

# Economic Security in Japan, Taiwan and Singapore

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Economic security has received renewed attention across the world during the 2010s and early 2020s. Events with global repercussions, such as the Covid-19 pandemic, Russia's war against Ukraine, as well as US-China great power competition have fuelled the increasing emphasis on the economic aspects of national security. Economic security is a broad concept with many components, such as supply chain resilience, investment screening and stockpiling. Access to and leadership over foundational and emerging technologies has also become part of geopolitical competition and thus economic security. With the purpose of learning more about perspectives from parts of the world beyond Europe and Sweden's immediate cultural and geographical proximity, this pre-study explores how economic security is addressed in Japan, Taiwan, and Singapore. Our findings show that in all three cases, strategies or policy measures have recently been developed to enhance various aspects of economic security (or economic defence) and that the perceived threat from China is part of the equation, even though the emphasis on China varies between the three cases and for different policy areas. Shared concerns in Japan, Taiwan and Singapore pertaining to economic security include matters of supply chain security, foreign ownership in sensitive sectors, and the importance of upholding international competitiveness.

THE CONCEPT OF economic security has recently been adopted in various high-level documents across the world, including the EU's new strategy *European Economic Security*, released in 2023.<sup>1</sup> However, the ideas behind these concepts are not entirely new. In fact, the Swedish total defence model during the Cold War had a dedicated and highly developed so-called economic defence pillar.<sup>2</sup> Much of this 20th century total defence structure was dismantled at the end of the century, and today Sweden is faced with the task of getting a new structure in place, purposed toward managing national security threats of the 21st century. Economic security is one of the areas in need of further development in Sweden, as well as internationally.

The three cases discussed in this memo, Japan, Taiwan and Singapore, were chosen because they are all advanced export-oriented economies with long-running and significant economic exposure to China, which is at the same time perceived as the main geopolitical threat, at least by Japan and Taiwan. China is also the foremost geopolitical rival to the US, the guarantor of security for Japan and Taiwan, as well as a close security partner of Singapore. It is a reasonable assumption that the need to balance conflicts between international economic exchange and national security is reflected by government policy in Japan, Taiwan, and Singapore. Sweden and the EU also perceive China as a potential geopolitical threat or "systemic rival", and have the US as a guarantor of security, which brings policy-relevance

1 European Commission, *Joint communication to the European Parliament, the European Council and the Council on "European Economic Security Strategy"* JOIN(2023) 20 final (Brussels, Belgium: European Commission, June 2023), <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023JC0020>.

2 Jenny Ingemarsdotter, *Economic Defence - From Cold War Strategies to Post-Invasion Awakenings*, FOI Memo 8411 (Stockholm, Sweden: Swedish Defence Research Agency, 2024), <https://foi.se/rapporter/rapportsammanfattning.html?reportNo=FOI%20Memo%208411>.

to the studied topic from a Swedish perspective.<sup>3</sup> This memo intends to inform the reader unfamiliar with how economic security is managed in Japan, Taiwan and Singapore, in order to provide contextual examples of different ways to approach economic-security concerns. The authors' hope is that this will be useful for both policy analysts and policy makers focusing on enhancing economic security.

During the course of this explorative pre-study, online interviews have been conducted with a number of experts from Japanese, Taiwanese and Singaporean universities, research organisations and governmental agencies. The specific institutions are listed at the end of the memo. Other sources, such as official strategy documents, have complemented the background interviews. The memo starts out by looking at Japan, Taiwan and Singapore one at a time, and concludes with some comparative notes and by identifying areas of interest for further study in the context of developing economic aspects of Sweden's total defence.

### JAPAN – ECONOMIC SECURITY AS PART OF COMPREHENSIVE NATIONAL POWER

As an island country in the northwest Pacific Ocean, Japan considers itself to be well positioned to benefit from the global economy.<sup>4</sup> At the same time, Japan, with its population of 124 million in an area surface of about the same size as Norway, also has challenges in regard to fundamental supply issues, including food and energy. Moreover, as stated in Japan's *National Security Strategy* of 2022 (henceforth referred to as the NSS), the Indo-Pacific region today faces a host of security challenges that are viewed as considerably more severe than the situation only ten years ago (when Japan launched its previous security strategy). In terms of its modern history, a corner stone for Japan's national security has been (and still is) the U.S.-Japan Security Treaty, dating back to 1951. In the aftermath of World War II,

any buildup of Japanese military forces was limited by the so called "no war"-clause in Japan's new constitution adopted in 1947. However, in recent years, Japan has significantly increased defence spending while also launching new national defence and security strategies. This has, by some, been interpreted as part of the country's gradual shift away from a historically antimilitarist stance.<sup>5</sup>

Japan has motivated its increased focus on national security by a deteriorated security situation, both globally and regionally. As outlined in the NSS, "several nations and regions that possess large military forces, including nuclear weapons, do not share universal values, nor political and economic systems based on such universal values". More specifically, the NSS lists grey zone situations over territories, cross-border cyberattacks on critical civilian infrastructures, and information warfare through spread of disinformation. The NSS also describes how China has intensified its attempts to unilaterally change the status quo by force in the maritime and air domains, while moreover strengthening its strategic ties with Russia and attempting to challenge the international order.<sup>6</sup>

Taking a still broader look at Japan's security situation, Japan's Minister of Defence, Yasukazu Hamada, has stated that the world is now at a turning point in history: "The international community is facing its greatest trial since World War II, and we have entered a new era of crisis".<sup>7</sup> Reflecting this standpoint, Japan has recently launched several security and defence related strategies, including the NSS quoted above, along with the National Defence Strategy and the Defence Buildup Program. The threats and security issues described in these documents are similar to those described by the EU and the U.S., in particular with regard to economic security issues. As outlined by the Japanese NSS, globalization and interdependence no longer serve as a guarantor for peace and development across the globe. Instead,

3 European External Action Service, *EU China Relations*, 7 December, 2023, [https://www.eeas.europa.eu/sites/default/files/documents/2023/EU-China\\_Factsheet\\_Dec2023\\_02.pdf](https://www.eeas.europa.eu/sites/default/files/documents/2023/EU-China_Factsheet_Dec2023_02.pdf); Regeringskansliet, *Allvarstid: Försvarsberedningens säkerhetspolitiska rapport 2023*, Ds 2023:19, 19 June, 2023, <https://www.regeringen.se/rattsliga-dokument/departementsserien-och-promemorior/2023/06/ds-202319/>.

4 Cabinet Secretariat of Japan, *National Security Strategy of Japan [Provisional Translation]*, December, 2022, <https://www.cas.go.jp/jp/siryoul/221216Ganzenhoshou/nss-e.pdf>, 7.

5 Financial Times, "Japan scraps pacifist postwar defence strategy to counter China threat," 16 December, 2022, <https://www.ft.com/content/1180f72c-b7aa-48cc-817b-69e7400fc6d3>; see also Tobias Junerfält, *Japans försvarsekonomi i ljuset av den säkerhetspolitiska utvecklingen*, FOI Memo 8284 (Stockholm, Sweden: Swedish Defence Research Agency, 2023). <https://www.foi.se/rapporter/rapportsammanfattning.html?reportNo=FOI%20Memo%208284>.

6 Cabinet Secretariat of Japan, *National Security Strategy*, 7–8.

7 Yasukazu Hamada, foreword to *Defense of Japan 2023 (Annual White Paper)* (Tokyo, Japan: Ministry of Defence, 2023), [https://www.mod.go.jp/en/publ/w\\_paper/wp2023/DOJ2023\\_EN\\_Full.pdf](https://www.mod.go.jp/en/publ/w_paper/wp2023/DOJ2023_EN_Full.pdf). Also cited in Philip Shetler-Jones, "Japan's Defence White Paper: Making the Case for Change," RUSI, 15 August, 2023, <https://www.rusi.org/explore-our-research/publications/commentary/japans-defence-white-paper-making-case-change>.

intensifying geopolitical competition along with a host of issues such as climate change and infectious disease crises, has created global challenges that undermine and threaten the free, open, and stable international order. Hence, “confrontation and cooperation are intricately intertwined in international relations”.<sup>8</sup>

This new threat landscape has, as the NSS concludes, led to an expansion of the scope of national security to include fields such as economy and technology. More specifically, Japan considers economic-security challenges to involve “supply chain vulnerabilities, increasing threats to critical infrastructures, and leadership struggles over advanced technologies”. Given the global-scale of security challenges, Japan has identified the need to integrate its national responses at a higher level, “by taking full advantage of comprehensive national power”. The main elements of the concept of comprehensive national power are described in terms of diplomatic, defence, economic, technological, and intelligence capabilities.<sup>9</sup> In the following, we will take a closer look at the Japanese understanding of economic capabilities and economic security.

### Economic Security – General Points

In August 2022, the Japanese Government appointed its first Minister of State for Economic Security.<sup>10</sup> The creation of this position reflects the importance Japan places on this aspect of national security. When speaking in Japan’s House of Representatives on October 21, 2022, the current Minister of State for Economic Security, Sanae Takaichi, emphasized the urgency of attending to this area of security: “As the scope of national security is now broadening, from diplomacy and [military] defence to the economic sphere, it is now an urgent issue

to guarantee the security of the citizens [of Japan] from the economic front.”<sup>11</sup> The added weight given to economic-security issues is also confirmed by the National Security Strategy, declaring that “economic capabilities are the foundation of policies to achieve a peaceful and stable security environment”.<sup>12</sup>

This attention to economic security can be explained both by Japan’s national identity and by the country’s current perception of threats. As the world’s third largest economy Japan sees itself as a major player in upholding an open and stable international economic order, based on free and fair trade. Yet, at the same time, Japan today recognizes a trend where this order has become less stable.

In the field of international trade and economic cooperation, which in principle should be mutually beneficial, some nations are trying to expand their own influence by economically coercing other nations through such means as restricting the exports of mineral resources, food, and industrial and medical supplies, as well as providing loans to other nations in a manner that ignores their debt sustainability.<sup>13</sup>

That China poses a major concern in this area is stated clearly in the NSS, which describes how China takes advantage of other countries’ economic dependences to exert pressure.<sup>14</sup>

Economic security in the Japanese understanding refers to the strategic approach of “promoting economic security policies to achieve autonomous economic prosperity”.<sup>15</sup> More specifically, the goal is to enhance Japan’s self-reliance and to secure the advantage and indispensability of Japanese technologies. In essence, economic security in the Japanese approach is based on the goals of achieving strategic autonomy as well as strategic indispensability where the latter refers to the promotion of “superior, made-in-Japan technologies on which the

8 Cabinet Secretariat of Japan, *National Security Strategy*, 1, 3. The National Security Strategy is described as the supreme national security policy document that provides strategic guidance for Japan’s national security policy areas, including diplomacy, defense, economic security, technology, cyber, maritime, space, intelligence, official development assistance (ODA), and energy.

9 Cabinet Secretariat of Japan, *National Security Strategy*, 3, 6, 11.

10 IISS, “Japan’s Economic Security Act and the implication for businesses,” *Strategic Comments* 28, no. 8 (December 2022): viii-ix, <https://www.tandfonline.com/doi/full/10.1080/13567888.2022.2157625>. The ministerial portfolio dedicated to economic-security issues was created already in October 2021. Today the PM Office has an Economic Security Office to coordinate activities and set up planning. Major agencies involved are Ministry of Economy, Trade and Industry (export control, semiconductor strategy etc.), Ministry of Health (security of supply of pharmaceutical goods), Ministry of Land, Infrastructure and Transportation (security of critical infrastructure), Ministry of Communication (telecommunication), etc. and so forth.

11 Sanae Takaichi. Transcript of speech delivered at the House of Representatives, Tokyo, Japan, October 21, 2022. <https://kokkai.ndl.go.jp/detail?minId=121004889X00120221021&spkNum=18>. Translated from Japanese by Tobias Junerfalt. Original phrasing: “安全保障の裾野が外交、防衛だけでなく、経済分野にも拡大する中、国民の皆様の安全を経済面から確保することは喫緊の課題です。”

12 Cabinet Secretariat of Japan, *National Security Strategy*, 12.

13 Cabinet Secretariat of Japan, *National Security Strategy*, 6–7.

14 Cabinet Secretariat of Japan, *National Security Strategy*, 8.

15 Cabinet Secretariat of Japan, *National Security Strategy*, 30.

rest of the world depends”.<sup>16</sup> However, while prosperity appears to be a fundamental point of departure, it is important to note that the emphasis in this context is placed on *autonomous* economic prosperity. In other words, economic security is not primarily about maximising wealth, as pointed out by researchers from the International Institute for Strategic Studies (IISS): “It is, instead, about preserving a country’s freedom to act in accordance with its strategic interests and values.”<sup>17</sup>

The NSS outlines six types of measures intended to enhance Japan’s economic security that can be briefly summarized as follows:<sup>18</sup>

- *General:* Implement the Economic Security Promotion Act (to be further described below).
- *Supply chain resilience:* Strengthen supply chain resilience by curbing excessive dependence on specific countries. The NSS mentions next-generation semiconductor development and manufacturing bases and generally securing stable supply for critical goods.
- *Procurement:* Reviewing government procurement procedures, including those by local municipalities, as well as expanding the scope of the prior screening system with regard to the critical infrastructure field.
- *Data and information protection:* Ensure appropriate management of sensitive data and safety and reliability of information and communication technology services.
- *Fostering and preserving technology:* Stepping up support and developing systems for information gathering, development, and fostering of advanced critical technologies.
- *Anti-coercion measures:* Promote effective efforts against economic coercion by foreign countries.

In addition, the NSS outlines how Japan will work to maintain and strengthen the multilateral trading system with the World Trade Organization (WTO) at its core, while also enhancing Japan’s own measures to counter against unfair trade practices and economic coercion. This will be achieved “in cooperation with its ally [the US] and like-minded countries”.<sup>19</sup> With regard to the US, a joint statement was released in May 2022 that the two countries would explore “further cooperation to strengthen economic security”.<sup>20</sup> One of the recent initiatives in this area is the establishment of a new ministerial-level forum, the Japan–US Commercial and Industrial Partnership, intended “to strengthen the competitiveness, resiliency, and security of both economies; to address shared global challenges such as climate change; and to achieve prosperity and maintain a free and fair economic order”.<sup>21</sup> In addition a continued focus on cooperation with the US, initiatives have recently been taken to deepen the relations with the EU. For example, on 28 October 2023, the EU and Japan concluded an agreement on cross-border data flows, which will enable companies to handle data efficiently without cumbersome administrative requirements. Once ratified, the agreement will be added to the EU-Japan Economic Partnership Agreement that has been in place since 2019.<sup>22</sup>

Finally, related to economic security are also food and energy security, discussed in the NSS under the theme of securing resources essential for Japan’s national security. Japan considers food and energy security to be the basis of all social and economic activities. To ensure energy security, Japan will (among other things) diversify supply sources and drive forward measures to improve Japan’s energy self-sufficiency ratio and build a robust energy supply system that can withstand crises. With regard to food security, the NSS notes that the supply and demand of food and trade worldwide is “unstable and uncertain”, which to Japan means worrisome risks considering the country’s high dependency on imports of food and production materials from overseas. Addressing these risks, the NSS outlines three types of measures:

16 Kazuto Suzuki, “How Will the Economic Security Law Change Japan’s Sci-Tech Policy?” The Tokyo Foundation for Policy Research, May 9, 2023, <https://www.tokyofoundation.org/research/detail.php?id=943>.

17 IISS, “Japan’s Economic Security Act and the implication for businesses,” ix.

18 Cabinet Secretariat of Japan, *National Security Strategy*, 30, 2022.

19 Cabinet Secretariat of Japan, *National Security Strategy*, 31.

20 IISS, “Japan’s Economic Security Act and the implication for businesses,” viii.

21 Quoted in IISS, “Japan’s Economic Security Act and the implication for businesses,” viii.

22 For more information, see “EU-Japan Economic Partnership Agreement,” European Commission, accessed 8 November, 2023, [https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/japan/eu-japan-agreement\\_en](https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/japan/eu-japan-agreement_en).



increased domestic production (“what can be produced here in Japan to the extent possible”), work to ensure stable imports and national stockpiles of items that are difficult to procure in Japan.<sup>23</sup>

The NSS concludes on a rather bleak note, stating once again that Japan today finds itself in the midst of the most severe and complex security environment since the end of World War II: “In no way can we be optimistic about what the future of the international community will bring.” Yet, as the NSS also notes, the world could choose to continue to nurture economic prosperity thanks to vibrant trade, investments and innovations: “We should hold on to these hopes.”<sup>24</sup>

### The Economic Security Promotion Act

In late 2021, the Japanese Government established an expert panel that was given the task to propose recommendations for economic-security areas suitable for legislative measures. A few months later, in February 2022, the expert panel identified four such areas: 1) strengthening supply chains for critical goods and raw materials, 2) ensuring the safety and reliability of key infrastructure, 3) establishing a framework for fostering and supporting key technologies, and 4) preventing the outflow of sensitive inventions by secret patents.<sup>25</sup> These recommendations were soon thereafter put into the law in terms of the Economic Security Promotion Act, which came into effect on May 18, 2022.

The Economic Security Promotion Act (hereafter The Promotion Act) has been described as far-reaching in terms of how it will affect Japanese companies. In essence, the motivation for the law is to protect Japan from coercion by other countries on the basis of economic dependency. Following the recommendations of the abovementioned expert panel, this will be achieved through four strategic pillars. The supply chain focus of the first pillar involves measures that will encourage companies to move production lines from

countries such as China back to Japan (or its allies or partners). Some of the associated costs will be borne by the government through subsidies, low interest loans and other support. Under the second pillar, companies overseeing core infrastructure are required to meet new security criteria related particularly to cyber risks.<sup>26</sup> The third pillar addresses Japan’s concerns with the role of science and technology for national security. In order to promote Japanese control and development of certain critical technologies, a new framework for research and development of such technologies has been established, introducing, among other things, specific funding mechanisms and a new public-private cooperation forum.<sup>27</sup> The fourth pillar finally intends to prevent disclosure of inventions that might be detrimental to national security. This will be achieved through a patent non-disclosure system for sensitive technologies.

Following the Promotion Act, Japanese companies will have to adjust their way of doing business, taking into account economic security as a component in their business decision-making. As pointed out by the IISS, major Japanese companies including Mitsubishi Electric Corporation, Hitachi and IHI Corporation in fact established economic security divisions even before the passage of the Promotion Act, indicating their close attention to the issue. Conducting economic-security analyses can be seen as a first step, preparing for the adoption of new decision-making processes. Similar processes will have to be adopted by small and medium-sized enterprises working on sensitive technologies. Moreover, new patterns of communication between companies and the government will be established in order to identify what is and is not working with regard to the requirements of the Promotion Act.<sup>28</sup>

It should finally also be noted that initiatives related to economic security are not new to Japan: For instance, foreign investment screening has been exercised by Japan since 1949.<sup>29</sup>

23 Cabinet Secretariat of Japan, *National Security Strategy*, 29–30.

24 Cabinet Secretariat of Japan, *National Security Strategy*, 35.

25 Jun Osawa, *How Japan Defines Economic Security*, (Washington, DC: Wilson Center, 2023), 8, <https://www.wilsoncenter.org/publication/how-japan-defines-economic-security>.

26 IISS, “Japan’s Economic Security Act and the implication for businesses,” viii–ix. As noted by IISS, the oversight of core infrastructure can entail “removing installed equipment if it does not meet certain criteria related to cyber risk, and install new (and usually more expensive) equipment.”

27 Council on Foreign Relations, *Summary of Economic Security Promotion Act*, accessed 16 January, 2024, <https://www.cfr.org/sites/default/files/pdf/economic%20security%20promotion%20act%20%28summary%29%28English%29.pdf>.

28 IISS, “Japan’s Economic Security Act and the implication for businesses,” ix.

29 See, for example, Pinsent Masons, “Foreign direct investment in Japan,” 7 June, 2023, <https://www.pinsentmasons.com/out-law/guides/foreign-direct-investment-in-japan>.

## TAIWAN – ECONOMIC SECURITY WITH A FOCUS ON CHINA AND SEMICONDUCTORS

Taiwan, with a population of approximately 23 million people, is a rare case of a major economy, ranked number 21 globally in 2022, which is not a member of the UN.<sup>30</sup> Taiwan's national security thinking is heavily focused on the large neighbour across the Taiwan Strait, China. In a speech in November 2023, Taiwanese president Tsai Ing-wen (Democratic Progressive Party, DPP) emphasised the threat from China, without mentioning the country explicitly:

In the Indo-Pacific, escalating gray-zone activities have created serious instability in the region. This includes maritime intimidation in the South and East China seas. Taiwan has, in particular, been challenged by increasingly frequent incursions into our ADIZ and military exercises in our vicinity. We have also had to face economic coercion and persistent cyberattacks. Taken as a whole, these hybrid tactics are designed to deplete Taiwanese people's confidence in our democracy, and to undermine our resolve to defend ourselves.<sup>31</sup>

Taiwan is highly dependent on trade; in 2022, exports represented approximately 63 percent of Taiwan's GDP.<sup>32</sup> Moreover, the Taiwan Strait is crucial for world trade as one of the most heavily trafficked trade routes. Together with the threat posed by Chinese economic coercion, questions regarding Taiwan's economy are interlinked with national security.

In fact, the economy and its development have been crucial for Taiwan's national security since at least 1949, when the Chinese Civil War came to an unofficial end. The Kuomintang (KMT) ruled Taiwan for the rest of the 20th century, and encouraged deep commercial relations with the rest of the world as a means to counter the threat from mainland China, ruled by the Chinese Communist Party (CCP). The importance of Taiwan's economic development became even more acute in

1971, when the People's Republic of China (China) replaced the Republic of China (Taiwan) in the UN and on the UN Security Council. As a consequence, Taiwan's diplomatic status was significantly weakened.<sup>33</sup> Taiwan had its first democratic elections in the 1990s and has since then had a political system characterised by multiple competing political parties, dominated by the KMT and the DPP. There largely seems to be bipartisan consensus regarding the importance of Taiwanese industry for national security. This does not preclude notable differences between the two major parties; the KMT has been known to have a conciliatory attitude toward China, emphasising the importance of mutual economic exchange, as opposed to the more pro-independence DPP. However, despite remaining differences in perspectives between KMT and DPP on how to manage cross-Strait relations, there also seems to be an increasing bipartisan consensus regarding the threat posed by China.<sup>34</sup>

In 2020, Taiwanese president Tsai Ing-wen (DPP) illustrated the policy emphasis on industrial and economic development when she identified "Six Core Strategic Industries", tying them to Taiwan's role in the world economy and to national security. The six industries are: information and digital industries, national defence and strategic industries, the cybersecurity industry, precision health industries, strategic stockpile industries as well as green electricity and renewable energy industries. These industries should serve to "transform Taiwan into a critical force in the global economy", and the strategy for their development is based on demand-driven growth "from the public sector and national security needs". The semiconductor industry is at the core of several of these six industries.<sup>35</sup> In fact, it is arguably the most important sector of the Taiwanese economy overall, and is sometimes called "the mountain that

30 "World Economic Outlook database: October 2023," IMF, accessed 19 December, 2023, <https://www.imf.org/en/Publications/WEO/weo-database/2023/October>.

31 "President Tsai attends opening of 2023 Taipei Security Dialogue," Office of the President Republic of China (Taiwan), 8 November, 2023, <https://english.president.gov.tw/NEWS/6641>.

32 "Trade Statistics Database," Ministry of Finance, accessed 17 January, 2024, <https://web02.mof.gov.tw/njswww/webmain.aspx?sys=100&funid=edefspglt>; "World Economic Outlook: October 2023," IMF, accessed 17 January, 2024, <https://www.imf.org/external/datamapper/NGDPD@WEO/TWN?zoom=TWN&highlight=TWN>.

33 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023.

34 Dennis Lu Chung Weng, "From dove to hawk: KMT's transformation and the quest for new guardrails in cross-Strait relations," Brookings, 12 October, 2023, <https://www.brookings.edu/articles/from-dove-to-hawk-kmts-transformation-and-the-quest-for-new-guardrails-in-cross-strait-relations/>.

35 "Program for Promoting Six Core Strategic Industries," National Development Council, accessed 9 October, 2023, [https://www.ndc.gov.tw/en/Content\\_List.aspx?n=2D827BFE7E3598BE](https://www.ndc.gov.tw/en/Content_List.aspx?n=2D827BFE7E3598BE); "Inaugural address of ROC 15th-term President Tsai Ing-wen," Office of the President Republic of China (Taiwan), 20 May, 2020, <https://english.president.gov.tw/News/6004>.

protects Taiwan” due to its perceived role in deterring a Chinese invasion.<sup>36</sup> Different estimates suggest that between 15 and 25 percent of Taiwan’s GDP is derived from the semiconductor industry, as well as an approximated 40 percent of total exports.<sup>37</sup> The contribution to Taiwan’s GDP is even greater if the broader, heavily semiconductor-dependent IT sector in Taiwan is included. The international importance of Taiwan’s semiconductor industry, not least the advanced chips produced by Taiwan Semiconductor Manufacturing Company (TSMC), has been the subject of much media attention in the early 2020s, not least since the Covid-19 pandemic and the impact it had on global awareness of chip-related supply chain risks. The Taiwanese semiconductor industry represents more than 90 percent of advanced front-end chip manufacturing, and 27 percent of back-end chip manufacturing globally.<sup>38</sup> The semiconductor industry has long been an important part of the Taiwanese economy, but has recently become an integral part of discussions regarding national security.<sup>39</sup>

### Taiwan’s Economic Security Ecosystem

There is a plethora of public and private institutions, including ministries, think tanks and university departments, which deal with economic matters of importance to Taiwan’s national security. The Institute for National Defense and Security Research (INDSR), established in 2018, is an organisation of overall importance for national security, including some aspects of economic security, in Taiwan. The Ministry of Economic Affairs (MOEA) is the most central actor among governmental departments when it comes to economic security overall, and the Mainland Affairs Council is the ministry-level agency responsible for cross-strait economic

relations. Furthermore, there is a number of research institutes that are part of the Taiwanese economic security ecosystem, for instance the Chung-Hua Institution for Economic Research (CIER).<sup>40</sup>

Taiwan has a long history of promoting the development of Taiwanese industry through various types of state support. Since the 1960s, industrial policy has been employed, not least for the semiconductor industry. This remains true today, and common measures by the MOEA include subsidies, favourable loans and tax relief. Whereas domestic state support is commonplace, the diplomatic status of Taiwan makes state support in foreign ventures more difficult. The Taiwanese government cannot help Taiwanese companies by promoting investments abroad, as it has limited scope for official diplomatic activities due to not being officially recognised by most countries. Therefore Taiwanese companies and banks “have to go alone”.<sup>41</sup>

Another important component of public-private cooperation in Taiwan, with implications for economic security, is the interaction between industry organisations and the government. Taiwanese industry is dominated by SMEs, representing more than 98 percent of all companies, 80 percent of the workforce, and half of domestic company revenue in 2021.<sup>42</sup> SMEs communicate with the government through various industry organisations, not least the Taiwan Electrical and Electronic Manufacturers’ Association (TEEMA), but also for example the Chinese National Federation of Industries (CNFI). Meanwhile, large companies, such as TSMC, can initiate direct communication with the government, both with ministries and with the president. There are also informal organisations for large industrial actors, e.g. the San San Association, that

36 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023. “Silicon shield” is another commonly used term for the Taiwanese semiconductor industry, sometimes specifically for TSMC.

37 “Taiwan’s dominance of the chip industry makes it more important,” *Economist*, 6 March, 2023, <https://www.economist.com/special-report/2023/03/06/taiwan-dominance-of-the-chip-industry-makes-it-more-important>; Rachel Chang, “From Chips to Beyond: Taiwan’s Need for Economic Diversification,” Harvard Growth Lab, 15 May, 2023, <https://growthlab.hks.harvard.edu/blog/chips-beyond-taiwan%E2%80%99s-need-economic-diversification>.

38 Bradley Martin, Laura H. Baldwin, Paul DeLuca, Natalia Henriquez Sanchez, Mark Hvizda, Colin D. Smith, N. Peter Whitehead, *Supply Chain Interdependence and Geopolitical Vulnerability: The Case of Taiwan and High-End Semiconductors* (Santa Monica, California: RAND Corporation, 2023), 21–23, [https://www.rand.org/pubs/research\\_reports/RRA2354-1.html](https://www.rand.org/pubs/research_reports/RRA2354-1.html).

39 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023.

40 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023, and written comments, 11 January, 2024. Other research institutes of relevance include the Industrial Technology Research Institute (ITRI) and the Institute for Information Industry (III).

41 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023.

42 “SMEs Serve as the Backbone of Taiwan’s Stable Economic Development,” MOEA, 28 October, 2022, [https://www.moea.gov.tw/MNS/english/news/News.aspx?kind=6&menu\\_id=176&news\\_id=103826](https://www.moea.gov.tw/MNS/english/news/News.aspx?kind=6&menu_id=176&news_id=103826).

facilitate communication with the government.<sup>43</sup> The Taiwanese industry does play a role in advising the Taiwanese government in matters of economic security, including through publishing white papers. However, the primary concern of Taiwanese companies is “competition and cooperation with Chinese companies”.<sup>44</sup>

### Balancing Economic Integration with China

As is the case with other economies in East Asia, such as Japan and South Korea, Taiwan has a high degree of economic integration with neighbouring China. China is Taiwan’s single largest trade partner. In 2019, China was the source of approximately 20 percent of Taiwanese imports and the destination for around 30 percent of Taiwanese exports. Chinese consumer electronics and Taiwanese semiconductors are the main trade goods.<sup>45</sup>

Taiwan thus has to face the issue of balancing important Taiwan-China economic exchange with not becoming too dependent on China. Since the mid-2010s, the Taiwanese government has made efforts to decrease the dependency of the Taiwanese economy upon China, including through policy initiatives with the objective of redirecting the investment focus of Taiwanese companies. The New Southbound Policy, announced by president Tsai in 2016, was a notable initiative in this regard. Its stated aim was to encourage more economic exchange with countries in Southeast and South Asia.<sup>46</sup> There have also been policy initiatives aimed at incentivising companies to “reshore” overseas production to Taiwan. Since 2018, the US-China trade war has served to strengthen efforts by the Taiwanese government toward diversifying investment and trade patterns.<sup>47</sup> Not all Taiwanese companies have been enthusiastic about the efforts from the Taiwanese

governments to steer them away from China, due to the importance of the Chinese market for Taiwanese investments and trade. For smaller companies, government-initiated incentives, such as preferential interest loans from banks, have some effect. Big companies have been more difficult to persuade. However, since the US started imposing export controls targeting Chinese companies such as Huawei, larger Taiwanese companies have been forced to comply, out of fear of losing access to business partners and customers in the US. Many Taiwanese companies maintain their business in China while also diversifying their investments to be in line with export controls. Apart from expanding outside of China, diversification strategies can also take the shape of refocusing toward serving the domestic Chinese market, rather than investing in more export-oriented manufacturing.<sup>48</sup>

### Defence against Economic Coercion from China

In peacetime, Chinese economic coercion is a central question for Taiwan’s economic security. Chinese tariffs or boycotts upon the Taiwanese agricultural sector are examples of economic coercion. Targeted products in recent years include pineapples, wax apples, grouper fish and citrus fruits. Besides promoting a higher rate of domestic consumption of Taiwanese goods targeted by China, the Taiwanese government tries to help producers to diversify their export markets in order to reduce their dependency upon China. For some products, such as advanced semiconductor components, China’s import dependency upon Taiwan makes China more reluctant to exercise economic pressure through tariffs or boycotts.<sup>49</sup> Moreover, Taiwanese investments in China, which are substantial, could be exploited for economic

43 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023. The Chinese names for the listed organisations are the following: 電電公會 (TEEMA), 全國工業總會 (CNFI) and 三三會 (the San San Association). Other industry organisations include 全國商業總會 (the General Chamber of Commerce of R.O.C) and 工商協進會 (the Chinese National Association of Industry and Commerce, CNAIC).

44 Chien-Chun Huang, CNFI, email message to authors, 27 September, 2023. CNFI white papers can be accessed through their website, see 中華民國全國工業總會 [CNFI], 工總白皮書 [CNFI White Papers], accessed 8 November, 2023, <http://www.cnfi.org.tw/front/bin/ptlist.php?Category=100003>.

45 Bradley Martin, Kristen Gunness, Paul DeLuca, and Melissa Shostak, *Implications of a Coercive Quarantine of Taiwan by the People’s Republic of China* (Santa Monica, California: RAND Corporation, 2022), 4, [https://www.rand.org/pubs/research\\_reports/RRA1279-1.html](https://www.rand.org/pubs/research_reports/RRA1279-1.html).

46 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023; Kristy Tsun Tzu Hsu, *Taiwan as a Partner in the U.S. Semiconductor Supply Chain*, Wilson Center, September, 2022, 8, [https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/2022-09\\_Taiwan\\_SemiconductorSupplyChain\\_Hsu.pdf](https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/2022-09_Taiwan_SemiconductorSupplyChain_Hsu.pdf). Taiwan first implemented a Go South policy under President Lee Tung-Hui in the early 1990s.

47 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023; Kristy Tsun Tzu Hsu, *Taiwan as a Partner*, 8.

48 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023.

49 Roy Chun Lee, “China’s agricultural bans don’t yet threaten Taiwan’s economic security,” East Asia Forum, 10 December, 2022, <https://www.eastasiaforum.org/2022/12/10/chinas-agricultural-bans-dont-yet-threaten-taiwans-economic-security>. Roy Chun Lee was previously a researcher at the Taiwanese research institute Chung-Hua Institution for Economic Research (CIER). He is currently, as of August 2023, serving as Taiwan’s Deputy Minister of Foreign Affairs.



coercion.<sup>50</sup> In some cases, the primary target of Chinese economic coercion is perhaps the Taiwanese government rather than the Taiwanese industry. Taiwanese companies are often provided incentives to invest in China. At the same time, China's limited protection of intellectual property (IP) rights remains an issue for the Taiwanese industry.<sup>51</sup> Other examples of harmful economic activities from China include industrial espionage, IP theft and talent poaching.<sup>52</sup>

Taiwan has an investment review mechanism, managed by the MOEA. The same ministry is also responsible for ensuring compliance with export control regulations, e.g. for key technologies.<sup>53</sup> Taiwan's legislation for inbound foreign investments goes back several decades, and the governing statute was last amended in 1997. There are overall restrictions for foreign investments in certain industries, including such investments that may harm "national security, public order, good customs and practices, or national health".<sup>54</sup> Industries that receive special attention in investment screening include the financial sector, telecommunications, media and broadcasting, agriculture, transportation, and energy.<sup>55</sup> Investments from China are subject to special scrutiny. For instance, Chinese investors may only invest in industries approved by the Taiwanese government.<sup>56</sup> Taiwan also has tough investment screening for outbound investments, not least to China. For instance, "all investments of advanced [chip] manufacturing in China are prohibited".<sup>57</sup> As with the case of inbound investments, Taiwan's limitations on outbound investments to China, as well as import and export controls, go back several decades.<sup>58</sup> Both KMT and DPP have

had policies that prohibit certain sectors from investing in China. Moreover, even though Taiwan is a member of the World Trade Organization (WTO), it has maintained and still maintains several trade restrictions towards China, sometimes in violation of WTO law.<sup>59</sup>

However, there are on-going efforts towards making the investment screening system more rigorous. As a means to "further securitise Taiwan's economy with consideration to cross-strait relations", Taiwan's National Security Act was amended in June 2022.<sup>60</sup> Another act, governing cross-strait relations, was also amended at the same time. The amendments address economic espionage, the leaking of critical technologies ("national core key technologies"), illegal investments in Taiwan, and talent poaching. For example, illegally accessing or leaking critical technologies now entail punishments that range from fines of up to 100 million New Taiwan Dollars to prison terms of up to 12 years.<sup>61</sup>

### Supply Chain Management for Critical Goods

Access to certain critical goods is a crucial question for Taiwan, an island that might be subject to a blockade by China in a future conflict scenario. The global Covid-19 pandemic and supply chain disruptions in the early 2020s have also served to reinforce efforts by the Taiwanese state to secure the supply of various goods. As an example of these efforts, strategic stockpile industries is one of the aforementioned Six Core Strategic Industries promoted by president Tsai. For example, stockpiling for crucial epidemic prevention goods are to be coordinated across different administrative levels. Stockpiling targets of 3 months consumption have been

50 Lee, "China's agricultural bans."

51 Chien-Chun Huang, CNFI, email message to authors, 27 September, 2023.

52 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023; Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023.

53 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023.

54 "Statute For Investment by Foreign Nationals," Laws & Regulations Database of The Republic of China (Taiwan), <https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0040002>.

55 Yvonne Y. Hsieh and Gary Chen, "Foreign Direct Investment Regimes Taiwan 2024," ICLG, 16 December, 2023, <https://iclg.com/practice-areas/foreign-direct-investment-regimes-laws-and-regulations/taiwan>.

56 Benjamin Y. Li, Derrick Yang, and Yu-ting Su, "Foreign direct investment reviews 2023: Taiwan," White & Case, 20 March, 2023, <https://www.whitecase.com/insight-our-thinking/foreign-direct-investment-reviews-2023-taiwan>.

57 Kristy Tsun Tzu Hsu, *Taiwan as a Partner*, 6.

58 Chien-Chun Huang, CNFI, email message to authors, 27 September, 2023.

59 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023, and written comments, 11 January, 2024. Taiwan participates in the WTO by the name of "Separate Customs Territories of Taiwan, Penghu, Kinmen, Matsu," sometimes abbreviated as "Chinese Taipei".

60 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023.

61 "National Security Act," Laws & Regulations Database of The Republic of China (Taiwan), <https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=A0030028>; "Act Governing Relations between the People of the Taiwan Area and the Mainland Area," Laws & Regulations Database of The Republic of China (Taiwan), <https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=Q0010001>.

put in place for crucial foodstuffs such as rice, vegetables and fruit, livestock and poultry, and aquatic products. Moreover, various other goods such as pulp, wheat, soybeans and canned products have stockpiling targets of 3-5 months.<sup>62</sup> The Taiwanese food self-sufficiency rate seems to vary greatly for different products. In 2022, rice and pork, two examples of Taiwanese staple foods, had self-sufficiency rates of 104 and 89 percent. At the same time, wheat and soybeans were almost entirely imported.<sup>63</sup> Taiwan is also extremely import dependent when it comes to its energy needs. In 2022, 97 percent of Taiwanese energy was imported. The imported energy consisted mainly of crude oil and petroleum products (44 percent), followed by coal and coal products (30 percent), as well as LNG (19 percent).<sup>64</sup> There is legislation in place since the 2010s to ensure that energy companies maintain certain levels of safety stock. For instance, energy importing companies should keep natural gas safety stocks corresponding to at least 8 business days as of 2022, and 14 business days before 2027.<sup>65</sup> According to the MOEA, in October 2022 Taiwan as a whole had safety stocks of around 11 days for natural gas and 163 days for oil.<sup>66</sup>

Despite being a member of the WTO, Taiwanese trade policy is mostly bilateral. Taiwan's ambiguous diplomatic status makes participation in multilateral trade frameworks more difficult. For instance, Taiwan is not part of the Indo-Pacific Economic Framework (IPEF), launched by US president Joe Biden in 2022. IPEF participants in Southeast Asia do not want Taiwan to participate since IPEF might then be perceived as an "anti-China block". Moreover, apart from free trade agreements (FTAs) with Latin American and African states that recognise Taiwan diplomatically, Taiwan only has two FTAs, namely with New Zealand and with

Singapore. China actively seeks to prevent Taiwanese FTAs, e.g. with Japan, EU and various Southeast Asian states, with reference to the One-China Principle and Taiwan not being a sovereign state. An option for Taiwan is to establish supply chain partnerships with other countries, but there has been limited success thus far.<sup>67</sup>

## SINGAPORE – ECONOMIC SECURITY INTEGRATED IN TOTAL DEFENCE

Singapore is an economically advanced island state, with approximately 6 million inhabitants squeezed onto a landmass of only 709 square kilometres. The majority of the population are ethnic Chinese, but Muslim Malays were historically the dominant group on the Island in the precolonial period, and Malays constitute the majority population in nearby Malaysia. The history of racial tensions between ethnic Malays and Chinese was a contributing factor to Singapore's exit from Malaysia in 1965. Singapore was then the only majority-Chinese state of Malaysia, founded by the merger of the Federation of Malaya, North Borneo, Sarawak and Singapore following British decolonisation in 1963. Today, a substantial share of Singapore's population is represented by foreign citizens; a little over 60 percent are Singaporean citizens, 9 percent are permanent residents and around 30 percent are non-residents.<sup>68</sup>

If Japan and Taiwan are quite explicit regarding China being the main regional threat, Singapore takes a more careful approach, preferring to avoid taking sides in the escalating tension between China and the US. Defence Minister Ng stated in 2020: "We have no desire to take sides or to be caught in the crossfire, we stand for our national interests, and so far, we have maintained independence and space for ourselves. But as contestation increases in this region, it will be increasingly

62 Shiow-Wen Wang, INDSR, online meeting and written comments, 26 September, 2023; 國發會經濟發展處[National Development Council Department of Economic Development], 建構足以確保關鍵物資供應的民生及戰備產業[Building a Welfare and War Preparation Industry Sufficient to Ensure the Supply of Key Goods] in Council for Economic Planning and Development, *Taiwan Economic Forum* 18, no. 3 (September 2020): 33–6, [https://www.ndc.gov.tw/en/nc\\_2061\\_34457](https://www.ndc.gov.tw/en/nc_2061_34457).

63 Ministry of Agriculture, 農業統計年報 (111年) [Agriculture Statistics Yearbook 2022], 6 July, 2023, 221, <https://agrstat.moa.gov.tw/sdweb/public/book/Book.aspx>.

64 "Energy Statistics Handbook 2022," Ministry of Economic Affairs, 30 March, 2022, [https://www.moeaea.gov.tw/ECW\\_WEBPAGE/FlipBook/2022EnergyStaHandBook/index.html#p=](https://www.moeaea.gov.tw/ECW_WEBPAGE/FlipBook/2022EnergyStaHandBook/index.html#p=).

65 Ministry of Economic Affairs, 天然氣生產或進口事業自備儲槽容量 [Natural Gas Production or Import Business Self-provided Tank Capacity], last updated 27 August, 2018, [https://www.moeaea.gov.tw/ECW/populace/Law/Content.aspx?menu\\_id=1029](https://www.moeaea.gov.tw/ECW/populace/Law/Content.aspx?menu_id=1029)

66 Ministry of Economic Affairs, 國內石油安全存量月資料 [Domestic Oil Safety Stock Monthly Data], last updated 19 October, 2023, [https://www.moeaea.gov.tw/ECW/populace/content/SubMenu.aspx?menu\\_id=973](https://www.moeaea.gov.tw/ECW/populace/content/SubMenu.aspx?menu_id=973); Ministry of Economic Affairs, 國內天然氣安全存量 [Domestic Natural Gas Safety Stock], last updated 10 November, 2023, [https://www.moeaea.gov.tw/ECW/populace/content/SubMenu.aspx?menu\\_id=14307](https://www.moeaea.gov.tw/ECW/populace/content/SubMenu.aspx?menu_id=14307).

67 Kristy Tsun Tzu Hsu, CIER, online meeting, 20 September, 2023, and written comments, 11 January, 2024.

68 As of June 2023 according to "Population in Brief 2023," The Strategy Group in the Prime Minister's Office, accessed 31 January, 2024, <https://www.strategygroup.gov.sg/files/media-centre/publications/population-in-brief-2023.pdf>

difficult to do so.”<sup>69</sup> Despite this strategic ambivalence, Singapore has long-running and close cooperation with the US, including; the basing of American military personnel in Singapore, the training of Singaporean air force personnel in the US, significant Singaporean arms purchases from the US, and a number of bilateral agreements between the two countries.<sup>70</sup>

Beyond concerns over great power conflict, Singapore has despite generally good relations with its neighbours, Indonesia and Malaysia, also experienced some tensions, e.g. recently when Malaysia unilaterally extended the Johor Bahru Port Limits, encroaching into Singapore Territorial Waters, as late as 2018.<sup>71</sup> In the non-military domain, influence operations and radicalisation are recognised threats<sup>72</sup>, which has also resulted in legislative change. Non-adversarial threats, crises of various sorts (such as a pandemic), are also on Singapore’s “readiness radar”.

Singapore’s small size and exposed geographic position, combined with the experience of Japanese occupation during the Second World War, perhaps explains why Singapore instituted national conscription shortly after independence. In 1984 Singapore formally launched its Total Defence concept, then consisting of five pillars; Military, Civil, Economic, Social and Psychological Defence. Digital Defence was included as a sixth Total Defence pillar more recently.<sup>73</sup>

To what extent Singaporean “Total Defence” should be seen as a formal structure, or rather a way of describing what government and broader society does that contributes to societal resilience, is not entirely clear, as the publicly available information on total defence is quite limited. However, the Singaporean Total Defence appears to be more of a communications concept to describe what contributions different ministries, government agencies, civil organisations and individuals

make to the nation’s security, and mobilizing the citizenry around that idea.<sup>74</sup>

Thus, rather than looking at what the Total Defence concept states, it makes more sense to look at individual Singaporean government policies and actions, and from those determine how Singapore approaches the different pillars of Total Defence. As with the two other case studies, Taiwan and Japan, this study looks at Economic Defence, which is one of Singapore’s formal Total Defence Pillars. The stated ambitions of Singaporean Economic Defence are primarily twofold – to strengthen the international competitiveness of the economy, and to ensure sufficient robustness to withstand economic challenges during a crisis or attempted economic strangulation.<sup>75</sup>

### **Economic Defence: International Competitiveness**

To build international competitiveness, and thereby maintain Singapore’s relevance in the global economy, is a long-term ambition, which entails policies far removed from the traditional defence domain, such as education. As described by the Ministry of Defence, lifelong learning and a continuous upgrading of skills must be embraced in order to adapt to the changing needs of the economy. The emphasis put on maintaining competitiveness for Economic Defence clarify the long-term centrality of education in this context.<sup>76</sup>

The fact that Singapore topped the PISA school rankings for mathematics, reading and science, and that the National University of Singapore ranks within the top 20 global universities, suggests that Singapore has successfully created an environment for fostering competitiveness, and by extension economic defence.<sup>77</sup> Both the Fraser Institute and Heritage Foundation ranked Singapore’s economy as the freest in World in 2023. From the perspective of economic growth, this is likely a good thing, but the high degree of economic

69 Cited in “Overview,” SG101, accessed 17 January, 2024, <https://www.sg101.gov.sg/defence-and-security/current-threats/overview/>. SG101 is affiliated with Nexus, an organization within the Singaporean Ministry of Defence.

70 “U.S. Security Cooperation With Singapore,” U.S. Department of State, 12 April, 2023, <https://www.state.gov/u-s-security-cooperation-with-singapore/>.

71 SG101, “Overview.”

72 Implicitly it would appear that China is the main concern relating to influence operations, and that Islamist radicalisation the main concern regarding radicalisation.

73 “Total Defence,” Ministry of Defence, accessed 8 November, 2023, <https://www.mindef.gov.sg/web/portal/mindef/defence-matters/defence-topic/defence-topic-detail/total-defence>.

74 This view is largely shaped by background interviews. As in-depth interviews with Singapore government representatives had not been granted at the time of writing this view may later need to be revised.

75 Ministry of Defence, “Total Defence.”

76 Ministry of Defence, “Total Defence.”

77 “National University of Singapore,” Times Higher Education, accessed 17 January, 2024, <https://www.timeshighereducation.com/world-university-rankings/national-university-singapore>; “PISA,” OECD, accessed 17 January, 2024, <https://www.oecd.org/pisa/>.

freedom would also suggest that Singapore's economy perhaps lacks regulatory mechanisms to limit excessive economic exposure to particular countries. The Financial Times reported that over 500 companies from China had redomiciled or registered in Singapore in 2023 as a hedge against rising tensions between China and the US.<sup>78</sup> China is by far Singapore's biggest trade partner, both in terms of imports and exports.<sup>79</sup> Singaporean investments in China may also be significant. For example, the government owned investment vehicle Temasek Holdings, with a net portfolio value of 383 billion Singapore dollars as of 31 March 2023, had a 22 percent exposure towards China.<sup>80</sup>

The Singaporean economy as a whole is heavily service-oriented, with service industries representing approximately 70 percent of GDP in 2021. Next to wholesale and retail trade, the financial sector is a significant part of the service industry, representing about 15 percent of Singapore's GDP.<sup>81</sup> Moreover, Singapore has the status of an international financial centre. Even though the financial sector is not emphasised explicitly in the Economic Defence pillar, it could thus be argued that the sector's continued stability, development and international competitiveness is vital for Singapore's national security.

From that perspective, some of the activities of the Singaporean Ministry of Finance contribute to national security. Among other things, the ministry promotes Singapore's economic interests, including finance, in multilateral forums such as ASEAN, APEC, G20 and multilateral development banks.<sup>82</sup> In the same context, the Singaporean central bank, the Monetary Authority of Singapore (MAS), plays a role in financial stability and national security. As is the case with central banks across the world, MAS has a regulatory function for Singapore's banking system, payment system, capital markets and insurance sector.<sup>83</sup> Moreover, the central

bank manages foreign reserves and promotes currency stability, with implications for the whole economy, especially in an export-oriented and import dependent country such as Singapore. Notably, MAS has increased its gold reserves drastically in the past few years, as a means to diversify foreign reserves. During Q1-Q3 in 2023, MAS was even among the top three purchasers of gold internationally, after China and Poland. However, gold still constitutes only a small share, around 2 percent, of total foreign reserves in Singapore.<sup>84</sup>

Singapore's economy is dominated by the service sector, but it also has a significant manufacturing industry, representing approximately 22 percent of GDP in 2021.<sup>85</sup> Singapore's semiconductor industry is of some international importance, especially in certain segments of back-end chip manufacturing.<sup>86</sup> Even if Singapore's economy is small, there are aspects of its regional and global role that imply other states could have an interest in supporting its continued functionality under stress.

Its role in the financial system is one such area. An even more significant role may be Singapore's role as the world's largest container transshipment port, the largest bunkering port (supplying fuel to ships), as well as its strategic location between the South China Sea and the Strait of Malacca that give it a key role relating to global shipping flows.

### Economic Defence: A Crisis-Resilient Economy

The other main ambition of Singaporean Economic Defence – enhancing the strength and resilience of the economy to withstand crises and coercion attempts – is perhaps a more clear-cut security objective. Exactly how economic resilience is achieved in practice is not explicitly outlined within the context of Total Defence. However, already in 1968, only a few years after independence, Singapore started a Rice Stockpile Scheme, and today the government states that it stockpiles at

78 Mercedes Ruehl and Leo Lewis, "Chinese companies set up in Singapore to hedge against geopolitical risk", Financial Times, 30 November 2023, accessed 2 February 2024, <https://www.ft.com/content/a0c11e3e-ab72-4b4b-a55c-557191e53938>

79 "Singapore's International Trade", Singapore Department of Statistics, accessed 2 February 2024, <https://www.singstat.gov.sg/modules/infographics/singapore-international-trade>

80 "Our Portfolio", Temasek, accessed 2 February 2024, <https://www.temasek.com.sg/en/our-investments/our-portfolio>

81 "Singapore Economy," Singapore Department of Statistics, accessed 8 December, 2023, [https://www.singstat.gov.sg/modules/infographics/-/media/Files/visualising\\_data/infographics/Economy/singapore-economy27092022.pdf](https://www.singstat.gov.sg/modules/infographics/-/media/Files/visualising_data/infographics/Economy/singapore-economy27092022.pdf).

82 "International," Ministry of Finance, accessed 8 December, 2023, <https://www.mof.gov.sg/policies/international>.

83 "Regulation," Monetary Authority of Singapore, accessed 14 December, 2023, <https://www.mas.gov.sg/regulation>.

84 Vincent Tie, "Why Singapore Is Increasing Its Gold Reserves," *Silver Bullion*, 14 July, 2023, <https://www.silverbullion.com.sg/Articles/Detail/Why-Singapore-is-Increasing-Its-Gold-Reserves/10556>.

85 Singapore Department of Statistics, "Singapore Economy."

86 Saif M. Khan, Dahlia Peterson, and Alexander Mann, *The Semiconductor Supply Chain: Assessing National Competitiveness* (Washington, DC: Center for Security and Emerging Technology, January 2021), 45–7, <https://cset.georgetown.edu/publication/the-semiconductor-supply-chain/>.



least 3 months of carbohydrates and 2 months of proteins.<sup>87</sup> Disruptions due to the Covid-19 pandemic, as well as Malaysia's 2022 decision to block poultry exports, illustrated food supply chain vulnerabilities. Beyond stockpiling, the Singapore Food Agency outlines a three-pronged approach to securing its food supply; import diversification, promoting domestic output, as well as supporting Singaporean businesses growing and importing foodstuffs from abroad.<sup>88</sup>

The official slogan for Singapore's Economic Defence pillar is "a strong and resilient economy that is globally competitive and able to bounce back from any crises".<sup>89</sup> The Covid-19 pandemic provided some examples of Economic Defence in action. For example, the state provided support for food importers to diversify their supply chains, government sharing the cost of digitalizing for businesses, and government also introduced a Job Support Scheme covering certain salary costs.<sup>90</sup> In terms of energy security Singapore is 95 percent dependent upon imported gas for its electricity generation.<sup>91</sup> In October 2023 the Singapore LNG Corporation (SLNG) was given approval to develop a second liquefied natural gas terminal. According to SLNG "The second terminal will better enable Singapore's demand for natural gas to be met entirely by liquefied natural gas, should that become necessary, and will enhance SLNG's capacity to deliver more LNG-related services, further entrenching Singapore as a key trading and bunkering hub for LNG."<sup>92</sup> In other words, another LNG terminal would appear to have the potential to enhance both economic resilience and competitiveness.

The 2023 government budget statement has a section called "Building A Resilient Nation" which highlights a number of expenditures that could count towards Total Defence, such as: the food supply strategy,

where stockpiles came into use during the pandemic; the use of a standby LNG facility following the Russian invasion of Ukraine; resilient infrastructure that includes subway stations designed to give protection and be used as shelters; the country's financial reserves; tax incentives to encourage citizens and businesses to donate money to, or volunteer for, registered charities.<sup>93</sup>

On the legal front a key law is the *Requisition of Resources Act 1985*, which empowers the state to requisition private property and commandeer any individual to work if "necessary for the securing of public safety or the defence of the country or the maintenance of supplies and services essential to the life of the community or for the conduct of exercises for any of those purposes".<sup>94</sup> Requisitioning can serve different pillars of Total Defence, including Economic Defence. What is noteworthy concerning the *Requisition of Resources Act* is that the potential threshold for activation appears relatively low; it can be activated if the Minister deems that public safety demands it.

Singapore restricts Foreign Direct Investment in certain real estate, and media broadcasting permits are only authorised to companies that have over 50 percent Singaporean ownership. The financial and banking sector is dependent upon government licences to operate, and regulatory approval is required for any merger or takeover of a local bank or financial holding company. There are also restrictions on foreign ownership of law firms practising locally, and entities that provide public accountancy services accountants must be under active management of partners who are public accountants residing in Singapore.<sup>95</sup> There was at the time of writing no broad foreign investment screening in place, for example such as the EU's regulation requiring its member states to establish an FDI screening framework.

87 "Key Points on Ensuring Food Security in Singapore," SG101, 14 June, 2022, <https://www.sg101.gov.sg/resources/current-topics/ensuringfoodsecurityinsingapore>.

88 "Our Singapore Food Story," Singapore Food Agency, accessed 9 November, 2023, <https://www.sfa.gov.sg/food-farming/sgfoodstory/our-singapore-food-story>.

89 Ministry of Defence, "Total Defence."

90 Sarah Soh, "Total Defence in Action – Singapore's Response to the COVID-19 Pandemic," RSIS, 10 February, 2023, <https://www.rsis.edu.sg/rsis-publication/nssp/total-defence-in-action-singapores-response-to-the-covid-19-pandemic/>.

91 Energy Market Authority, "Extension of Measures to Enhance Singapore's Energy Security and Resilience," press release, 31 March, 2022, <https://www.ema.gov.sg/news-events/news/media-releases/2022/extension-of-measures-to-enhance-singapores-energy-security-and-resilience>.

92 SLNG, "SLNG To Develop, Own And Operate Second LNG Terminal In Singapore As It Marks 10 Years Of Commercial Operations," press release, 24 October, 2023, <https://www.slng.com.sg/node/317>.

93 "F. Building A Resilient Nation," Ministry of Finance, accessed November 9, 2023, <https://www.mof.gov.sg/singaporebudget/budget-2023/budget-statement/f-building-a-resilient-nation>.

94 "Requisition of Resources Act 1985," Singapore Statutes Online, accessed November 9, 2023, <https://sso.agc.gov.sg/Act/RR1985?WholeDoc=1>.

95 Pinset Masons, "Foreign direct investment in Singapore," 7 June, 2023, <https://www.pinsentmasons.com/out-law/guides/singapores-foreign-investment-regime>.

## SUMMARY

Through the establishment of the Economic Security Promotion Act, Japan has taken a decisive step towards integrating economic security into the concept of comprehensive national power. The mix of promoting Japanese technology development (strategic indispensability) and protecting critical assets and supply chains (strategic autonomy) bears many resemblances with the EU's 2023 strategy on economic security, built on the three p's of promoting, protecting and partnering.<sup>96</sup>

Yet, through the very specific requirements put on Japanese companies by the Promotion Act, Japan has arguably taken the adoption of economic security one step further. At the same time, the Japanese government is aware of the balancing act between protecting and harming Japanese economic interests. The emphasis put on Japan's continued commitment to free and fair trade – as free as it can be given current developments – reflects a will not to abandon Japan's identity as a major player in the promotion of prosperity and progress based on a stable international order. Still, at the end of the day, economic security is not about maximising prosperity in terms of wealth. What is at stake, from a Japanese perspective, is the autonomy and ultimately survival of the nation.

Economic security has also become an increasingly central question for matters of national security in Taiwan. For Taiwan, how to balance economic interaction with China lies at the heart of economic security. Specific policies for economic security, in areas such as export controls, foreign investment screening, prevention of industrial espionage and talent poaching, among other things, are heavily focused on China, either due to historical experiences or current threat perceptions. Economic security-related policy measures have become more extensive and strict in recent years.

Moreover, Taiwan's semiconductor industry, which has been and remains at the core of Taiwan's economic development, is often in focus. A major obstacle for Taiwan's ability to strengthen economic security is the island's ambiguous diplomatic status, which handicaps Taiwan's possibility to engage in international trade under the same conditions as most other economies.

Singapore stands out in the sense that it does not explicitly see China as its main security threat, as is the case for several other ASEAN countries. Perhaps, this is also reflected in the relatively limited focus on foreign investment screening and reducing broader supply

chain dependence on China. Moreover, Singapore has an established Total Defence concept, and Economic Defence is a component thereof. The Singaporean government explicitly promotes the competitiveness and resilience of the Singaporean economy as crucial components of national security. For instance, there are resilience-enhancing policy initiatives and related government expenditures related to food supply security and financial reserves. However, the degree of top-down coordination seems to vary; for instance, it is not clear how the competitiveness of crucial economic sectors, such as the financial sector and certain manufacturing, is actually promoted within the Economic Defence framework.

## Concluding remarks

The three studied cases vary in their characteristics, in terms of size, population, economic profile, geographic location – yet they all share being knowledge-intense export-oriented economies. Japan is one of the world's dominant economies, Taiwan is a world leader in advanced semiconductor manufacturing, and Singapore is an important regional trading and financial hub. Significant economic exposure to China is a common feature for all three, but Japan and Taiwan view China more explicitly as a potential security threat than does Singapore.

Japan published a national security strategy at the end of 2022, and Singapore has a Total Defence concept that also lays out some of its strategic thinking. Both countries make it clear that maintaining economic competitiveness is integral to their national security. Taiwan might not have this documented in a national security strategy per se, but the actions and policy focus of the Taiwanese government make it clear that maintaining competitiveness is central to their national security. The emphasis put on economic competitiveness and its role for national security in Japan, Taiwan and Singapore is distinctly different compared to some countries that state their goals of boosting competitiveness, without making any connection to security objectives.

Taiwan is a case where economic security is to a large extent tied to a single sector of the economy, namely the semiconductor industry. The semiconductor industry is important for Japan as well, and tied to its notion of "strategic indispensability". However, as Japan's economy is significantly larger, and Japan enjoys global leadership positions in a number of areas, its economic security

<sup>96</sup> European Commission, *Joint communication to the European Parliament*.

focus becomes significantly broader. Economic security for Japan in some ways also echoes the EU concept of strategic autonomy. For Singapore, the port (the world's largest transshipment port)<sup>97</sup> and the financial sector may be more important than its manufacturing industry in terms of Singapore's "strategic indispensability" to the international economy.

Foreign investment screening has been exercised by Japan since 1949 and has recently been updated. Taiwan has investment screening going back to at least 1997, and for China has an even more restrictive approach of only permitting investments in approved sectors. Singapore is perhaps the most open to foreign investment, but does have some restrictions and exercise de facto control through the granting of permits to operate in certain areas. An important component of policy measures, not least in Taiwan and Japan, such as investment screening, but also export controls and measures to prevent industrial espionage, cyberattacks and talent poaching, is the explicit or implicit ambition to safeguard critical technologies and IP. By extension, such ambitions are often tied to maintaining economic competitiveness and strategic indispensability, as part of national security.

From a European perspective, many of the challenges as well as ways forward illustrated by the three studied cases appear quite familiar. China is a major economic partner to the EU with extensive trade relations.<sup>98</sup> At the same time, the EU has expressed concerns with a number of issues, for example at the 24th EU-China Summit in December 2023, where the EU stressed to China "the importance of achieving a more balanced economic relationship with a level playing field and reciprocity".<sup>99</sup> The EU has also declared as a goal to strengthen European resilience by addressing critical dependencies in specific sectors.

As a member state of the EU, Sweden's foreign trade relations exist within the framework of the strategies and agreements made by the EU, including policies on economic security. At the same time, economic security-related policy developments also take place at the national level. For instance, Sweden has recently, as part of the country's total defence build-up, taken steps to establish a new model for supply preparedness.<sup>100</sup>

Exactly how this national model will be developed in relation to the EU's overarching strategy for economic security remains to be seen, but in the meantime some observations can be made in regard to how other countries and regions in the world address what is increasingly seen as global-scale challenges in the area of economy and security. Japan, Taiwan and Singapore are all committed to an open and stable international economic order, but have at the same time expressed concerns that this order has become increasingly less stable. Especially supply chain security constitutes a shared concern in all three of these trade dependent island territories.

Both Singapore and Taiwan have implemented supply-chain diversification strategies in select areas, and Japan has introduced new legislation affecting supply-chain exposure to China. Another example is the shared emphasis put on food security, including specific stockpiling targets. Energy security is a further major common concern. With their large trade exposures to China, Japan, Taiwan and Singapore have moreover had to make choices in relation to how to handle dependencies versus autonomy. Today, the EU and its member states face similar challenges, and concepts such as strategic autonomy or economic security will in all likelihood continue to be at the fore of European debates for the foreseeable future. Following and analysing this development will require in-depth analyses from multiple perspectives, drawing on fields such as economy, history, geography, technology and security policy studies.

97 Economic Development Board, "Singapore still world's busiest container transshipment port, with record 37.5m TEUs of throughput in 2021," 4 February, 2022, <https://www.edb.gov.sg/en/business-insights/insights/singapore-still-world-s-busiest-container-transshipment-port-with-record-37-5m-teu-s-of-throughput-in-2021.html>.

98 For an overview on EU-China trade, see "China," European Commission, accessed 8 December, 2023, [https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/china\\_en](https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/china_en).

99 Council of the European Union, "24th EU-China Summit: engaging to promote our values and defend our interests," press release, 7 December, 2023, <https://www.consilium.europa.eu/press/press-releases/2023/12/07/24th-eu-china-summit-engaging-to-promote-our-values-and-defend-our-interests/>; "EU-China summit, 7 December 2023," Council of the European Union, accessed 17 January, 2024, <https://www.consilium.europa.eu/sv/meetings/international-summit/2023/12/07/>.

100 Jenny Ingemarsdotter, *Economic Defence - From Cold War Strategies to Post-Invasion Awakenings*, FOI Memo 8411 (Stockholm, Sweden: Swedish Defence Research Agency, 2024), <https://foi.se/rapporter/rapportsammanfattning.html?reportNo=FOI%20Memo%208411>.

More specifically, areas for further studies might focus on:

- In-depth analyses of economic security policy in Japan, Taiwan, Singapore, as well as in, for example, the US, South Korea and India. This could include studying legislation and policy measures concerning issues such as stockpiling, supply chain diversification, safeguarding critical technologies and IP, investment screening mechanisms, import and export controls, talent poaching, anti-coercion instruments, or other issues pertaining to economic security.
- Comparisons of US, EU and Japanese policy thinking on economic security based on the output of leading research organisations and think tanks. This could enable the identification of differences and similarities in focus, ideational underpinnings and proposed policy solutions.
- Japan, Taiwan, and Singapore explicitly connect competitiveness to national security. Future studies could focus on this connection, exploring factors that contribute to making countries competitive over time (such as educational performance, R&D, patent registrations, exports, etc.).

**Background interviews conducted during the course of the pre-study. Note that the memo is not necessarily reflective of the views of the interviewees.**

International Institute for Strategic Studies, London, United Kingdom, meeting 5 July 2023.

Institute for National Defense and Security Research (INDSR), Taipei, Taiwan, online meeting 14 August 2023.

Ministry of Defence (MINDEF), Singapore, online meeting 5 September 2023.

Chung-Hua Institution for Economic Research (CIER), Taipei, Taiwan, online meeting 20 September 2023.

S. Rajaratnam School of International Studies (RSIS), Singapore, online meeting 25 September 2023.

S. Rajaratnam School of International Studies (RSIS), Singapore online meeting 26 September 2023.

Institute for National Defense and Security Research (INDSR), Taipei, Taiwan, online meeting 26 September 2023.

S. Rajaratnam School of International Studies (RSIS), Singapore, online meeting 10 October 2023.

International Institute for Strategic Studies – Asia, Singapore, online meeting 17 October 2023.

Lee Kuan Yew School of Public Policy, Singapore, online meeting 23 October 2023.

International House of Japan (IHJ), Tokyo, Japan, online meeting 31 October 2023.

International House of Japan (IHJ), Tokyo, Japan, online meeting 14 November 2023.

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