# **Economic Dependency and Resilience: Trump Tariff impacts on Singapore's Trade Dependent Economy**

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## Singapore's Trade-Dependent Economic Model

In 2024, Singapore's total trade in goods and services amounted to more than three times its Gross Domestic Product (GDP), cementing it as an economy with its performance inextricably tied to the global trade network. The exceptionally high trade-to-GDP ratio has been the case since Singapore's independence in 1965, reflecting the deeply ingrained nature of Singapore's trade dependence.

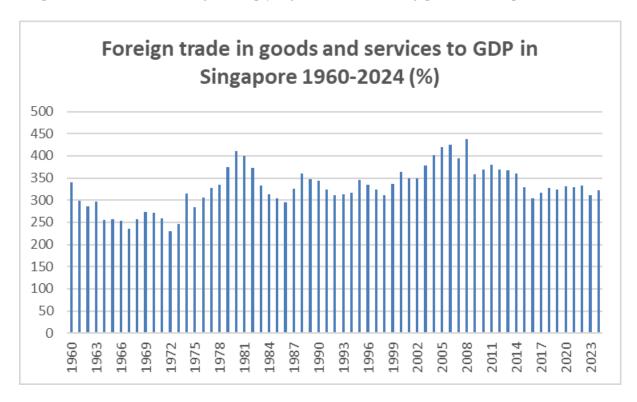


Figure 1. Graph of trade-to-GDP ratio of Singapore (World Bank)

Singapore's dependence on trade arose as a result of a lack of natural resources, a small domestic market, and its opportune positioning along maritime routes. While such historically high reliance on exports has allowed Singapore to capitalise on global growth, it has also left the economy highly sensitive to external shocks. The combination of trade dependence and volatility in the global markets means that Singapore has little control over its growth drivers, making them highly vulnerable to the global economic climate. Global volatility essentially becomes Singapore's business cycle. Disruptions to supply chains, global demand, commodity prices and geopolitical stability can effectively translate into fluctuations in GDP.

Historical data reveal that downturns in global trade have indeed produced sizable impacts on Singapore's economy, with the manufacturing output and export growth often sharply decreasing during periods of global turbulence.

# Singapore's Historical Performance in the Face of Trade Crises

Singapore has faced its fair share of major global trade disruptions. The following events show the impacts of trade crises on Singapore's economy, revealing the consequences of such an open economy.

**Asian Financial Crisis (1997-1998):** According to the World Bank, this crisis drove Singapore into deep recession, GDP growth plunged from 8.3% in 1997, to -2.2% in 1998<sup>1</sup> and in the following year the unemployment rate increased to 4.85% from 2.5% in 1997.<sup>2</sup>

**Global Financial Crisis (2008-2009):** The large collapse in international trade volumes resulted in a growth rate of 0.1% in 2009, starkly contrasting that of 2007 at 9%. <sup>4</sup>

**Covid-19 Pandemic (2020-2021):** The outbreak during this time triggered border closures and supply bottlenecks. This swept Singapore into a year-long recession, with its GDP growth rate reaching an all-time low of -3.8% in 2020.<sup>5</sup>

Across all three crises, the pattern was clear: shocks transmitted through different channels, financial contagion in the Asian Financial Crisis, demand collapse in the Global Financial Crisis, and supply chain disruptions during Covid-19, but all converged on the same outcome of weakened trade and output. These historical experiences highlight how tariffs today, though less dramatic than a pandemic or financial crash, similarly operate as a transmission channel by distorting supply chains and suppressing demand, leaving Singapore highly exposed.

## The Current Trade Crises: Trump tariffs

Unlike earlier crises that were global in scope, today's tariffs are primarily bilateral disputes. Singapore nonetheless feels their effects indirectly as trade diversion and disrupted supply chains weigh on its export-reliant economy. This highlights how trade relationships with major economies are particularly consequential. The ongoing tariff war amid US move towards protectionist policies has further called this to attention. This decision was driven by President Trump's belief that prior foreign trade and economic policies had resulted in America being exploited, which he described as being 'cheated' and 'pillaged'. The move towards protectionist measures was intended to strengthen America's economic position and protect American workers by reducing the trade deficit.

With Trump's baseline tariffs affecting more than 55% of Singapore's exports, Singapore is facing potential looming hits to its economy.<sup>6</sup> Disruption to global supply chains, and potential lower

<sup>&</sup>lt;sup>1,4,5</sup> *GDP growth (annual %)* (no date) *World Bank Open Data*. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG (Accessed: 14 August 2025).

<sup>&</sup>lt;sup>2</sup> Singapore Unemployment Rate (1991-2024 (no date) Singapore unemployment rate (1991-2024). Available at: https://www.macrotrends.net/global-metrics/countries/sgp/singapore/unemployment-rate (Accessed: 14 August 2025).

<sup>&</sup>lt;sup>6</sup> Lim, P. (2025) Trump's baseline tariffs affect 55% of Singapore's exports – what about the rest?, The Business Times. Available at:

https://www.businesstimes.com.sg/singapore/economy-policy/trumps-baseline-tariffs-affect-55-singapores-exports-what-about-rest (Accessed: 14 August 2025).

<sup>&</sup>lt;sup>3</sup> Clarke, J. (2025) What are tariffs, how do they work and why is trump using them?, BBC News. Available at: https://www.bbc.com/news/articles/cn93e12rypgo (Accessed: 23 August 2025).

economic growth of trading partners all pose a risk in having a ripple effect onto Singapore and slowing its GDP growth.

Given such, Singapore serves as a compelling case study for assessing the impact of trade crises such as the Trump tariffs on highly trade-dependent economies. This essay will examine the sectorial vulnerabilities exposed by these tariffs and evaluate policy options for Singapore's long term resilience.

## **SECTORIAL IMPACTS**

# Singapore's export sector

Singapore's open economy depends highly on international trade, which accounts for over 300% of its GDP<sup>4</sup>. Singapore's export sectors consist of semiconductors (electronics), pharmaceuticals, energy and ecommerce. Among them, certain sectors excel in strategic importance. These are strategic because they anchor high-value growth, create skilled jobs, and keep Singapore central to global supply chains. Semiconductors and ecommerce are future drivers of growth as demand for AI, data, and regional logistics rises. Recently, the Trump tariffs have been raising questions on how the key sectors will be affected. It is clear that the tariffs will have uneven effects on Singapore's export economy.

#### **Semiconductors Sector**

Starting with arguably one of the most vulnerable sectors, the semiconductor sector is especially susceptible to impact. The semiconductor-manufacturing sector is a part of electronics manufacturing and the most prominent export sector of Singapore.

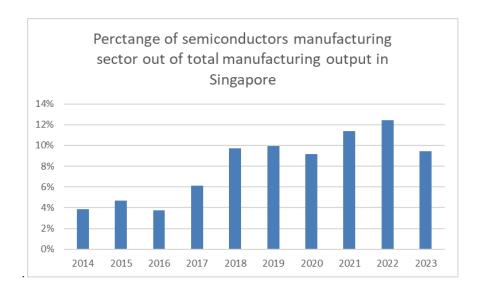


Figure 1. Percentage of Semiconductors out of total manufacturing output<sup>5</sup>

As seen in the graph above, semiconductors contribute to about 10% approximately to the total manufacturing output in Singapore.

<sup>&</sup>lt;sup>4</sup> Macrotrends. (2025). *Singapore Trade to GDP Ratio 1960-2024*. <u>Www.macrotrends.net</u>. https://www.macrotrends.net/global-metrics/countries/SGP/singapore/trade-gdp-ratio

<sup>&</sup>lt;sup>5</sup> Singapore Department of Statistics. (2025). Total manufacturing output in Singapore from 2014 to 2023 (in billion Singapore dollars) [Graph]. In Statista. Retrieved August 24, 2025, from https://www-statista-com.libproxy1.nus.edu.sg/statistics/1303270/singapore-total-manufacturing-output/

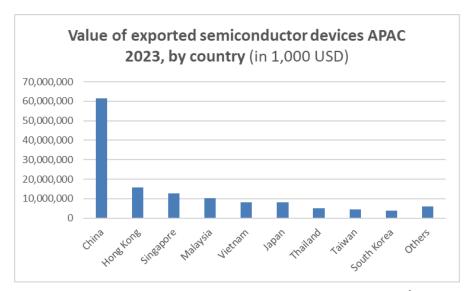


Figure 2. Value of semiconductor export APAC by country<sup>6</sup>

Singapore's strength in this sector is attributable to its robust infrastructure, highly skilled engineering workforce, and focused expertise in advanced packaging, testing, and the production of high-reliability chips<sup>7</sup>. Some prominent companies in the manufacturing of semiconductors include Micron, GlobalFoundries, Siltronic, Applied Materials and others.

Recent tariff announcements have included a significant levy on semiconductors. Trump has floated proposal of up to 100% tariffs on semiconductor imports from selected countries including Singapore<sup>8</sup>. This directly impacts Singaporean chipmakers and the broader local ecosystem of supporting industries, such as precision engineering and logistics. In trade theory terms, this tariff imposes both a price effect and trade diversion effect. While there may be exemptions for companies with US-based manufacturing activities, the uncertainty and high costs of compliance could lead to supply chain disruptions and a significant decline in future investment.

The immediate result is reduced competitiveness for Singapore-origin semiconductor exports in the U.S. market, especially for mid-tier and commodity-grade chips that compete on price. Even though most of the chips are high-tier grades, mid tier and commodity grade chips are vital as well. These mid-tier and commodity-grade chips have helped boost semiconductor manufacturing by 7%. The semiconductor industry accounts for nearly six percent of Singapore's GDP and employs over 35000 people<sup>10</sup>. These tariffs could divert production, delay shipments, and incentivise US buyers to source

<sup>&</sup>lt;sup>6</sup> Trade Map. (2024). Export value of semiconductor devices in the Asia-Pacific region in 2023, by country or territory (in 1,000 U.S. dollars) [Graph]. In Statista. Retrieved August 24, 2025, from <a href="https://www-statista-com.libproxy1.nus.edu.sg/statistics/1414575/apac-export-value-of-semiconductor-devices-by-country/">https://www-statista-com.libproxy1.nus.edu.sg/statistics/1414575/apac-export-value-of-semiconductor-devices-by-country/</a>

<sup>&</sup>lt;sup>7</sup> EDB. (2025). *Innovating the future from Singapore*. Edb.gov.sg. https://www.edb.gov.sg/en/our-industries/semiconductor.html

<sup>&</sup>lt;sup>8</sup> Ong Guang-Xi, J. (2024). US' 100% semiconductor tariff: Singapore firms likely to be hit, with ripple effects on supporting industries. CNA.

https://www.channelnewsasia.com/singapore/semiconductor-us-tariffs-singapore-manufacturing-exports-trump-5283016

<sup>&</sup>lt;sup>9</sup> Mak, R., & Daga, A. (2024, June 21). *Tiny Singapore's chip hub retains a big punch*. Reuters. https://www.reuters.com/breakingviews/tiny-singapores-chip-hub-retains-big-punch-2024-06-21/

<sup>&</sup>lt;sup>10</sup> EDB. (2025a). *How is Singapore developing semiconductor talent to meet industry needs?* Edb.gov.sg. <a href="https://www.edb.gov.sg/en/business-insights/insights/how-is-singapore-developing-semiconductor-talent-to-meet-industry-needs.html">https://www.edb.gov.sg/en/business-insights/insights/how-is-singapore-developing-semiconductor-talent-to-meet-industry-needs.html</a>

from tariff exempt jurisdiction leading to macroeconomically significant problems such as unemployment. Given the price elasticity of demand for certain categories of chips, even a moderate tariff could erode Singapore's cost competitiveness.

#### **Pharmaceutical Sector**



Figure 3. Leading Singapore export to the U.S.<sup>11</sup>

The pharmaceutical sector is a key pillar of Singapore's economy and a top export to the United States (44% in 2023) and contributed to 2.3% of total exports<sup>12</sup>. While the pharmaceutical sector is smaller in volume than semiconductors, pharmaceuticals are high value and innovative. The country's advantage in this industry stems from its robust intellectual property protections, its commitment to exceptionally high quality standards, and the significant presence of leading global pharmaceutical firms with both production and research facilities located there<sup>13</sup>.

<sup>&</sup>lt;sup>11</sup> The Observatory of Economic Complexity. (2025). Leading products exported from Singapore to the United States in 2023, by export value (in billion U.S. dollars) [Graph]. In Statista. Retrieved August 24, 2025, from <a href="https://www-statista-com.libproxy1.nus.edu.sg/statistics/1613932/singapore-leading-export-products-to-the-us-by-value/">https://www-statista-com.libproxy1.nus.edu.sg/statistics/1613932/singapore-leading-export-products-to-the-us-by-value/</a>

TrendEconomy. (2024, January 28). Singapore | Imports and Exports | World | ALL COMMODITIES | Value (US\$) and Value Growth, YoY (%) | 2012 - 2023. Trendeconomy.com. https://trendeconomy.com/data/h2/Singapore/TOTAL?utm.com

<sup>&</sup>lt;sup>13</sup> Venkatesh. (2025). Why Singapore is the World's New Pharma Powerhouse: Unpacking the Secrets Behind Its Manufacturing Boom. Biopharmapac.com.

https://biopharmaapac.com/opinion/72/5419/why-singapore-is-the-worlds-new-pharma-powerhouse-unpacking-the-secrets-behind-its-manufacturing-boom.html



Figure 4: Value of pharmaceutical export from Singapore to the U.S.<sup>14</sup>

While some initial tariffs may have exempted pharmaceuticals, there remains a significant risk of future tariffs which might be higher than the baseline 10% rate, potentially under a "national security" investigation into biopharmaceutical imports. The potential impact of the tariffs in the pharmaceutical sectors are ambiguous due to the fact that demand for life saving drugs and medicines are relatively price inelastic. This implies that volumes may not drop as sharply as the semiconductors sector even if tariffs raise prices in the pharmaceutical sector.

However, tariffs do affect the sector and economy indirectly by disrupting procurement contracts, increasing compliance costs and blocking off future investment opportunities in Singapore. Moreover, there will be a slight market share loss to some extent in the US, undermining Singapore's reputation as a global pharmaceutical hub. In the short run, Singapore's pharmaceutical sector is resilient due to inelastic demand, so export volumes hold steady despite tariffs. But in the long run, persistent tariffs risk eroding its hub status by deterring investment, disrupting contracts, and undermining its global reputation.

<sup>&</sup>lt;sup>14</sup> Trade Map. (2025). Value of pharmaceutical products exported from Singapore to the United States from 2015 to 2024 (in billion U.S. dollars) [Graph]. In Statista. Retrieved August 24, 2025, from https://www-statista-com.libproxy1.nus.edu.sg/statistics/1614609/singapore-pharmaceutical-products-export-val ue-to-the-us/

#### **E-commerce Sector**



Figure 6: E-commerce as a share of total Singapore retail.<sup>15</sup>

Singapore's e-commerce industry is a cornerstone of its digital economy, which is however heavily reliant on a free flow of goods. Many e-commerce businesses in Singapore operate by importing products predominantly from China (accounting for 62% of cross-border e-commerce) and processing them through local fulfillment centers, and then exporting to overseas consumers<sup>16</sup>. This reflects the role of Singapore as a 'transshipment reseller' hub, leveraging its strategic infrastructure and logistics efficiency. The e-commerce sector is currently facing significant disruption due to recent U.S. policy changes. Revenue from B2C e-commerce export is projected to more than double from \$1.7 billion in 2022 to \$3.9 billion by  $2027^{17}$ . However, the introduction of new U.S. tariff measures in 2025, fundamentally altered this operating environment.

A key concern is the potential for increased tariffs on goods imported from China, which would raise the costs for local e-commerce merchants. This could either force them to increase prices, potentially reducing consumer demand, or absorb the costs which would squeeze their profit margins. Another major threat is the disruption to global supply chains. Singapore's strength lies in its world-class logistics and status as a transshipment hub. In 2023, Singapore accounted for a market share of over 53% in Asia Pacific. Singapore holds the largest Asia Pacific container transshipment market share due to its strategic location and world-class port infrastructure<sup>18</sup>. Singapore's container throughput

<sup>&</sup>lt;sup>15</sup> Momentum Works Pte. (2024). Share of e-commerce gross merchandise value (GMV) in Singapore in 2024, by company [Graph]. In Statista. Retrieved August 24, 2025, from

 $https://www-statista-com.libproxy1.nus.edu.sg/statistics/1488036/singapore-e-commerce-gmv-share-by-platfor\ m/$ 

<sup>&</sup>lt;sup>16</sup> Singapore Post. (2024, September). SingPost and Cainiao sign MOU to strengthen logistics capabilities to capitalise on eCommerce growth in Southeast Asia. Singapore Post.

https://www.singpost.com/about-us/news-releases/singpost-and-cainiao-sign-mou-strengthen-logistics-capabilities-capitalise?.com

<sup>&</sup>lt;sup>17</sup> Amazon. (2024, June 27). *Amazon Global Selling in Singapore Launched First Cross-Border E-commerce Trend Report*. SG Press Center; Singapore Press Center.

https://press.about a mazon.com/sg/smb/2024/6/a mazon-global-selling-in-sing apore-launched-first-cross-border-e-commerce-trend-report?.com

Wadhwani, P. (2024, October). *Asia Pacific Container Transshipment Market Size - By Size, By End-Use, By Port, By Container, Analysis, Share, Growth Forecast, 2024 - 2032.* Global Market Insights Inc. https://www.gminsights.com/industry-analysis/asia-pacific-container-transshipment-market?.com

from both PSA terminals and Jurong Port crossed the 40 million TEU mark for the first time, growing by 5.4% and reaching a new record of 41.12 million TEUs compared to 39.0 million TEUs in 2023. Singapore remains the largest container transshipment hub in the world<sup>19</sup>. Tariffs and trade wars would slow down the movement of goods, create customs bottlenecks, and increase the cost of shipping which directly impacts the efficiency and reliability of cross-border e-commerce.

Another trade war action by trump is the de minimis exemption, which had allowed shipments valued under US\$800 to enter the U.S. without duties, was eliminated for China and Hong Kong in May and subsequently for all countries by August 29, 2025<sup>20</sup>.

The economic ramifications for Singapore's e-commerce exporters - particularly small and medium-sized enterprises - are significant. Many of these businesses have relied on a model centered around exporting low-value, high-volume goods to the U.S. market<sup>21</sup>. The imposition of tariffs increases the landed cost of imports, which in turn reduces their price competitiveness compared to domestic U.S. Furthermore, the removal of the de minimis threshold introduces additional customs processing, resulting in longer delivery times and undermining consumer expectations.

These developments collectively exert downward pressure on profit margins. Sellers may be forced to absorb a portion of the new tariff costs in order to remain competitive on price, further eroding profitability. In particular, the U.S. tariffs and the removal of the de minimis exemption raise costs and create customs bottlenecks, eroding price competitiveness. This undermines Singapore's comparative advantage in logistics where efficiency gains are outweighed by tariff barriers reducing profitability and threatening its long-run position as a global e-commerce hub. Singaporean e-commerce firms risk losing market share in one of the world's largest consumer economies.

## **Energy Sector**

The energy sector has historically been a significant part of Singapore's economy. Singapore's energy sector occupies a pivotal position as Asia's primary oil trading and refining hub Singapore is often listed as one of the world's top three oil trading and refining hubs with a total crude oil refining capacity of 1.5 million barrels per day (bbl/d)<sup>22</sup>. While the 2025 U.S. tariffs have not explicitly targeted oil or refined petroleum products, the evolving trade policy is nonetheless exerting a significant broader threat of protectionism and its impact on global growth could still be detrimental.

A global economic slowdown would reduce energy demand and depress prices, which would negatively affect Singapore's refining and petrochemical industries. Additionally, tariffs on electrical equipment and other components could increase the costs of developing new energy projects, including those related to renewable energy.

<sup>&</sup>lt;sup>19</sup> MPA. (2025). *Details*. Maritime & Port Authority of Singapore (MPA).

https://www.mpa.gov.sg/media-centre/details/strong-growth-momentum-for-maritime-singapore?utm.com <sup>20</sup> Arriana McLymore, & Reid, H. (2025, February 4). Shein, Temu, Amazon Haul set for price hikes as US shuts trade loophole. *Reuters*.

https://www.reuters.com/business/retail-consumer/shein-temu-amazon-haul-set-price-hikes-us-shuts-trade-loophole-2025-02-04/

<sup>&</sup>lt;sup>21</sup> Staff Reporter. (2021, October 11). *Singapore B2C e-commerce exports to reach S\$3.5b in 2026*. Singapore Business Review. https://sbr.com.sg/news/singapore-b2c-e-commerce-exports-reach-s35b-in-2026?.com <sup>22</sup> International Trade Association. (2021). *Energy Resource Guide - Singapore - Oil and Gas*. Www.trade.gov. https://www.trade.gov/energy-resource-guide-singapore-oil-and-gas?anchor=content-node-t7-field-lp-region-2-1

In 2025, Indonesia, one of Singapore's largest refined fuel customers, signaled an intention to redirect up to 60% of its fuel imports from Singapore to the U.S<sup>23</sup>. In 2023, Singapore exported (\$9.27B) worth of refined petroleum to indonesia<sup>24</sup>. This move is part of a wider proposal that Indonesia has made to Washington to lower its the tariffs on exports to the US from 32% to 19%<sup>25</sup>.

From an international trade perspective, this situation exemplifies the classic phenomenon of trade diversion, wherein political incentives or tariff structures prompt importers to source from less efficient suppliers. Although Singapore maintains a competitive edge through advanced refining technologies and integrated supply chains, a reduction in output threatens to erode economies of scale, and diminish its status as a regional hub.

The sector's vulnerability is particularly pronounced given the nature of energy markets. Unlike e-commerce, where tariffs simply increase transaction costs, the energy sector faces substantial opportunity costs such as lost volumes and market share, which can be challenging to recover, especially due to long-term supply contracts and the scale of infrastructure commitments.

## **DISCUSSION OF POLICY ALTERNATIVES**

To sustain its leadership in the global trade network, Singapore must evolve its policy agenda by implementing new and forward-looking strategies that address the challenges and opportunities of the latest VUCA world. While its traditional strengths in stability and connectivity remain vital, the island-nation's next phase of economic growth depends on its ability to leverage technology such as AI to build an intelligent economy, proactively shape the future of sustainable trade, and pioneer a new model of regional integration focused on services and talent. This section discusses possible policy alternatives in general from a short, medium and long term perspective and also sector specific policies.

## **Short-Term Mitigation**

The most urgent task is to mitigate the direct impact of global protectionism and tariffs on Singapore's trade-dependent economy. To address this in the short term, Singapore could continue to build on its vast network of over 28 Free Trade Agreements (FTAs) including the Regional Comprehensive Economic Partnership (RCEP), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the European Union-Singapore Digital Trade Agreement (EUSDTA). (Tan, 2025) These FTAs are the foundation of the rules-based multilateral framework that creates legal certainty and provides businesses with preferential access to key marketings, making Singapore an

<sup>&</sup>lt;sup>23</sup> Reuters Staff. (2025, May 9). Indonesia eyes cut in fuel imports from Singapore in favour of US as part of tariffs negotiations. *Reuters*.

https://www.reuters.com/markets/asia/indonesia-eyes-cut-fuel-imports-singapore-favour-us-part-tariffs-negotiations-2025-05-09/

<sup>&</sup>lt;sup>24</sup> OEC. (2024). *Refined Petroleum in Singapore* | *OEC*. OEC - the Observatory of Economic Complexity. https://oec.world/en/profile/bilateral-product/refined-petroleum/reporter/sgp

<sup>&</sup>lt;sup>25</sup> The White House. (2025, July 22). *Fact sheet: The United States and Indonesia reach a historic trade deal.* https://www.whitehouse.gov/fact-sheets/2025/07/fact-sheet-the-united-states-and-indonesia-reach-historic-trade-deal/

indispensable and de-risked hub for businesses seeking to navigate a more fragmented global landscape.(Sim, 2025)

## **Medium-Term Competitiveness**

As the global economy reconfigures over time, Singapore's medium-term strategy could be focused on creating a new economic structure that is less reliant on physical trade, but instead more on the seamless flow of data, digital technology, and other online services. The goal is to build an intelligent economy powered by AI productivity and value-added data flow. This requires moving beyond superficial AI adoption to creating a deep and integrated system that fosters cutting-edge innovation and commercialise cutting-edge AI solutions. (Kalash, 2024) This system is however much more than technical challenges, but also requires a robust legal and ethical framework with clear rules on data ownership, privacy-enhancing technologies, and transparent auditing to build trust and ensure the fair and secure operations. By doing so, Singapore can unlock the full potential of data as a strategic national asset and solidify its reputation as a leader in responsible AI development, hence ensuring its medium-term economic competitiveness.

## Long-Term sustainability

In the long run, Singapore's deliberate transition towards a new and more sustainable economic model will create a resilient economic pillar less vulnerable to global trade tensions, thereby solidifying its future prosperity. This forward-looking strategy aligns with the global shift towards green and ESG principles and therefore enhances Singapore's international influence as a leader in sustainable development. By becoming a hub for green technology and finance, the city-state will attract foreign investment and secure a long-term competitive advantage. (Zhu & Hu, 2023) Ultimately, this proactive approach ensures that Singapore remains a vibrant and relevant economic powerhouse for decades to come, creating high-value jobs and fostering a culture of innovation.

## **Sectoral solutions**

For the e-commerce industry, Singapore can first elevate its role as the gateway to the regional ASEAN market by focusing on the seamless flow of physical goods together with services and talent. This is because ASEAN is one of the most emerging markets with significant potential in both demand and supply, and Singapore has a favorable location at its center. One initiative could be Singapore taking a more active leadership role in fully implementing the ASEAN Digital Economy Framework Agreement (DEFA). This pushes for a new generation of digital and services-focused agreements within ASEAN, such as mutually recognised professional qualifications and collaborative cross-border digital payment corridors like Project NEXUS.

For the semi-conductor industry, Singapore's latest National AI Strategy 2.0 (NAIS 2.0, 2023) could be tapped on and advanced by establishing a shared online data platform. This platform can allow for the secure and anonymised exchange of non-proprietary data, such as manufacturing process parameters, equipment sensor logs and wafer inspection results. (Li & Wang & Chong, 2023) These would provide a meaningful mass of data for local and regional firms, enabling them to collaboratively train sophisticated AI models for important commercial applications. While existing platforms like SingStats (Singapore Department of Statistics) and data.gov are limited to macro-level government data, this new infrastructure would create a formal and centralised marketplace for valuable, industry-specific datasets. Such a platform would help local firms develop advanced AI

solutions without having to build costly data collection systems from scratch, therefore boosting the entire ecosystem's competitiveness.

For the pharmaceutical industry, a forward-looking solution involves establishing Singapore as a global pharmaceutical innovation hub with the aim of actively bridging the gap between academic research and commercialisation. Rather than simply attracting global firms, Singapore as the hub would proactively identify promising academic research and early-stage startups with high commercial potential. It would then provide necessary resources and expertise, including access to specialised facilities, venture capital, and guidance on intellectual property protection and regulatory navigation. This would create a powerful pipeline of homegrown innovation and streamlining the process from laboratories to market, moving beyond a reliance on foreign direct investment and positioning Singapore to be a global leader in drug discovery for the future.

Last but not least, for the energy sector, Singapore can proactively pioneer a new model of sustainable trade by spearheading the creation of international frameworks that facilitate the cross-border flow of clean energy goods and services. Singapore has already taken a significant step by signing a Green Economy Agreement (GEA) with Australia, a first-of-its-kind pact that goes beyond traditional trade by integrating standards for renewable energy trade and sustainable finance. Building on this, Singapore can leverage its status as a trusted financial centre to establish itself as a Global Carbon Services Hub. This involves providing both infrastructure and technology support for carbon trading, verification & certification, and sustainable project financing specifically aimed at decarbonising the energy sector. There are already over 120 carbon services and trading firms in Singapore, which has signed Article 6.2 carbon credit implementation agreements with over a dozen countries including Thailand and Ghana. This policy would not only diversify Singapore's economy and create new high-value jobs but also solidify its role in the global transition to a low-carbon energy economy.

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