it would take at least three years and a \$350 billion investment for the rest of the world to build enough capacity to replace Taiwanese foundries.⁸⁷

Building a resilient semiconductor supply chain

Onshoring an end-to-end supply chain is not viable

Governments looking to secure critical supply chains may consider 'on-shoring' – whereby domestic production capacity is developed to replace reliance on imports. However, this is not a viable option for the semiconductor supply chain. The semiconductor supply chain is complex and relies on drawing designs, materials and manufacturing inputs from across the world. Each stage of the production process is highly specialised and no one country has dominance across all stages of the design and production process. To replace the existing international supply chain with an end-to-end, domestic supply chain would require an incremental upfront investment of more than US\$1 trillion and would push semiconductor prices to climb sharply.⁸⁸

Building an effective 'friend-shore'

Instead, governments must look to increase semiconductor supply chain resilience by 'friend-shoring'. This strategy sees like minded countries working together to ensure that all stages of production are covered between the partnering countries. In this way, each country can maintain its supply even while relying on foreign inputs, while also gaining from efficiencies of specialisation and comparative advantage.

87. Varas A., Varadarajan, R., Goodrich, J. & Yinug, F. (2021), *Strengthening Global Semiconductor Supply Chain In An Uncertain Era*, Semiconductor Industry Association/Boston Consulting Group, https://www.semiconductors.org/wp-content/uploads/2021/05/BCG-x-SIA-Strengthening-the-Global-Semiconductor-Value-Chain-April-2021_1.pdf

88. Ibid.

Building an effective friend-shoring relies on each partner in the group playing to its strengths. The 'Chip 4 Alliance' between the US, Taiwan, Japan and South Korea serves as one model for this. This partnership is viable because while Taiwan and South Korea act as the world's leading semiconductor manufacturers, Japanese firms can lead the supply of key materials and equipment while US firms dominate the supply of semiconductor design software and IP cores.⁸⁹

For each partner to play to its strengths, governments need to invest in their specialist capabilities. For example, the US and Europe are leaders in electronic design automation (EDA), IP core and chip designs.⁹⁰ The US and EU Chips Acts both set out ambitious investments in R&D, with state investment having been found to be critical to retaining these industrial advantages.⁹¹ This represents a far more strategic use of resources than the related initiatives in the same Acts which seek to boost domestic production that can be better done abroad. Though there are some advantages to increasing domestic semiconductor production in the US and Europe, this will not be at a sufficient quantity or efficiency to meaningfully reduce import dependence on other countries, particularly with regards to the most advanced chips from Taiwan.

A key challenge for the Chip 4 Alliance and other friend-shoring initiatives is the reliance on China for rare earth materials. China currently holds 60% of global rare earth mined production and 85% of rare earth processing capacity.⁹² To ensure the viability of the friend-shoring, initiatives must include leaders in rare earth mineral production and processing, such as Australian firms.⁹³

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89. Khan, S.M., Mann, A. & dahlia, P. (2021), *The Semiconductor Supply Chain: Assessing National Competitiveness*, Center for Security and Emerging Technology, <https://cset.georgetown.edu/wp-content/uploads/The-Semiconductor-Supply-Chain-Issue-Brief.pdf>
90. Varas A., Varadarajan, R., Goodrich, J. & Yinug, F. (2021), *Strengthening Global Semiconductor Supply Chain In An Uncertain Era*, Semiconductor Industry Association/Boston Consulting Group, https://www.semiconductors.org/wp-content/uploads/2021/05/BCG-x-SIA-Strengthening-the-Global-Semiconductor-Value-Chain-April-2021_1.pdf
91. The US Chips Act contains an \$11 billion fund for research and development and talent training and \$81 billion for the National Science Foundation (NSF) to invest in developing research and STEM talent. Similarly, the EU's Chips for Europe Initiative dedicates around 3.3 billion euros to support technical capacity building, R&D and personnel training.
92. Yao, X. (2022), *China Is Moving Rapidly Up the Rare Earth Value Chain*, MarshMcLennan, <https://www.brinknews.com/china-is-moving-rapidly-up-the-rare-earth-value-chain/#:~:text=Although%20it%20has%20only%20about,rare%20earth%20permanent%20magnets%20manufactured>
93. Subin, S. (2021), 'The new U.S. plan to rival China and end cornering of market in rare earth metals', 17 Apr 2021, CNBC, <https://www.cnbc.com/2021/04/17/the-new-us-plan-to-rival-chinas-dominance-in-rare-earth-metals.html>

Preventing the outflow of intellectual property

A key to protecting strategic advantages in semiconductors is preventing attempts by hostile competitor's to steal or to buy up domestic technologies and know-how. Of particular note is the Chinese government's 'Made in China 2025' strategy, which seeks to 'decouple' from the West in critical technologies, including through acquiring foreign expertise for Chinese firms.⁹⁴ For instance, the UK government was right to use 'call in' powers granted under the National Security and Investment Act to unwind the Chinese owned Nexperia's takeover of British semiconductor manufacturing firm Newport Wafer Fab, citing concerns that the firm could use the takeover to gain advances in compound semiconductors to the detriment of the UK's own capabilities. Ensuring that government investment instruments have sufficient capacity to analyse acquisitions is particularly important given the Chinese government's strategy of using third country's companies as the vehicle to make acquisitions of technology companies abroad.⁹⁵ It is notable that only 14 EU Member States have national investment screening mechanisms.⁹⁶

It is worth noting that guarding against hostile mergers and acquisitions led by the Chinese government does not mean countries should seek to block all commercial activities with China. Taiwan's regulation requires semiconductor producers to obtain government approval for partnerships with Chinese firms, while investments are limited to building up to three 12-inch wafer foundries in China.⁹⁷ Outside of these requirements, Taiwanese companies can pursue their business interests in China.

94. The State Council of the People's Republic of China (2022), *Made in China 2025*, <https://english.www.gov.cn/2016special/madeinchina2025/>

95. Schweizer, D., Walker, T. & Zhang, A. (2019), 'Cross-border acquisitions by Chinese enterprises: The benefits and disadvantages of political connections', *Journal of Corporate Finance*, 57, pp.63-85, <https://doi.org/10.1016/j.jcorpfin.2017.12.023>; Shead, S. (2021), 'TECH The Chinese firm behind the acquisition of the UK's largest chip plant is state backed, analysis shows', *CNBC*, 7 July 2021, <https://www.cnbc.com/2021/07/07/nexperia-owner-wingtech-is-backed-by-chinese-government-analysis-says.html>

96. European Commission (2020), *Foreign Direct Investment EU Screening Framework*, https://trade.ec.europa.eu/doclib/docs/2019/february/tradoc_157683.pdf

97. Zai Da Lu Di Chyu Tsong Shih Tou Zih Huo Ji Shu He Zuo Syu Ke Ban Fa [Regulations Governing the Approval of Investment or Technical Cooperation in Mainland China] (2022), Ministry of Economic Affairs, R.O.C., <https://law.moj.gov.tw/LawClass/LawAll.aspx?pcode=Q0040001>; Zai Da Lu Di Chyu Tsong Shih Tou Zih Huo Ji Shu He Zuo Jin Jhih Lei Jhih Zao Yeh Chan Pin Siang Mu Bu Fen Siang Mu Siou Jheng Duei Jhao Biao [Negative list for investment in the mainland - Agriculture, manufacturing and service industries' product items that prohibited to invest in the mainland] (2015), Ministry of Economic Affairs, R.O.C., <https://law.moea.gov.tw/LawContent.aspx?id=GL000190>

It is reasonable that governments are seeking regulation since China is catching up with other countries' strategic advantage in semiconductor production. However, highly restrictive export controls can be a blunt instrument in this regard. While US efforts to restrict the export of advanced semiconductor to China may be sensible in preventing China from building strategic capabilities, attempting to block chip-equipment being sold to China risks hurting semiconductor firms and alienating allies.⁹⁸ In most cases, private firms trading with China can be trusted to protect their intellectual property, as this is within their commercial interest.

Safeguarding Taiwan's security

Taiwan plays an unparalleled role in the semiconductor supply chains, and will be indispensable to any friend-shoring initiative. Taiwan's dominance is particularly high in the most advanced chips, where it produces over 90% of the world's supply. Analysts estimate it would take several years and at least a US\$350 billion investment for the rest of the world to build enough capacity to replace Taiwanese foundries.⁹⁹ It is neither feasible nor desirable to cut dependency on Taiwanese semiconductors.

“Taiwan plays an unparalleled role in the semiconductor supply chains, and will be indispensable to any friend-shoring initiative.”

Guaranteeing Taiwan's security and maintaining peace across the Taiwan strait therefore should be a common major focus of semiconductor strategies. Especially for those countries that are passive and lack advantages in the semiconductor supply chain. By deterring China from carrying out military action against Taiwan, countries are not only supporting a key democratic ally in the region but are also acting to secure its critical supply chains and the prosperity of the global economy. The middle powers with military capability could increase participation in freedom of navigation missions with allied partners, and signal its commitment to the region's security.

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98. Dobberstein, L. (2022), 'SK hynix, Samsung, TSMC granted one-year reprieve from China chip restrictions', *The Register*, 13 Oct 2022, https://www.theregister.com/2022/10/13/sk_hynix_china_chip_reprieve/
99. Varas A., Varadarajan, R., Goodrich, J. & Yinug, F. (2021), Strengthening Global Semiconductor Supply Chain In An Uncertain Era, Semiconductor Industry Association/Boston Consulting Group, https://www.semiconductors.org/wp-content/uploads/2021/05/BCG-x-SIA-Strengthening-the-Global-Semiconductor-Value-Chain-April-2021_1.pdf

Countries should also make clear to the Chinese government that the severity of economic sanctions and diplomatic isolation resulting from any action against Taiwan would be at least on par with measures taken against Russia following the invasion of Ukraine. China's attempts to isolate Taiwan from the international stage are a core part of its strategy to weaken international resistance to future coercion against Taiwan. By fostering greater political, economic and people to people ties with Taiwan can push back against these attempts, including supporting Taiwan's existence in multilateral institutions, such as the World Health Organisation, International Civil Aviation Organization and International Labour Organisation.

Recommendations

- **Expand and expedite friend-shoring initiatives.** Progress on the Chip 4 Alliance has reportedly stalled, and proposals currently contain no European members. To maximise their effectiveness, friend-shoring initiatives must also address rare earth minerals and rare earths processing.
- **Identify and invest in areas of strategic advantage.** For an effective friend-shoring, partners must understand and build their comparative strengths. While the US and Europe may be tempted to invest in domestic manufacturing capacity, resources are more effectively spent on maintaining existing leads in chip design.
- **Protect existing technological leads.** Governments must establish effectively resourced investment screening mechanisms to prevent hostile takeovers and technology transfer to China and other systemic competitors. While semiconductor trade with China must be restricted in sensitive areas, private firms can be trusted to protect their own intellectual property.
- **Safeguard Taiwan's security.** Providing a strong economic and military deterrent to prevent China from taking coercive actions against Taiwan, as well as strengthening Taiwan's role in multilateral institutions, is a central component in ensuring the resilience of semiconductor supply chains.

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7. How can governments help investors manage ESG risks in China?

Sam Goodman

Key Point Summary

- For firms and individuals seeking investments that are in line with Environmental, Social, and Governance (ESG) criteria, investing in China presents significant governance risks. As demonstrated by Beijing's crackdown on tech firms, the Chinese government is asserting greater control over private companies and blurring the lines between party, state and private enterprise.
- The increased presence of Chinese Communist Party cells within company structures also raises serious questions over the ability of Chinese firms to meet the basic levels of transparency and governance standards needed for ESG investors.
- Investors that are dependent on China's markets also face major risks in the event of Beijing taking military action against Taiwan, with the Chinese government likely to place capital controls on assets held by foreign investors and take reciprocal measures to counter Western sanctions.
- Governments should encourage investors to manage their China risks by requiring companies to publish country specific risk registers and by stress testing the resilience of financial systems to conflict in Taiwan. Governments must act to protect the taxpayer from any financial fallout from firms which have become over-dependent on Chinese investments.

China's changing investment environment

Xi Jinping has spent much of his decade in power dismantling what few checks and balances existed within China's system of governance. Financial markets reeled at the fall-out of a Party Congress that saw Xi Jinping given an unprecedented "third term" and the demoting of so-called reformers. Political rivals and businessmen who step out of line – like Alibaba's Jack Ma – find themselves the victims of 'anti-corruption' purges.¹⁰⁰ Even the likes of BlackRock and Vanguard, the arch-cheerleaders of burgeoning investment in China, now openly concede that there are increasing risks to investing in a country tightly controlled by the personal ideology of one man by ditching new investment funds in China.¹⁰¹

Consequently, as China's economy opens up after three years of restrictive zero-COVID policies, the Chinese government is embarking swiftly on a charm offensive to attract international investors. This has included speeding up the regulatory approval of foreign investment funds to set up in China and an overhaul of the IPO registration system.¹⁰² These measures have had some success. In January 2023 alone, Standard Chartered, JP Morgan, and Schroders were all given the greenlight by the China Securities Regulatory Commission to expand their operations in the country,¹⁰³ while investors bought a net 64 billion yuan (\$9.5 billion) of Chinese stocks via the Hong Kong-mainland trading link in the first nine trading days of the new year.¹⁰⁴

100. Yang, Y., Goh, B. & Wu, K. (2023), 'Ant Group founder Jack Ma to give up control in key revamp', *Reuters*, 7 Jan 2023, <https://www.reuters.com/business/ant-group-says-jack-ma-relinquishes-control-company-2023-01-07/>

101. Yu, Sun. (2022), 'BlackRock shelves China bond ETF', *Financial Times*, 13 Nov 2022, https://www.ft.com/content/5bc4c8c6-ebac-4b2b-84a5-c918dc4de614?FTCamp=engage/CAP1/a pp/Channel_Refinitiv//B2B; Steger, A. (2022), 'Vanguard quietly shelves plans for China stock fund', *Citywire Pro Buyer*, 3 Mar 2022, <https://citywire.com/pro-buyer/news/vanguard-quietly-shelves-plans-for-china-stock-fund/a2381433>

102. Quan, Y., Yue, Y., Denise, J., Zhang, Y. & Zhang, Z. (2023), 'CX Daily: Five Things to Know About China's Latest IPO System Overhaul', *Caixin Global*, 3 Feb 2023, <https://www.caixinglobal.com/2023-02-03/cx-daily-five-things-to-know-about-chinas-latest-ipo-system-overhaul-101994335.html>; Xinhua (2019), 'China announces timetable to scrap limits on foreign ownership of financial firms', *State Council of the People's Republic of China*, http://english.www.gov.cn/statecouncil/ministries/201910/11/content_WS5da06d42c6d0bcf8c4c14e5b.html

103. Reuters (2023), 'JPMorgan, Standard Chartered win approval to expand in China', 20 Jan 2023, <https://www.reuters.com/business/finance/jpmorgan-wins-approval-take-full-control-chinese-mutual-fund-jv-2023-01-19/>; Schroders (2023), *Schroders receives permission to establish wholly foreign-owned public fund management company in China*, <https://www.schroders.com/en/global/media-relations/media-centre/schroders-receives-permission-to-establish-wholly-foreign-owned-public-fund-management-company-in-china/>

104. Wong, E. & Kawase, K. (2023), 'Foreign investors rush back to Chinese stocks despite worries', *Nikkei Asia*, 16 Jan 2023, <https://asia.nikkei.com/Spotlight/Market-Spotlight/Foreign-investors-rush-back-to-Chinese-stocks-despite-worries>

Governance risks

For investors who increasingly espouse support for investments that are in line with Environmental, Social, and Governance (ESG) criteria, China should be seen soberly as a risk.

The 'G' within ESG refers to the governance standards which guide how companies make decisions. For a responsible investor, it is important to know how decisions in a company are made, and who they are made by. Companies with high standards of corporate governance have rigorous decision making processes, clearly demarcated relationships between shareholders, executives and other stakeholders, and transparent flows of information between key groups.

When it comes to China's economy, the increasingly blurred lines between state, party and private enterprise make it difficult for Chinese companies to attain these high standards of corporate governance.

China's crackdown on tech firms

As the crackdown on technology companies within China has demonstrated, few Chinese companies can boast that they are in practice independent from the Chinese state.

In response to the Chinese government's fears that the sector had grown too powerful, recent years have seen a wave of new regulations seeking to reign back China's tech firms. These have included restrictions on publishing rules, advertisements, IPOs and the ability of Chinese companies to list overseas. Tech giants Alibaba, Meituan and Tencent have paid hundreds of millions of dollars in fines for "abusing their market position".¹⁰⁵

The fate of Jack Ma, once the poster boy of a new wave of successful Chinese tech entrepreneurs, is a case in point. Following comments Ma made criticising government regulators in November 2020, authorities halted the IPO of Ma's Ant Group, forcing its break up and causing Ma to disappear from the public view and flee into exile.¹⁰⁶

105. Zhang, S. (2021), 'China tech crackdown: after a trillion-dollar rout, has the stock market drubbing gone too far?', *South China Morning Post*, 25 Dec 2021, <https://www.scmp.com/business/markets/article/3160993/china-tech-crackdown-after-trillion-dollar-rout-has-stock-market>

106. Yang, J. & Wei, L. (2020), 'China's President Xi Jinping Personally Scuttled Jack Ma's Ant IPO', *The Wall Street Journal*, 12 Nov 2020, <https://www.wsj.com/articles/china-president-xi-jinping-halted-jack-ma-ant-ipo-11605203556>

It would be a mistake for investors to consider the pausing of this regulatory crackdown as a return to the previous status quo. Instead, it reflects the success of a campaign designed to bring technology companies firmly under the state's control. The public destruction of Jack Ma is a warning to other Chinese executives that dissension or a challenge to the party line will not be tolerated.

“The increasingly blurred lines between state, party and private enterprise make it difficult for Chinese companies to attain these high standards of corporate governance.”

Increasing Party control

Private enterprises in China are not only subject to the interventions of the Chinese state, they are also increasingly under the influence of its ruling Chinese Communist Party (CCP). Under changes to China's Company Law introduced by Xi Jinping in 2016, and recently enforced upon foreign companies operating in the country, CCP cells have growing prominence in private sector companies.¹⁰⁷ These cells are consulted regularly by shareholders and have influence over senior recruitment decisions. Rather than the perception of captive companies who are forced into the employ of the CCP apparatus, many of these companies are headed up by executives who are prominent party members helping to draft party policy.¹⁰⁸

The recent purchasing by the party-state of “special management shares” in Alibaba and Tencent is another layer of control, giving regulators further power over the content these companies put out and placing appointed officials at the heart of business strategy and investment decisions.¹⁰⁹

107. Laband, J. (2018), 'Fact Sheet: Communist Party Groups in Foreign Companies in China', *USCBC*, <https://www.chinabusinessreview.com/fact-sheet-communist-party-groups-in-foreign-companies-in-china/>; Kowk, D. & Goodman, S. (2022), 'Chinese Communist Cells in Western Firms?', *The Wall Street Journal*, 11 Jul 2022, <https://www.wsj.com/articles/communist-cells-in-western-firms-business-investment-returns-xi-jinping-11657552354>

108. Deng, I. & Shen, X. (2021), 'China's 'two sessions': Tencent boss Pony Ma makes his mark in key Beijing political gala with new proposals', *South China Morning Post*, 4 Mar 2021, <https://www.scmp.com/tech/big-tech/article/3124037/chinas-two-sessions-tencent-boss-pony-ma-makes-his-mark-key-beijing>

109. Bloomberg (2023), 'China's Government to Take Golden Shares in Alibaba, Tencent', 13 Jan 2023, <https://www.bloomberg.com/news/articles/2023-01-13/alibaba-tencent-fall-after-report-beijing-ta-king-golden-shares>

National security regime

Chinese firms operate within a legal and regulatory environment increasingly geared towards protecting against what the Chinese government perceives as national security threats. Strict national intelligence laws require private firms to work hand in glove with the state and forbid them from openly disclosing the extent of this collaboration.¹¹⁰ Such control was on full display in December 2022, when Chinese technology companies TikTok and Tencent were required to help Chinese officials use social media data to identify anti-lockdown protestors, who were later arrested and detained.¹¹¹

New regulations on Variable Interest Entities (VIEs) could present a further avenue for the Chinese government to crack down on private companies on national security grounds. Chinese companies operating overseas often use VIE structures to raise funds abroad while bypassing Chinese regulations on foreign ownership. Investors in VIEs do not hold any direct equities in the Chinese operating company but instead in a non-Chinese holding company. Under the new regulations, regulators will have powers to order Chinese companies with VIE structures to delist if their listing is deemed to harm national security or its controlling shareholder has committed financial crimes against China.¹¹²

As covered elsewhere in this paper, China's national security legislation is vaguely defined and broadly interpreted, and is often used as a pretext for a crackdown. These new regulations could put significant levels of investments at risk, including the 240 Chinese VIE companies listed on the US stock exchange, which together had a total market cap of over \$2 trillion in 2021.¹¹³

110. Kawase, K. (2022), 'Made in China 2025 plan thrives with subsidies for tech and EV makers', *Financial Times*, 1 Aug 2022, <https://www.ft.com/content/f7df0f64-25b5-4526-82fa-ca1b554b541b>

111. Lin, L. (2022), 'China Clamps Down on Internet as It Seeks to Stamp Out Covid Protests', *The Wall Street Journal*, 1 Dec 2022, <https://www.wsj.com/articles/china-clamps-down-on-internet-as-it-seeks-to-stamp-out-covid-protests-11669905228>

112. Qiu, B. (2023), 'China's anti-corruption agency has financial sector in its sights', *Nikkei Asia*, 1 Mar 2023, <https://asia.nikkei.com/Opinion/China-s-anti-corruption-agency-has-financial-sector-in-its-sights>

113. GCI Investors (2020), *Chinese VIE Structure: Wall Street Continues to Ignore the Risks*, <https://gci-investors.com/chinese-vie-structure-wall-street-continues-to-ignore-the-risks/>; Hong Kong Watch (2022), *New Hong Kong Watch ESG Report calls on Canadian pension funds to stop turning a 'blind eye' to gross human rights abuses in China*, <https://www.hongkongwatch.org/all-posts/2022/6/8/hkw-esg-report-calls-on-canadian-pension-funds-to-stop-turning-a-blind-eye-to-gross-human-rights-abuses-in-china>

Geopolitical risks

These governance risks feed into wider geopolitical risks. Xi Jinping has reiterated his commitment to 'reunifying' Taiwan with the mainland, and has refused to rule out the use of force. Russia's war in Ukraine should serve as an example of the likely economic turmoil that would follow if China invades Taiwan. Following Russia's invasion, large asset managers like BlackRock posted significant losses and major banks and large multinational corporations were forced to leave the country.¹¹⁴ Putin responded with a ban on investors from "unfriendly countries" selling their shares in certain strategic enterprises.¹¹⁵

As of June 2022, foreign investors held over a trillion dollars in Chinese bonds and equities.¹¹⁶ In the event of conflict in the Taiwan Strait, the Chinese government could mirror Russia's response to the war in Ukraine by moving quickly to impose capital controls and restricting the movement of Western investors seeking to shed their investments to avoid likely sanctions from the US and other actors.

Conclusion

Investing in China faces extreme challenges from an ESG perspective. Currently the ESG sector is self-regulated without proper regulation or standards. Too often it has geared towards focusing purely on the "E" at the expense of the "S" and the "G". In China's case, this has allowed foreign actors to invest heavily in firms compromised by the CCP's hidden role in governance structures, not to mention the financing of modern slavery abuses in the Uyghur Region addressed elsewhere in this paper.

While private equity investors with a high tolerance for risk should be able to invest freely in Chinese companies if they choose, the onus is on governments to ensure investors fully understand the complex risks of investing in China, while protecting their citizens from the adverse impacts of financial systems being over leveraged on their China investments. No one in good conscience and with good sense can claim the economic warnings and investment risks in China are a mystery.

114. Bloomberg Surveillance (2022), 'BlackRock Funds Lost \$17 Billion on Russian Markdown: FT', *Bloomberg*, 11 Mar 2022, <https://www.bloomberg.com/news/videos/2022-03-11/blackrock-funds-lost-17-billion-on-russian-markdown-ft-video>

115. Radio Free Europe/Radio Liberty (2022), 'Putin Signs Ban Keeping Investors From 'Unfriendly' Countries From Selling Stakes In Key Companies', 5 Aug 2022, <https://www.rferl.org/a/russia-investors-unfriendly-countries-putin/31975585.html>

116. Vest, C., Kratz, A. & Goujon, R. (2022), *The Global Economic Disruptions from a Taiwan Conflict*, Rhodium Group, 14 Dec 2022, <https://rhg.com/research/taiwan-economic-disruptions/>

Recommendations

- **Governments and banks should work together to stress test their China risks.** Central banks should include conflict in Taiwan as a hypothetical scenario in annual stress testing exercises, such as the Federal Reserve Board stress test of US banks and the Bank of England's Annual Cyclical Scenario for stress testing UK banks.¹¹⁷ Funds that are overleveraged should enact a plan to reduce their exposure, while governments should regularly share clear guidance on geopolitical risks with financial firms.
- **Governments must reduce the taxpayer's China risks.** Governments must make it clear that financial firms that are over-exposed to China's financial markets should not expect a taxpayer funded bailout should the situation deteriorate. The US Dodd-Frank Wall Street Reform and Consumer Protection Act's ban on federal government bailouts of swap entities could be further applied to investments in Chinese VIE companies.¹¹⁸
- **Governments should cut investment guarantees to China.** Investment guarantees provide incentives for firms to increase their investments in China at a time where risks in the country are increasing, while the government, and in turn the taxpayer, takes on a proportion of the risk.¹¹⁹ These measures are being actively reviewed by the German government, which currently holds 11.3bn euros worth of investment guarantees in China.¹²⁰
- **Asset managers should be required to publish public country specific risk registers.** These measures will help clients better assess their China risks and should take into account corporate governance risks associated with Chinese firms. To reduce the burden on firms, this could be restricted to countries where at least 10% of their overall portfolio is invested.

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117. Bank of England (2022), *Stress testing the UK banking system: key elements of the 2022 annual cyclical scenario*, <https://www.bankofengland.co.uk/stress-testing/2022/key-elements-of-the-2022-stress-test>; Board of Governors of the Federal Reserve System (2022), 'Federal Reserve Board releases hypothetical scenarios for its 2022 bank stress tests', 10 Feb 2022, [Press Release] <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220210a.htm>

118. *H.R.4173 - Dodd-Frank Wall Street Reform and Consumer Protection Act*, https://www.cftc.gov/sites/default/files/idc/groups/public/@swaps/documents/file/hr4173_enrolledbill.pdf

119. Rinke, A. & Marsh, S. (2022), 'Exclusive: German economy ministry reviews measures to curb China business', *Reuters*, 8 Sep 2022, <https://www.reuters.com/markets/exclusive-german-economy-ministry-reviews-measures-curb-china-business-2022-09-08/>

120. *Ibid.*

8. What are the core challenges facing China's economy?

CSRI Economics Team

Key Point Summary

- Despite optimism as restrictive COVID measures are lifted, China's economy faces a number of structural challenges that could dampen its growth in the long term. These include high debt, an inflated real estate sector and a declining working age population.
- Governments must assess what a slowdown in China's economy would mean for their own domestic economies. Scenarios include a weakened Chinese consumer market, inflationary pressures and exposed financial assets.
- Commodities, luxury goods and higher education markets could all be impacted by a reduction in Chinese demand. Depending on the implementation of "common prosperity" plans, Chinese government stimulus packages could lead to inflationary pressures on Chinese-made goods.
- Businesses and investors can mitigate against these risks by avoiding high levels of dependence on the Chinese market. Governments can support businesses in these initiatives by strengthening trade and investment ties with alternative markets in the region.

What are the structural challenges to China's economy?

China's economy is set to rebound this year following the lifting of the country's severe COVID-19 restrictions. Many analysts predict that China's economy will expand by roughly 5% this year.¹²¹ However, the fact remains that China's economy still faces long term structural challenges that present difficult trade-offs for China's policymakers. How the Chinese government chooses to navigate these problems will have ramifications worldwide.

Unsustainable Debt Levels

China's levels of debt relative to the size of its economy match or surpass levels in much of the West. China's non-financial sector debt was believed to be near 300 percent of China's GDP in 2022.¹²² While wealthier countries can sustain higher levels of debt, China is not a high-income or developed economy. Yet in recent decades, China's economic growth has depended on quickly rising levels of debt. During the pandemic year of 2020, for every 1 yuan increase in China's GDP, China's aggregate financing – a measure that roughly approximates total debt levels— grew by about 12 yuan.¹²³ Eventually, extremely high debt levels may force a decrease in infrastructure and real estate investment, the key drivers of China's growth in the last decade, and may even force a decrease in consumer and other government (especially local government) spending in order to stabilise debt levels.

Low Consumer Spending

China's recent household consumption as a share of GDP is, by official counts, among the lowest ever seen in modern history for a major economy – even lower than reported levels in the US or Britain during the peak of World War II rationing.¹²⁴ China must raise household spending if it is to stimulate sectors such as retail, healthcare, entertainment and other consumer services that can propel new growth and reduce debt pressures. Meagre wages for many workers, low state health and pension provision, uncertainty over the future security of wealth (much of which is stored in real estate) and high education and housing costs for children means many families are reluctant to spend their savings.

121. Cerdeiro, D.A. & Jain-Chandra, S. (2023), 'China's Economy is Rebounding, But Reforms Are Still Needed', *International Monetary Fund*, 3 Feb 2023, <https://www.imf.org/en/News/Articles/2023/02/02/cf-chinas-economy-is-rebounding-but-reforms-are-still-needed>

122. BIS Statistics Warehouse (2023), *BIS long series on total credit: China*, [https://stats.bis.org/#df=BIS:WS_TC\(2.0\);dq=.CN.C+G+H+N...770.%3FlastNObservations=6;pv=2,4~7~1,0,0~both](https://stats.bis.org/#df=BIS:WS_TC(2.0);dq=.CN.C+G+H+N...770.%3FlastNObservations=6;pv=2,4~7~1,0,0~both)

123. National Bureau of Statistics of China (2022), *China Statistical Yearbook 2022*, Beijing: China Statistics Press. <http://www.stats.gov.cn/tjsj/ndsj/2022/indexeh.htm>

124. Yarrow, R. (2022), 'Infrastructure Investment Priorities for Rebalancing China's Economy', *EAI Commentary*, 52, <https://research.nus.edu.sg/eai/wp-content/uploads/sites/2/2022/06/EAIC-52-20220629.pdf>

Sector Imbalances

Imbalances in China's economy are most visible in the real estate sector, which contributes a quarter to a third of China's economic activity.¹²⁵ Yet much of this newly-developed real estate is not inhabited and has no sustainable market demand. Its construction raises debt and ties up China's labour supply and financial markets, reducing the resources available for more efficient enterprises. Meanwhile, in many cities, house prices have become unaffordable for young Chinese people. There are no easy ways to resolve these imbalances. Curbing construction threatens the many workers and businesses that rely on real estate activity, while curbing prices threatens the balance sheets of innumerable businesses and the wealth of millions of Chinese savers, whose confidence and consumer spending could collapse alongside their house values.

Demographic Challenges

China's working-age population has been in decline since at least 2013,¹²⁶ and in January 2023, China's statistics bureau announced that the total population had declined for the first time since the end of the Great Leap Forward in 1961. When Japan's economic growth reached a precipice around 1989, 11 percent of Japanese were aged 65 or older. Today, 14 percent of Chinese are 65 or older, a share that could surpass 25 percent in the 2030s. Despite the relaxation of policies restricting births for Han Chinese, China's fertility rate has fallen to 1.2 or less, below rates in rapidly ageing Japan and Russia. Unlike Japan, China still experiences substantial emigration of its citizens, estimated by the World Bank at 300~400,000 people per year.¹²⁷ Many of the emigres are younger and better educated than the wider population. Thus, China's labour force is shrinking, and becoming older and perhaps less dynamic, without showing any signs of improving. This shift will increase costs for China's workers to take care of dependents, could add stress to industries that rely on large numbers of workers, and could leave an economy that is less entrepreneurial, risk-taking, or innovative.

125. Rogoff, K.S. & Yang, Y. (2020), *Peak China Housing*, NBER Working Paper No.27697, Cambridge, MA: National Bureau of Economic Research. <https://www.nber.org/papers/w27697>

126. National Bureau of Statistics of China (2021), Table 2-4: Age Composition and Dependency Ratio of Population, in *China Statistical Yearbook 2021*, Beijing: China Statistics Press. <http://www.stats.gov.cn/tjsj/ndsj/2021/indexeh.htm>

127. Ratha, D., De, D., Kim, E.J., Plaza, S., Seshan, G. & Yameogo, N.D. (2020), *Migration and Development Brief 32: COVID-19 Crisis Through a Migration Lens*, Washington, D.C.: KNOMAD-World Bank, https://www.knomad.org/sites/default/files/2020-06/R8_Migration%26Remittances_brief32.pdf

These economic challenges take place within a worsening external environment. Deteriorating relations with its neighbours and the West constrain China's opportunities for reviving growth through new export markets or foreign investments targeting higher-productivity sectors. China's recent drive for industrial self-sufficiency also could hurt its trade relations and industrial efficiency, and raise costs at a time of already very high debt levels.

Could China face a major financial crisis?

China's structural economic challenges do not mean it is on the brink of financial collapse. In most free markets, financial crises can erupt suddenly, giving governments and investors little time to react.¹²⁸ In contrast, China's government already controls most banks and has more tools at its disposal to counteract a developing crisis. The Chinese government can not only leverage a large amount of state-controlled capital, but also has greater powers of repression – such as suppressing information or forcing firms to buy or sell. This does not guarantee that China will avoid a financial crisis, and this does not mean that China's economy or financial system will be fundamentally healthier. Debts for bad investments still must be cleared in some way, but there is a high chance that China's government can stop a large banking or bankruptcy crisis from breaking out.

What will be the global impact of China's slowing growth?

A slowdown in China's economic growth could filter to other countries through trade and financial flows. Dampened growth could lead to a number of scenarios with knock-on consequences for other economies.

Reduced Consumer Demand

Despite large overall trade figures, especially for intermediate-stage production, China is a major end user for a relatively narrow range of foreign-made goods and services. Among goods, these include luxury products such as high-end cars and designer clothing, and commodities, such as the coal and iron ore needed for China's real estate and infrastructure boom over the last twenty years. Among services, the most prominent is higher education, particularly in Britain, the US, Canada, and Australia. These sectors could be hurt the most by stagnating or declining Chinese consumer spending.

128. Kynge, J. & Yu, S. (2022), 'China's property crash: 'a slow-motion financial crisis', *Financial Times*, 4 Oct 2022, <https://www.ft.com/content/e9e8c879-5536-4fbc-8ec2-f2a274b823b4>

Increased Manufacturing Competition

As China's economy slows, China's policymakers may seek to boost growth through increasing export levels. This may be achieved by substantial new industrial subsidies or by measures to keep wages low, which will in turn reduce household consumer spending. Such industrial support would likely be directed toward "cutting-edge" industries like electric vehicles or renewable energy equipment, seeking to undercut rival foreign firms. Therefore, a Chinese growth slowdown should not be treated as an omen of lightened competition for foreign manufacturers in the years ahead.

Inflationary Pressures

On the other hand, China's policymakers may seek to jolt the economy out of its low-consumption malaise through redistributive policies like consumption vouchers, increased social security spending, or pressure on businesses to raise wages. These kinds of policies can be seen in the Chinese government's 'common prosperity' plans.¹²⁹ However, increased wages would almost certainly increase prices for China's exports. Much of the West has experienced falling consumer prices over the last twenty years in part thanks to the boom in China's low-wage manufacturing. A change in China's economic policy framework in response to growing economic challenges could increase inflationary pressures and reduce the purchasing power of the West's consumers.

Exposed Financial Markets

Given Chinese authorities' restrictions on foreign ownership of businesses and assets, Western financial institutions generally have a limited direct exposure to Chinese financial markets. This exposure has risen steadily in the last decade and varies between firms, with J.P. Morgan and BlackRock taking full ownership of Shanghai subsidiaries in 2021 and several other Western firms following their paths. While the risks to the West's overall financial system may be low, there can still be risks for particular investors with larger stakes in China-based or renminbi-denominated assets, offshore-listed equities of Chinese firms, or Western firms (such as iron ore miners) whose profits depend on China's infrastructure and investment spending.

129. Wu, G. (2022), China's Common Prosperity Program: Causes, Challenges, and Implications, Asia Society Policy Institute, https://asiasociety.org/sites/default/files/2022-03/ASPI_ChinaCommonProsp_report_fin.pdf

Recommendations

While China will continue to present a significant trade and investment opportunity for the foreseeable future, governments and businesses must take steps now to mitigate against the risks posed by the structural challenges in China's economy.

- **Reduce reliance on China's market.** Businesses in industries reliant on high levels of demand from China must seek to diversify their customer base to mitigate against the risk of reduced demand. Commodity markets could be hit by reductions in China's infrastructure spending, while higher education and luxury goods could be impacted by a reduction in household disposable income.
- **Diversify investment portfolios.** Investors that are highly reliant on China based or RMB denominated assets should seek to diversify their portfolios, as should those investing in industries whose profits depend on high levels of infrastructure spending in China. Governments should review levels of financial support and investment guarantees to private companies investing in China in light of these risks.
- **Access new markets.** Governments should seek to deepen trade and investment partnerships with actors in the Indo-Pacific Region, to provide viable alternatives to firms looking to diversify markets away from China. This can be achieved through joining regional trade initiatives such as the CPTPP, funding for trade offices in the region, and greater support for new infrastructure projects and market reforms in South and Southeast Asia.

9. What can other countries learn from Canada's Indo-Pacific Strategy?

Margaret McCuaig-Johnston and Leo Shaw

Key Point Summary

- Indo-Pacific strategies are vital in helping middle powers to secure their interests in the region. However, the failure of Germany, France and others to clearly identify China's role in the region risks strategic incoherence.
- Middle powers have influence and international recognition but nevertheless face a variety of challenges in implementing their Indo-Pacific strategies. Chief amongst these is learning to compete with China's growing economic and diplomatic dominance in the region. Efforts to exclude China from regional groupings may lose support among potential partners in the region.
- Canada sets the standard as the only middle power to have set out dedicated funding streams for Indo-Pacific projects. Funds totalling CAD\$2.3 billion have been allocated to projects across development, trade and defence cooperation in the region.
- This paper recommends middle powers emulate Canada's approach by building an unambiguous strategy to compete with China's growing influence in the Indo-Pacific through increased trade, investment and bolstering hard and soft power capabilities.

Why did Canada develop an Indo-Pacific Strategy?

In the past two years Canada, the EU, France and Germany have all released their own Indo-Pacific strategies, while major foreign policy reviews in the UK and Australia also included a focus on the region.

Common to all these strategies is a recognition that the stability of the Indo-Pacific region is critical not only to its own national interest but also to global prosperity. The Indo-Pacific region encompasses 40 economies, over four billion people and \$47.19 trillion in economic activity – almost one-third of all global economic activity.¹³⁰ As middle powers, these countries have influence and international recognition but cannot leverage the same resources towards shaping the region as the US and China.

Canada's Indo-Pacific Strategy also arises from its own experience of China as an increasingly disruptive global power. Canada has experienced China's 'coercive diplomacy' first-hand following the arrest of Meng Wanzhou, a senior Huawei executive, on a US extradition request. In response, China blocked the import of half a dozen Canadian products including beef, canola, peas, and soy on fabricated grounds, while also holding hostage Canadian citizens Michael Spavor and Michael Kovrig.¹³¹

Furthermore, there have been serious problems in how foreign technology companies were being treated in China's business practices. This can be seen in joint ventures, where the majority Chinese partner would manoeuvre to take over the technology and the company, as well as in over-regulation and sudden policy changes to disadvantage Canadian firms. One of the reasons that the Canadian Indo-Pacific Strategy was developed was to put resources into helping companies build new business partnerships in other countries that operate by the rule of law, in order to reduce and better manage their China risks.

Having been adversely affected by these actions, Canadian companies have learned hard lessons and are now diversifying to new markets. Of course, there will always be trade between China and Canada. China continues to need Canada's natural resources and Canadians want China's cheap manufactured products. But, by deepening relations with other countries in the region, Canada can help to reduce its exposure to the Chinese government's coercive diplomacy, its punitive trade practices, and its capricious business tactics.

130. Global Affairs Canada (2022), *Canada's Indo-Pacific Strategy*, Ottawa: Government of Canada, <https://www.international.gc.ca/transparency-transparence/assets/pdfs/indo-pacific-indo-pacific-ue/indo-pacific-indo-pacifique-en.pdf>

131. Zimonjic, P. & Thibedeau, H. (2019). 'China considering halting all meat products from Canada over fake veterinary health certificates', *CBC News*, 27 June 2019, <https://www.cbc.ca/news/politics/china-ban-canadian-meat-1.5189874>

What can other countries learn from Canada's Indo-Pacific Strategy?

Strategic clarity

The EU, France, Germany, UK and Australia have all alluded to the risk of de-stabilising actors in their Indo-Pacific Strategies. Yet few are willing to name China explicitly. Both the French and German strategies cite intensifying challenges to the international order and the risks posed by conflict in the Taiwan Strait, but fail to identify who the main aggressor in these scenarios might be.¹³²

Compared with other countries, Canada's recognition of China's coercive diplomacy, assertive pursuit of its own interests and destabilising unilateral action is very clear. Following Canada's approach, the UK government has directly expressed its concerns about China's military intentions towards Taiwan in the 2023 Integrated Review Refresh. This is a positive change from the previous iteration of the same strategy, which did not mention Taiwan at all.¹³³

There may well be a diplomatic rationale behind other countries' decision not to identify China so explicitly in their Indo-Pacific strategies, but doing so comes at the cost of strategic clarity. Germany's deployment of its Bayern frigate in the region highlights the challenges that this presents to coordinated action. Although the mission was intended to demonstrate Germany's willingness to work with allies to uphold navigation rights in the region, internal disagreements within the German government led to the ship declining to join allied expeditions in the region and shying away from sailing through the Taiwan Strait.¹³⁴ Such actions send mixed messages to Beijing about Germany's commitment to the region and highlight the limitations of this ambiguous approach.

132. German Federal Foreign Office (2022), *Progress report on the implementation of the Federal Government policy guidelines for the Indo-Pacific in 2022*, Berlin: The Federal Government, <https://www.auswaertiges-amt.de/blob/2551720/02b94659532c6af17e40a831bed8fe57/220906-fortschrittsbericht-der-indo-pazifik-leitlinien-data.pdf>; Ministry for Europe and Foreign Affairs (2022), *France's Indo-Pacific Strategy*, Paris: Government of the French Republic, https://www.diplomatie.gouv.fr/IMG/pdf/en_dcp_a4_indopacifique_022022_v1-4_web_cle878143.pdf

133. Cabinet Office (2023), *Integrated Review Refresh 2023: Responding to a more contested and volatile world*, London: His Majesty's Government, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1142849/11857435_NS_Integrated_Review_Refresh_2023_Supply_AllPages_Revision_5.pdf

134. Kundnani H. & Tsuruoka, M. (2021), *Germany's Indo-Pacific frigate may send unclear message*, Chatham House, <https://www.chathamhouse.org/2021/05/germanys-indo-pacific-frigate-may-send-unclear-message>

Dedicated resourcing

Other countries should also seek to emulate Canada's dedicated funding for delivering various aspects of the Indo-Pacific Strategy. The Strategy sets out a comprehensive suite of initiatives reflecting investments of CAD\$2.3 billion in the region in the next five years, to be renewed in 2027.¹³⁵

Much of this strategy is focused on trade and investment to help meet the economic development needs of the region. The largest single investment of \$750 million over three years is pledged to FinDev Canada, a development finance institution, to contribute to high-quality sustainable infrastructure in the region.¹³⁶ Moreover, Canada will invest \$244 million in economic projects such as the Indo-Pacific Agriculture and Agri-Food Office (IPAAO) and the Canadian Trade Gateway initiative Southeast Asia to boost opportunities for Canadian firms in the region.¹³⁷ As part of its effort to diversify trade in the region, Canada is already a member of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) free trade agreement and is moving towards a trade deal with the ASEAN bloc with enhanced funding for the ASEAN-Canada Plan of Action Trust Fund.¹³⁸

The strategy also includes a range of hard power and soft power initiatives. \$720 million is budgeted for advancing peace and defence cooperation in the region. This will reinforce and increase Canada's military presence and participation in joint naval exercises with its partners in the region.¹³⁹ To bolster people-to-people ties, Canada will invest \$261.7 million in international assistance, visa processing capacity, and institutional and academic exchanges.¹⁴⁰

In contrast, the EU, UK, France and Germany's Indo-Pacific strategies are not accompanied by a set of dedicated budgetary commitments. Instead, these Indo-Pacific strategies generally rely on existing departmental funds. This means that Indo-Pacific directed projects risk facing budgetary pressures from other policy commitments. As the West struggles to rebound from the COVID-19 pandemic and suffers the economic shocks of Russia's invasion of Ukraine, ringfencing funds for the Indo-Pacific strategy is critical to its implementation.

135. Global Affairs Canada (2022), *Canada's Indo-Pacific Strategy: New initiatives and resources, Government of Canada*, <https://www.canada.ca/en/global-affairs/news/2022/11/canadas-indo-pacific-strategy-new-initiatives-and-resources.html>

136. Ibid.

137. Ibid.

138. Global Affairs Canada (2022), *ASEAN-Canada Plan of Action Trust Fund*, <https://www.canada.ca/en/global-affairs/news/2022/08/asean-canada-plan-of-action-trust-fund.html>

139. Global Affairs Canada (2022), 'Canada launches Indo-Pacific Strategy to support long-term growth, prosperity, and security for Canadians', 27 November 2022 [Press Release] <https://www.canada.ca/en/global-affairs/news/2022/11/canada-launches-indo-pacific-strategy-to-support-long-term-growth-prosperity-and-security-for-canadians.html>

140. Ibid.

What challenges will middle powers face in implementing their Indo-Pacific strategies?

Middle powers seek to engage in the Indo-Pacific without the economic and political heft of superpowers. As such, they face a number of challenges in implementing their Indo-Pacific strategies.

Above all, there is the challenge of managing the relationships that partners in the Indo-Pacific region have with China. In many cases, democratic countries will seek to build alternative forms of engagement that exclude China. For example, the US-led 'Chip 4 Alliance' works to produce a resilient semiconductor supply chain that does not include a major role for China.

“Where possible, democratic countries must learn to compete with China’s role in the region.”

While this may be necessary in cases relating to security and strategic interest, many countries in the Indo-Pacific will not want to choose between China and the US-led democratic bloc. Given that China consistently ranks as ASEAN’s top trading partner, pressuring Indo-Pacific countries to move away from China may prove counterproductive.¹⁴¹ Where possible, democratic countries must learn to compete with China’s role in the region.

The signing of the China-Solomon Islands Security Pact last year shows the urgency with which democratic countries need to begin competing with China in the region. The pact, which gives China the possibility to dispatch military forces to the region,¹⁴² comes after years of Chinese investment in Pacific island countries. Between 2008 and 2020 China provided nearly \$3.148 billion in donations to the Pacific region, and has stepped up its diplomatic representation significantly.¹⁴³

141. The ASEAN Secretariat (2022), *ASEAN Statistical Yearbook 2022*, Vol. 18, https://www.aseanstats.org/wp-content/uploads/2023/02/ASYB-2022_0223.pdf

142. Kim, P.M. (2022), *Does the China-Solomon Islands security pact portend a more interventionist Beijing?*, Brookings, <https://www.brookings.edu/blog/order-from-chaos/2022/05/06/does-the-china-solomon-islands-security-pact-portend-a-more-interventionist-beijing/>

143. Zhang, D. (2022), *China’s influence as a Pacific donor*, The Interpreter, <https://www.lowyinstitute.org/the-interpreter/china-s-influence-pacific-donor>

In order to compete effectively with China, middle powers must be able to coordinate their respective Indo-Pacific Strategies. This will remain a key challenge as divisions emerge among and between these countries. Although the EU has produced its common Indo-Pacific Strategy, there remain divisions in its implementation. Surveys of policymakers in the EU found widely divergent views on future economic relations with China across member states, with some policymakers largely uninterested in the region.¹⁴⁴ Divergent interests were brought to the fore in the wake of punitive Chinese trade sanctions on Lithuania in response to the renaming of the Taiwan Representative Office in Vilnius. While the European Commission supported Lithuania's case against China at the WTO, German companies with business interests in China pressured the Lithuanian government to end its dispute with China.¹⁴⁵

Conclusion

Canada's Indo-Pacific Strategy can provide a model for other countries as a comprehensive and fully-funded strategy that begins from a clear-eyed assessment of China. Its approach foresees closer collaboration with like-minded democracies such as Japan, as well as with those nations with common interests such as Vietnam. Such strategies open up new, alternative partnerships than countries' historical reliance on China may have foreseen. They mark a modern and stronger Indo-Pacific with a rich network of alliances, both formal and informal. In many ways, a comprehensive super-region will help counter China's aggression.¹⁴⁶

144. Grare, F & Reuter, M (2021), *Moving closer: European views of the Indo-Pacific*, European Council on Foreign Relations, <https://ecfr.eu/wp-content/uploads/Moving-closer-European-views-of-the-Indo-Pacific.pdf>

145. Sytas, A & O'Donnell, J. (2022), 'Analysis: German big business piles pressure on Lithuania in China row', *Reuters*, 21 January 2022, <https://www.reuters.com/world/europe/german-big-business-piles-pressure-lithuania-china-row-2022-01-21/>

146. The Economist (2023), 'Reinventing the Indo-Pacific', 4 January 2023, <https://www.economist.com/asia/2023/01/04/reinventing-the-indo-pacific>

Recommendations

- **Counterbalance China's growing regional dominance.** Middle powers should seek to emulate Canada's efforts to boost their economic partnerships in the Indo-Pacific through setting up trade bodies for the region and joining regional trade initiatives such as the CPTPP. Countries should also invest in sustainable infrastructure initiatives in the region, as shown by Canada's FinDev commitment.
- **Dedicate budgets to operationalise Indo-Pacific outreach.** Canada's budgeted Indo-Pacific strategy sets the standard for middle powers. By specifying budgets for trade development, increasing people to people ties and security partnerships in the region, governments can ensure that their strategic interest in the Indo-Pacific is not undermined by other budgetary pressures.
- **Clarify strategic objectives.** Governments must be clear in their recognition that China's increasing assertiveness on Taiwan and territorial claims in the South China Sea pose the prime threat to a free and open Indo-Pacific. Freedom of navigation missions, joint exercises, training exchanges and other defence cooperation with allies in the region must be focussed on deterring China from taking military action against Taiwan.

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10. Modernising China's People's Liberation Army

Dean Cheng

Key Point Summary

- China's People's Liberation Army (PLA) is well on the path to achieving its goal of a fully modernised military by 2027, funded by substantial budget increases in recent years.
- The PLA's modernisation efforts include developing stealth fighter programmes, space warfare capabilities and the creation of an 'information warfare' force.
- Under Xi Jinping's leadership the PLA has been given a new and expanded role. Alongside building capabilities to invade Taiwan, the PLA is tasked with protecting China's growing strategic interests in the space, maritime and electromagnetic domains.
- The PLA's modernisation comes at a time of heightened risk. US forces are going through a period of transition, with new equipment still being acquired or fielded in only limited quantities, while the Ukraine war has depleted Western munition stocks.

Modernising the PLA

One of the most important strategic developments of the past two decades has been the growing capability and reach of China's People's Liberation Army (PLA). This was underscored in the 2023 "Two Sessions," where the PLA's budget enjoyed a 7.2% increase, the largest annual increase since 2019, and notably larger than the projected growth of the overall PRC economy (set at 5%).¹⁴⁷

From a military that relied on sheer mass, but which was largely equipped with obsolescent equipment, the PLA has evolved into a modern force. Today's PLA is capable of fielding not only advanced combat systems, but also increasingly sophisticated combat support elements, such as electronic warfare systems.¹⁴⁸ In short, this is not your father's (or grandfather's) PLA.

“Modernisation means that the PLA will no longer be chained to the Chinese mainland.”

It is often observed that the PLA has not fought a war since the Sino-Vietnam War of 1979. However, it has since been a close student of other people's wars, carefully assessing and examining American and Russian interventions up to the present day. Similarly overlooked is the fact that no other Asian military has large-scale combat experience, either. Japan, South Korea, Thailand and Taiwan's militaries have not practised high intensity warfare for an even longer period than the PLA.

From the PLA's perspective, two key lessons have emerged. The first is that modern warfare relies upon qualitative as well as quantitative factors. A highly trained, well equipped force can defeat a larger, but less sophisticated, adversary. The second is that modern wars are highly oriented around technology, particularly in the realm of information technology.

147. He, L., McCarthy, S. & Chang, W. (2023), "China to Increase Defense Spending 7.2%, Sets Economic Growth Target of 'Around 5%' for 2023", *CNN*, 5 Mar 2023, <https://www.cnn.com/2023/03/04/economy/china-two-sessions-gdp-growth-target-military-spending-intl-hnk/index.html>

148. Funaiolo, M.P., Bermudez, J.S., Jr. & Hart, B. (2021), *China Is Ramping Up Its Electronic Warfare and Communications Capabilities near the South China Sea*, CSIS,, <https://www.csis.org/analysis/china-ramping-its-electronic-warfare-and-communications-capabilities-near-south-china-sea>

In light of these conclusions, the PLA's modernization efforts have included not only new weapons, but changes in doctrine, training, and organisation. We see:

- **More advanced weapon systems.** These include developing two stealth fighter programmes and acquiring more sophisticated support systems, including a variety of airborne early warning aircraft, electronic warfare systems, and space warfare capabilities.¹⁴⁹
- **Use of information and communication technologies.** The PLA's modernization efforts have been characterised as making the PLA "fully mechanized, fully informationized, and fully intelligence-ized."¹⁵⁰ This last element involves integrating not only information and communications technology, but more advanced computing systems, including artificial intelligence and seamless sensor-to-shooter systems.
- **Building joint operability.** Since the 1990s, the PLA has steadily shifted towards an increasingly joint approach to warfare, much like the US and other Western militaries, building better coordination between different PLA units. PLA units have undertaken joint training programmes, while new regulations have emphasised employing the entirety of the PLA's range of capabilities to maximum effect against an adversary.
- **New organisational structures.** With the constant emphasis on joint operations, and the growing importance of information technologies, the PLA implemented the most comprehensive reorganisation in its history at the end of 2015. These changes created a new Information Warfare Force and the Strategic Support Force (PLASSF) to combine China's electronic warfare, network/cyber warfare, and space warfare forces into a single service.¹⁵¹

149. Salerno-Garthwaite, A. (2022), 'J-20 Chengdu: Mighty Dragon in the heart of China's military modernisation', *Airforce Technology*, 14 Sep 2022, <https://www.airforce-technology.com/features/j-20-and-chinas-military-modernisation/>; Nelson, A.J. & Epstein A.J. (2022), *The PLA's Strategic Support Force and AI Innovation*, Brookings, <https://www.brookings.edu/techstream/the-plas-strategic-support-force-and-ai-innovation-china-military-tech/>

150. Nouwens, M. (2022), China's Military Modernisation: Will the People's Liberation Army complete its reforms?, IISS, <https://www.iiss.org/blogs/analysis/2022/12/strategic-survey-2022-chinas-military-modernisation>

151. Costello, J. & McReynolds, J. (2018), 'China's Strategic Support Force: A Force for a New Era', *China Strategic Perspectives*, (13), https://inss.ndu.edu/Portals/68/Documents/stratperspective/china/china-perspectives_13.pdf

This massive array of changes reflects the reality that the PLA's modernization touches every aspect of the institution and has been thorough and comprehensive. The PLA that eventually emerges will be one focussed on fighting and winning future wars.

What does China want to achieve with its military strength?

The PLA is expected to complete its modernization efforts by 2027. At that time, it will be a military that, for the first time since its founding, is both quantitatively and qualitatively on par with any likely adversary.

Crucially, these changes mean that the PLA will no longer be chained to the Chinese mainland. Through modernisation the PLA Navy is expected to operate in the "far seas" as a blue-water fleet. The PLASSF, with its electronic, cyber, and space capabilities, is also clearly designed to have a global reach.

These capabilities are consistent with the "new historic missions" assigned to the PLA in 2004 under Hu Jintao, which continue in place to this day. These "new historic missions" give the PLA an expansive remit. Not only is the PLA responsible for safeguarding China's sovereignty and security, but it is also tasked with securing China's expanding national interests. These include ensuring China's open access to space, the maritime domain, and the electromagnetic sphere.¹⁵²

The PLA's traditional goal of preparing to invade Taiwan, if and when requested by the national leadership, remains firmly in place. However, today's new PLA is also expected to be able to project its power far beyond the Taiwan Strait to wherever in the world China's interests need protecting.

The lack of transparency also made it much harder for international civil society organisations to follow the progress of negotiations. Although China was able to forge consensus by putting forward a balanced final non-paper in the last days of the summit, observers felt like they were being kept in the dark. The Chinese government is more likely to see a free press as a hindrance, rather than an aid to a successful negotiation.

152. Hartnett, D. M. (2014). The "New Historic Missions": Reflections on Hu Jintao's Military Legacy in *Assessing the People's Liberation Army in the Hu Jintao Era*, pp. 31-80, Carlisle: Strategic Studies Institute, US Army War College. <http://www.jstor.org/stable/resrep11946.5>; Hartnett, D. (2008), *Towards a Globally Focused Chinese Military: The Historic Missions of the Chinese Armed Forces*, Alexandria, VA: CNA.

What risks are posed by China's growing military strength?

What is of concern is that the US military, in 2027, is likely to be at one of its weakest points, as older systems steadily transition out of the force and new equipment is still being acquired or fielded in only limited quantities.¹⁵³ For the United States, it confronts an adversary that, for the first time since the middle of World War II, can challenge its supremacy in the air, at sea, in outer space, and increasingly in the information realm.

Such a situation is likely to raise questions about the credibility of American commitment to its allies in the region, such as Taiwan. To what extent would the United States be willing to counter Chinese aggression, knowing that it might well suffer enormous casualties as it faced a qualitatively equivalent PLA in China's own front yard?

“Uncertainty over the US's response to PLA military aggression in the region may also lead to miscalculations on behalf of China's neighbouring countries.”

Historically, the United States has a mixed record. Throughout the Cold War and in recent decades, whenever tested, the US has provided its full military support to guarantee the security of allies in NATO and South Korea and Japan. At the same time, however, it has walked away from protracted wars in Vietnam and Afghanistan, despite major investments of both human and financial cost.

Uncertainty over the US's response to PLA military aggression in the region may also lead to miscalculations on behalf of China's neighbouring countries. Ambiguity over America's commitment to the region could lead potential US allies to hedge their bets and think twice before taking the side of Taiwan or others facing disputes with China. Given the control that the Chinese government has over its own non-market economy, its neighbours face difficult questions about whether they wish to antagonise a powerful and rich Beijing.

153. Shelbourne, M. (2022), 'Accelerated Chinese Timeline to Seize Taiwan Raises Questions on Pentagon Priorities, Says Gallagher', *USNI News*, 18 Oct 2022, <https://news.usni.org/2022/10/18/accelerated-chinese-timeline-to-seize-taiwan-raises-questions-on-pentagon-priorities>; Sadler, B.D. (2022), *U.S. Navy*, The Heritage Foundation, <https://www.heritage.org/military-strength/assessment-us-military-power/us-navy>

Recommendations

For American and Western policy-makers, maintaining a strong defence, and countering the PRC's efforts at intimidating its neighbours, are essential elements in preventing current tensions from escalating to an actual war.

- **Replenish the depleted stocks of Western munitions and weapons.** Western support for Ukraine has sent a clear signal to aggressor regimes worldwide that their actions will not be meekly accepted. But Western provision of munitions and weapons to Ukraine have often come from the wartime stocks of the supplying countries. The American production line for M-1 tanks closed down decades ago. It is therefore essential that Western countries take steps to refill empty warehouses and arsenals with munitions, spare parts, and weapons to replace those sent to Ukraine. As important to note, the war in Ukraine is a reminder that peacetime calculations of sufficiency for munitions are often far below actual consumption rates in time of war. The replenishment levels need to take the hard-won lessons from Ukraine into account.
- **Improve and expand international coordination in countering the PRC.** Not even the United States can expect to successfully counter the PRC on its own. The tyranny of distance means that US military forces operating in the western Pacific will need local access and bases to sustain operations, whereas the PRC will be operating on its own front doorstep. The PRC will actively try to discourage other states, even longtime US allies, from providing the same access. The American side will need smart diplomacy, adroit use of economic as well as political incentives, and firm negotiating efforts to build the coalition necessary to balance China's increasingly assertive diplomatic and military stance.

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