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Critical industries in the time of Asia-Pacific geopolitics: Lessons for the Philippines

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Deryk Matthew N. Baladjay and Jean Clarisse T. Carlos



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Critical Industries in the Time of Asia-Pacific Geopolitics:
Lessons for the Philippines

Deryk Matthew N. Baladjay
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Abstract

This study examines the interplay between Asia-Pacific geopolitics and the Philippines' critical industries, focusing on telecommunications, energy, mining, and digital infrastructure. Utilizing a Philippine-centric lens, it explores how geopolitical tensions, particularly between the U.S. and China, influence industry-specific vulnerabilities and value chains. Drawing from qualitative data, including key informant interviews across APEC economies, the research highlights the strategic importance of multilateral cooperation, trade diversification, and policy harmonization within APEC. It integrates World-Systems Theory to analyze the systemic impacts of geopolitical dynamics and proposes actionable strategies for bolstering industry resilience while aligning with regional and global development goals.

Keywords: critical industries, geopolitics, Asia-Pacific, APEC

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Critical Industries in the Time of Asia-Pacific Geopolitics: Lessons for the Philippines

Deryk Matthew N. Baladjay¹ and Jean Clarisse T. Carlos²

1. Background of the Study

The Asia-Pacific Economic Cooperation (APEC) is a vital platform for fostering economic integration and cooperation, especially in a time of intensifying geopolitical fragmentation. Through initiatives such as trade diversification and regional economic frameworks, APEC helps economies like the Philippines build resilience against external shocks. Its focus on sustainable development and inclusive growth aligns with the Philippines' need to safeguard critical industries while fostering economic opportunities. The country's active participation in APEC underscores its commitment to leveraging multilateral cooperation to address vulnerabilities, from enhancing infrastructure to securing digital and energy sectors.

Despite these opportunities, the Asia-Pacific region has become the stage for a significant geopolitical contest between two of its major member economies—the United States and China. The Philippines finds itself uniquely positioned within this dynamic, navigating the complex pressures exerted by these global powers. China's rise as an economic powerhouse, driven by rapid industrialization and an expanding middle class, has enabled it to assert a more prominent role on the global stage, often challenging established norms (Amador & Baladjay, 2020). Meanwhile, the United States, long dominant in economic and military spheres, is seeking to preserve its influence, framing China's ascent as a challenge to the existing global order (Rudd, 2023). These competing agendas ripple across the APEC region, placing economies like the Philippines at the forefront of critical decision-making.

This strategic competition is particularly evident in key sectors such as telecommunications, digital infrastructure, energy, and mining—industries central to the Philippines' economic growth and security. For instance, the Philippines' 5G network, which now spans over 100 cities (Statista, 2023), relies heavily on Chinese hardware, exposing vulnerabilities in its digital transformation efforts (Rosales, 2023; Mercurio, 2023). Similarly, the country's mining sector, which is critical to the global supply chain for minerals like nickel and copper, faces challenges from trade realignments and resource nationalism. In 2022, the Philippines became the world's largest exporter of nickel ore, valued at \$1.29 billion, illustrating both its strategic importance and susceptibility to global market shifts (OEC, 2024).

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These realities highlight the importance of understanding how geopolitical tensions affect the Philippines' critical industries and broader economic strategy. APEC's emphasis on cooperation and integration offers a platform for addressing these challenges, but the intensifying U.S.-China rivalry presents complex risks. This study aims to provide a Philippine-centric analysis of these dynamics, examining how geopolitical developments influence key industries and proposing strategies for the Philippines to maximize its position within APEC while safeguarding its economic interests and promoting sustainable growth.

1.1. Statement of the Problem

Geopolitical developments, particularly those involving major powers like the United States and China, have increasingly impacted APEC economies, with specific implications for critical industries across the Asia-Pacific region (Friedberg, 2020; Rolland, 2021). The Philippines, as an APEC member, faces unique challenges due to its economic reliance on industries vulnerable to geopolitical tensions, such as telecommunications, energy, and mining (Abinales & Amoroso, 2017). As these tensions escalate, there is a growing need to understand how they affect value chains and the broader economic landscape within APEC (Breslin, 2021). Further, assessing how APEC economies, including the Philippines, can respond to these shifts through policy coordination and regional cooperation is essential to fostering stability and safeguarding critical industries (Li, 2022). This study seeks to explore these dynamics by examining the impacts of geopolitical developments on APEC economies, focusing on the Philippines, and analyzing potential policy responses to mitigate risks. Hence, the following are the questions this study aims to answer:

1. Geopolitical Developments

- What are the most significant geopolitical developments impacting APEC economies, particularly the Philippines?
- How do geopolitical tensions, especially between major powers like China and the U.S., influence the value chains of critical industries in the Philippines and the wider Asia-Pacific region?
- Who are the key geopolitical actors in the Asia-Pacific, and what specific implications do they pose for industries and economic sectors in APEC economies, including the Philippines ?

2. Critical Industries in APEC

- Which critical industries within APEC, and particularly in the Philippines, are most vulnerable to geopolitical disruptions (Abinales & Amoroso, 2017)?
- How are key industries—such as telecommunications, energy, and mining—impacted by these geopolitical tensions, and what scenarios could arise as these tensions escalate?
- In what ways do critical industries in the Philippines align or diverge with those in other APEC economies, especially concerning shared geopolitical pressures?

3. Policy Responses

- What policy responses can APEC economies, particularly the Philippines, consider to address these geopolitical shifts and safeguard critical industries?
- What discussions and initiatives are currently taking place within APEC regarding critical industries and geopolitical tensions, and what areas of cooperation or policy alignment are available for the Philippines to strengthen regional stability?
- How can the Philippines collaborate with other APEC economies to mitigate risks to its critical industries, promote regional security, and support economic resilience in the face of intensifying geopolitical challenges?

1.2. General Objective

The study aims to explore the impacts of geopolitical realities in the Asia-Pacific region, with a focus on the effects of strategic competition between and among major economies. It will specifically examine how these dynamics affect critical industries in which the Philippines has significant stakes—namely telecommunications and digital infrastructures, the energy sector, and minerals, metallurgy, and mining—and assess the broader implications for APEC.

1.3. Specific Objectives

To understand the evolving geopolitical landscape and its effects on critical industries in the Philippines and within APEC, this study will pursue the following specific objectives:

1. To enumerate and define the current state of geopolitics in the Asia-Pacific region, highlighting key actors and their roles, with an emphasis on how these geopolitical shifts impact APEC economies, including the Philippines.
2. To map the value chains of critical industries—such as telecommunications, digital infrastructures, energy, and mining—and analyze how these industries are affected by geopolitical tensions. This will include examining the roles of various actors, relevant policies, and areas for potential cooperation (or lack thereof) to better understand the implications for Philippine development and economic resilience.
3. To generate a framework that is both Philippine-centric and APEC-centric, illustrating the divergences and convergences among critical industries within APEC in response to geopolitical shifts. This framework will employ concepts from dependency theory and world-systems theory to contextualize these dynamics and inform potential strategies.
4. To identify strategic pathways forward for the Philippines and APEC in responding to geopolitical tensions, suggesting policy approaches and areas for collaboration that can enhance regional stability and protect vulnerable industries.

1.4. Significance of the study

The strategic competition between major global powers, such as the United States and China, has created unprecedented challenges and opportunities for economies within the Asia-Pacific region, including the Philippines. While there is a considerable body of literature examining the impacts of U.S.-China dynamics on Philippine industries, a notable gap exists in the detailed, region-specific exploration of how these broader geopolitical contests impact critical industries within APEC. This study aims to fill that gap by offering a Philippine-centric analysis that connects high-level geopolitical shifts with on-the-ground realities in the Philippines and other APEC economies. Conducted in partnership with the Philippine APEC Study Center Network (PASCN) and the Philippine Institute for Development Studies (PIDS)—alongside experts from De La Salle University—this research will provide pioneering insights into the intersection of political economy, industry, and geopolitical strategy within the APEC context.

This study is particularly significant as it delves into the Philippines' key economic sectors—telecommunications, energy, and mining—industries highly susceptible to geopolitical disruptions due to their strategic value and reliance on international value chains (Abinales & Amoroso, 2017). By mapping these value chains and exploring how they are shaped by external geopolitical forces, this research not only highlights vulnerabilities but also uncovers potential pathways for resilience. As Jariyadham (2023) notes, APEC is increasingly influenced by geopolitical considerations, with economies such as Russia, China, the United States, and Japan each holding divergent political and economic systems. The study, therefore, acknowledges the critical role that such divergences play in APEC, where growing gaps in value systems, policy interests, and strategic agendas continue to shape interactions and alliances.

Furthermore, the research contributes to the conceptual development of the Philippines' geopolitical strategy by examining how high-level geopolitical dynamics influence specific industries. By employing frameworks from dependency theory and world-systems theory, the study provides an analytical lens to better understand the ways in which the Philippines and other APEC members navigate the evolving geopolitical landscape. This is crucial for the formulation of industry-specific policies and strategies that are responsive to the intensifying geopolitical tensions and can strengthen the Philippines' positioning within APEC and beyond (Breslin, 2021; Rolland, 2021).

The study also holds practical implications for policymakers and industry leaders by offering a grounded, empirically informed framework to guide decision-making. As APEC economies increasingly grapple with the pressures of strategic realignments, this research will inform the Philippine government's policy responses by identifying areas where collaboration and policy harmonization with APEC members can mitigate risk and enhance regional stability. Li (2022) underscores the importance of robust, well-aligned policy frameworks in responding to geopolitical shifts, and this study will add to that discourse by providing specific recommendations for both Philippine and APEC-wide applications.

In conclusion, this research will serve as an essential resource for scholars, policymakers, and industry leaders seeking to navigate the complex interplay between global geopolitical dynamics and regional economic interests. By generating an informed, Philippine-centric understanding of

how geopolitics influences critical industries within APEC, this study not only fills a significant gap in existing literature but also provides a foundation for further exploration into regional strategies for economic resilience and political alignment amidst global power shifts.

1.5. Scope and Methodology

The study aims to take stock of the Philippines' critical industries. The critical industries identified in this research are specifically chosen due to its embeddedness in the performance of global markets. In addition, the study also aims to outline the key geopolitical developments that are likely to impact the Philippines in one way or another. To this effect, the authors turn to regional and global developments, specifically ASEAN and APEC respectively, because these are the groups of countries that the Philippines have deep economic ties with and that are at risk of being influenced by great power competition.

To achieve the study's objectives and to address the gap in existing literature regarding the geopolitical impacts on critical industries, this research employs a comprehensive qualitative approach. The primary data collection relied on Key Informant Interviews (KIIs) conducted across select APEC economies, including Chile, Peru, the United States (U.S.), the Republic of Korea, Malaysia, Indonesia, Singapore, the Philippines, and New Zealand. Target respondents were economists and international relations experts, chosen for their specialized insights into the industry. All of those interviewed are tenured and affiliated with higher education institutions. The selection process used a non-probability sampling strategy, specifically purposive or expert sampling, to engage respondents capable of providing substantial perspectives on the study's themes. The authors purposefully chose experts across the Asia-Pacific to account for diverse views and pinpoint emerging and converging themes.

The KIIs followed a semi-structured format, balancing prepared questions with open-ended discussions to allow for flexibility and in-depth exploration of respondents' insights. Interview questions were organized around three core themes: Geopolitical Developments, Critical Industries in APEC, and Policy Responses. Under the Geopolitical Developments theme, respondents discussed significant geopolitical shifts affecting APEC economies, particularly the Philippines, and the influence of tensions between major powers like the U.S. and China on critical industry value chains in the Asia-Pacific region. For Critical Industries in APEC, experts were asked to identify which industries within APEC, especially in the Philippines, are most vulnerable to geopolitical disruptions, with a focus on sectors such as telecommunications, energy, and mining. Comparative questions were also posed to assess how these industries in the Philippines align or diverge with those in other APEC economies. Finally, in Policy Responses, discussions focused on adaptive measures, such as policy responses within APEC and potential areas for cooperation or alignment to safeguard critical industries against geopolitical pressures.

To ensure a robust triangulation of findings, an extensive document review supplemented the KIIs. This review drew from multiple authoritative sources, including scholarly articles from local and international journal publications, official reports from the Philippines, and news sources to validate and enrich the primary data obtained through interviews. This process not only contextualized expert responses within a broader evidence base but also cross-referenced findings to enhance the reliability and depth of the analysis. The study incorporated publicly available

government data from databases managed by agencies such as the Department of Trade and Industry, the Department of Budget and Management, and the Department of Finance to look at the state of each identified industry raised in this research.

Collectively, these methodologies provided a comprehensive, multi-layered approach, enabling thematic analysis across the selected industries and drawing out consistent patterns that illustrate the influence of geopolitics on critical industries across the APEC region.

1.6. Theoretical Framework: World-Systems Theory

Wallerstein's World-Systems Theory, developed by sociologist Immanuel Wallerstein in the 1970s, offers a structural framework for understanding global economic and power relations (Wallerstein, 1974). Emerging during the Cold War and decolonization period, Wallerstein's model sought to explain persistent economic inequalities and dependencies between nations. The theory divides the global economy into core, semi-peripheral, and peripheral countries, with core economies dominating global markets, technology, and capital, while peripheral economies rely heavily on raw materials and labor-intensive industries. Semi-peripheral economies serve as intermediaries, balancing features of both core and peripheral economies and stabilizing the system (Chase-Dunn & Hall, 1997).

Wallerstein coined this theory in the early 1970s, influenced by the decolonization movements, the rise of the Third World, and the need to understand how newly independent nations were still economically subordinate to former colonial powers. At its core, the theory explains how wealthier, industrialized nations accumulate wealth through a complex economic system of "unequal exchange" that exploits peripheral economies for labor and resources (Wallerstein, 1974). Peripheral economies often find themselves locked in cycles of dependency, where they export raw materials and labor to core economies but lack the infrastructure, technology, and capital to develop higher-value industries themselves (Arrighi, 1990).

Wallerstein argued that these structural inequalities are inherent to capitalism and tend to perpetuate over time. The global division of labor has remained surprisingly consistent, as historical cycles of economic dependency and exploitation often repeat, even as the specific players change. This model remains highly relevant for understanding the geopolitical tensions and economic dependencies of today, especially within frameworks like APEC (Harvey, 2003).

1.6.1. Application to Modern Geopolitical Context

Wallerstein's framework helps us contextualize the current tensions between major global powers, especially in critical industries like semiconductors, renewable energy, and telecommunications, where technological advancement and resource control are key. For example:

- Core Economies (e.g., the United States, Japan, and China) dominate high-value industries like advanced technology, pharmaceuticals, and military manufacturing. These economies often exert political and economic influence over others by controlling access to advanced technologies and critical infrastructure (Robinson, 2008).
- Semi-Peripheral Economies (e.g., South Korea, Malaysia, and Singapore) have characteristics of both core and peripheral economies. They participate in high-tech manufacturing, such as semiconductor production, but often rely on core economies for technology and capital. These economies play balancing roles, being critical in regional value chains yet vulnerable to shifts in core power strategies, like the U.S.-China “tech decoupling” (Chase-Dunn & Hall, 1997).
- Peripheral Economies (e.g., Chile, Peru, and the Philippines) remain dependent on exporting raw materials, such as copper and lithium, essential for the production of high-tech goods and renewable energy. These economies struggle to diversify due to economic and political barriers, often relying on core economies for investment and market access (Arrighi, 1990).

Wallerstein’s model remains valuable today because history tends to repeat itself in global economic relations. While the players may change, the underlying economic structure—characterized by unequal exchange and dependency—remains consistent. In the 21st century, as in the 20th, core economies leverage their technological and economic advantages to sustain dominance, while peripheral economies remain marginalized, often locked into roles defined by resource extraction or labor-intensive industries (Wallerstein, 1974; Harvey, 2003).

2. Defining Critical Industries

Critical industries are essential sectors that contribute significantly to economic security, societal welfare, and national resilience. In the APEC context, critical industries are tightly interwoven with global value chains, making them susceptible to geopolitical shifts. Informants emphasized the strategic importance of these industries, which include public infrastructure, digital infrastructure and telecommunications, energy, minerals and mining, and manufacturing. These sectors not only drive economic growth but also serve as leverage points in geopolitics, influencing the Philippines’ engagement with both regional and global actors.

Not to be confused with the term *critical infrastructure*, critical industries are those sectors “whose assets, systems, and networks, whether physical or virtual, are considered so vital... that their incapacitation or destruction would have debilitating effect on security, national economic security, national public health or safety, or any combination thereof” (Critical Infrastructure Security Agency, n.d.). These industries and their corresponding outputs are vital to the broader critical infrastructure of a country. More importantly in recent years, these industries are at the heart of geopolitical and geoeconomic debates surrounding the inseparability of economics and security; domestic forces have become vulnerable against and need to weather external stimuli. Critical infrastructure on the other hand is the broad map of upstream and downstream players.

The earliest use of the term *critical industries* can be traced to the mid-1900s. However, the term *critical infrastructure* is a relatively later invention, adopted in the late 1990s within American policy circles. In October 1997, the President's Commission on Critical Infrastructure Protection delivered a report titled *Critical Foundations: Protecting America's Infrastructures* to the Clinton Administration detailing the extensive network of industries and with the express aim of identifying systemic gaps to "Protect the Future". The report detailed key legal initiatives involving its Defense Production Act (*Critical Foundations*, 1997: 81), criminal prosecution for physical and cyber-attacks to its critical infrastructure (*Id.*, 1997: 83-85), reducing legal impediments to make necessary vulnerability assessments (*Id.*, 1997: 86), and defined the role, and limitations, of the private sector (*Ibid*). The 1997 report also promoted research and development to ensure monitoring, risk management, and vulnerability assessment systems were in place. In 1999, at the height of the computer revolution, the U.S. General Accounting Office developed a report on the need to strengthen the protection measures for critical infrastructure as "widespread interconnectivity poses enormous risks to... computer systems and, more importantly, to the critical operations and infrastructures they support, such as telecommunications; power distribution, national defense, including the military's warfighting capability; law enforcement; government services; and emergency services" (U.S. General Accounting Office, 1999, p.22). The report prompted individual agencies of the U.S. government to develop critical infrastructure protection plans. In a follow up report in 2001, cyber risks pose the greatest challenge to addressing concerns, exacerbated by the limited rudimentary warning systems, the increase in computer-related crimes, and the need to increase coordination across systems and responding agencies (*Id.*, 2001).

It is this same structural and systemic interdependence that belie the strength, and weakness, of critical infrastructures argued in the seminal work of Tyson Macaulay (2008) titled *Critical Infrastructure: Understanding Its Component Parts, Vulnerabilities, Operating Risks, and Interdependencies*. He highlights that this is the prominent feature of critical infrastructures:

Interdependency is a bidirection, two-way version of dependency with degrees of intensity: both are partially or entirely reliant upon each other. Interdependency is not necessarily a matter of equality; it is possible that between two interdependent parties, one is more dependent than another. (Macaulay, 2008, p.9).

Macaulay (2008) expounds that because of interdependencies across critical infrastructures, the impacts potentially ripples across other interrelated systems; these impacts, or "cascades" he classifies into three: first order are those impacts that are direct effect as a result of physical or logical intervention;³ the second order reflects the aftermath of the first order impacts, detailing the expanse of impact of the act; and tertiary impacts are those levels of severity of impacts as a result of proximity to the first and second order impacts. This is why identification of critical infrastructures and industries is key: to develop industry-wide intervention measures to contain any cascading of impacts.

The identification of these critical industries is largely up to the countries themselves, but cross-country similarities can be gleaned from a variety of regions. Some of these industries may include

³ Physical impacts include natural disasters or physical interventions such as hacking.

those providing for and supplying public goods including the energy sector, health sector, water sector, and transport sector. Governments may likewise include those sectors critical in the functioning of certain industries relevant to advanced technologies and sciences including the information and communications technology, chemical sector, manufacturing sector, and the defense industrial base sector. These industries are so inherently existential in that it not only meets domestic demand for jobs, but it also powers the synergies that so often describe the economic-security nexus.

The resiliency needed to protect critical industries are commonly enshrined in national policies, explicitly protected by law and outrightly identifying the criticality of subsuming said industries under the purview of the state. For instance, the U.S. under the Obama administration enacted the Presidential Policy Directive No. 21 (PPD-21) mandating the strengthening and maintaining the security of critical infrastructures on the Federal level (White House, 2013). This is strengthened by the Homeland Security Act and the Federal Information Security Management Act, ensuring that these industries fall under the purview of the Federal government. Japan in April 2023 passed an economic security bill intended to secure its supply chain and critical infrastructure (Suzuki, 2023). The European Union's Network and Information Security (NIS) Directive No. 2 requires its member states to have contingency measures to protect critical infrastructure and essential services (The NIS2 Directive, 2024). Canada is in the process of legislating its Critical Infrastructure Defence Act (Government of Alberta, 2020). The OECD even deployed a Policy Toolkit on Governance of Critical Infrastructure Resilience providing guidance on the management and use of critical infrastructure sectors (OECD, 2019). By and large, the protection of these industries so embedded in the economy rests on the state.

The lead agency spearheading the protection of critical industries also vary widely from country-to-country, however the effort has largely been from the top national/federal level. On more than one occasion, multiple ministries may be involved in matters concerning critical industries including the trade, justice, foreign affairs, energy, and transportation ministries.

2.1. Localizing the Definition of the Critical industries

The Philippines' understanding of *critical industry* stems from the definition of the term *critical infrastructure* lifted from the Public Service Act of 2022 (Republic Act 11659), a relatively recent legislation that protects industries of interest to the state. The law states:

(e) *Critical Infrastructure* refers to any public service which owns, uses, or operates systems and assets, whether physical or virtual, so vital to the Republic of the Philippines that the incapacity or destruction of such systems or assets would have a detrimental impact on national security, including telecommunications and other such vital services as may be declared by the President of the Philippines; (Official Gazette, 2022)

However, the Public Service Act exclusively looks at public utilities; the downstream system of distribution such as electric distribution and transmission, water pipeline systems, and petroleum pipeline systems, seaports, and transportation. Foreign ownership for these public utilities is bound to the 40% capital restriction of the Foreign Investment Act (Pulta, 2022). The Public Service Act does not cover industry-wide regulations of critical industries and does not definitively outline the

industries that are core to national interests in the same way global standards have defined “critical industries”.

A bill pending in the Senate covers the broad definitions of critical industries. Authored by Senator Raffy T. Tulfo, Senate Bill 1701, or the Critical Information Infrastructure Protection Act, seeks to develop industry-wide measures to protect those industries deemed “critical”. The bill defines “critical information infrastructures” as the digital assets that enable the government to perform its functions through information and communications technology. Interestingly, the bill patterns its definition of critical infrastructures after the definition set by the Critical Infrastructure Security Agency, not with the definition set by the Public Service Act. In addition to this, the bill outlines the infrastructures important to the Philippines such as banking and finance, broadcast media, emergency services and disaster response, energy, health, telecommunications, transportation (land, sea, air), and water (See Section 4 of the bill). These are the same sectors identified to be critical by Macaulay (2009). This bill enacts the same urgency with which US agencies reported in 1997, 1999, and in 2001.

Box 1. What are the current critical industries in the Philippines?

The Key informants identified the Philippines’ critical industries as encompassing sectors vital for economic and strategic development:

- **Public Infrastructure:** Essential for facilitating connectivity, trade, and logistics, infrastructure projects are key drivers of growth. Informants cited ongoing collaborations with initiatives like China’s Belt and Road and U.S.-backed infrastructure programs as crucial but geopolitically sensitive.
- **Digital Infrastructure:** Telecommunications and IT systems are pivotal for enabling the country’s digital economy. The sector faces dilemmas over adopting either Chinese technologies, like Huawei, or U.S.-backed systems due to geopolitical pressures.
- **Energy:** The Philippines depends on external actors for energy resources and renewable technologies. Informants highlighted China’s advances in green energy solutions as both an opportunity and a challenge, given the competitive dynamics in this sector.
- **Minerals and Mining:** The country’s significant nickel and copper reserves position it as a key player in the global value chains for EVs and renewable energy technologies. However, resource nationalism and trade dependencies pose ongoing challenges.
- **Manufacturing:** Heavily reliant on imported inputs, the manufacturing sector was discussed as vulnerable to supply chain disruptions but also as a potential beneficiary of trade realignment strategies like “friend-shoring”.

Source: Collated by authors.

Wider literature surrounding critical infrastructures play a pivotal role in ensuring a functioning society, as espoused by the Sendai Framework for Disaster Risk Reduction 2015-2030 (World Health Organization, 2015). Disruptions to the fundamental services impacts day-to-day operations and potentially debilitates a state from performing its mandate. The Philippines incorporates this strategic view in the legal text to encompass the criticality of these identified sectors to the functioning of the state and the survival of its population. While select industries can be opened to foreign ownership, any sector designated as a *critical infrastructure* automatically limits foreign influence. This limitation on foreign ownership is core to the protection of critical industries (Baker McKenzie, 2022).

For this very reason, the authors define *critical industries* closely with that of the Philippines' definition and thus formulates the definition accordingly: Critical industries are those groups of specialized commercial stakeholders that provides, owns, uses, and operates systems and assets inimical and detrimental to the Philippines' function and interests.

Further, the critical industries most relevant to the Philippines can be lifted from the Public Service Act (PSA) of 2022. Section 4 (d) of PSA on public utility provides for a broad coverage of the specific sectors that provide public utilities including distribution and transmission of electricity, pipeline transmission systems for petroleum products, waters, and wastewater, seaports, and public utility vehicles. For the purposes consistent with the literature, this study identifies five major areas: public infrastructure, digital infrastructure and telecommunications, energy, mining, and manufacturing.

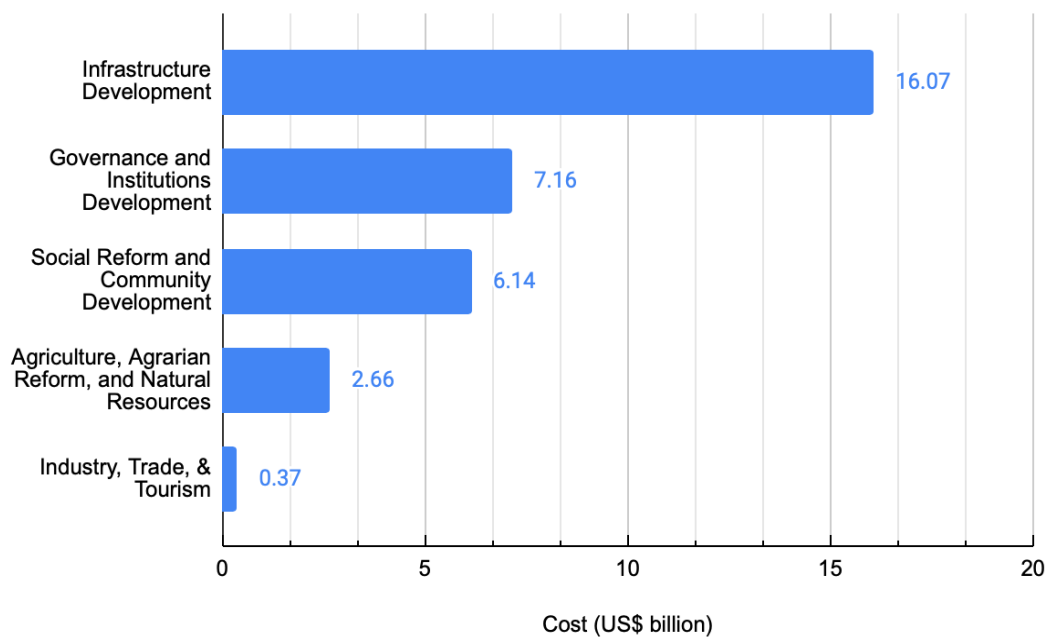
2.2. The Critical Industries in the Philippines

Hence, with both the literature and key informant data, this study identifies five broad industries covered by the Philippines' own definition of critical industries: **(1) public infrastructure, (2) digital infrastructure and telecommunications, (3) energy, minerals, and (4) manufacturing.** These industries are susceptible to disruption as the state slowly opens avenues for investments to foreign ownership. These, by and large, are areas that are critical to the functioning of the economy and public welfare.

2.2.1. Public infrastructure

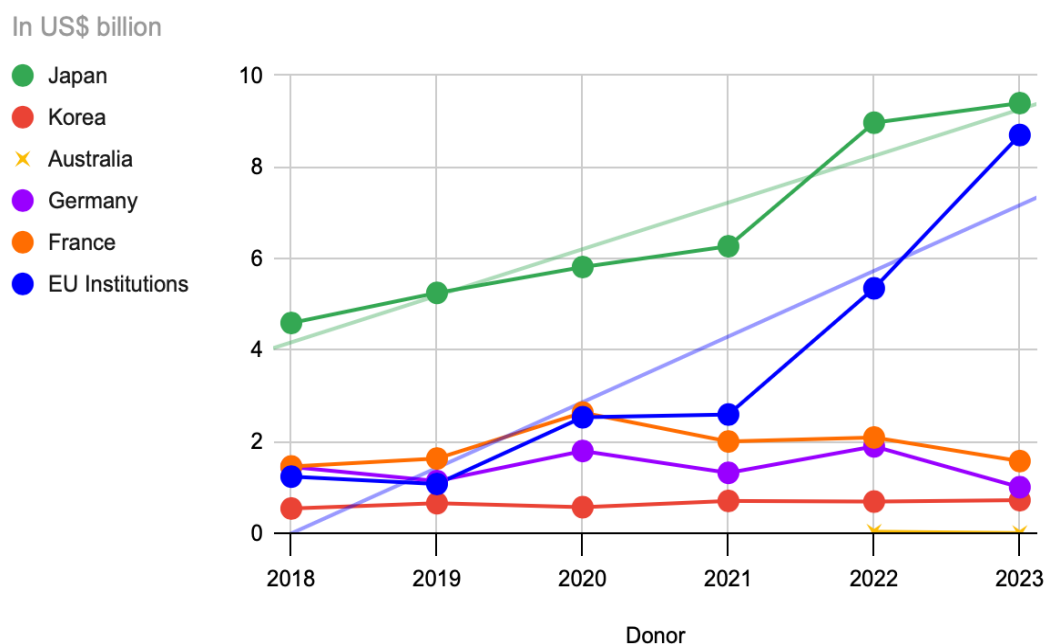
Infrastructure is inimical to the Philippines' growth. This industry helps determine the success of other related industries such as manufacturing, agriculture, water, sanitation, housing, and transport. In 2022, the Philippines' funding for infrastructure development stood at US\$ 16 billion, all from official development assistance (ODA) (see Figure 4). Japan and the European Union (EU) were among the prominent sources of the Philippines' ODAs (see Figure 5). In terms of active programs and projects, Japan continues to stay ahead of China and South Korea (see Figure 1).

Figure 1. ODA distribution, 2022



Source: Adapted from NEDA's 2022 Official Development Assistance (ODA) Portfolio Review Report (2022), 37.

Figure 2. ODA by country origin, 2018-2023



Note: Limited data on Australian ODA. No data on China (only on Chinese Taipei). Constant US\$ 2022.
Source: Adapted from OECD's Data Explorer Dashboard.

Table 1. ODA by country origin, 2022

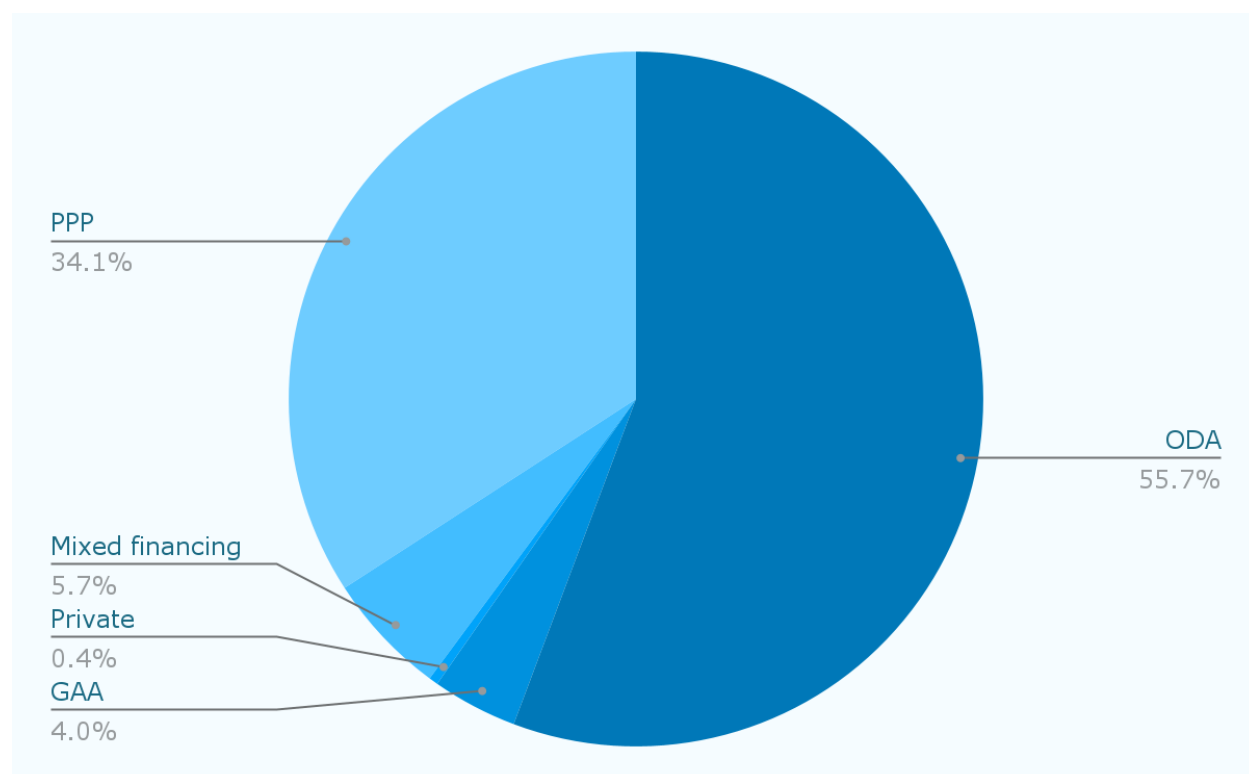
Origin	Cost (in US\$ billion)	Active Programs & Projects
Japan	9.96	78
China	0.98	9
Korea	0.91	28

Note: Excluding data points of Asian Development Bank and World Bank.

Source: Adapted from NEDA's 2022 Official Development Assistance (ODA) Portfolio Review Report (2022), 41.

The use of ODAs to finance multi-billion projects was prompted by government-led projects, mainly the *Build, Build, Build Program* (BBB). The choice of sourcing for the major infrastructure project is through ODAs (see Figure 6). However, the follow through with most of the projects, especially the Infrastructure Flagship Projects - a sub-list of priority projects under the BBB Program - is seeing a major slowdown (Senate Economic Planning Office, 2022). Although intended to fuel post-pandemic recovery through the ramping up of infrastructure thrusts, only eight (8) projects were completed in 2021 worth PhP 94.5 billion, more than PhP 1.09 trillion are in the pipeline, and some 80+ projects are up for uncertainty on account of the change in leadership in 2024.

Figure 3. Funding sources of public infrastructure (in PhP billion)



Source: Senate Economic Planning Office (2022).

The weak absorptive capacity of the state to process ODAs for infrastructure seems to be a top concern. The disbursement rate of the Department of Public Works and Highways (DPWH) and the Department of Transportation (DOTr) - the two major agencies responsible for infrastructure thrusts - has significantly slowed down since 2016 (DPWH, 2023). The sluggish release of funding shows that the government is struggling with processing and absorbing the diverse sources of funding for major infrastructure projects.

2.2.2. Digital infrastructure and telecommunications

The Philippines has been active in transitioning into the digital economy, adopting among others the ASEAN's Digital Economic Framework Agreement (DEFA) reached last August 2023 (ASEAN, 2023). The new digital push by the regional organization is expected to generate some US\$ 2 trillion by 2030, tapping a population already inclined towards digital transactions. But the digital economy requires a robust and inclusive telecommunication and data infrastructure. This broadly encompasses an ecosystem of infrastructure and technology that makes these networks possible including small cell sites, tower assets, and data centers. At present, the Philippines' Department of Information and Communications Technology (DICT) has enacted broad digital reforms and commitments to digital infrastructure, including among others, the implementation of a National Broadband Plan last June 2017, a free public Wi-Fi in at least 4,500+ public spaces, and the promotion of e-government service provision (DICT, 2023).

The private sector plays a major role in propelling the Philippines' digital push forward. This includes major companies such as Aboitiz InfraCapital, PLDT Group, Smart Communications, and Globe Telecom. International service providers also provide a competitive suite of services. Alibaba, in 2018 expressed its desire to join the Philippines' financial technology ecosystem, initially offering its company's services to the service of overseas Filipino workers (OFWs) in 2018. The Chinese company joined the Philippine digital ecosystem in 2020 (Agcaoili, 2020), setting up its very first server in the Philippines in 2022. Alibaba Cloud's local servers in the country service over 200 companies domestically (Moises, 2022). The Chinese cloud company aims to expand operations in the country, after having successfully kicked off its Cloud Summit last September 2023 (Fintech News PH, 2023).

The major actors in the terrestrial domain are Smart Communications (and PLDT) and Globe Telecom, hailed together as a duopoly with control over the telecommunications industry. Smart and Globe's hardware infrastructure is powered by Huawei. The duopols' foray into 5G compelled a partnership that is inexpensive and promises modest returns. Globe inked a deal with Huawei in 2015 (Dela Paz, 2015); Smart (and PLDT) followed suit in 2017 (Smart Communications, 2017). The duopols' partnership with Huawei flourished under the Duterte administration, especially in the context of warming bilateral ties with China. However, the telecoms duopoly came under the crossfire of the intensified competition between the U.S. and China, compelling both, at some point, to reflect on eyeing the use of non-Huawei equipment (Hallare, 2020). Subsea projects, on the other hand, are much more expensive, labor- and capital-intensive. The Philippines launched its own Philippine Domestic Submarine Cable Network (PDSCN), a 2,500-km backbone fiber cable featuring 33 points of connection within the maritime domain of the Philippines' Visayas and Mindanao sub-archipelago groups, last August 2022 (Better Internet PH, 2023). This project

was spearheaded by various companies, of which Globe and Smart are investors under the parent company InfiniVan (Submarine Cable Network, 2023).

Smart Communications and Globe Telecom, the largest telecommunication service providers in the Philippines, have partnered with Huawei (Cuyegkeng, 2021). Although both companies including PLDT Inc. later expressed in 2020 that it would diversify suppliers aside from Huawei, over 85% of the telecommunication companies' 5G network infrastructure was still supplied by Chinese firms as of November 2020. The emergence of Dito, a new telecommunication company, also utilizes Huawei and is largely backed by China. The decision of the government to allow Huawei and Dito to build cell phone towers in military bases has raised concerns such as security, hacking, sabotage, and disinformation and also give China economic leverage and create national security threats if relations between Beijing and Manila deteriorate (Cook, 2019).

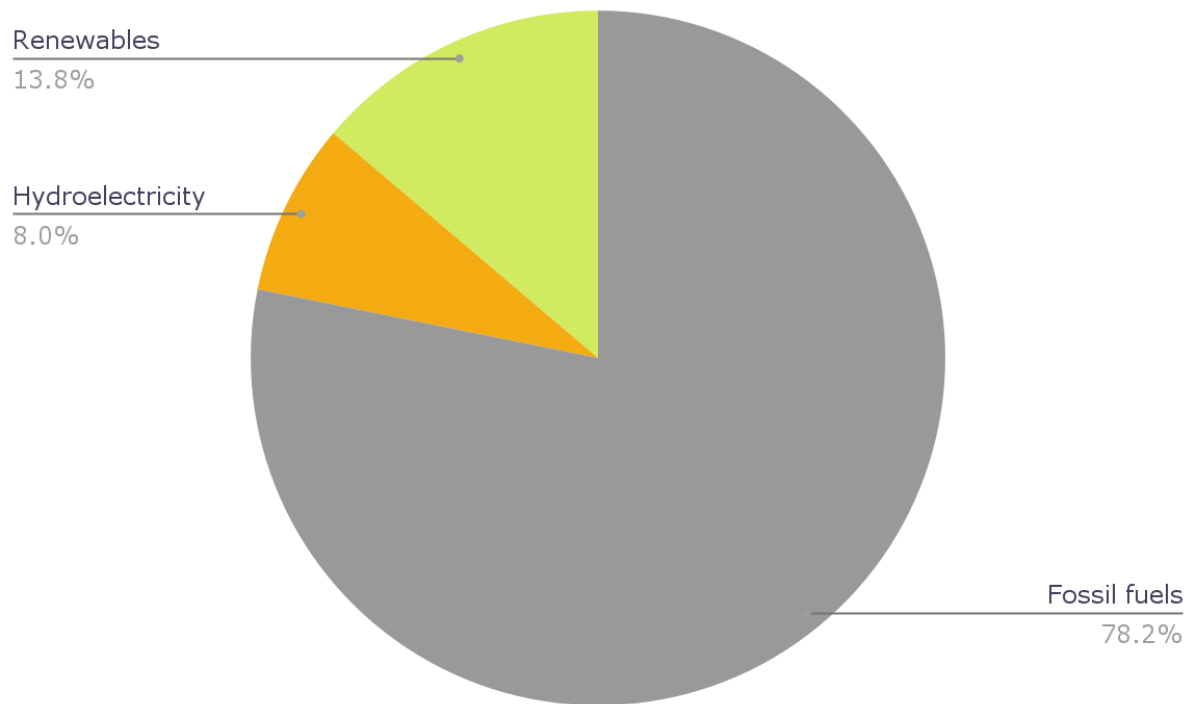
The Philippines is taking advantage of new technology to reshape its economy by implementing policies and legislation to support new economic sectors such as e-commerce. Alibaba's acquisition of stakes in Lazada, for example, which was finalized in 2018, has affected the way Lazada does business and it has improved its intellectual property guidelines, strengthened its policies for tackling IP rights violations on the platform both proactively and reactively, and introduced policies to reduce packaging-related pollution through the application of a hyper-local strategy that prioritizes sellers located close to buyers leading to the reduction of transportation-related pollution (Sejko & Park, 2020). Aside from e-commerce, the government plans to improve life quality, reduce environmental impacts, and increase the sustainability of new city areas through new technologies.⁴ The Philippines is currently piloting smart city technologies in more than 20 major cities and has attracted funds and investors (Department of Science and Technology, 2021).

2.2.3. Energy

Energy is among the Philippines' chief non-traditional security concerns, with projections pointing toward a diminishing resource pool within the next few decades (Baladjay, 2023). The Philippine government is in a race to find alternative and sustainable sources of energy and make existing energy sources resilient from disruptions. At present, the Philippines is heavily reliant on fossil fuels, powering its energy needs by more than 78%, in contrast to renewables and hydroelectric at 13.8% and 8% respectively (see Figure 7). This dependence on fossil fuels is not supplied by domestic generation. Rather, the Philippines import a major part of its fossil fuel consumption. The Philippines had imported some 20.4 billion liters of petroleum product at the end of 2023 (Balita, 2023). Consumption of fossil fuels had not slowed down in the last decade (2013-2023), and post-pandemic levels of consumption had recouped to normal levels by the end of 2023 (Balita, 2024).

⁴ According to Sejko and Park (2020, p.24): "The first is 407ha City of Pearl in Manila where it is expected to become one of the biggest self-sustaining smart cities in Asia with more than 500,000 citizens and create over 100,000 jobs. The project was designed by Ho & Partners Architects, Engineers & Development Consultants Ltd. from Hong Kong SAR and is being implemented by the UAA Kinming Group Development Corporation, a local group that has partnered with mainland Chinese companies. The second is New Clark City and will cover an area of 500ha of commercial, residential and mixed-used areas, prioritizing high-tech and manufacturing industries. Both projects are of the BRI framework that has received broad support but at the same time also "attracted some criticism from environmental groups in relation to the impact of the necessary land reclamation".

Figure 4. Breakdown of the Philippines' energy sources, March 2024

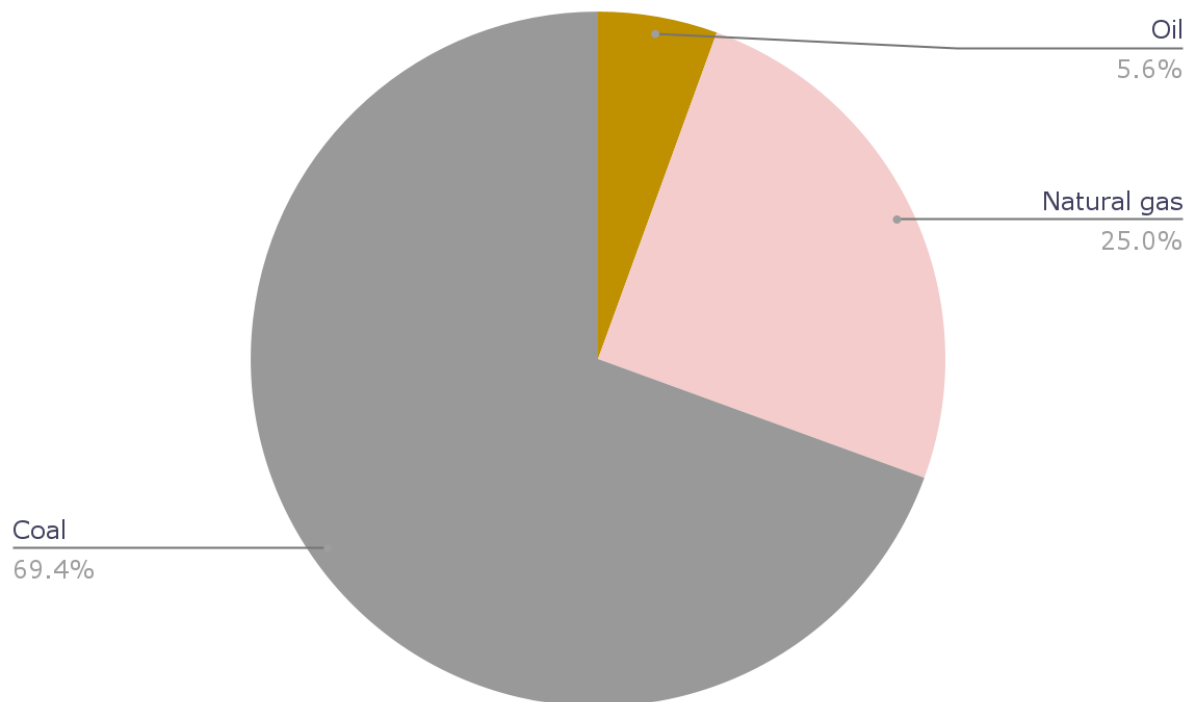


Source: Adapted from Advanced Energy Technologies.

The industry is regulated by several laws including RA 9136 (Electric Power Industry Reform Act of 2001), RA 9513 (Renewable Energy Act of 2008), RA 9367 (Biofuels Act of 2006), and RA 11285 (Energy Efficiency and Conservation Act of 2018), and a diverse accompanying internal memo from the Department of Energy accommodating the use of other sources of energy.

Traditional energy. As already stated, the Philippines' energy pool is still largely traditional. A majority of the Philippines' reserve fuels of traditional energy is coal at more than 69% (see Figure 8). While oil is a major energy fuel, reserves only account for at least 5% in 2024, hinting at efforts to limit reliance and dependence on fossil fuel. What the Philippines have as alternatives are pockets of natural gas. Deemed more environmentally friendly than other traditional sources of energy, gases develop over time and are found naturally in the environment.

Figure 5. Reserve fuels, March 2024

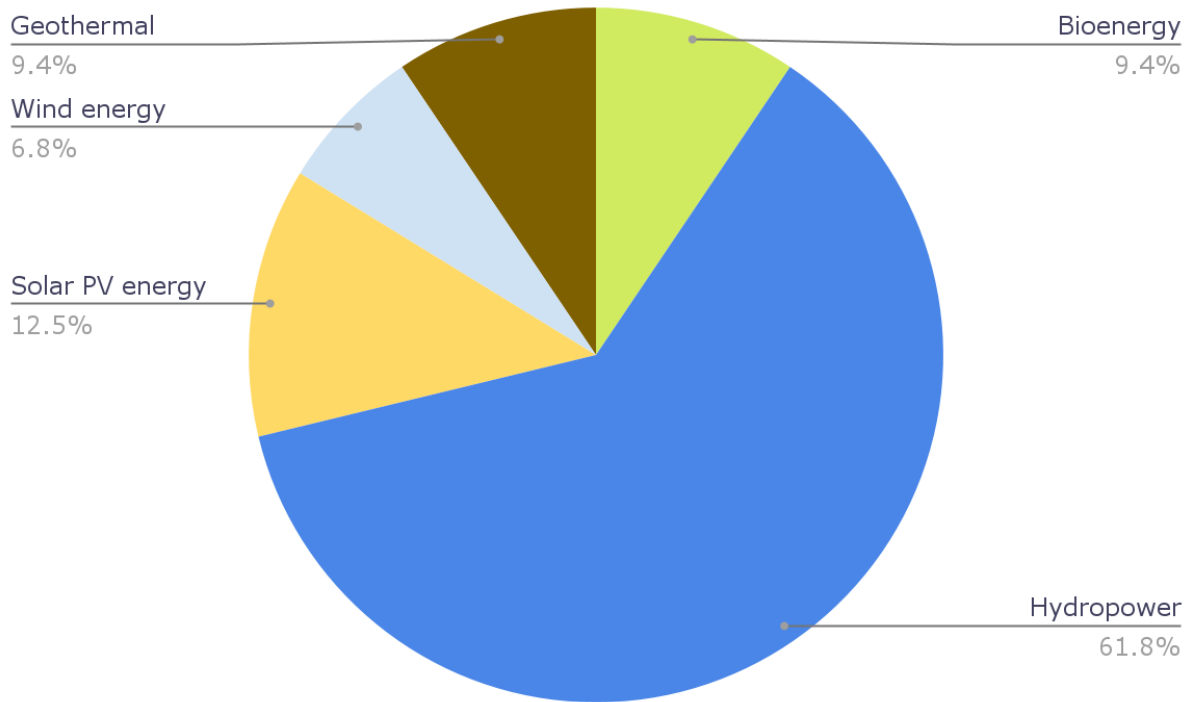


Source: Adapted from Advanced Energy Technologies.

However, processing downstream natural gas in the Philippines has encountered major roadblocks. The country has yet to legislate law for the natural gas industry, with no efforts yet to develop a gas policy framework, alongside industry rules and regulations. On top of this, the infrastructure needed to accommodate and process natural gas such as the lengthy pipeline transmission and distribution networks, terminals and facilities, and ancillary services have yet to be commonplace among industry players (DOE, 2024). Moreover, the places in which natural gas is found, such as pockets in the West Philippines Sea, remain fraught with tense regional geopolitical dynamics, vis-a-vis the South China Sea. In 2023, the Philippines began importing natural gas (DOE, 2024), which it had not previously done since 2001 when it first began extracting natural gas. Until vital areas where natural gases form remain unsecure, the Philippines cannot advance in this industry.

Renewable energy. The archipelagic feature of the Philippines affords it a variety of advantages in the energy sector. One such advantage is the abundance of renewable energy sources with which it can expand its energy pool and reserve. At present, the Philippines maximizes its use of energy harnessed from hydropower sources (61.8%) (see Figure 9). Thanks to its geographic location, it has harnessed other renewable forms such as wind energy (in the northernmost tip of the Luzon sub-archipelago where wind is commonplace) and geothermal energy, the country being closely situated in the Pacific Ring of Fire (International Trade Association, 2023). At present, the share of generation from each renewable source stands at 3,779 MW for hydroelectric, 1,928 MW for geothermal, with a large market potential for solar and wind energy (Reurasia, 2023).

Figure 6. Gross electric generation, 2022



Source: Adapted from Advanced Energy Technologies.

In November 2022, the Philippines opened its renewable energy sector to 100% foreign ownership. The DOE, through a departmental circular, amended the implementing rules and regulations of the 2008 Renewable Energy Act allowing for full foreign ownership of assets and companies in the Philippines' renewable energy industry (Quintero, Dominguez, & Bacani, 2022). China Energy (China Energy International Group Co. Ltd.), a longtime Chinese energy company was reported to have built and operated nearly 70 projects in 2021, including power stations, power networks, hydraulic engineering, and communications (Philippine News Agency, 2022).

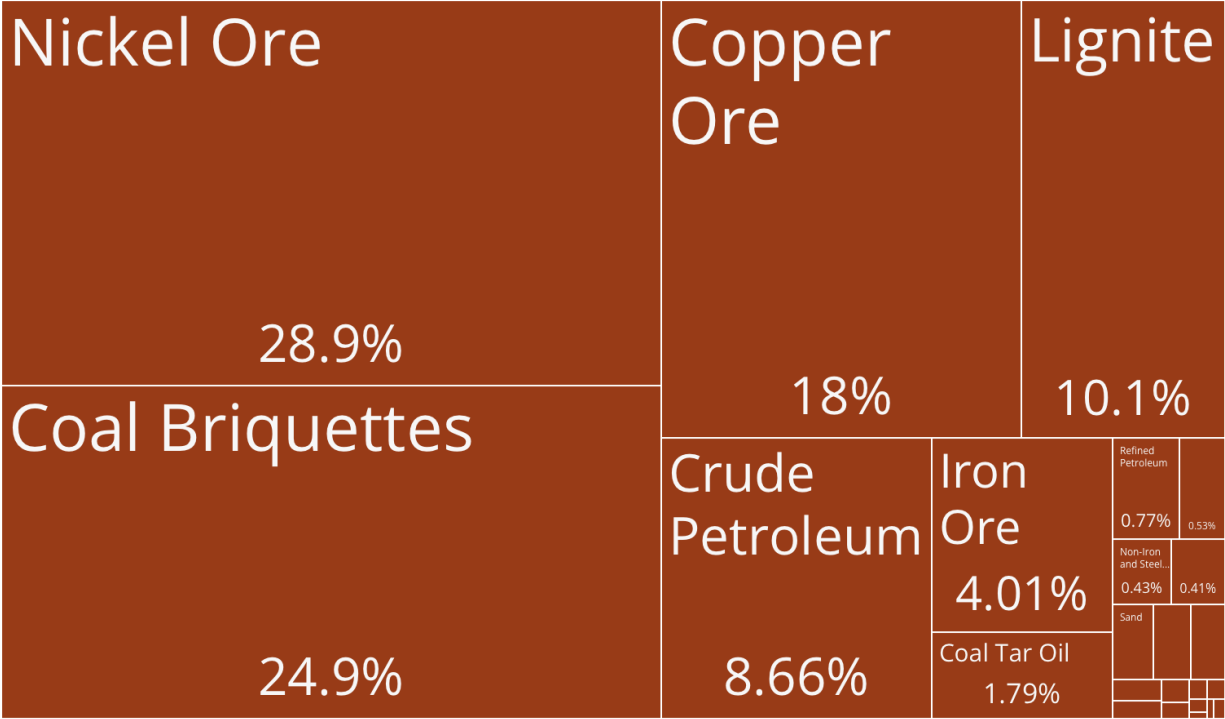
Accompanying the opening of the industry to foreign ownership have been fears of disruption arising from dependency and reliance on select countries. Chief among these countries is China who has been very invested in the Philippines' energy sector. The country's National Grid Corporation of the Philippines (NGCP), for instance, is 40% owned by China, spurring fears of risks associated with foreign access to the electrical grid.

2.2.4. Minerals, metallurgy, and the mining industry

The Philippines is endowed with a vast pool of mineral resources. Austrade (2023) estimated some US\$1 trillion worth of untapped reserves of copper, gold, zinc, nickel, and silver, and that the industry's exports make up almost 9% of the Philippines' overall exports. Some 360,000 metric tons of mineral export were produced in 2022 alone (Dela Cruz, 2023). The Philippines had long

been dealing with a plethora of issues such as external competition and increased labor and energy costs (Domingo, 1993). The mining sector is regulated by several laws and regulations including RA 9003 (Ecological Solid Waste Management Act of 2000), RA 6969 (The Hazardous Waste Act of 1990), RA 9749 (Clean Air Act of 1999), RA 9275 (Clear Water Act of 2004), Presidential Decree 976 (Pollution Control Law), and the Water Code. Republic Act 7942 (Philippine Mining Act of 1995) specifically attends to the mining industry with updated regulations in the form of Executive Order 79 and its Implementing Rules and Regulations (Torres, 2015).

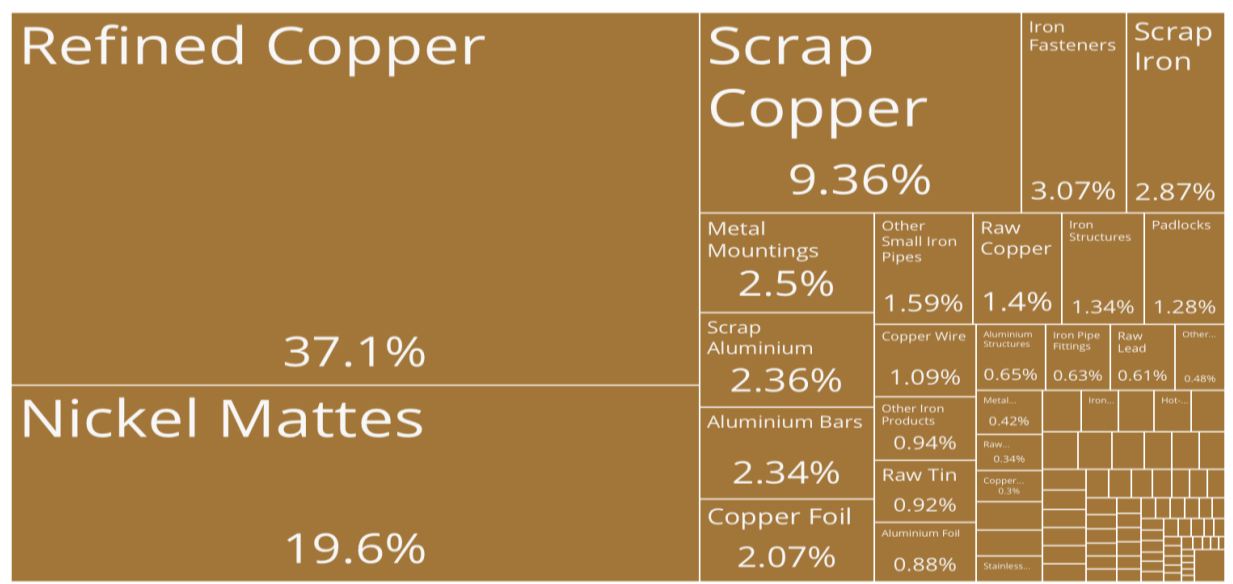
Figure 7. Share of mineral exports, 2024



Source: OEC.

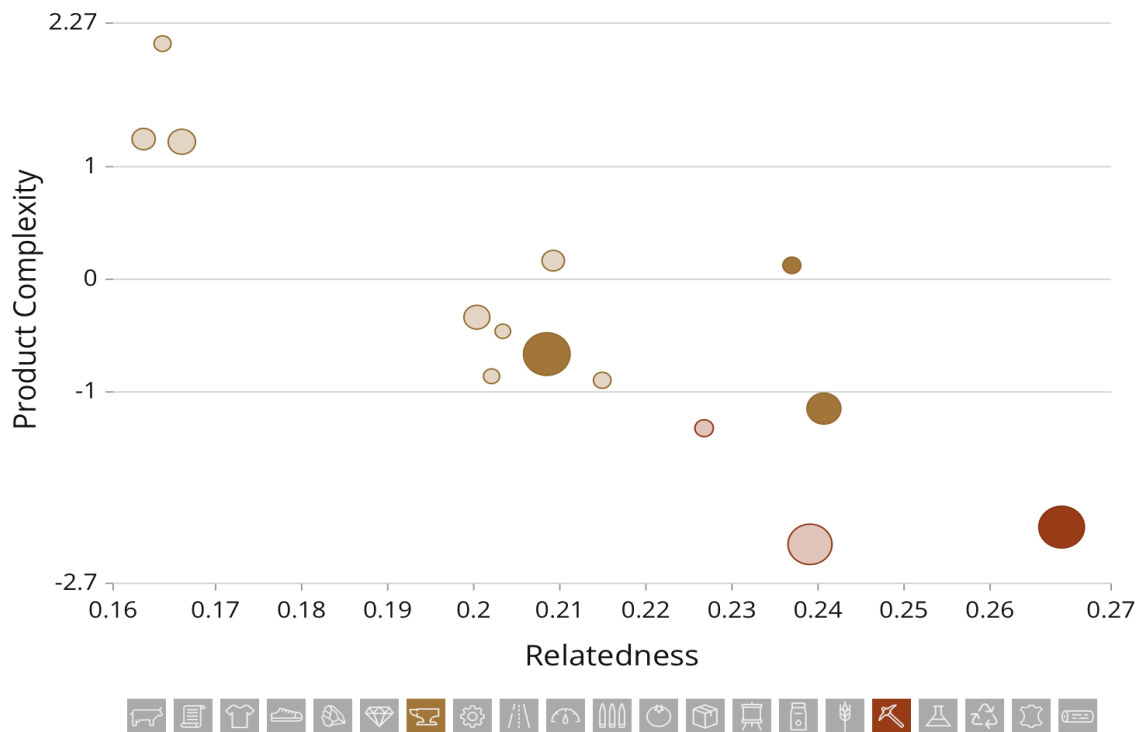
The Philippines’ abundant mineral and the growth of the accompanying industry is thanks in part to its massive export of critical rare earth materials and metals. The Philippines’ mineral exports are valued at US\$ 4.5 billion composed mostly of nickel ore, coal briquettes, copper ore, crude oil, lignite, and iron ore (see Figure 10). Metal exports are valued at US\$ 4.72 billion in 2024, composed of refined copper, nickel mattes, scrap copper, and so much more (see Figure 11) (OEC, 2024). The Philippines’ preference to export minerals is very high on account of the value of these resources without the added layer of processing (see Figure 12).

Figure 8. Share of metal exports, 2024



Source: OEC.

Figure 9. Diversification frontier, 2024⁵



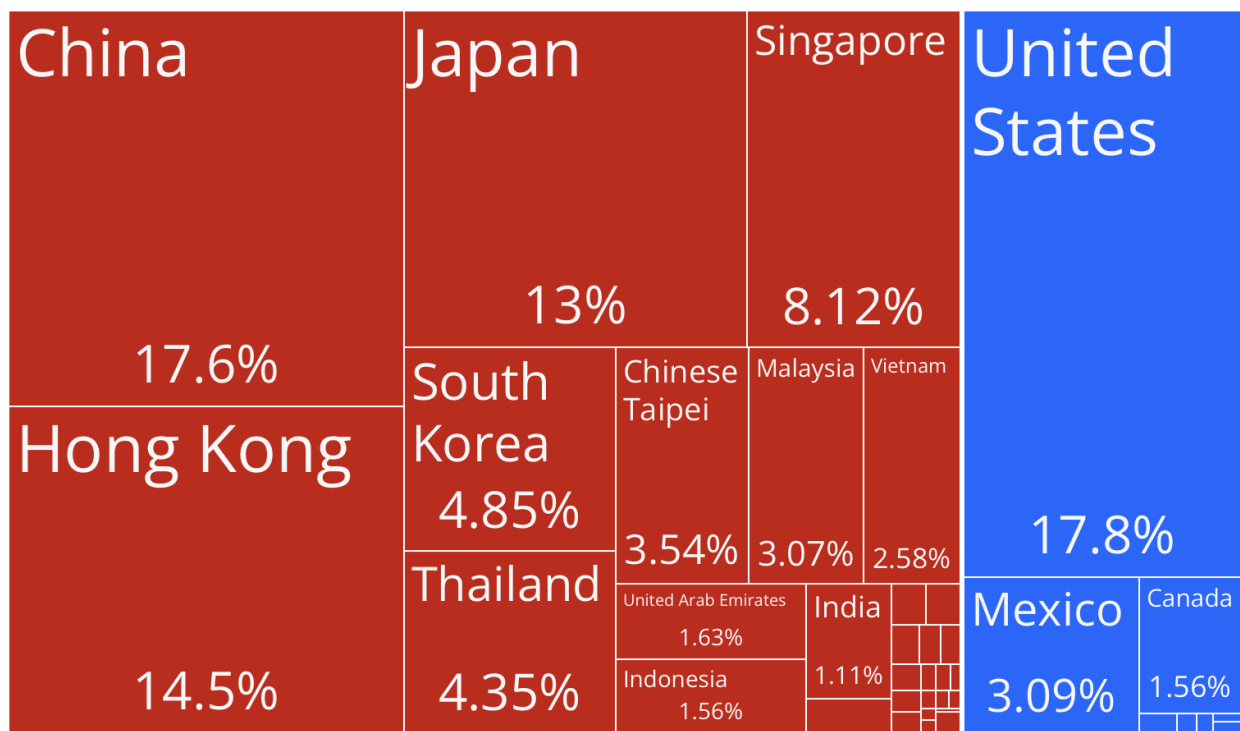
Source: OEC. Metal exports in gold; critical minerals in maroon.

⁵ OEC (2024): The diversification frontier is measured by complexity and relatedness. “The Complexity-Relatedness diagram compares the risk vs strategic value of a country's potential export opportunities. Relatedness is predictive of the probability that a country increases its exports in a product. Complexity is associated with higher levels of income, economic growth, less income inequality, and lower greenhouse emissions.”

The Philippines’ abundant mineral and the growth of the accompanying industry is thanks in part to its massive export of critical rare earth materials and metals. The Philippines’ mineral exports are valued at US\$ 4.5 billion composed mostly of nickel ore, coal briquettes, copper ore, crude oil, lignite, and iron ore. Metal exports are valued at US\$ 4.72 billion in 2024, composed of refined copper, nickel mattes, scrap copper, and so much more. (OEC, 2024).

In 2022, China stands as among the Asian countries the Philippines exports its critical minerals, followed by Japan and Singapore (World Bank, 2022). In the same year, the Philippines was the world’s biggest exporter of nickel ore (at US\$ 1.29 billion) and gold clad metals (at US\$ 90.3 million) (OEC, 2024).

Figure 10. Major export partners, 2024



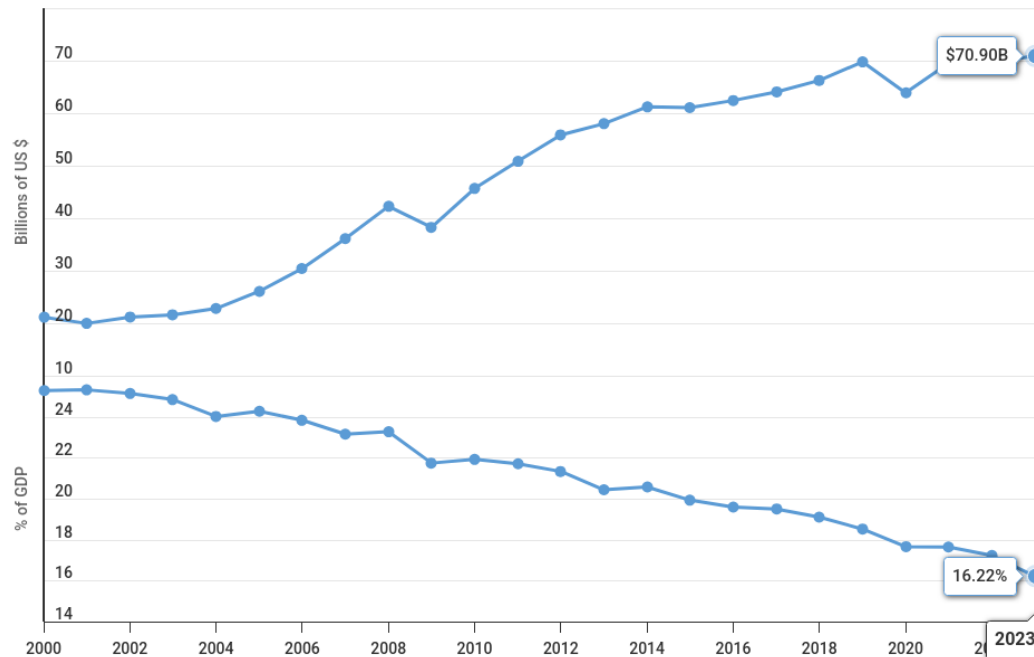
Source: OEC. Asia in red; North America in blue.

2.2.5. Manufacturing

This industry broadly encompasses a number of outputs including food products, computer, electronic and optical products and refined petroleum products (Trading Economics, 2024). The Philippines’ Purchasing Managers Index for the manufacturing sector stood at 52.4, indicating growth across new orders, employment output, and supplier delivery time (Balita, 2024). The industry has generated more PhP 3.8 trillion in 2023 (Balita, 2024). This is a record output of gross valuation, in contrast to the PhP 58.75 billion approved investments for the industry that same year (Balita, 2023). However, while manufacturing output in the last two decades saw gradual increase

soaring to more than US\$ 70 billion in valuation, its percentage share in GDP has been decreasing (see Figure 14).

Figure 11. Philippine manufacturing output, 2004-2023



Source: Macrotrends.net. Data sourced from World Bank.

Of particular interest in the manufacturing industry is the Philippines' foray into semiconductors and the sub-assembly of various electronic components. These small but critical electronics are key to high-end innovations that impact a wide range of platforms, powering even advanced technologies such as AI, quantum computing, 5G, and other specialized uses. The production of electronics however is not the Philippines' top manufactured line item on account of expensive production costs. The Philippines has a robust electronics value chain (First Philippine Industrial Park FPIP, 2022). The inputs of raw materials include silicon, various metals such as aluminum, copper, gold, and silver, plastics for circuit boards, chemicals and other packaging materials. The use of elements such as boron, gallium, phosphorus, and arsenic are also used (FPIP, 2022: p. 11-12). The Philippines' manufacturing industry already hosts seven of the world's top 20 chipmakers. These include Hitachi Ltd., producing well over 500,000 units of hard disk drives (HDD) annually, Fujitsu Computer, producing HDDs for desktops and servers, and Toshiba Philippines.

3. Philippine Regulatory Measures for Critical Industries

The Philippines is host to a variety of domestic laws that provide measures and guidelines for many of the identified critical industries. Although not by any means exhaustive, the list of Philippine laws and regulations from Table 1 impresses the extent the state has enacted laws to protect industries inimical to public interest.

Table 2. Select Philippine regulatory laws

Sector	Law / Legislation	Year	Title	Coverage
Public utilities	Commonwealth Act (CA) No. 146	1936	Public Service Act	Measures and penalties for protecting public utilities inimical to national interest
	Republic Act (RA) No. 11659	2022	Public Service Act of 2022 (amending CA No. 146)	
	RA No. 12009	2024	New Government Procurement Act	Expedited procurement process cognizant of national security urgencies
Trade	RA No. 10697	2015	Strategic Trade Management Act	Measures for trade that have strategic considerations
	RA No. 7042	1991	Foreign Investment Act	Measures for foreign ownership in the Philippines
	RA No. 8179	1996	Foreign Investments Act (amending RA No. 7042)	
	RA No. 8762	2000	Retail Trade Liberalization Act	Trade liberalization measures to ease paid-up capital for foreign retail enterprises
	RA No. 11595	2021	Retail Trade Liberalization Act (amending RA No. 8762)	
Public infrastructure	RA No. 6957	1990	Build-Operate-Transfer (BOT) Law	Measures for private sector to build, operate, and transfer infrastructure to the government
	RA No. 7718	1994	The Philippine BOT Law (amending RA No. 6957)	
Telecoms	RA No. 7925	1995	Public Telecommunications Policy Act	Govern telecommunications sector
	RA No. 8484	1998	Access Devices Regulation Act	Regulation for issuance and use of access device
Digital infrastructure	RA No. 8792	2000	Electronic Commerce Act	Regulations for electronic commercial and non-commercial

				transactions
	RA No. 9485	2007	Anti-Red Tape Act	
	RA No. 11032	2018	Ease of Doing Business Act (amending RA No. 9485)	Measures for promoting ease of doing business and efficient delivery of government services
	RA No. 11967	2023	Internet Transactions Act	Measures for protecting online consumers and merchants
Energy & mining	RA No. 9513	2008	Renewable Energy Act	Measures for renewable energy
	RA No. 7156	1991	Mini-hydroelectric Power Incentive Act	Measures for renewable energies
	RA No. 9367	2006	Biofuels Act	Measures for biofuels
	Presidential Decree (PD) No. 1442	1978	Act Act to promote the exploration and development of geothermal resources	Measures for geothermal energy
	RA No. 11285	2019	Energy Efficiency and Conservation Act	Measures for increasing energy efficiency and reducing consumption
	RA No. 7942	1995	Philippine Mining Act	Measures and guidelines for mining activities

Note: Non-exhaustive list of Philippine laws on select critical industries.

Source: Collated by the authors.

These domestic laws provide guidance in the management and protection of each sector they cover and represent. These laws follow frameworks consistent with the state's rationale outlining key details of regulations such as the declaration of the state's policy on the subject matter, the governing institutions responsible for oversight, management, and implementation of the law, mandated powers and responsibilities, administrative regulations, and penalties.

The Key Informants emphasized recent reforms that balance liberalization with protectionism. Constitutional amendments now allow greater foreign investment in manufacturing and other

selected sectors while maintaining restrictions on public utilities like power and water. These measures aim to enhance economic capacity while mitigating national security risks.

3.1. Philippine Foreign Policy Measures for Critical Industries

On top of its diverse domestic legislative frameworks, the Philippines employs a variety of options with regards to important critical industries. As the material outputs of these industries operate and take shape and form in the area of free trade, the Philippines accommodates a large number of free trade agreements with a number of countries. However, recent literature in multilateral trade points to an emerging body of observation with regards to resource nationalism (Childs, 2016; Arbatli, 2018). Arbatli (2018) argues that state pragmatism, expropriation measures, and the change in domestic interests explain the increasing trend of resource nationalism. Childs (2016) adds that geography plays a huge determining role in how political economy, the environment, and matters of justice in extraction shape the discourse surrounding certain extractive industries. Because of the internal shift and its subsequent securitization of critical industries, states are compelled to turn away from multilateral principles that have long guided trade platforms. Trading regimes are global policy measures for governing finite resources and unsustainable extraction measures (Pryke, 2013). Resource nationalism is driven by a variety of factors in the global supply chain, including the capture of economic rents, the influence of market prices, the obsolescence of bargaining in multilateral trade, the pressures of natural scarcity, and the role of national identity.

This turning away from multilateral trade principles have paved the way for new and innovative approaches to conducting and facilitating trade. ASEAN, for instance, has sustained increasing trends of protectionism and resource nationalism despite the abundance of trade agreements with one another and with external partners (Li, 2024). Other measures include the broad continuation of non-alignment with any particular economic powers in the region, allowing for flexibility in the pursuit of economic interests. A vast number of countries opt to affirm support for the United Nations (UN) as the primary multilateral organization as a way of reaffirming multilateralism and a more inclusive trading system (IISD, 2024). New trends outside multilateralism point to the shoring of support for and the effective recalibration and reordering of supply chains towards certain countries. Nearshoring, for instance, is a form of offshoring economic ties on the basis of geography; or the practicable realignment of supply chains by way of proximity (Johnson, 2024). A more recent development points to an expansion of the concept - friendshoring - which now include the concentration of supply chains in countries that have deep alliances and partnerships, bound together by certain values and beliefs (Johnson, 2024; Ellerbeck, 2023). This also means shifting supply chain dependencies away from certain countries, similarly on account of certain values and beliefs, for instance the reduction of reliance of certain industries from countries who do not share a country's values and beliefs (Reinsch, 2024). However, the process by which countries determine who their "friends" are is often too malleable and too fluid. This, in the long term, impacts how certain industries will gradually develop (Torres, 2023).

These options are very open to the Philippines. However, its commitment to the principles of multilateralism would make its divorce from multilateral trading principles near impossible. President Marcos Jr. has called on ASEAN and the UN to preserve peace through multilateralism (Presidential Communications Office, 2024). Manila has likewise pushed for the reaffirmation of

its commitment to “upholding the WTO’s role in fostering a rules-based, non-discriminatory, free, open, fair, transparent, and inclusive multilateral trading system” (DTI, 2024, par.4). Although the Philippines is afforded options to introduce resource nationalist and protectionist measures in its trade agenda, as all countries do, the act of advocating for nearshoring and friendshoring will require a more stringent process of securitizing its critical industries and the outright invitation of select countries with which it wishes to align its supply chains with. At present, the Philippines has only opened its industries to foreign ownership without naming any particular countries for exclusion. Its exclusion measures have largely been generic, making only basic distinctions between foreign and domestic ownerships (see Negative List of the Foreign Investment Act). Until the threat is present and clear, the Philippines has formally chosen to abide by open and fair-trading practices without favoring, or excluding, any particular country in mind.

The Key Informants explain that the Philippines actively pursues trade diversification to mitigate risks from over-reliance on specific nations. They also highlighted agreements with Japan, Korea, and Australia as efforts to enhance industry resilience while maintaining partnerships with both the U.S. and China. This dual engagement reflects the Philippines’ strategy of hedging amidst great power competition.

4. The Geopolitical Realities Facing the Philippines

The Philippines faces a plethora of geopolitical and geoeconomic realities. All of these issues incontrovertibly encompass APEC economies and can thus involve regional as well as global flashpoints. These major areas of contention have profound implications for the critical industries of the Philippines and its ties to the global economy and to the supply chain.

This section maps out the geopolitical and geoeconomic concerns of the Philippines in dealing with APEC, ASEAN, and the world. Chief among these geopolitical concerns on the Philippines radar include the prevalent strategic competition between the U.S. and China, the Ukraine-Russia War, the Korean Peninsula instability, the North Korea-Japan escalations, and the cross-Strait tensions between China and Chinese Taipei. Closer to home, the Philippines likewise faces varied challenges within ASEAN; this includes intra-ASEAN maritime disputes involving Viet Nam, Malaysia, Indonesia, and Brunei, extra-ASEAN maritime disputes concerning the South China Sea, the Myanmar Civil War, and Mekong River politics. In this context, the pursuit of economic interests, the commitment to multilateralism, and the choice to embed in the global supply chain becomes an exercise in risk management.

4.1. Geopolitics within the Asia-Pacific Region

The APEC grouping is 39% of the total world population and makes up 48% of total world trade at US\$ 23 trillion (Asia-Pacific Economic Cooperation, 2018). The economic bloc is built on consensus and is an incubator for ideas that cascade to all members. It explicitly states that it does not deal with geopolitical and political issues. There are indeed other platforms for discussing matters of a strategic nature, and although the bloc does not concern itself with geopolitical issues,

it still operates within a framework of competing interests and agendas, especially in a bloc of asymmetric economies. In light of this, APEC continues to fight for relevance in mitigating major economies and relatively smaller ones, as least-developed countries are more vulnerable to external influence (Jariyadham, 2023).

The reach of APEC is wide, with membership including countries from the industrial West, East and Southeast Asian countries; and APEC contests are particularly obvious between China and the U.S. - bilaterally. The U.S.-China strategic competition has had far-reaching repercussions on the global economy. Demarais (2022) recounts how China's pervasive tendency to replicate US-made technologies since the 2000s has been among the Americans' chief concerns. Views on China's disruptive and state-led growth have been tagged a national risk and have received bipartisan support from both sides of the bench. The naturally derived strategy was to deprive China of access to these same technology areas to limit out-competition from within (Manning, 2023). The Biden administration would soon double down on US investments in China and vice versa. The World Bank has warned that the U.S. technology denial strategy hurts overall innovation (White & Ruehl, 2023).

China's response to the U.S. technological decoupling is modest. According to Yu (2023), China has adopted the principle of 'great internal circulation'. This is done by adopting an export-oriented production base to supplement its dual-circulation strategy where China will continue engaging international markets and supply chains but will largely rely on domestic demand and supplement international demand wherever possible.

Further, as highlighted by insights from key informant interviews conducted with regional experts, the intensifying competition between the United States and China, which extends beyond economic dynamics into the realms of security, technology, and strategic influence. This competition is characterized by trends such as technological decoupling, the restructuring of global supply chains, and the emergence of practices like "*friendshoring*" and "*nearshoring*." According to the informants, these developments pose challenges to APEC economies as they seek to navigate an increasingly polarized global environment while upholding the forum's principles of open regionalism and inclusivity.

It has been emphasized that this rivalry directly impacts regional stability, particularly through flashpoints such as disputes in the South China Sea and tensions in the Chinese Taipei Strait. Economies such as China, Chinese Taipei, and the United States are leveraging economic initiatives to extend their influence. China's Belt and Road Initiative integrates several Southeast Asian economies into its infrastructure and trade networks, while the United States promotes the Indo-Pacific Economic Framework, which excludes China and seeks to strengthen ties among like-minded economies. Additionally, empirical data highlight significant trends: China's global trade share increased dramatically within six to seven years of joining the WTO, contributing to a reshaping of global trade patterns (Key Informant Interview, APEC policymaker, 2024). However, many informants noted a growing skepticism about multilateral frameworks like APEC, with some economies gravitating toward subregional or bilateral arrangements that better address their immediate interests.

Geopolitical tensions are also reshaping critical industries across the region, a concern that aligns with APEC's emphasis on economic resilience and integration. Informants noted that the fragmentation of global value chains, driven by U.S.-China competition, is particularly evident in industries such as semiconductors, energy, and electric vehicles. For example, China's control over critical minerals, including its dominance in rare earth exports, underscores its strategic position within global value chains (Key Informant Interview, Southeast Asian economist, 2024). At the same time, economies like Indonesia are leveraging their resource wealth, particularly in nickel production, to become integral to the supply chain for electric vehicles (Key Informant Interview, Latin American analysts, 2024). Resource-rich economies such as Chile, where copper accounts for approximately 60% of total exports and up to 45% of trade with China, face significant exposure to geopolitical disruptions (Key Informant Interview, Latin American economist, 2024). Middle-income economies, such as Japan, Korea, and ASEAN economies, are employing hedging strategies to manage their engagements with major powers while ensuring trade diversification and economic security in alignment with APEC's goals (Key Informant Interview, East Asian analyst, 2024).

Smaller APEC economies face unique vulnerabilities in this evolving geopolitical environment. Informants highlighted those economies like the Philippines, heavily reliant on global supply chains and imports, are at particular risk from potential disruptions. For instance, informants noted that the Philippines is highly dependent on imported agricultural goods and manufacturing inputs, making it vulnerable to global trade volatility (Key Informant Interview, Southeast Asian economist, 2024). To mitigate these risks, economies are adopting strategies such as trade diversification and relaxing investment frameworks to attract foreign capital while safeguarding sensitive sectors like telecommunications and public utilities. These efforts resonate with APEC's focus on enhancing economic resilience, fostering cooperation, and promoting sustainable growth across member economies. According to the interviews, collective action and adaptive strategies are essential to ensure APEC remains a vital platform for addressing the region's evolving challenges while fostering inclusive and sustainable development.

Box 2. APEC geopolitical flashpoints

Global flashpoints such as the Ukraine-Russia war, U.S.-China tensions over Taiwan, and instability in the Korean Peninsula were cited as indirect yet significant influences on Philippine industries. Informants noted how these conflicts disrupt global supply chains, raise energy prices, and create economic uncertainties.

United States-China strategic competition

The U.S. and China, both APEC member economies and with large wherewithal, have converged on a strategic competition across varying industries including energy, advanced technologies, and trade. The intensification of trade, first amassing under the Trump administration, saw the escalation of tariff impositions from both Washington and Beijing. The strategic competition invariably affected market access among the U.S. and China's core group of partners, splitting the international community between ambits of economic spheres of influence (Siripurapu & Berman, 2024). China, who had been investing in its economic strength since the announcement of its Belt and Road Initiative (BRI), had thrived in the face of mounting trade pressures from the U.S. (Zhao, 2024). This split between the two major economies has compelled states to prioritize risk management above multilateral trade, undermining already established principles of free trade. But the competition for the global South's attention has been drawn along developmental lines. China's BRI is a programmatic effort to increase its global standing across a wide range of issue areas including trade, infrastructure, and technology - areas of key interest to the global South (McBride, Berman, & Chatzky, 2023). The rise of new technologies, especially those from China, also plays a big role in making BRI a relevant alternative (Lim, 2024). Chinese markets have revamped their engagement with the world in efforts to promote homegrown technologies that are far cheaper and equally competitive with other Western brands - a unique trait of China's globalization thrust (Varma, Paracuelles, & Chan, 2018).

The West had paid little attention to the BRI when it was first hinted at in 2013, viewing the initiative as nothing more than a mega-infrastructure project spanning multiple countries (Wheeler, 2020). BRI would soon progress to advanced technologies such as 'smart shipping' and 'smart city' in efforts to develop Sino-centric technological ecosystems. The interconnectivity of these technologies ultimately meant exporting the same to developmental partners (Russel & Berger, 2020). By then, the geopolitical tension between China and the U.S. had migrated to broader contests for supremacy in other important domains such as health and the digital. For countries like the Philippines, any opportunity to expand economic ties and spur growth would be a welcome development as the West did not offer a similar alternative (Sejko & Park, 2020). Nouwens (2021) argued that the U.S.-China strategic competition could result in a technological schism where smaller countries must choose sides on account of the lack of interoperability between the two technological ecosystems.

Ukraine-Russia War

The Russian invasion of Ukraine began in February 2022 when Russian forces began amassing along the Ukrainian borders with Belarus and Kremlin. The military buildup had been observed as early as the year before, in light of Russia's objections to Ukraine joining the North Atlantic Treaty Organization (NATO) (Kirby, 2023). Although initially coined by Russia as a military exercise with Belarus, the subsequent events and evidence to the contrary pointed to a mounting invasion of Ukraine (BBC, 2023). Since then, Ukraine has been fending off Russian advances in its eastern borders, specifically in the Donbas region (US Department of Defense, 2023). The events of the invasion dates back to more than a decade ago, when Russia unilaterally annexed the Crimea region - a peninsula part of Ukraine (Mirovalev, 2024).

Although seen as a pretext for what could happen in the South China Sea, the Philippines is aware that there are strategic implications and lessons useful for China (Baladjay, 2022). The Philippines' bilateral ties with Russia have not been meaningful as to impact its economic ties with Kremlin (Espeña, 2022). But the Philippines' ties with Ukraine are at stake. Although both Ukraine and Russia are not Manila's major trading partners, the impact of the invasion has been felt by the Philippines. The Philippines is reliant on imports of food and fuel from the two countries, with the deteriorating development affecting consumers and economic growth (Rivas, 2022). The Department of Finance has taken measures to absorb the shock arising from the development (Department of Finance, 2022).

The Korean Peninsula

The Korean Peninsula is an unstable sub-region on account of the stalemate between the Democratic People's Republic of Korea (DPRK; North Korea) and the Republic of Korea (ROK; South Korea) from the Second World War (Tucker, 2010). The 1953 armistice of the Korean Peninsula is characterized by two major themes: both countries have now given up unifying Korea by force and that the movement of armies on both sides never escalated to the same levels of the war's first year. However, relations between the two countries have grown more tense and unstable as North Korea continues to conduct intercontinental ballistic missiles testing, crossing South Korea to the east and sometimes reaching Japan. These tests have become commonplace and descriptive of the Peninsula, especially when developments unfavorable to Pyongyang take place, mainly those involving South Korea (Bennett, 2024), Japan (Cha, Kim, & Lim, 2022), and the U.S. (Larison, 2024).

Although missile tests have been limited to the East Asia region, the Philippines have a lot at stake in the area. Japan, South Korea, and the U.S. are major trading partners for the Philippines. The risk that comes with associating with the three countries will draw the ire of North Korea (Smith, 2024). By the same token, the Philippines' association with the abovementioned countries will not sit well with Pyongyang especially that Manila is likewise an alliance of the U.S.

Cross-Strait Escalations

Another major concern for the Philippines is the mounting tense relationship between mainland China and Chinese Taipei. Called the "Taiwan Contingency" in defense circles, the Philippines is cognizant of the nationalist sentiments and interests surrounding the "One China" policy (Yusingco, 2024). The Marcos Jr. administration has openly reaffirmed its support of the "One China" policy (Gita-Carlos, 2024). In support of the Joint Communiqué regarding the policy, the Philippines has mandated all officials from visiting Chinese Taipei or even receiving calls from officials (see 1987 Executive Order No. 313).

Because China is a major trading partner, the Philippines is expected to be extra cautious in its ties with Beijing. Despite this economic backdrop, the Philippines have competing territorial claims with China in parts of the South China Sea. Chinese Taipei have expressed that their claims are synonymous with that of Mainland China.

Source: Multiple sources.

Closer to home, the region is replete with its own set of challenges. The Association of Southeast Asian Nations (ASEAN) faces a unique set of challenges stemming from its strategic geographic location, economic interdependence, and the growing influence of major powers. According to key informants, ASEAN economies are particularly affected by geopolitical tensions, such as the disputes in the South China Sea and the intensifying U.S.-China rivalry. These issues place ASEAN in a precarious position, as its member economies rely heavily on both superpowers for trade, security, and investment. Informants noted that maintaining neutrality while addressing individual national interests remains a critical balancing act for the bloc (Key Informant Interview, Southeast Asian economist, 2024).

Seven ASEAN member states, namely Brunei Darussalam, the Philippines, Indonesia, Malaysia, Vietnam, Singapore, and Thailand, are members of the APEC region. ASEAN and the broader Southeast Asian region is faced with pressing challenges unique to its geography including intra- and extra-ASEAN maritime disputes, and the Mekong River Dynamics.

A significant issue highlighted in the interviews is ASEAN's role in fostering regional trade integration despite the rising tide of protectionism and economic fragmentation. Informants pointed to the Regional Comprehensive Economic Partnership (RCEP), spearheaded by ASEAN, as a critical mechanism to strengthen intra-regional trade and mitigate the impacts of external geopolitical pressures. However, they also emphasized the challenge of achieving equitable benefits among member economies, given the varying levels of economic development within the bloc. For example, smaller economies like Cambodia and Laos are less equipped to capitalize on the benefits of RCEP compared to more developed members like Singapore and Malaysia (Key Informant Interview, ASEAN trade expert, 2024).

Another ASEAN-specific concern is the bloc's heavy dependence on foreign direct investment (FDI), particularly from China and Japan. Informants highlighted how ASEAN economies are navigating the implications of "friendshoring" practices and the push for supply chain realignment. For instance, economies like Vietnam have emerged as significant beneficiaries of supply chain shifts, particularly in manufacturing and electronics, as companies seek alternatives to China. Meanwhile, other ASEAN economies are working to position themselves as critical nodes in diversified global value chains, leveraging incentives and trade agreements to attract investment (Key Informant Interview, Southeast Asian economist, 2024).

ASEAN's unity is also tested by varying national interests, particularly concerning security and economic policies. Informants pointed out that while ASEAN has made strides in regional collaboration, such as through its Outlook on the Indo-Pacific (AOIP), differing national priorities often complicate cohesive responses to major geopolitical developments. For instance, informants observed that member economies with closer economic ties to China, such as Cambodia, tend to align more closely with Chinese interests, while others like Vietnam and the Philippines adopt more cautious or U.S.-leaning stances due to territorial disputes and security concerns. This divergence underscores the delicate balancing act required to maintain ASEAN's centrality and credibility in regional diplomacy (Key Informant Interview, ASEAN policymaker, 2024).

Box 3. ASEAN geopolitical flashpoints

Intra-ASEAN maritime disputes

At the heart of the region's tense geopolitical relations is the South China Sea issue. Malaysia, Brunei, Indonesia, Vietnam, and the Philippines all have competing and overlapping maritime claims over the South China Sea, and each of these countries have not only determined their own maritime delimitations but also expressly made known their claims to the international community (Laksmana, 2023). Although intra-ASEAN maritime disputes have not blown out of proportion in recent years, any efforts to effectively resolve lingering disputes have not been successful. Essential to this thrust is the Code of Conduct of Parties in the South China Sea (COC) (Storey, 2023). The COC has been stalled for the last two decades since its inception (Lean, 2021). However, there have been major breakthroughs in recent years. In 2018, the Philippines and Indonesia had successfully delineated their respective maritime borders (Enriquez, 2021). Although the delineation of maritime boundaries is done outside of the South China Sea, the effort serves as an important precedent for how ASEAN can manage its maritime disputes at their own pace. Similarly, maritime cooperation between the Philippines and Vietnam is improving (Strangio, 2024). Vietnam has expressed its cordial support for the 2016 Arbitral Award won by the Philippines (Sarao, 2024).

Extra-ASEAN maritime disputes

On top of the complex maritime disputes existing among concerned ASEAN member states, China's (and Chinese Taipei) own maritime claims have posed significant challenges to the region. Through its "nine-dash line" claim, Beijing is directly brought into headwinds with ASEAN member states with whom it shares overlapping claims (Strating, 2022). The region has long been unstable since the 2012 Scarborough Shoal standoff between China and the Philippines (Green et al., 2017). Since then, China has mounted provocative actions short of war (Chen et al., 2024). Because Beijing is among the Philippines' major trading partners, Manila cannot approach the issue on the same level of confrontation, opting for diplomatic avenues to ameliorate the issue (Rocamora, 2024). One such avenue is the Bilateral Consultative Mechanism, held annually or occasionally when tensions in the South China Sea flare up (Banlaoi, 2021). It is through this platform that the Philippines and China exchange candor remarks on the most pressing issues requiring solution in the interim. In 2016, more than three years since the Philippines lodged an arbitration case under Annex VII of the UN Convention on the Law of the Sea (UNCLOS), the Philippines won its landmark case against China (Bautista, 2018). The Arbitral Award, now part of the corpus of international law, serves to strengthen the diplomatic approaches of the Philippines (Pitlo, 2021). China's provocations at sea, however, have not diminished and have, in fact, increased into new proportions (Taffer, 2024).

Mekong River Dynamics

Beyond the maritime disputes proliferating within the area, the region is also faced with a dynamic unique to mainland ASEAN and its connection with China through the Mekong River Delta (Parameswaran, 2021). Focal to the dynamic is the existing transboundary water problems in the Mekong River (Tran, 2022). Geographically, the Mekong River runs through a number of countries including China, Myanmar, Lao PDR, Thailand, Cambodia, and Vietnam. The implementation of large-scale hydropower facilities and dams in upstream locations, mainly by China, have posed significant challenges for downstream countries (Jennings, 2021). The broader implication of this relationship is reflected in how mainland ASEAN member states seem more amenable to accommodating China for strategic issues (Yoshimatsu, 2015). For instance, ASEAN could not speak with a unified voice on matters pertaining to the U.S.-China competition on account of an already complex relationship with China (Vu, 2014). Similarly, Myanmar, Lao PDR, and Cambodia have yet to express their opinions with regards to the prevailing maritime disputes over the South China Sea (Hu, 2021). The non-verbalization of support for ASEAN nations have led some to believe that member states are politically disunited due to the localized embeddedness of major powers in regional issues (Arugay, 2023).

Source: Multiple sources.

5. Strategic Projects for the Philippines' Critical Industries: A Worlds Systems Theory Approach

In the Philippines and the region, the upstream and downstream risks associated with critical industries become more nuanced and pronounced. Critical to this discussion is the exploration of economic risks arising from geopolitics, the industry chokepoints that the Philippines should be cognizant of, and the strategic fault lines that arise from these industry chokepoints.

5.1. Economic Risks Arising from Geopolitics

This section outlines the key macroeconomic and microeconomic implications of geopolitical shifts on peripheral countries like the Philippines. It is this specific group of countries that are most vulnerable to global economic shocks (Essers, 2013) and more so to geopolitical shocks as well (Posen, 2024).

Peripheral countries are very sensitive to macroeconomic shifts; because their economies are relatively small and dependent on the global economy to drive industrialization, external stimuli driven by geostrategic considerations have lasting effects on the growth, mobility, and development targets. Disruptions in trade - the lifeline of small economies opening to globalization - as a result of tariffs, sanctions, or embargoes (or even a mix of the three) impede international trade (UNCTAD, 2024). This especially means supply chain bottlenecks for essential goods like energy and technological parts and components that fuel domestic production and manufacturing (Platitas and Ocampo, 2024). Moreover, trade disruptions have immediate cascading effects on prices often mounting inflation and price volatility. Disruption in resource supply such as oil, petroleum, liquefied natural gas among others, and agricultural produce may lead to commodity price hikes (Gren et al., 2024). The broad disarrays from trade flows alone risks a major slowdown of global economic activity, leading to a host of other uncertainties.

Peripheral countries also face exchange rate instability as monetary power still dictates core-periphery dynamics, with the U.S. dollar sitting at the top of the hierarchy (Lima and Morris, 2022). Historically and even now, peripheral countries have only been emulating whatever exchange rate regime has been upheld by more advanced economies - first with the gold standard and later on with the U.S. dollar - hinting at the pervasive and persisting disparity of financial depth and maturity between core and peripheral economies (Bordo and Flandreau, 2001). This disparity is even exacerbated as currency devaluation is competitively used for more domestic concerns (Zeidan, 2024). This double-edged nature of exchange rate instability is often aimed at addressing more pressing domestic movements but could potentially fester especially in the context of deteriorating macroeconomic conditions - and even due to geopolitical shifts (Dadush and Eidelman, 2010). Fluctuations in exchange rates also lead to debt sustainability concerns.

At the height of geopolitical flashpoints, the race to secure and acquire defense needs through heightened defense spending could lead to higher levels of public debt (Kengdo, 2023). Emerging markets with trends for increasing defense spending could not only face difficulties accessing international credit. More broadly, it has long been established that focusing too much on defense spending retards developmental goals (Deger and Smith, 1983; Looney and Frederiksen, 1986;

Azam, 2020; Saeed, 2023). In this day and age however, countries are beginning to reconcile the pursuit of defense needs and the upkeep of its contribution to the Sustainable Development Goals (Dudzevičiūtė, Česnaitytė, and Prakapienė, 2021).

Heightened tensions also mean increased investment risks and the threat of capital flight as foreign investors reorient capital towards more reliable and predictable conditions (Le and Zak, 2006). Increased risk premiums are imposed on economies in politically and geostrategically volatile regions (Cheng, Liao, and Pan, 2023), adversely impacting those countries especially reliant on external fundings (Carney et al., 2024). Cybersecurity risks also arise as the digital domain becomes a prominent space for geopolitical contests (Wood, 2020; Ciuriak, 2023). Because everything now persists in the digital space, key critical infrastructures and government digital assets are at risk of cyber-attacks such as financial institutions, stock exchanges, central banks, and public utilities.

Far more daunting and ominous are the microeconomic impacts of geopolitical shifts. This means the ordinary citizen and the small enterprises seeking to participate in globalization are themselves affected by the cascading effects of geopolitics. Local businesses are afforded less flexibility compared to international businesses operating within a country (see Table 3).

Table 3. Macroeconomic shocks as a result of geopolitics

Kinds of Shocks		Examples
<i>Business supply chain disruptions</i>	<ul style="list-style-type: none"> Increased costs or delays due to disrupted supply lines. Reliance on critical components and/or produce from conflict-affected regions. 	<p>The Covid-19 pandemic halted business supply chains due to border restrictions.</p> <p>The Suez Canal obstruction of the mega container ship Ever Given was jammed in the canal, costing businesses worldwide \$10 billion worth of losses for each day the issue was not resolved.</p>
<i>Operational risks</i>	<ul style="list-style-type: none"> Increased costs for firms operating in politically unstable regions (e.g., security expenses). Loss of physical assets due to conflict or sanctions. 	Major fast food and retail brands in Russia have exited the country due to political volatility and the sanctions posed by the international community. ⁶
<i>Consumer confidence and</i>	<ul style="list-style-type: none"> Geopolitical crises often erode consumer 	Ukraine and the international community have boycotted brands operating in Russia

⁶ See the Yale School of Management: <https://som.yale.edu/story/2022/over-1000-companies-have-curtailed-operations-russia-some-remain>

Kinds of Shocks		Examples
<i>spending and reputational risks</i>	<p>confidence, reducing discretionary spending.</p> <ul style="list-style-type: none"> • Businesses reliant on consumer markets in affected areas may experience reduced demand, and those operating in contentious regions may face backlash from stakeholders. • Associations with sanctioned entities or regimes can harm corporate image. 	to deter these business operations and stop financing Russia's war.
<i>Regulatory and compliance risks</i>	<ul style="list-style-type: none"> • New trade restrictions or sanctions can impact firms with cross-border operations. • Increased compliance costs to navigate evolving regulations. 	Countries and businesses are now bracing for a Trump 2.0 trade policy, expecting the U.S. to be more assertive, transactional, and isolationist to offset its trade deficits.
<i>Labor market shifts and displacement of peoples</i>	<ul style="list-style-type: none"> • Talent shortages or workforce displacement due to regional instability. • Pressure on wages in countries absorbing displaced populations. 	Impact of Overseas Filipino Workers' livelihood abroad in conflict-stricken areas such as the Middle East and Israel and in places under threat of conflict such as Chinese Taipei.
<i>Cost pressures</i>	<ul style="list-style-type: none"> • Higher costs for energy, raw materials, or logistics. • Firms may face challenges in passing these costs to consumers. 	<p>Major brands like Tesla and Apple have increased the prices of their products, especially in some regions on account of cost of energy for production and transportation.</p> <p>Nvidia and AMD, GPU and hardware producers, have raised the cost of their products due to increasing difficulty to access and obtain semiconductors.</p>
<i>Technology transfers</i>	<ul style="list-style-type: none"> • Export controls on advanced technologies 	Countries have enacted a variety of laws to limit transfer of technology to and from

Kinds of Shocks		Examples
	<p>may limit innovation or competitiveness.</p> <ul style="list-style-type: none"> Restrictions on data flows or digital services. 	<p>other countries, such as the U.S.'s 2022 CHIPS Act, the EU's Export Controls on Dual-Use Items, and Australia's 2021 Critical Technology Statement.</p> <p>Many countries such as the U.S., the EU, and India (to name a few) have developed "blacklists" of technology, banning the export-import flow of select technologies from identified countries.</p> <p>The Philippines has also done the same through its 2015 Strategic Trade Management Act.</p>
<i>Insurance and risk management</i>	<ul style="list-style-type: none"> Rising premiums for operating in volatile regions. Inability to obtain coverage for certain high-risk markets or activities. 	<p>Maersk and other shipping companies have developed maritime insurance due to exposed risks from piracy.</p> <p>ExxonMobil's political risk insurance was partially compensated by the World Bank's Multilateral Investment Guarantee Agency after the Venezuelan government expropriated its oil assets.</p> <p>Malaysia Airlines' insurance covered passenger compensation and legal liabilities after its flight MH17, which flew over Eastern Ukraine in 2014 was shot down due to conflict in the area.</p>

Note: Collated by the authors.

Broader implications in the context of world-systems theory suggest and indicate that geopolitical risks can cascade through and among core, semi-peripheral, and peripheral economies. For instance, the price of consumer goods increases as a result of higher transportation costs and due to energy disruptions; job losses can likewise arise from slowdown across industries, especially those affected by the reducing and slowing down of trade as a result of, for instance, sanctions and embargoes. Wallerstein's concept of unequal exchange is evident in the economic structures of Asia-Pacific economies. Peripheral economies across Southeast Asia and Latin America export labor or raw materials, capturing limited surplus value while core economies dominate high-value production. This dynamic perpetuates dependency, as peripheral economies are confined to supplying resources without capturing the higher-value stages of production. The policy of "friendshoring" in core economies exacerbates these dependencies, pressuring peripheral economies to align with specific trade blocs at the expense of economic diversification. APEC's structural dependencies and tensions have several policy implications.

- **Core Economies:** The U.S. and Japan will likely continue friendshoring strategies, stabilizing supply chains with allied economies but risking entrenching dependency within APEC.
- **Semi-Peripheral Economies:** South Korea, Malaysia, and Singapore could attract investment in high-tech sectors, reinforcing their roles within APEC. However, they must manage relations with both the U.S. and China to retain autonomy.
- **Peripheral Economies:** Peripheral economies could adopt policies to capture more value from their resources, such as promoting beneficiation and seeking technology transfer partnerships. Increasing regional trade could offer resilience against global market shifts.

Wallerstein's world-systems theory reveals the complex interplay between core, semi-peripheral, and peripheral roles within the region. The dependencies, competitive tensions, and structural inequalities become apparent, with geopolitical pressures shaping critical industries. As the Asia-Pacific region navigates these complexities, understanding their posturing contextualized within Wallerstein's framework will help in the development of policies that promote sustainable development, multilateralism, economic independence and resilience.

5.2. Industry Choke Points Within the Philippines

The Philippines' expansion of critical industries is tied to the global economy and its reliance on the global supply chain means being exposed to a variety of risks associated with countries it has economic ties with. The semiconductor and advanced technology industries, renewable and green energy industries, rare earth elements and critical minerals extraction and processing industries, energy supply chains industries are all rapidly growing, both risk-wise and growth-wise.

The semiconductor and advanced electronics industries are dominated by Chinese Taipei through the Taiwan Semiconductor Manufacturing Company Ltd (TSMC). Production of this critical technology is unique to just a few countries, mainly and including Chinese Taipei (Dimerco, 2024). This specialized comparative advantage makes the industry both an appealing economic partner and an equally risky endeavor on account of the growing U.S.-China competition over the region (Shattuck, 2021). It does not help that the political climate surrounding Chinese Taipei's sovereignty status continues and remains a point of contention, even friction, between the U.S. and China every now and then (Maizland, 2024). The U.S. has maintained a *de facto* informal bilateral relationship with the Chinese Taipei outside of the communiqués it had sustained with the political leadership in Beijing (Bush, 2004). China has issued its non-negotiables on the matter (The Associated Press, 2017).

The mounting contest between Washington and Beijing has begun to spillover to Chinese Taipei (Lin, 2024), especially in the context of its contribution to the global semiconductor supply and demand (Kurilla, 2024). Ultimately, if supply chains in East Asia or if cross-straits (China and Taipei) trade is impacted by the escalating political differences between the two (Center for Preventive Action, 2024), or if war between the U.S. and China breaks out over Chinese Taipei (International Crisis Group, 2023), pricing and availability of semiconductors and similar advanced technologies could be dramatically reduced.

Box 4. What could be Philippine critical industries in the future?

The Philippines could benefit from broadening its definition of critical industries to better align with global and regional trends. Identifying these industries is crucial to ensuring economic resilience and national security. Based on insights from key informants and experts, the following sectors are highlighted as pivotal to the Philippines' future development:

- **Advanced Manufacturing and Semiconductors**

Key informants emphasized the strategic importance of advanced manufacturing, particularly in the semiconductor sector, which is experiencing increased global demand due to advancements in artificial intelligence, 5G, and renewable energy systems. They highlighted how neighboring countries such as Malaysia and Vietnam have successfully attracted semiconductor investments and noted that the Philippines could achieve similar progress through workforce development and incentives for foreign direct investment.

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- **Renewable Energy and Green Technologies**

Experts underscored the Philippines' unique opportunity to capitalize on its natural resources, such as solar and geothermal energy, and integrate advanced technologies for energy storage. Key informants pointed out the importance of aligning with global decarbonization efforts and adopting lessons from regional leaders to accelerate the transition to renewable energy while mitigating risks from energy insecurity.

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- **Digital Economy and Cybersecurity**

The digitalization of economies worldwide has made secure and resilient ICT infrastructure indispensable. Key informants discussed the increasing cybersecurity threats and highlighted the need for the Philippines to invest in secure digital infrastructures and enhance data protection laws. They also stressed the importance of regional collaborations to strengthen the country's digital economy and ensure resilience against external risks.

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- **Critical Minerals and Rare Earths**

The Philippines possesses significant reserves of critical minerals, such as nickel and cobalt, which are vital for electric vehicle production and renewable energy technologies. Key informants identified the need for sustainable mining practices and domestic processing capabilities to maximize the economic value of these resources. They emphasized that the global push for decarbonization presents an opportunity for the Philippines to play a pivotal role in global value chains.

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- **Agriculture and Food Security**

A secure and resilient agricultural sector is crucial for addressing vulnerabilities caused by climate change and geopolitical disruptions. Informants highlighted the importance of agritech adoption, improved irrigation systems, and resilient crop varieties. They noted that strengthening food self-sufficiency programs would reduce dependency on imports and protect the country against external shocks, especially during global supply chain disruptions.

- **Healthcare and Biotechnology**
The COVID-19 pandemic emphasized the importance of robust healthcare and biotechnology sectors. Experts highlighted the need for local pharmaceutical manufacturing, vaccine research and development, and medical device production hubs to reduce reliance on imports and enhance the Philippines' capacity to respond to future health crises.
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- **Logistics and Supply Chain Management**
Key informants identified the Philippines' strategic location as a potential logistics and transshipment hub in Asia. They emphasized the importance of modernizing ports, airports, and transport networks to enhance global connectivity. Informants also stressed the need for regional cooperation to strengthen supply chain resilience in light of geopolitical and economic disruptions.
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- **Tourism and Creative Industries**
Experts noted that tourism and creative industries offer significant economic potential, especially as the country recovers from the pandemic. They proposed focusing on eco-tourism, digital media innovations, and cultural heritage industries to drive growth. Informants highlighted that strategic improvements in infrastructure and marketing could amplify these sectors' contributions to the national economy.
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- **Defense and Aerospace**
Heightened geopolitical tensions have made self-reliance in defense and aerospace technologies increasingly important. Key informants highlighted the need for developing local defense production capabilities and fostering partnerships with regional allies to strengthen the Philippines' ability to address security challenges and safeguard its sovereignty.
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- **Education and Human Capital Development**
A highly skilled workforce is essential for sustaining the long-term competitiveness of all critical industries. Experts emphasized the importance of prioritizing STEM education, technical training, and advanced degree programs to prepare the workforce for emerging economic demands. They also suggested establishing international exchanges and scholarship programs focused on critical industries to foster innovation and ensure knowledge transfer.

By recognizing and supporting these ten industries, the Philippines can adapt its economic policies to global trends while mitigating vulnerabilities. Key informants emphasized that strategic investments and regional partnerships will be essential to ensuring that the country remains resilient and competitive in an increasingly complex global landscape.

Source: Collated by the authors.

Another related industry at risk of geopolitical instability is the critical minerals and rare earth materials industry. Countries reliant on this resource will require extensive preparation for risk management as this cuts across a wide range of key state interests including electronics (Berg, Ziemer, & Anaya, 2024), green technology (Park, 2024), and defense applications (Khan et al., 2024). Both the extraction and processing industries will be affected (Lee, 2023). The emphasis, however, will be on the processing side. China has long dominated the processing industries needed to make critical minerals usable for higher and advanced applications (Satchwell, 2024). Presently, China is the global lead producer of 29 commodities, 22 critical minerals, and seven industrial minerals (Coyne & Bassi, 2024). Tensions arising from U.S. pressures have already compelled countries to turn to alternatives like Australia (Korolev & Wu, 2024) or Canada (Carry, 2024).

Because of the increasing securitization and the mounting economic competition for market access to these valuable resources, countries risk facing resource shortages (U.S. Government Accountability Office, 2022), leading to higher prices (International Energy Agency, 2024) that subsequently impact buy-ins to manufacture higher and advanced technologies and lead to mounting pressures to diversify supply chains. Winning market access from both China and the U.S., and other alternatives will be essential (Hertanti & Anderl, 2023). Choosing a side for this particular issue area will prove costly for any country at this juncture in the U.S.-China competition (Brazinsky, 2023).

The energy sector also faces geopolitical and geoeconomic risks. Countries the world over have become increasingly reliant on major producers and exporters of key resources that power and fuel energy production (Ritchie & Rosado, 2024). Of particular issue are the risks associated with the steady reliance on imports of oil and liquefied natural gas (LNG) (Perkins & Edwardes-Evans, 2023). On top of the already tense U.S.-China competition, political instability continues to take hold in oil-producing regions in the Middle East often contributing to price volatility (Book et al., 2024) and supply disruptions (World Bank, 2023). Energy-intensive and energy-reliant economies could experience sluggish economic growth as these countries are sensitive to energy cost shifts, especially drastic ones.

Last of these industry chokepoints is also under the energy sector. Foray into green and renewable energy technologies will also prove difficult as the space for dominance and market access is already affected by the sharpening contestations between the U.S. and China (Murray et al., 2011). This broadly covers solar and wind energy and batteries production, and more recently the production of electric vehicles. Similarly, China has dominated the solar and wind energy market, whose market share exponentially jumped from 7.5% to 59.3% in 2022 (Yamaguchi & Morikawa, 2024). Because of China's overcapacity and overproduction in the production space, market prices for important technologies that make these alternatives accessible have significantly dropped by 80% between 2008 and 2013, cementing China's dominance in the space (Fialka & Climatewire, 2016). In 2023, more than 80% of global energy generation now stems from solar and wind power (International Solar Energy Society, 2024).

6. Ways Forward for the Philippines

The Philippines need not be a passive observer of geopolitical developments; it can actively shape its destiny by developing the necessary contingencies. The authors propose three approaches to making the Philippines resilient: interim and short-term, medium-term, long-term policies, and areas for future studies.

6.1. Interim and Short-Term Horizon

- **Diversifying supply chains and markets:** By diversifying trade relationships across Asia-Pacific and beyond, the Philippines can reduce economic reliance on any single power. This diversified approach aligns with the multilateral ideal that "no country is an island"

and builds resilience through broader, cooperative economic networks. Expanding trade with a variety of partners promotes regional stability, supports national autonomy, and helps safeguard against external pressures (Mendoza, 2023).

- **Establish contingency plans for trade disruptions:** Contingency plans for trade disruptions are crucial due to the country's heavy reliance on imports for essential goods, raw materials, and fuel, as well as its strategic location in typhoon-prone areas. Sudden sanctions, embargoes, geopolitical tensions, or natural disasters like typhoons or earthquakes can upend supply chains, causing delays and increased costs. Businesses can mitigate these risks by conducting scenario analyses to anticipate potential disruptions and assess their economic impacts. For instance, companies should evaluate the risks associated with regional geopolitical tensions, such as potential conflicts in the South China Sea, which could disrupt key maritime trade routes. Building inventory buffers for critical goods, such as agricultural products or manufacturing inputs, can help maintain operations during temporary disruptions. Partnering with logistics providers offering flexible routing options is also vital; for example, utilizing alternate shipping routes through ASEAN countries or air freight services during maritime disruptions can ensure continued flow of goods. These strategies, combined with robust local sourcing initiatives where possible, can enhance the resilience of Philippine businesses to trade-related challenges.
- **Hedge against currency and commodity risks:** Hedging against currency and commodity risks is critical, particularly for businesses reliant on imports or exports. The Philippine peso's volatility, influenced by geopolitical tensions, interest rate policies in the U.S., and global commodity price shocks, can significantly erode profit margins. To mitigate these risks, companies can utilize financial instruments such as futures, options, and swaps to lock in stable prices for foreign exchange or critical commodities like oil, rice, or metals, which the Philippines heavily imports. For instance, firms in the energy and manufacturing sectors can hedge fuel costs to safeguard against global price spikes, ensuring more predictable operational expenses. Additionally, proactive monitoring of global currency and commodity markets enables businesses to anticipate and respond to shifts, reducing exposure to sudden market fluctuations. Aligning procurement and sales in the same currency, when feasible, is another effective strategy, as it minimizes the impact of exchange rate fluctuations. For example, Philippine exporters transacting in U.S. dollars can source inputs priced in dollars, creating a natural hedge and simplifying cash flow management.
- **Expand geopolitical risk monitoring:** Expanding geopolitical risk monitoring is critical for businesses and policymakers navigating the increasingly interconnected and volatile global landscape. Timely information allows for proactive measures, such as adjusting supply chains, securing investments, or preparing contingency plans, rather than being forced into reactive responses during crises. Organizations can subscribe to geopolitical risk analysis services or engage consultants specializing in international relations to gain expert insights tailored to regional and global dynamics affecting the Philippines, such as maritime disputes in the South China Sea or trade relations with ASEAN and major powers like the U.S. and China. Leveraging AI and big data can help identify early warning signs of instability, such as shifts in foreign policies, trade restrictions, or rising tensions in key export markets, enabling timely decision-making. Furthermore, establishing an internal risk monitoring team ensures continuous assessment and reporting of geopolitical risks to inform stakeholders and guide strategic decisions. This approach strengthens resilience and

allows Philippine businesses to remain competitive amid rapidly changing global conditions.

- **Strengthen cybersecurity defenses:** Geopolitical tensions in the Asia-Pacific region, such as disputes in the South China Sea and growing cyber warfare capabilities of state and non-state actors, have heightened the risk of cyberattacks on businesses and critical infrastructure. These attacks often target financial institutions, government agencies, and even small and medium enterprises (SMEs), exploiting vulnerabilities in networks and systems. To mitigate these risks, organizations must invest in advanced threat detection and response systems tailored to their unique needs, such as intrusion prevention tools and endpoint detection solutions. Employee training is equally critical, as phishing attempts and social engineering remain common attack vectors; empowering staff to recognize and report suspicious activity is an essential defense line. Regular cybersecurity audits can identify vulnerabilities, while updated incident response plans ensure swift containment and recovery in the event of a breach. By prioritizing robust cybersecurity strategies, Philippine businesses and institutions can safeguard their operations against the growing threat of cyberattacks linked to geopolitical instability.

6.2. Medium-Term Horizon

- **Collaborate with governments to ensure regulatory clarity:** Collaborating with the government to ensure regulatory clarity is essential for businesses navigating geopolitical risks. Coordinated efforts between the private sector and policymakers can amplify preparedness and compliance, particularly in industries sensitive to global shifts such as technology, energy, and trade. Companies can actively engage with government agencies like the Department of Trade and Industry (DTI) or the Securities and Exchange Commission (SEC) to understand evolving regulatory frameworks, such as policies on data sovereignty, foreign investments, or trade sanctions. Participating in industry groups like the Makati Business Club (MBC) or the Management Association of the Philippines (MAP) can provide a platform to share best practices, collectively advocate for business-friendly policies, and align with national priorities. This collaboration fosters an environment where businesses are better equipped to mitigate risks while contributing to national economic resilience amid geopolitical uncertainty.
- **Legislating the Critical Information Infrastructure Protection (CIIP) Bill into law:** Senate Bill No. 1701 is pivotal for safeguarding the Philippines' critical information infrastructure (CII) against increasing cyber threats exacerbated by geopolitical tensions and technological vulnerabilities. As the country becomes more reliant on digital platforms for public services, financial transactions, transportation, and energy systems, the risks of cyberattacks targeting these essential infrastructures have grown significantly. Without a legal framework to define, protect, and regulate CII, the nation remains exposed to disruptions that could cripple economic activities, compromise national security, and erode public trust. Senate Bill No. 1701 seeks to institutionalize measures for identifying CII assets, mandating cybersecurity standards, and fostering coordination between the government and private sector operators. This legislation aligns with global best practices and responds to the Philippines' urgent need for resilience amid escalating cyber warfare

and geopolitical instability, particularly in the Asia-Pacific region where tensions over digital sovereignty and cyber espionage are high. Enacting this bill is not merely a regulatory step but a strategic imperative to ensure the continuity and integrity of the country's critical systems (Senate, 2023).

- **Expand definition of critical industries and harmonize with Public Service Act and Senate Bill No. 1701:** Harmonizing and aligning the definition of "critical industries" and "critical infrastructure" is vital for ensuring policy coherence. The 2022 Public Service Act (PSA) opened previously restricted industries, such as telecommunications and transportation, to increased foreign investment, while maintaining certain safeguards for sectors deemed critical to national security and public welfare. However, Senate Bill No. 1701, which focuses on securing critical infrastructure from cyberattacks and other risks, adopts a narrower scope primarily emphasizing infrastructure with national security implications, such as energy, water, and communication systems. Harmonizing these frameworks involves broadening and integrating their definitions to include emerging threats, such as supply chain vulnerabilities, advanced technologies, and interdependent systems critical to the Philippines' economic and societal functions. This alignment ensures that industries newly opened to foreign participation under the PSA are appropriately regulated and protected under the enhanced security provisions of Senate Bill No. 1701, creating a unified approach to safeguarding national interests while fostering economic growth.
- **Champion ASEAN Neutrality as a Regional Stabilizer:** The Philippines should continue to promote ASEAN's role as a neutral middle power that can serve as a diplomatic buffer amid major power tensions. This position enhances ASEAN's credibility as a balanced mediator, allowing smaller economies like the Philippines to navigate strategic challenges without being compelled to align with a single power (Presidential Communications Office, 2024).
- **Implement a Framework for Strategic Neutrality Based on Swiss Models:** Drawing from Switzerland's neutrality principles, the Philippines could adopt a formalized non-alignment policy that prioritizes diplomatic flexibility while maintaining close multilateral ties. Such a framework would strengthen the Philippines' autonomy in international engagements, reducing vulnerabilities in times of heightened geopolitical rivalry by aligning within ASEAN's collective security framework (Baladjay, 2022).

6.3. Long-Term Horizon

- **Reinforcing Multilateralism Through Trade Diversification:** By diversifying trade relationships across APEC and beyond, the Philippines can reduce economic reliance on any single power. This diversified approach aligns with the multilateral ideal that "no country is an island" and builds resilience through broader, cooperative economic networks. Expanding trade with a variety of partners promotes regional stability, supports national autonomy, and helps safeguard against external pressures (Mendoza, 2023).
- **Supporting Peaceful Dispute Resolution as a Core Strategy:** Consistent with its legal approach in the South China Sea, the Philippines should continue to prioritize peaceful, multilateral mechanisms for resolving regional disputes. This approach not only enhances

stability within ASEAN and APEC but also reinforces the Philippines' role as an advocate for international law, dialogue, and cooperation (Sarao, 2024).

- **Enhancing Resilience in Critical Infrastructure:** To mitigate dependency risks, the Philippines could develop policies that secure local ownership in critical infrastructure sectors, including telecommunications, energy, and transportation. The Public Service Act of 2022 provides a framework for limiting foreign control over vital industries, building resilience against external pressures and enhancing the Philippines' capacity to safeguard its assets (Official Gazette, 2022).
- **Promotion of Friendshoring with a Cautious, Inclusive Lens:** While friendshoring—prioritizing partnerships with trusted economies—continues to gain traction within APEC, this strategy must align with multilateral principles to avoid fragmenting the region. Friendshoring can bolster supply chain security for smaller economies by reducing dependency risks in sectors such as electronics, energy, and critical minerals, especially in the context of U.S.-China competition. However, APEC should implement friendshoring policies that retain inclusivity, ensuring smaller economies do not face isolation or restricted access due to exclusive trade alignments.
- **Encouraging Regional Economic Policies on Resource Nationalism:** With growing demand for rare earth minerals and other critical resources, resource nationalism is emerging as a priority for APEC's resource-rich economies. APEC could support policies that foster self-reliance while maintaining open trade, ensuring that resource nationalism does not lead to isolationism. Balancing domestic needs with regional trade partnerships will help secure critical supply chains and uphold APEC's commitment to inclusive growth.
- **Innovation in Green Technology and Shared Decarbonization Pathways:** Given APEC's regional diversity, economies could collaborate on joint R&D in green technologies, particularly electric vehicles (EVs) and renewable energy infrastructure. Shared innovation in green technology allows APEC members to address both economic and environmental goals, positioning the region as a leader in low-carbon development.
- **Building Resilience in Global Value Chains:** To protect APEC economies from economic fragmentation, the forum could establish mechanisms for information-sharing and early warning systems for supply chain disruptions. Developing a Technology Working Group (TWG) focused on cooperation in critical tech sectors, similar to ASEAN's resilience initiatives, would enhance collective preparedness against supply chain shocks.
- **Long-Term Vision for Inclusive and Sustainable Growth:** APEC can emphasize equitable and sustainable growth by promoting low-carbon industries, sustainable trade, and climate-conscious policies. Setting a post-2025 vision that prioritizes shared prosperity across the Asia-Pacific aligns APEC with emerging environmental and economic challenges, ensuring its long-term relevance and effectiveness.

6.4. Future Research Areas/Research Gaps

In the context of *Critical Industries in the Time of Asia-Pacific Geopolitics: Lessons for the Philippines*, several key research areas emerge as critical to enhancing understanding and developing strategic responses. These areas are informed by the dynamic interplay between

geopolitics and critical industries within APEC and ASEAN, as well as the specific vulnerabilities and opportunities for the Philippines.

- **Mapping and Tracing Data from APEC's Establishment to the Present:**
To understand the historical evolution of critical industries in the region, a systematic mapping of data from APEC's establishment in 1989 to the present is essential. Using regression and time-series analysis, this research can trace how key geopolitical and economic events—such as China's WTO accession, the rise of the Belt and Road Initiative, and shifts in U.S.-led trade frameworks—have shaped trade flows, investment patterns, and industrial growth. For the Philippines, this approach can uncover long-term trends, such as its trade dependency on specific economies or sectors, and identify opportunities for diversification and policy intervention. By pinpointing patterns of growth, regression, and resilience within critical industries, this analysis provides a foundation for informed policymaking.
- **Quantitative Projections of Critical Industries:**
Given the impact of geopolitics on supply chain realignments and technological advancements, quantitative modeling is necessary to project the future trajectories of critical industries. For example, in light of the Philippines' reliance on electronics exports and its emerging role in renewable energy supply chains, projections can assess the long-term effects of "friendshoring" trends, green technology investments, and trade decoupling. This research could also evaluate scenarios in which geopolitical tensions escalate or subside, offering insights into the resilience and growth potential of industries like semiconductors, electric vehicles, and critical minerals. These projections are vital for anticipating challenges and aligning industrial and economic strategies with regional developments.
- **Analysis of Internal Leadership in APEC Economies and Its Implications:**
The leadership dynamics within APEC economies significantly influence the forum's direction and the performance of critical industries. For instance, recent U.S. elections have shifted trade and economic priorities, emphasizing resilience and competition with China. Research into how leadership changes in economies such as the U.S., China, and Japan impact APEC's collective agenda can illuminate potential risks and opportunities for smaller economies like the Philippines. By understanding the implications of domestic political shifts, such as industrial policies or foreign relations priorities, the Philippines can better position itself within the region's economic frameworks. For example, shifts in U.S. trade strategies under the Indo-Pacific Economic Framework or China's Belt and Road Initiative have direct implications for critical industries reliant on global value chains.

7. Conclusion

The evolving geopolitical landscape of the Asia-Pacific region presents both challenges and opportunities for the Philippines. As this study highlights, the Philippines' critical industries, including telecommunications, energy, mining, and manufacturing, are deeply integrated into global value chains that are susceptible to external disruptions. The increasing competition between the United States and China underscores the need for strategic resilience. By aligning with multilateral platforms like APEC and fostering regional partnerships, the Philippines can mitigate vulnerabilities while advancing its economic interests within a competitive global framework.

Key to navigating these challenges is the development and implementation of policies that prioritize sustainability, inclusivity, and innovation. The study emphasizes the importance of adopting frameworks, such as dependency theory and world-systems theory, to better understand the interplay between global power dynamics and domestic industrial strategies. Ensuring robust policy coordination, particularly in critical industries, will enable the Philippines to leverage its position within the Asia-Pacific while safeguarding its economic sovereignty.

Moreover, the research underscores the necessity of proactive engagement in regional and global platforms. The Philippines must balance the pressures of great power competition by pursuing strategic partnerships that diversify trade and investment sources. Strengthening ties with both traditional allies and emerging economic powers will allow the country to build resilience against geopolitical tensions while fostering sustainable economic growth. The integration of inclusive practices into policymaking will further enhance the capacity of the Philippines to adapt to shifting global dynamics.

In conclusion, this study serves as a comprehensive resource for understanding the implications of Asia-Pacific geopolitics on the Philippines' critical industries. By addressing the vulnerabilities and opportunities outlined in this research, policymakers and industry stakeholders can craft strategies that not only respond to current challenges but also position the Philippines as a resilient and forward-looking economy within APEC and beyond. Future research should continue exploring innovative pathways for economic collaboration and resilience in the face of an increasingly complex geopolitical environment.

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