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JAPAN'S ECONOMIC SECURITY AND SEMICONDUCTOR INDUSTRY

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- Economic security is defined to improve strategic autonomy and indispensability, but these concepts may be implemented without serious consideration of costs and put pressure on domestic businesses.
- Improving the security and resilience of supply chains may infringe on the principle of free trade and may undermine Japan's attempt to construct a "rule-based international order".
- The Japanese semiconductor industry has lost its competitiveness because of a lack of investment and because of its structure. Inviting TSMC to build a factory in Japan may not boost the industry, which should instead focus on strengthening those parts of the semiconductor supply chain where it remains competitive.

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“Economic security” is a popular buzzword in Japanese political and business circles today. Although this concept is less familiar than those of “economic statecraft” or “economic coercion” in the English language, Japan is leading efforts to develop such a concept by setting up a new ministerial post for economic security and planning to submit a bill on “boosting economic security” in 2022. What exactly is Japan trying to do by proposing the concept of “economic security”?

Defending national interests by economic means

The LDP’s proposals in December 2020 define economic security as “ensuring the nation’s independence, survival and prosperity in economic terms” and put forward two concepts to achieve it.ⁱ One is “securing strategic autonomy” by strengthening the foundations indispensable to maintaining Japan’s social and economic activities and avoiding excessive dependence on other countries. The other is “maintaining, boosting and obtaining strategic indispensability” by expanding areas where Japan is considered indispensable by the global community. In order to realize these objectives, the proposals highlight the need to ascertain and analyze the vulnerabilities of strategic infrastructure industries and take necessary measures.

Having vulnerable strategic industries means a country will not only become subject to intentional attacks on its supply chains by other countries but also be greatly affected by natural disasters and supply-demand fluctuations in the global market. An effective way to cope with this problem is to reduce the vulnerabilities and improve autonomy by lowering dependence on other countries as much as possible. As it would be impossible to realize this in all industrial sectors, it is necessary to carefully consider how much should be spent on which sectors to reduce vulnerabilities and to what extent risks can be taken in other sectors. To reduce vulnerabilities, it is also important to think of how to cooperate with allies and partner countries to establish supply chains based on trust.

Collaboration with industries

To secure strategic autonomy, the government will have to take measures to maintain and strengthen strategic industries through subsidies and regulations. However, this means the government will have to use its authority and rules to make

ⁱ Liberal Democratic Party of Japan, *Recommendations Towards Developing Japan’s “Economic Security Strategy”* (Tokyo, December 2020), https://jimin.jp-east-2.storage.api.nifcloud.com/pdf/news/policy/201021_5.pdf

industries shift from procuring cheaper items produced overseas to buying domestically-made products. Such a move could result in reducing some industries' competitiveness. The government and the private sector should work together to achieve economic security, with the government involving companies in policy implementation by promoting extensive communications. The government must take balanced policy between industrial competitiveness and national security.

Economic security and a rule-based international order

Production networks and supply chains have expanded globally under the principle of free trade but, as a result, they include countries that can pose strategic threats. Economic security policies are aimed at reducing dependence on such supply chains. In order to achieve strategic autonomy, Japan might thus end up taking measures that go against the principle of free trade.

The World Trade Organization has a national security exception clause in Article 21 of the General Agreement on Tariffs and Trade that allows member states to breach their WTO obligations for the purpose of protecting essential security interests. However, the security exception stated in the GATT rules is very narrowly defined and it is hard to interpret it as including economic security.

A rule-based international order and economic security have many contradictory features. Japan should take part in international rulemaking so that it can achieve its own economic security while setting rules to limit interpretations of security exceptions to prevent the exception clause from being misused by countries like China.

Economic security in the semiconductor industry

As its first attempt to improve economic security, the government has claimed success in inviting the Taiwan Semiconductor Manufacturing Company (TSMC) to build a factory in Japan by reportedly providing a significant subsidy of 800 billion yen (US\$7 billion), half of the entire cost of building the factory.

There had been expectations that Japan would revive its semiconductor industry, which led the world in the 1980s, but these hopes have been dashed by a lack of continuous investment and structural problems arising from the industry's failure to switch from its traditional vertical integration to an international division of labor. Companies such as Toshiba, Fujitsu and Hitachi were the industry giants during the 1980s, but they were too small to compete with a company like TSMC that specialized in manufacturing chips for a wide range of other companies. Japanese companies

continued to design and develop chips solely for their own products and, when Japanese electronics lost their competitiveness, the semiconductor industry declined as well.

Inviting TSMC to produce in Japan will secure supplies of chips for companies such as Sony and Dentsu, the electronic arm of Toyota. However, it is not clear how many Japanese companies will be involved in the production and whether TSMC will stimulate the Japanese semiconductor industry.

The government explains the reason why Taiwanese companies to produce in Japan is due to possible confrontations between Taiwan and China. However, if a military confrontation takes place, Japan would certainly be affected. Furthermore, Japan itself is not risk-free. Kumamoto, where the TSMC factory will be located, has recently been hit by a large earthquake and flooding. The government's intentions for this invitation does not seem to justify a huge subsidy to foreign company.

What, then, should Japan do? Japanese firms should focus their investment on other types of semiconductors such as D-RAM and energy-saving power semiconductors, instead of logic chips of which TSMC has overwhelming competitiveness, and concentrate on expanding their presence in fields where they are still competitive. Japanese companies can create products that use cutting-edge technology but they are not as proficient at creating attractive products for outside customers because they have heretofore been making semiconductors exclusively for their own products. Unless it changes its way of doing business, Japan's semiconductor industry will decline further. 

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