“Made in China 2025 Initiative” and Dual Circulation Economy: Reducing Dependence on U.S. Technology

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ABSTRACT

The “Made in China” 2025 Initiative and Dual Circular Economy emerged as strategies to propel China towards becoming a global leader in advanced technologies. It also aims to reduce dependence on foreign technology products, particularly from the United States, since the increased geopolitical tensions and trade disputes arose between the two countries. Meanwhile, the Dual Circulation Economy can be perceived as an economic strategy emphasizing domestic and international circulation of goods, services, and technologies. This strategy prioritizes bolstering domestic innovation, production, and consumption while maintaining selective engagement with the global market. Previous research discussed the topic of Made in China 2025 and Dual Circulation separately. Meanwhile, the study shows close synergy between those strategies in achieving the same goal. This research used a qualitative descriptive method with data collection technique through library research on various sources such as books, journal articles, news, etc. The research used the hegemonic stability theory for analysis. The result reveals that the Dual Circulation Economy provides a framework for nurturing domestic innovation and production capabilities. At the same time, the Made in China 2025 initiative offers a roadmap for advancing industries critical to China’s technological independence. This article examines the synergies between these policies and assesses their effectiveness in reducing China’s dependence on US technology. It also discusses the implications and the shift in economic strategy to global trade dynamics and geopolitical relations.

***Keywords**: Made in China 2025, Dual Circulation Economy, Technology, China, United States*

Inisiatif “Made in China” 2025 dan Dual Circular Economy muncul sebagai strategi yang diambil untuk mendorong Tiongkok menjadi pemimpin global dalam teknologi canggih. Inisiatif ini juga bertujuan untuk mengurangi ketergantungan pada produk teknologi asing, khususnya dari Amerika Serikat, mengingat peningkatan ketegangan geopolitik dan sengketa perdagangan antara keduanya. Sementara itu, strategi Dual Circular Economy dapat dianggap sebagai strategi ekonomi yang menekankan sirkulasi barang, jasa, dan teknologi domestik dan internasional, yang memprioritaskan peningkatan inovasi, produksi, dan konsumsi domestik sambil mempertahankan keterlibatan selektif dengan pasar global. Penelitian ini menggunakan metode deskriptif kualitatif dengan teknik pengumpulan data melalui penelitian kepustakaan pada berbagai sumber, menggunakan teori stabilitas hegemonik untuk analisis. Hasil menunjukkan bahwa Dual Circular Economy menyediakan kerangka kerja untuk memelihara inovasi dan kemampuan produksi dalam negeri, sementara inisiatif Made in China 2025 menawarkan peta jalan untuk memajukan industri yang penting bagi kemandirian teknologi China. Artikel ini mengkaji sinergi antara kebijakan-kebijakan ini dan menilai efektivitasnya dalam mengurangi ketergantungan China pada teknologi AS. Artikel ini juga membahas implikasi dan pergeseran strategi ekonomi terhadap dinamika perdagangan global dan hubungan geopolitik.

***Kata-kata Kunci**: Made in China 2025, Dual Circulation Economy, Teknologi, China, Amerika Serikat*

In recent years, international politics have been dominated by discussions on the dynamics between China and the United States (US), starting from trade war cases and US accusations against China regarding the COVID-19 case to the blockade carried out by the US on technology manufacturers from China, Huawei. The trade war between the two countries occurred in July 2018. China was accused of unfair commercial tactics by the United States. Intellectual property theft, forced technology transfer, disproving American company's access to the Chinese market, and unfair competition through state subsidies to Chinese companies are among the charges made by the United States. Meanwhile, China thinks the US is pushing back its development as a new global economic power (South China Morning Post 2020). Trump initiated a $250 billion wave of tariffs against China, which China then retaliated by imposing tariffs on the United States in an economic battle that lasted years and disrupted global trade dynamics.

As a result of this fight, about 245,000 jobs were found in the US, according to the US-China Business Council (Picciotto 2024). Around 165 billion trade dollars ($136 billion in imports and $29 billion in exports) were lost or diverted to escape tariffs brought on by the two countries' trade war, which resulted in major changes to global supply networks (Bao et al. 2022). Another impact can be seen in African states, which are large exporters of oil and fossil fuels. Global commodity prices are weakened by US tariffs placed on Chinese exports. The demand for energy and commodities declines as fewer people access Chinese electrical chips and machine parts (Su 2024). Meanwhile, to Indonesia, the protection carried out by the United States against China had a significant influence on the Indonesian economy, particularly in the export and stock investment sectors, where the slowing economy of other countries has also reduced commodity prices from Indonesian raw materials having high export value in previous years (Sitorus 2021).

The US decision to prohibit Chinese telecom behemoth Huawei Technologies Co. and other international communication firms from conducting business in the US was one of the most significant events for China. Senator Marco Rubio mentioned Huawei in a statement applauding Trump's directive on the policy. He called

the company a security threat against the US and had committed violations by stealing intellectual property (Lee 2019). In addition, the US has implemented export restrictions to cut off Beijing's access to key semiconductor equipment and technology, where they issued a policy of restricting China from accessing, acquiring, or producing advanced semiconductor chips in October 2022 due to concerns that China could use them for other goals, such as military (Chiang 2024). Before the trade war, the US was China's largest source of technology imports and the second-largest destination for technology exports (Hong 2017). Meanwhile, the number of chips imported by China in January-September reached 355.9 billion units, decreasing from 416.7 billion units in the same period in 2022. The total value of semiconductors imported by China in the last three quarters fell by 19.8 percent YoY (Year-over-Year) to $252.9 billion (Cao 2023). This situation can be a significant obstacle for China in developing its technology industry.

In response to the impact of the trade war, China adopted a policy called 'Made in China 2025' (MIC 2025). MIC 2025 is a program that Premier Li Keqiang started to improve China's industrial capabilities. This comprehensive 10-year plan strongly emphasizes smart manufacturing across ten key areas. It seeks to maintain China's dominance in high-tech sectors like robotics and aviation and new energy sources like biogas and electricity (Institute for Security and Development 2018). Previous research found that MIC 2025 is China's strategy to become a high-tech superpower in the global market (Levine 2020). Furthermore, Li & Pogodin (2019) found that MIC 2025 is the Chinese government's new strategy in the national economy, aiming to increase the Chinese economy's competitiveness systematically. In its application, it includes the integration of "conventional" and "modern" sectors, the optimization of the company's managerial structure, and the development of Chinese industrial standards taking into account global standards (Li & Pogodin 2019). Cheney (2019) found that MIC 2025 plans to boost China to become a world economic leader through innovation. This is an effort to make Chinese products dominate the global market, specifically technology-based commodities. According to research by Napang & Rohman (2022), the US indirectly assessed this initiative as threatening its economic and military power.

Previous studies related to MIC 2025 have focused on how this initiative can make China a world economic leader, particularly in technology. It has found evidence of resource misallocation in innovation, with state-owned firms receiving more subsidies while private firms show more innovation output. Yet innovation could develop more quickly if resource misallocation could be addressed (Wei et al. 2017). Furthermore, Garcia-Herrero (2021) explained that this policy is a strategy included in China's master plan to become a self-sufficient country, not only in technology and resources but also in terms of demand through its large market. It is also supported by the third available market, as opposed to the Belt and Road Initiative (BRI). Another study found that China uses a two-legged strategy through domestic circulation (inbound) to drive the Chinese economy, making it more resilient to external shocks and economically stable. However, for high-quality growth, China uses international or external circulation (outbound) to support the expansion of domestic circulation. The dual circulation development strategy is not about closing the door to open up but means broader and deeper reform (Yifu & Wang 2021).

The MIC Initiative has guiding principles that prioritize quality over quantity, drive innovation, optimize China's industrial structure, promote green development initiatives, and enhance industrial capabilities through manufacturing (Yifu & Wang 2021). Other studies have suggested that the Dual Circulation Strategy (DCS) seeks to correct or cover up the weaknesses of China's neoliberal economic policies, which have been in place since the 1980s. The DCS is then seen as a rebalancing of the economy with Chinese characteristics in a "moderately prosperous society" (Javed et al. 2021). The previous research discussed China's strategy to be the global economic leader, especially in enhancing its ability to produce high-technology commodities. However, most previous researchers discussed those two strategies separately. Therefore, this research will discuss the coexistence of the MIC 2025 Initiative and the Dual Circulation Economy policies implemented in China. This research discussed how both strategies can become important instruments to support each other in reducing the dependence on U.S. technology and targeting China as a global economic leader.

This study applies a qualitative method with the descriptive approach. This kind of research aims to precisely describe the

nature of a particular situation or symptom with subjects, both individual or group, or to determine the symptom distribution or the existence of a particular relationship with a symptom or condition with a symptom, or other situations in society (Silalahi 2009). Data and information were obtained through library studies on various existing literature such as books, journal articles, mass media articles, etc. The data analysis technique in this research will go through several steps of data collection, relevant data reduction, data presentation, and conclusion (Miles & Huberman 1994). For analysis and to help answer the research questions above, the author uses the theory of hegemonic stability, which will be discussed in the next section.

Hegemonic Stability

The hegemonic stability theory argues that hegemonic countries act as if they were a privileged group. In this context, the hegemon is the country that contributes the most to the world's total output and excels in developing new technologies. Because the hegemon is considered to have advanced technology and large contributions, they see the benefits of international trade that are also very large and are willing to bear the total cost of establishing global trade rules. However, when the hegemon weakens, they are reluctant to bear the costs of preserving trade rules, and international trade becomes more closed or less open (Oatley 2019).

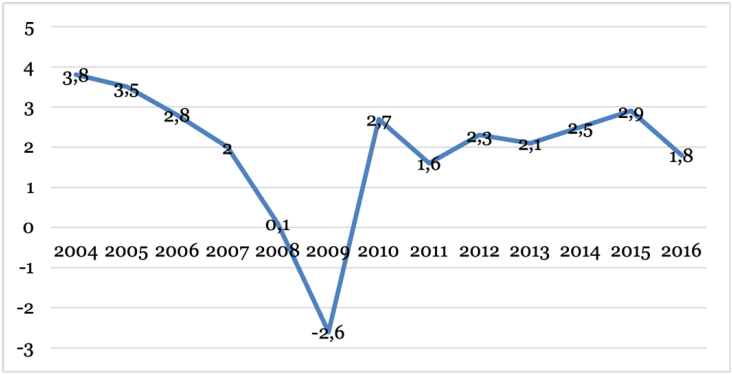
Based on this perspective, it can be understood that the US has been the leader in the global economy so far. The US is also considered to be the country contributing the most to the worldwide economy and, at the same time, benefits from various international arrangements that they made. The US in 2023 accounted for 26% of the global economy for nominal terms and about 15.5% for purchasing power parity (PPP) terms (IMF 2023; Statista 2024b). Nevertheless, the US economy is indicated to start faltering, especially during the pandemic, and at the same time, China has emerged as a new economic power. This is considered a threat by the US. The trade war between the two countries has also sparked another tension. On the one hand, China is trying to develop its capabilities in terms of technology production.

However, this is hampered when the US imposes restrictions on semiconductor products sent to China. Despite the challenges, China is being recognized as one of the balancers for the US as a global economic leader. It can be seen from its increasing influence in various countries. The Pew Research Center conducted a study in 19 countries on each country's perceived relative influence. The results showed that most countries (around 66%) see China's influence growing more than the US. Meanwhile, only about 32% said the same about the US. (Silver et al. 2022).

The Emergence of China as a US Competitor in the Global Economy

Following the Soviet Union's collapse in 1991, the world power became unipolar. The United States has been the dominant power in the global economy since the mid-20th century. Still, in the 21st century, the world is heading toward multipolarity because countries other than the US want to become big powers (Pradana 2023). Even though the US still holds the domination, it can rival and cause the international structure to be filled with competition rather than cooperation (Al-Shammari & Alammar 2023). The emergence of powers that want to compete with the US, especially in the economy, has caused the US' position to shift. One country whose rise can compete with the US is China. This is different from the US view during the unipolar era, which saw China as a country that had the potential to establish a partnership with the US in maintaining stability in Asia. However, because of the economic crisis that occurred in 2008, the US was in decline due to its deteriorating financial condition. It can be seen from the World Bank's data that during the 2008 crisis, the US GDP (Gross Domestic Product) experienced a decrease.

Figure 1.
The United States Annual GDP Growth (2004-2016)



Source: World Bank (2024)

The crisis spread to other countries, leading to global economic lag (Herawati & Gustan 2020). During this period, China gained momentum by becoming more active in international politics. China has acted assertively in offending the US economic model (Pradana 2022). China's readiness shows that the relationship between the US and China is much more profitable to China, which has brought its economy to greater development. China has shown its ambition by expanding its influence through increasing connectivity to Asian, European, and African countries through the Belt and Road Initiative (BRI) policy (Korwa 2019). Responding to China's economic advancement, the US, under the Donald Trump administration, has initiated protectionist policies that tightened trade, causing tensions in global trade. This policy impacts the intensity of the US and China trade war. In 2018, the policy was implemented through higher import tariffs on goods from China (Dano 2022). Consequently, China's GDP growth experienced a decline after 2018.

Figure 2.
China's GDP Growth

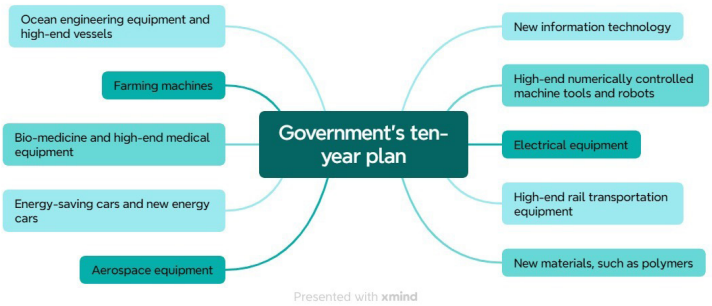
Source: World Integrated Trade Solution (2024)

However, competition between China and the US is not only about trade but also includes technological aspects and geopolitical influence (Wilantari & Bawono 2021). China is strengthening its economic capacity through continuous technological innovation to provide absolute competitiveness against its competitor countries. The Chinese government believes the technology industry can significantly contribute to and drive economic growth. Therefore, reviewing and ratifying the "Made in China 2025" Initiative in 2015 was the strategy needed to meet the target (Wu 2020).

Made in China 2025 Initiative

The Made in China 2025 Initiative (MIC) is a breakthrough the Chinese government took to encourage China's economic independence. MIC 2025 is an initiative to secure China's position as a globally recognized power in the high-tech industry by reducing China's dependence on imported foreign technology and investing heavily in innovation that can encourage Chinese companies to compete domestically and globally (Institute for Security and Development 2018). The MIC 2025 Initiative is included in the government's ten-year plan, which can be seen from figure 3.

Figure 3.
China's Ten Year Plan



Source: The State Council of the PRC (2015)

To support this initiative, China wants to disburse funds amounting to USD 300 billion (Fang & Walsh 2018). Moreover, to increase the competitiveness and resilience of high-tech industries, several countries have adopted "industrial policy" plans; where China, through the MIC 2025 strategy, has a digital infrastructure plan, even reaching USD 1.4 trillion (Doshi 2020). According to economist Betty Wang, this is a response to the export structure of China and the United States condition in 2018, where products made currently in China only have an added value of 65 percent, while products made in the US have an added value of 85 percent (Fang & Walsh 2018). The Institute for Security and Development (2018) has reported that China will establish 40 national and 48 provincial innovation bases by 2025 to provide for partnerships and innovation. Various institutions and grants offer direct funding support. For example, USD 3 billion is provided by the Advanced Manufacturing Fund to improve existing technologies in major industries. At the same time, the National Integrated Circuit Fund has access to USD 21 billion (Institute for Security and Development 2018). These varying efforts set several targets, some of which have been achieved since this initiative was launched in 2015, as shown in detail in the following table.

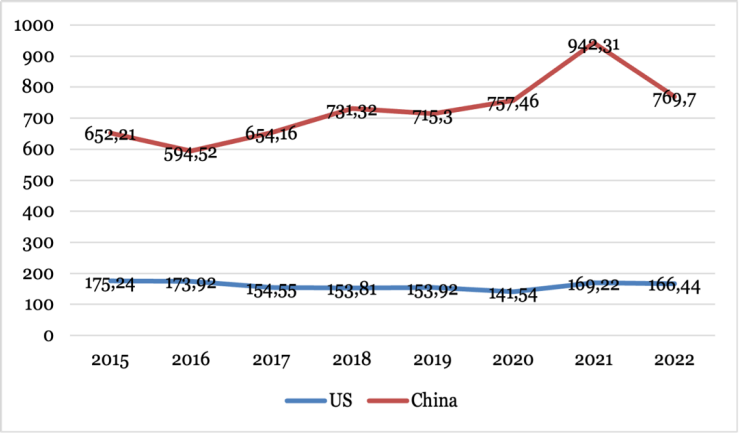
Table 1.
The MIC's Key Performance Indicators

Category	Manufacturing Transformation KPI	2015	2025
Innovation Capability	1. R&D cost / revenue / (%)	0.95	1.68
	2. Patents / billion RMB of revenue (#)	0.44	1.10
Quality & Value	3. Manufacturing quality competitiveness (index)	83.5	85.5
	4. Manufacturing value-added increase over 2015 (%)	-	4
	5. Average annual labor productivity growth (%)	-	6.5
IT & Industry Integration	6. Broadband penetration (%)	50	82
	7. Digital R&D and design tool penetration (%)	58	84
	8. Key process control rate (%)	33	64
Green Industry	9. Energy decrease over 2015 / industrial value add (%)	-	34
	10. CO_2 decrease over 2015 / industrial value add (%)	-	40
	11. Water use decrease over 2015 / industrial value add (%)	-	41
	12. Industrial solid wastes utilization ratio (%)	65	79

Source: Institute for Security and Development (2018)

The injection of large funds for research and development related to technological innovation and various policies adopted have driven the progress of China's high-tech industry. As evidenced, the value of China's technology exports has experienced an upward trend. More details about the export value can be seen in the following figure.

Figure 4.
Technology Exports for China and the US



Source: World Bank (2022)

China's export value of high-tech commodities in 2015 was around USD 652.21 billion. It fell to USD 594.52 billion in 2016, but in the following years, it tended to increase. The peak of this would occur in 2021, with a value of USD 942.31 billion. This increase was not affected in the first year of the COVID-19 pandemic. The export value then fell to USD 769.7 billion in 2022. Despite the decline, this figure is still higher compared to the export value in 2020 (USD 757.46 billion) (World Bank 2022). Meanwhile, suppose the export value is compared to the US export value. In that case, China is superior in high-tech commodities, where the US export value would only be around USD 166.44 billion in 2022. This shows that China has a competitive advantage in high-tech commodities, also indicating that the MIC 2025 Initiative will start to bear fruit. China's success can be seen in the coexistence or synergy between dual circulation policies, each of which plays a different role. Still, both contribute to the development of China's technology industry.

Dual Circulation Economy China

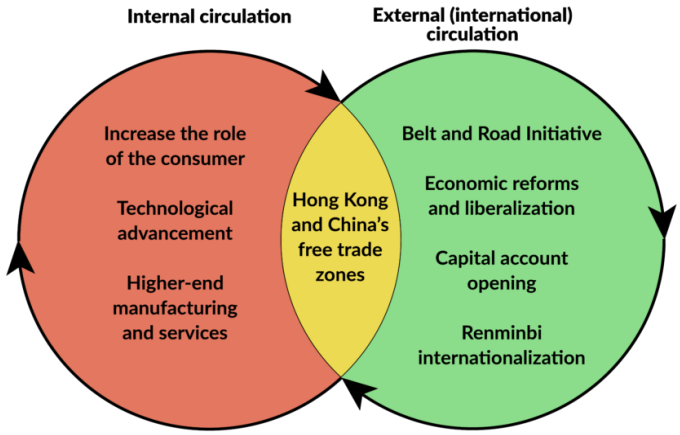
In the last few decades, China has become a country with considerable economic power that enlivens global competition. The President of China, Xi Jinping, in his speech at the 20th National Congress of the Chinese Communist Party (CCP), said that:

> "*High-quality development is the top priority in building a modern socialist state…achieving shared prosperity…(by) implementing dual circulation policies.*" - Xi Jinping (2022)

The policy referred to in the speech is the Dual Circulation Economy, initiated on May 14, 2020, by the Politburo Standing Committee of the Chinese Communist Party (PKT) (Yanran 2020). The Dual Circulation Economy refers to a policy with two implementation approaches: internal or domestic and international (outward) approaches to China's foreign policy. This policy also includes efforts to diversify China's trade so that it does not depend on the U.S. and Europe. Thereby, China's perceived vulnerability to political oppression from the West can be reduced. In addition,

the dual circulation policy is also an effort to improve the supply chain in China and encourage the involvement of privately owned consumption and services in China's economy (Tran 2022). A more detailed view of the dual circulation policy can be seen in the following Venn diagram.

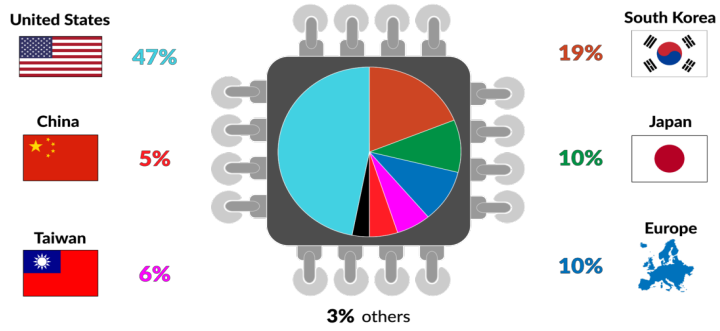
Figure 5.
The China's Dual Circulation Economy



Source: Schneider (2021)

This policy is also a big ambition for China to implement a strategy to become the dominant economic power in the world, capable of directing globalization and geopolitics in its interests (Schneider 2021). In this diagram, China implements two approaches or strategies, each of which plays a different role. Policies referring to internal circulation focus on increasing household income and the role of consumers in the economy. Higher wages could be achieved through land and housing system reforms supporting urbanization (McCully 2020). In this aspect, China wants to optimize the role of society to become more consumptive for increasing economic growth. This is also a step to reduce dependence on imported technology products. However, the US still controls the semiconductor industry – the industry is needed to support the development of technological commodities. This can be seen in the following figure.

Figure 6.
The Origin Country of Companies Dominating the Global Semiconductor Sales Market in 2019



Source: Schneider (2021)

From the figure, it can be understood that in 2019, the US still controlled the semiconductor industry market by 47%. Meanwhile, China only controlled around 5% of them, lower than that in several other countries in East Asia, such as South Korea (19%), Japan (10%), and Taiwan (6%) (Schneider 2021). This situation encouraged China to keep developing its technology industry. Technological innovation is also an important mechanism for the digital economy, which can be the primary driver of dual circulation growth (Wu & Chen 2022).

Additionally, China made various breakthroughs in international circulation, such as economic integration, economic reform, and liberalization, as well as the internationalization of the Renminbi (RMB) (Schneider 2021). In other words, this second circulation is a diplomatic step taken by China to strengthen and expand its influence in the global market. For example, this step is accomplished through their initiation and involvement in economic cooperation, both bilateral and regional, such as the Regional Comprehensive Economic Partnership (RCEP), and interregional, such as BRICS (acronym for Brazil, Russia, India, China, and South Africa). On November 15, 2020, the RCEP agreement was agreed upon and signed by all ASEAN member countries and five partner countries, including China. Viewed from economic size, RCEP represents 29.6% of the world's population, 30.2% of world

GDP, 27.4% of world trade, and 29.8% of world foreign direct investment (Free Trade Area Center 2023). Meanwhile, China has the largest GDP among the BRICS countries (USD 16.86 trillion in 2021), while other countries have a GDP under USD three trillion. If combined, the BRICS bloc had a GDP of over USD 25.85 trillion in 2022, slightly beyond the United States (USD 23.59 trillion in 2021) (O'Neil 2023; Statista 2024a). The two collaborations show that China has the potential to dominate the global market increasingly.

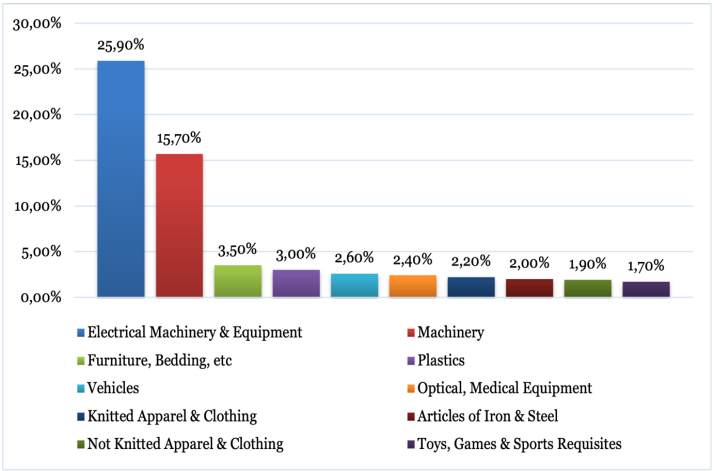
Additionally, China's increasing importance in the global economy in recent years has given rise to policies and reforms implemented by Chinese authorities. This has simultaneously increased the interconnectedness of the global economy, having encouraged a greater role for the Renminbi in the global monetary and financial system. The internationalization of RMB has experienced rapid progress over the last decade. Furthermore, the Renminbi expanded through overseas markets in Hong Kong, where it was widely used as a payment currency to complete cross-border trade transactions and Chinese direct investment (Lam et al. 2017). This situation poses a threat to the existence of the US dollar when the Renminbi begins to be an alternative in international trade. The dual approach used by China in this case shows the synergy between domestic and international aspects.

Synergy between the Made in China 2025 Initiative and China's Foreign Policy in the Dual Circulation Economy

It can be seen that China is taking dual steps at the domestic and international levels, formally called the Dual Circulation Model (DCM). The MIC 2025 Initiative was initiated several years before Dual Circulation appeared. However, what is interesting is that the steps taken mutually support each other, ultimately making China a new world economic power. The MIC 2025 Initiative is taking domestic steps to create independence in the high-tech industry, which can ultimately contribute to national income through export-import activities that work on an international scale. In the DCM, international circulation involves initiatives for economic integration and efforts to increase China's expanding influence in

international politics. This can impact the economic aspect when this step facilitates them to develop their market so that initiatives in the domestic realm, such as MIC 2025, can gain market trust more optimally in the technology products they export to the global market. Looking at the types of commodities exported, the MIC 2025 Initiative shows a positive correlation with the value of China's exports, as shown in the following graph.

Figure 7.
China's Exports by Commodity Type



Source: Exim Trade (2022)

The graph shows that sectors related to the MIC 2025 Initiative rank at the top as contributors to China's exports (e.g., electrical equipment by 25.90%, machinery by 15.70%, and vehicles by 2.60%) according to the data exports in 2021 (Exim Trade 2022). Other sources also show that China's largest export commodity by value in 2023 would be telephone equipment, including smartphones, computers, electronic integrated circuits, cars, and electrical storage devices, the major exports of which, in the aggregate, account for almost one-fifth (18.2%) of all export sales (Workman 2023). It shows that the technology and machinery sector is very profitable to the Chinese economy. However, there are interesting things to consider when looking at the export country's destination, as shown in the following table.

Table 2.
China's Export Value by Export Destination Countries

China's Export Market	2001	2022	Change (%)
The U.S.	$54,355M	$581,783M	970%
EU	$37,922M	$562,000M	1,382%
Hong Kong	$46,541M	$297,538M	539%
Japan	$44,941M	$172,927M	285%
South Korea	$12,519M	$162,621M	1,199%
Vietnam	$1,798M	$146,960M	8,074%
India	$1,896M	$118,502M	6,150%
Malaysia	$3,221M	$93,711M	2,809%
Taiwan	$5,001M	$81,587M	1,531%
UK	$6,781M	$81,545M	1,103%
Rest of the World	$48,847M	$1,294,427M	2,550%
Total	**$263,822M**	**$3,593,601M**	**1,261%**

Source: Trading Economics (2022)

The table above shows that even though China and the US are involved in a trade war, the US is still China's largest export destination. The principle of economics by Mankiw states that trade can make everyone better off. This explains why both countries are still trading with each other in large volumes (Mankiw 2021). Joseph Nye conveyed a suitable analogy for the relationship between the two countries, like a football match, where two teams fight fiercely but obey certain rules and restrictions; they only kick the ball, not physically attack each other (Nye 2024). This also means that the factor of economic & trade competition between the two countries is being projected as a "proxy object." Similarly, Workman (2023) also states that the US is at the top of China's export destination with 15.50% of the total export value. Commodities such as electrical and electronic equipment are the most exported commodities, accounting for USD 142.56 billion (Trading Economics 2022). Apart from that, as shown in the table above, the value of China's exports to the US experienced a very significant increase (970%). In this case, China holds an essential role in the supply chain for electronics and automotive companies worldwide due to its open FDI policy, large amount of cheap labor, and facilitation of the industrial sector (Putri & Hudaya 2021). The status quo is also strengthened by their foreign policy of joining

various cooperation frameworks such as RCEP, the trade value of which reaches USD 25.84 trillion (Richter 2020).

Meanwhile, regarding BRICS, there is a view that, in practical terms, BRICS is seen as a union of strong developing countries with shared currency reserves of around USD 4 trillion (Devonshire-Ellis 2023). Furthermore, China invested in large-scale infrastructure projects and aimed to reach the whole world through the Belt Road Initiative. Experts see the BRI as one of China's key pillars, along with a Made in China 2025 economic development strategy serving as a pushback against the US's much-touted "pivot to Asia." To date, the reach of the BRI has reached 147 countries, covering two-thirds of the entire world's population and 40 percent of global GDP (McBride et al. 2023). This condition was increasingly felt when the COVID-19 pandemic became a game-changer in international politics, economics, and security. China became one of the countries that made various efforts to increase its influence, e.g., through vaccine diplomacy (Yuliantoro 2022). This shows that the MIC 2025 Initiative, which works in China's domestic and foreign policy spheres through the BRI and various cooperation frameworks, mutually supports each other and makes China a new economic power that can surpass the US' capacity in the global economy.

However, China faced significant challenges when the US reduced exports of semiconductor products to China. Although chips are said to remain China's biggest import item, China's semiconductors and integrated circuits imports saw their biggest decline in 2023. According to data released by China's General Administration of Customs, China's semiconductor imports by quantity fell to 4.75 billion units, with import value down 15.44% year-on-year to USD 349.38 billion in 2023. The most significant annual decline ever recorded since customs data became available was in 2024, threatened by the ongoing threat to the economy and tight US export controls (Hsiao 2024). Even though China is superior in high-tech exports, it must be emphasized that the semiconductor industry is vital for developing technological products. This condition is vulnerable to China's ambitions to achieve its 2025 MIC target, considering that the semiconductor industry contributes significantly to China's high-technology development. This situation is the biggest challenge for China in

breaking away from its dependence on semiconductor products from both countries.

Conclusion

China's Made in China 2025 with Dual Circulation Economy strategy aims to minimize reliance on US technology and assert its position as a technological powerhouse. This initiative fosters innovation and technological advancement across key industries, reducing import reliance. The Dual Circulation Economy strategy prioritizes domestic consumption, production, and innovation capabilities, fostering indigenous innovation and reducing vulnerability to external disruptions. This approach strikes a balance between self-reliance and global engagement.

However, the path to technological independence is not without its hurdles. China must navigate various obstacles, including intellectual property rights issues, talent retention, and regulatory reform, to completely realize the potential of the Made in China 2025 Initiative and the Dual Circulation Economy. Moreover, geopolitical tensions and protectionist sentiments in the international arena pose additional challenges to China's quest for technological autonomy. Nevertheless, the coexistence of these policies signifies China's resilience and adaptability to evolving economic landscapes and geopolitical realities. It underscores China's determination to shape its destiny while contributing to global technological innovation and economic development.

In conclusion, the convergence of the Made in China 2025 Initiative with the Dual Circulation Economy represents China's economic strategy. It can be seen as a strategy to minimize reliance on US technology and foster sustainable growth. While the journey ahead may be uncertain, these initiatives exemplify China's unwavering commitment to charting a course toward technological sovereignty and economic prosperity. This study is limited to how China implements this strategy but has not touched more deeply on how the US responds. Therefore, further research needs to analyze how the US responds to curbing China's technological independence.

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