South Korea's Industrial Policy in Comparative Perspective: Challenges and Strategies

By Sunhyung Lee

Global trade dynamics are undergoing a seismic shift, marked by a rise in deglobalization and protectionism.[1] More nations with advanced manufacturing supply chains, such as the United States and China, are adopting inward-looking policies that favor domestic production and protect strategic industries related to national security, technology, and critical resources.[2] Thus, industrial policy is evolving in response to new economic demands. While many state interventions, including the U.S. Inflation Reduction Act (IRA) of 2022 and Made in China 2025, primarily focus on the manufacturing sector, emerging issues such as climate change, automation, supply chain vulnerabilities, and geopolitical fragmentation complicate the effectiveness and scope of traditional industrial policies (e.g., subsidies and tax incentives).[3] These multiple objectives require different strategies, where policymakers face various questions regarding trade-offs and political tensions. For example, is a green transition possible when a country imposes a domestic content requirement in supply chains?[4] How can the government protect middle-class jobs when subsidies for skill-intensive work are used to adopt industrial robots?

Given these global shifts toward protectionism and strategic industrial policies (e.g., reshoring incentives, export control, and subsidies targeting strategic sectors), industrial policy is becoming a tool for economic security and technological self-reliance. Thus, South Korea faces critical decisions in shaping its industrial strategy. While South Korea has historically relied on state-led industrial policies to drive economic growth—a strategy that remains subject to debate due to concerns about market distortions, inefficiencies, and long-term competitiveness—the rise of geopolitical tensions, supply chain vulnerabilities, and technological competition necessitate a reassessment of its approach in light of the evolving economic climate.[5] For instance, the 2023 Special Tax Treatment Control Law, or the K-Chips Act, is South Korea's attempt at improving competitiveness in high-tech industries. How is it comparable to the United States' CHIPS and Science Act or China's Made in China 2025 policy?

This paper examines the evolution of industrial policy, tracing its shift in perception from being viewed negatively to positively and from conventional approaches to innovative strategies. It also identifies reliable data sources for tracking recent developments in industrial policies worldwide and synthesizes key emerging trends. This analysis aims to help South Korea develop more innovative and effective industrial policies, enabling domestic firms to better adapt to the evolving landscape and maximize available incentives.

Reframing Industrial Policy: From Controversy to Consensus

Industrial policy has emerged as a highly debated topic in the field of economic policymaking for several decades. It frequently encounters skepticism from mainstream economists, who typically advocate

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Dr. Sunhyung Lee is Assistant Professor of Economics at Montclair State University and a Non-Resident Fellow at the Korea Economic Institute of America.

for free-market mechanisms over governmental intervention in the economy.[6] Also, government interventions often shift resources (e.g., labor and capital) from more productive to less productive uses, leading to productivity and growth stagnation. In addition to the inefficient outcome, according to the general principles established by the World Trade Organization (WTO), industrial policies are often perceived as potential threats to free trade, posing significant political challenges among international trading partners.

Conventional industrial policies are under siege across other fronts as well. Governments frequently fail to gather comprehensive and accurate information needed to understand and identify all market failures. Even with potentially extensive data, it is unlikely that they could pinpoint the precise solutions required to rectify these deficiencies effectively due to incomplete information and a lack of resources.[7] Another source of skepticism arises from the possibility of political capture, suggesting that even if sufficient information is available, industrial policies may be disproportionately influenced by lobbying efforts and other resource-consuming political activities.[8] This influence tends to favor private interests, often at the expense of the broader public good. The third critique of conventional industrial policies concerns the challenges associated with tracking and measuring constantly evolving policy objectives. A case in point is China's strategic push for its shipbuilding sector between 2006 and 2010, which was part of a five-year development plan that included substantial state subsidies to encourage new entrants. But as the industry became populated with numerous inefficient firms, the Chinese government revised its approach between 2009 and 2013, opting to consolidate these firms and elevate the performance of more efficient entities.[9]

The economic literature has acknowledged these shortcomings over the past decade. While it generally remains positive about the advantages that a clear and deliberate industrial policy provides to national economies, scholars today offer a more nuanced and sophisticated assessment of its role within economic development frameworks.[10] Researchers now typically advocate for a more complex understanding of how industrial policies function, moving beyond the simplistic binary of government intervention versus free-market autonomy.[11] Expanded definitions of industrial policy now encompass regional strategies, place-based initiatives, and innovation-driven policies. This reflects a growing consensus that targeted government interventions can effectively mitigate market failures, promote technological innovations, and bolster economic resilience.

This rebranding of industrial policy has helped make it a less contentious subject. More importantly, there is a fundamental transformation occurring in how governments approach economic challenges in the twenty-first century. Faced with escalating protectionism, vulnerabilities in supply chains, and intense global technological competition, many nations are reassessing the role of industrial policy as a crucial tool for navigating these complex challenges.[12] For instance, the United States has undertaken ambitious initiatives such as the IRA and CHIPS Act, which illustrate a departure from its historical reluctance toward state intervention in economic matters.[13] This example suggests that the United States has recently embraced direct government intervention to shape strategic industries and domestic supply chains. Meanwhile, South Korea, where state-led industrial policy has long been a key pillar of economic strategy, is refining this approach by drawing insights from global trends and the latest research developments. For example, the K-Chips Act included new and emerging technologies

to foster the high-tech industries, which are regarded as strategic assets for economic security.[14] This trend toward a more pragmatic and evidence-based understanding of industrial policy suggests that government leaders increasingly recognize industrial policy as a flexible and adaptive instrument for promoting sustainable economic growth.

Measuring Industrial Policy

As advanced nations increasingly adopt policies to stimulate economic growth and competitiveness, it becomes essential to systematically monitor and evaluate the effects of government interventions. The Global Trade Alert (GTA) database is a crucial resource in this context, offering comprehensive and meticulously organized data on a country-by-country, industry-by-industry, and year-by-year basis regarding various policy measures.[15]

Utilizing an advanced text-based algorithm, the GTA meticulously processes a wide array of government announcements, official publications, and legislative documents to categorize policy initiatives. This classification encompasses key measures, including financial subsidies targeted at specific sectors, trade restrictions that may hinder imports or exports, and tax incentives designed to promote investment and innovation.

This robust, data-centric approach enhances the transparency of government actions. It also empowers researchers, economists, and policymakers by providing them with the necessary tools to analyze global trends in industrial policy with real-time speed. Furthermore, it enables comparative studies across different countries, facilitating a deeper understanding of diverse strategic approaches in industrial policies and their economic implications. By leveraging these detailed insights, stakeholders can more effectively assess the efficacy and implications of industrial policies in a rapidly evolving global trade and investment landscape.

Analyzing the Global Industrial Policy Pattern

Using information from the GTA database, this paper analyzes patterns in global industrial policies from 2014, with an emphasis on recent developments since 2022.

Table 1 outlines the frequency of government interventions for 197 countries related to industrial policy from 2014 to 2024. During the initial period from 2014 to 2019, GTA data reveals a consistent pattern of interventions, with numbers fluctuating between 3,300 and 3,900. This stability indicates a careful approach to industrial policy characterized by minor adjustments rather than significant overhauls or reactions to external crises.

But in 2020, interventions surged to 7,267, nearly doubling levels recorded in 2019. This dramatic escalation can be attributed to the global repercussions of the COVID-19 pandemic, prompting governments worldwide to adopt emergency measures aimed at stabilizing industries, protecting supply chains, and invigorating economic recovery efforts with unprecedented levels of spending.[16]

In subsequent years, the trend of high intervention levels persisted, with reported figures of 6,603 in 2021, 7,288 in 2022, and 6,355 in 2023. These ongoing elevated levels of intervention suggest

that, even beyond the immediate crisis of the pandemic, industrial policy has remained a vital tool for governments.[17] This sustained activity may reflect broader ambitions to fundamentally restructure economic landscapes, enhance the resilience of supply chains, and navigate the shifting dynamics of global geopolitical relations.[18] It is an understandable reaction as pandemic-related lockdown policies caused significant supply chain disruptions that have not been seen in recent eras.

Table 1. Total Number of Government Interventions Per Year, 2014–2024

Year implemented	Value
(1)	(2)
2014	3697
2015	3809
2016	3379
2017	3471
2018	3875
2019	3758
2020	7267
2021	6603
2022	7288
2023	6355
2024	4862

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025.

The sheer number of policy interventions does not adequately reflect the true scale or impact of each industrial policy. These policies exhibit a broad spectrum of intensity. For instance, some governments may allocate modest subsidies of a few million dollars, while others can reach staggering sums in the billions. The scope of these industrial policies also varies significantly. Some may target a single corporation, encompass multiple sectors, or apply to entire industries based on the goals and context of the intervention. Furthermore, the duration of these measures can range from short-term initiatives lasting only a few months to extensive, long-term strategies intended to unfold over several years.

Despite the diversity in scale, scope, and duration, the increasing prevalence of industrial policies worldwide underscores a notable transformation in economic strategy at the international level. This shift is reshaping the competitive landscape and enhancing the role of government involvement in pivotal industrial sectors, such as automotive and high-tech. As advanced countries increasingly adopt these measures, the dynamics of global commerce and industrial competitiveness are being redefined, signaling an era of heightened state engagement in the economic sphere.

Table 2. Total Intervention by Intervention Type

2014–2025		2019–2021		2022–2025	
(1)	(2)	(3)	(4)	(5)	(6)
Value	Intervention Type	Value	Intervention Type	Value	Intervention Type
12042	Financial grant	3772	Financial grant	3289	Financial grant
11786	State loan	3265	State loan	2631	Import tariff
10680	Import tariff	2456	Import tariff	2145	State loan
6814	Trade finance	1013	Trade finance	1309	State aid, unspecified
3222	Local content incentive	808	Loan guarantee	843	Tax or social insurance relief
2623	Anti-dumping	668	Tax or social insurance relief	713	Trade finance
2300	Loan guarantee	539	Financial assistance in a foreign market	689	Loan guarantee
2296	Tax or social insurance relief	432	Local content incentive	601	Production subsidy
1731	Financial assistance in a foreign market	424	Anti-dumping	599	Export tax
1659	State aid, unspecified	363	Capital injection and equity stakes (including bailouts)	568	Public procurement localization

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025. The sample period 2025 refers to observations up to March 2025.

Table 2 provides a detailed analysis of the top ten industrial policy instruments categorized by different eras: overall (2014–2025), the COVID-19 pandemic (2019–2021), and the rise of protectionism since 2022. The landscape of these policy instruments has undergone a significant transformation in recent years, driven by changing economic dynamics and emerging global challenges during the pandemic and the increasing de-globalization. Between 2014 and 2025, as illustrated in columns (1) and (2), the predominant interventions included financial grants, state loans, and import tariffs. This trend highlights

a blend of direct financial assistance aimed at promoting domestic industries, combined with measures designed to safeguard local markets from foreign competition.

During the pandemic, as shown in columns (3) and (4), the priority of interventions remained consistent with the broader trend of the total sample. The necessity for immediate economic relief led to a continued reliance on financial grants and state loans, mirroring the strategies of previous years while addressing urgent health and economic crises.

In the following era from 2022 to 2025, a notable shift in the composition of industrial policy instruments becomes evident. Import tariffs have surged in significance, eclipsing state loans as the leading tool of intervention. This change indicates a pronounced shift in policy toward trade protectionism (i.e., tariffs and subsidies), reflecting an increasing desire to bolster local production (e.g., local content requirement) amid global uncertainties in trade policies.[19] Moreover, state aid has risen in importance, moving up to the fourth most frequent kind of state intervention from a previous ranking of tenth within the overall sample. This trend indicates a growing involvement of subnational governments in the formulation and execution of industrial policies, highlighting their crucial role in supporting local economic initiatives (e.g., state-funded subsidies and tax incentives to attract foreign investment) and affecting global industrial policies.[20]

Additionally, the advent of production subsidies, export taxes, and localized public procurement practices among the top ten policy instruments marks a shift toward strategies designed to enhance the resilience of domestic industries. These tools aim to lessen dependence on foreign suppliers and reduce foreign exposure risks, echoing a broader commitment by the United States, China, and India to foster national self-sufficiency. The natural economic consequences of industrial policies sweeping the world are the reduction of trade and foreign direct investment. This evolution in industrial policy reflects a response to contemporary economic pressures, including the need for supply chain resilience, the impact of geopolitical fragmentation, and the pursuit of technological independence.[21] These developments collectively illustrate how governments are recalibrating industrial policy to navigate an increasingly complex and interdependent global landscape.

Table 3. Total Intervention by Country, 2022–2025

Rank	Implementer	Value
(1)	(2)	(3)
1	United States of America	2720
2	China	2330
3	Brazil	1505
4	Australia	1456
5	Germany	1191
6	Italy	1137
7	India	1123
8	Russia	961
9	France	876

10	Canada	873
36	South Korea	450
37	Mexico	433
38	Japan	419

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025. The sample period 2025 refers to observations up to March 2025. The interventions account for all levels of government.

Table 3 presents a detailed overview of government interventions in industrial policy by country since 2022, ranked from the highest to the lowest number of interventions. At the top of the list is the United States, which has recorded an impressive total of 2,720 government interventions, demonstrating its proactive approach to shaping its industrial landscape. A close second is China, with 2,330 interventions that reflect its strong governmental strategies aimed at promoting industrial growth and innovation.

Among other notable economies, Brazil has recorded 1,505 interventions, demonstrating an active commitment to promoting its agricultural and mineral sectors. Australia follows closely with 1,456 interventions. In Europe, several nations have demonstrated significant engagement in industrial policy intervention. Germany has enacted 1,191 interventions, maintaining its position as a key player in the European continent's industrial framework. Italy's total stands at 1,137 interventions, while France follows with 876, illustrating their influential roles in shaping Europe's industrial strategies.

Conversely, South Korea ranks relatively low at thirty-sixth place with 450 interventions. Furthermore, Mexico and Japan exhibit relatively modest intervention figures, with 433 and 419 interventions, respectively. This indicates a more consistent approach to government involvement in industrial policy in terms of frequency. But it does not imply that these countries are not actively engaged in industrial policies, as the scale and intensity of each intervention can vary. Still, these nations seem to prioritize a more targeted approach rather than frequent interventions, possibly focusing on high-impact policies over sheer volume.

Table 4. Total Intervention by Country and Sector, 2022–2025

Value	Implementer	Sector
(1)	(2)	(3)
583	United States of America	Fabricated metal products
557	United States of America	Products of iron or steel
529	United States of America	Basic iron and steel
368	United States of America	Grain mill products
366	United States of America	Cereals
192	China	Computing machinery and parts and accessories thereof
183	China	Chemical products

183	China	Electronic valves and tubes
168	China	Pharmaceutical products
167	China	Motor vehicles, trailers and semi-trailers
35	Japan	Electronic valves and tubes
33	Japan	Television and radio transmitters
28	Japan	Motor vehicles, trailers and semi-trailers
25	Japan	Aircraft and spacecraft
25	Japan	Accumulators, primary cells and primary batteries
38	South Korea	Electronic valves and tubes
35	South Korea	Television and radio transmitters
33	South Korea	Other electrical equipment
31	South Korea	Other special-purpose machinery
30	South Korea	Accumulators, primary cells and primary batteries

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025. The sample period 2025 refers to observations up to March 2025.

Table 4 provides a detailed analysis of government interventions in various sectors across four specific countries since 2022, showcasing their unique priorities and focuses. The U.S. government, for instance, has mostly intervened in ways that support its metals and agriculture sectors, signaling the nation's primary interests. Among the most supported areas are fabricated metal products, which received a total of 583 interventions, followed closely by products of iron or steel with 557 interventions and basic iron and steel with 529 interventions. Furthermore, the government directed significant assistance to the agricultural sector, particularly to grain mill products, which received 368 interventions, and cereals, which received 366 interventions. This targeted approach demonstrates an apparent effort to strengthen foundational industries that are crucial to the United States.

Conversely, China has focused government interventions on high-tech and strategic industries that it believes are pivotal to its long-term economic success.[22] Heavily favored sectors include computing machinery, which has received 192 instances of support, as well as chemicals (183), electronic components

(183), pharmaceuticals (168), and motor vehicles (167). This emphasis on advanced technology positions China as a global leader in innovation and manufacturing.[23]

Similarly, both South Korea and Japan have recognized the importance of technology-driven sectors, although at a smaller scale compared to the United States and China. Japan has concentrated intervention in areas such as electronic components, television and radio transmitters, and battery technologies, highlighting the country's commitment to maintaining its competitive edge in electronics. South Korea's interventions also reflect its strengths, with significant support directed toward electronic valves and tubes (38 interventions), other electrical equipment (33), and special-purpose machinery (31). This focused investment demonstrates South Korea's intent to enhance its advanced manufacturing capabilities in high-tech industries and strengthen its position in the global electronics market.

These trends demonstrate a growing awareness among nations of the importance of tailoring industrial policies to remain competitive in critical sectors. By concentrating efforts on sector-specific interventions that align with national competitive advantages, many developed countries are addressing immediate economic challenges and laying the groundwork for sustained growth and innovation in these industries.

Table 5. Total Intervention by Country for Eligible Firms, 2022–2025

Value	Implementer	Eligible Firms
(1)	(2)	(3)
1676	United States of America	Firm-specific
973	United States of America	All
66	United States of America	Location-specific
3	United States of America	SMEs
1	United States of America	State-controlled
1	United States of America	Sector-specific
1423	China	Firm-specific
818	China	All
57	China	Location-specific
25	China	SMEs
5	China	Sector-specific
2	China	State-controlled
286	Japan	Firm-specific
122	Japan	All
10	Japan	SMEs
1	Japan	Location-specific
260	South Korea	All
121	South Korea	SMEs

63	South Korea	Firm-specific
4	South Korea	Location-specific
2	South Korea	Sector-specific

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025. The sample period 2025 refers to observations up to March 2025.

Table 5 provides a comprehensive overview of the total number of industrial policy interventions across four countries, detailing the category of firms eligible for government support since 2022. The United States stands out for its predominance of firm-specific industrial policies, which comprise the most substantial portion of overall interventions. This approach is characterized by targeted support measures, such as state-funded subsidies designed to aid individual businesses, providing tailored assistance that addresses the unique challenges faced by specific firms. Additionally, the United States employs broader policies that offer support across all firms, although these are less prevalent than firm-specific measures.[24] Notably, there were fewer location-based and small and medium-sized enterprises (SMEs)-focused interventions. While there are occasional instances of state-specific interventions and sector-specific policies, such as subsidies and tax incentives set by states, they are not substantial elements of the U.S. industrial strategy.

China has similarly prioritized firm-specific interventions, demonstrating a strong tendency toward policies designed to benefit particular state-owned businesses. Alongside these targeted measures, China also implements a considerable number of policies that are applicable across all firms (e.g., Made in China 2025 and 2021–2035 New Energy Vehicle Industry Development Plan). However, it is essential to note that China places a relatively greater emphasis on supporting SMEs and developing sector-specific initiatives compared to the United States, indicating a more nuanced approach to industrial policy aimed at fostering growth within smaller enterprises and specific industry sectors, as they are often state-owned.

Japanese industrial policies target both specific firms and broader economic sectors, while measures supporting SMEs and targeting specific geographic locations are relatively sparse. This suggests that Japan may rely heavily on an approach that prioritizes larger or more established firms over the broader spectrum of SMEs due to the economic importance of Japanese multinational corporations. In contrast, South Korea adopts a more balanced approach, demonstrating a wider array of policy interventions that span across all types of firms, including SMEs, while also incorporating firm-specific measures. This is an important distinction as South Korean multinational corporations are no longer guided by government-led industrial policy as in the past and often overlook the government's numerous future growth visions. Nonetheless, location-specific and sector-specific policies remain relatively limited in both frequency and application.

This analysis highlights the diverse range of strategies employed by different countries in shaping their industrial policies. The United States and China, in particular, favor firm-specific interventions tailored to individual businesses through state policies for the United States and state-owned enterprises for

China. Meanwhile, South Korea and Japan adopt a broader mix of eligibility criteria, reflecting diverse priorities and approaches within their respective industrial policy frameworks.

Table 6. Total Intervention by Country and Affected Flow, 2022–2025

Value	Implementer	Affected Flow
(1)	(2)	(3)
2278	United States of America	Inward
297	United States of America	Outward
145	United States of America	Outward subsidy
2189	China	Inward
102	China	Outward
39	China	Outward subsidy
234	Japan	Inward
129	Japan	Outward subsidy
56	Japan	Outward
331	South Korea	Inward
100	South Korea	Outward subsidy
19	South Korea	Outward

Notes: Compiled by author from the Global Trade Alert database (https://globaltradealert.org/data-center). Data was retrieved on March 31, 2025. The sample period 2025 refers to observations up to March 2025.

Table 6 provides a detailed overview of the total number of industrial policy interventions by country, highlighting their impact on investment flows since 2022. The data reveals a pronounced trend in which industrial policy interventions are primarily aimed at promoting inward investment, such as the IRA. Notably, the United States has taken the lead in this area, enacting an impressive 2,278 measures—the highest among the advanced nations—primarily to attract foreign investment. China follows closely with 2,189 inward-focused interventions. These figures show the strategic priorities of both nations to stimulate economic growth by improving domestic investment environments.

In contrast, the number of outward interventions, which include measures such as subsidies to support domestic firms in exporting activities, is markedly lower. The United States has implemented 145 outward subsidies, while China has recorded an even smaller number of 39. Again, this disparity highlights a significant focus on inward investment policies over outward initiatives in these leading economies to protect domestic industries from foreign competition.

Japan, on the other hand, exhibits a more balanced approach in its industrial policy framework. With 234 interventions aimed at attracting inward investment, Japan also emphasizes outward support, as evidenced by its provision of 129 subsidies to firms looking to expand internationally. This strategy

suggests that Japan is keen on nurturing its domestic industries while simultaneously encouraging global competitiveness.

South Korea presents a unique case. Although the total number of interventions is fewer compared to the United States and China, it has implemented a substantial number of inward policies similar to the CHIPS Act or the IRA (e.g., attracting foreign investment into South Korea), totaling 331. South Korean policymakers have long favored domestic firms and worked to facilitate their expansion into overseas markets, and the numbers suggest this is still largely the case.[25]

Overall, these global trends indicate a significant shift toward protecting and promoting domestic industries while still permitting selective support for outward expansion, reflecting changing economic priorities amid evolving global trade dynamics since the pandemic and the rise of geopolitical tensions.

Traditional vs. New Industrial Policy

The evolution of industrial policy signifies a transformative shift from rigid and top-down frameworks to more agile and adaptable strategies. Traditionally, governments designed these policies primarily to address market failures, relying heavily on mechanisms such as subsidies and tax breaks. Often, they focused on the manufacturing sector and favored multinational corporations, placing them at the center of economic growth.[26]

However, today's industrial policies adopt a broader and integrated approach, intertwining automation, services, and investment coordination.[27] This comprehensive approach aims to foster innovation and boost economic resilience amid a rapidly evolving global landscape shaped by lessons gathered from the pandemic and rising geopolitical tensions. This transition recognizes the intricate complexities of modern economies due to the increased interdependency of supply chains, emphasizing the urgent need for industrial policies that are not only dynamic but also responsive to the rapidly evolving global environment since the pandemic and the rise of protectionism. Table 7 illustrates these significant differences, which are explored in greater detail below.[28]

Table 7. Traditional vs. New Industrial Policy

	Traditional	New
Market Failure Targets	R&D and innovation Investment coordination	R&D and innovation Investment coordination Automation
Sectors	Manufacturing	Manufacturing Services

Eligible Firms	Multinational Corporations	All (large and SMEs)
Informational Shortcomings	The government has complete information	The government has informational shortcomings
Instruments	Subsidies Tax breaks	Subsidies Tax breaks Business services (marketing, management, technology, training, infrastructure, etc.)
Disbursements	Fixed schedule	Customizable
Selections	Pre-determined	Voluntary participation
Conditionality	Rigid	Provisional
Government-Firm Relationship	Top-down	Collaborative

Notes: this table is a modified version of Table 1 in Réka Juhász, Nathan Lane, and Dani Rodrik, "The New Economics of Industrial Policy," Annual Review of Economics 16, no. 1 (2024): 213–242, https://doi.org/10.1146/annurev-economics-081023-024638.

Market Failure Targets

A notable distinction between traditional and contemporary industrial policies lies in their respective strategies for addressing market failures. Traditional policies often maintain a specific focus on research and development (R&D) and innovation as fundamental drivers of economic growth. These policies typically advocate for subsidies and tax incentives—as they are the easiest to implement—aimed at fostering technological breakthroughs and securing intellectual property rights.

In stark contrast, contemporary industrial policies adopt a more comprehensive approach, recognizing that effective investment coordination across sectors is crucial for achieving sustainable economic competitiveness. This modern perspective emphasizes the importance of integrating automation and digital tools within industries, such as in Made in China 2025, for the automotive industry, going beyond innovation to include comprehensive growth strategies.[29] Consequently, contemporary policies take into account a wide range of factors, including workforce development, infrastructure improvements, and cross-industry collaboration—all aimed at harnessing the transformative impacts of technology and digitization on industrial expansion.[30] This broader viewpoint reflects the growing need for industrial policies to remain adaptable and forward-thinking in addition to the existing approach in a rapidly evolving technological landscape with the rise of automation and emergence of artificial intelligence, ensuring that nations can maintain their competitive edge in an era characterized by continuous innovation and disruption.

From Manufacturing to Service

The focus of industrial policies has significantly evolved in recent years. Historically, these policies were aimed at boosting the manufacturing sector based on the belief that industrialization was the primary engine of economic growth. This narrow focus often led to an overreliance on manufacturing industries, where the critical stages of production are outsourced, leaving economies vulnerable to fluctuations in demand and external market conditions.[31]

In contrast, contemporary industrial policies are broader in scope and include the services sector, which has become increasingly vital in the context of global economic dynamics. This recognition stems from the growing role that services play in enhancing the competitiveness of manufacturing, as well as their direct contributions to GDP and employment. For instance, sectors such as information technology (e.g., Intel), finance (e.g., JP Morgan), and logistics (e.g., Amazon) now intersect seamlessly with manufacturing processes, forming intricate global value chains.[32]

By supporting both manufacturing and services, policymakers aim to foster more diversified economies. This approach enhances resilience against economic shocks and encourages innovation and adaptability in response to changing market demands. For instance, U.S. firms like Tesla can integrate manufacturing with in-house software development as electric vehicle firms receive subsidies from the IRA. Ultimately, this broader vision seeks to minimize reliance on any single sector, paving the way for sustainable economic growth and long-term stability. This is a critical point as a narrow industrial policy focus, such as Malaysia's emphasis on domestic manufacturing up to the 1990s without strong export integration, can limit long-term global competitiveness.

From Large Firms to SMEs

Governments have also adjusted their criteria for private sector eligibility in recent years. In the past, industrial policies primarily focused on assisting multinational corporations due to their substantial contributions to the economy (e.g., employment and FDI) and their ability to expand operations on a large scale. These multinational companies were perceived by policymakers as key drivers of economic growth and job creation.[33]

Today, however, SMEs are often just as likely to benefit from industrial policies as larger firms. This change acknowledges the critical role that SMEs play in driving innovation, creating local employment opportunities, and stimulating regional economic growth.[34] By recognizing the diverse contributions of SMEs (e.g., local employment creation), the new industrial policy framework aims to create an economic landscape that enables both large and small businesses to thrive together.

Informational Shortcomings

A significant differentiation in modern industrial policies revolves around government strategies for addressing informational deficiencies within the market. Traditional industrial policies operated under the presumption that government entities possessed a thorough understanding of both market demands and market failures. In contrast, contemporary approaches recognize the reality of informational shortcomings of governments and policy uncertainty in trade, macroeconomics, and national security.[35]

This paradigm shift is crucial to the role of government interventions, as it acknowledges that governments may not always have access to complete, up-to-date, or accurate information regarding industry dynamics and consumer behavior. As a result, modern industrial policies foster a more flexible and responsive approach to policymaking. This approach involves implementing robust feedback mechanisms, such as data collection efforts and analysis of market trends, which enable policymakers to adjust their strategies in real time.[36] Moreover, there is an increased emphasis on collaboration with private sector stakeholders who can provide valuable insights and expertise (e.g., increased government-firm meetings and seminars). Together, these elements contribute to a more informed and effective decision-making process that addresses the complexities of today's economic environment and the needs of firms.

Instruments: From Tax Breaks and Subsidies to Support for Business Services

The landscape of industrial policy has evolved significantly, incorporating a wider array of instruments beyond the traditional reliance on subsidies and tax incentives that used to drive investment decisions. While these fiscal tools remain relevant in encouraging businesses to expand and invest, modern industrial strategies now encompass a range of additional support mechanisms. These include essential business services for various operational needs, such as marketing assistance to help firms effectively reach their target audiences, management consulting to improve organizational efficiency, and technology support that enables companies to adopt innovative solutions. Government subsidies to SMEs in these areas can expand their growth capacity. Furthermore, training programs are increasingly recognized for their role in developing a skilled workforce ready to meet the demands of changing industries.

Crucially, infrastructure development has become a focal point, as robust systems of transportation, communication, and utilities are vital for firms to operate efficiently. By integrating these diverse instruments into a comprehensive industrial policy framework, governments can better equip businesses to tackle operational challenges. This multifaceted approach supports companies financially and nurtures an environment conducive to holistic industrial growth.

Disbursements: From Fixed to Customizable Payment Schedules

The flexibility in implementing industrial policies has significantly expanded in recent years. Traditional approaches adhered to a rigid disbursement schedule, in which financial support was provided at specific intervals regardless of individual circumstances. In stark contrast, contemporary industrial policies embrace a more adaptable framework. This customizable strategy enables modifications tailored to the unique needs of each firm and the prevailing economic landscape. As a result, support mechanisms can be fine-tuned to better target the specific needs of businesses, ensuring that resources are allocated in a way that aligns with the dynamic shifts occurring in the market. This heightened adaptability enhances the effectiveness of financial assistance and fosters a more responsive economic environment that can address challenges as they arise.

Selections: From Pre-Determined to Voluntary Participation

Traditional industrial policies often rely on a predetermined selection process in which government authorities identify specific firms or entire industries that qualify for support, usually based on established strategic priorities. This rigid methodology can stifle flexibility and result in the exclusion of emerging sectors or groundbreaking firms that do not fit neatly into the predefined criteria. For instance, while established industries like manufacturing and energy may receive significant attention, emerging fields such as renewable energy technologies or digital startups could be overlooked.

In contrast, modern industrial policies promote voluntary participation among firms, enabling them to opt in based on their unique capabilities, interests, and potential for innovation. This approach encourages a broader range of firms to engage with the government's support structures and enables a more fluid and responsive allocation of resources. As a result, companies can compete more effectively, driving innovation across multiple sectors while simultaneously mitigating the risks of inefficiencies that can arise from government misallocation of resources. By prioritizing dynamic engagement over rigid selection, new industrial policies foster a more vibrant economic ecosystem that can adapt to shifting market demands and technological advancements.

Conditionality: From Rigid to Provisional

In the realm of traditional industrial policies, the concept of conditionality has long been characterized by rigidity. Under these conventional frameworks, firms are required to meet strict, predefined criteria, often including concrete performance targets and obligations specific to their respective sectors. This strict adherence is intended to promote accountability and ensure that government support is directed toward achieving measurable outcomes. However, this inflexible approach can hinder businesses' ability to adapt and thrive, particularly in industries experiencing rapid changes due to technological advancements or shifting market dynamics.

In contrast, the emerging paradigm embraces a more dynamic form of conditionality. This provisional approach introduces flexibility to the performance requirements, allowing them to be modified in response to the fluidity of market conditions. For example, rather than imposing set performance targets that may become irrelevant in a short period, policymakers can recalibrate support mechanisms in response to real-time economic developments and emerging trends. This adaptability enables firms to pivot and innovate in response to new challenges and opportunities, contributing to a more resilient industrial strategy. Ultimately, this new framework fosters an ecosystem that enables businesses to remain competitive and responsive, aligning government support with the economy's immediate needs.

Government-Firm Relationship: From Top-Down to Collaborative

Traditional industrial policy frameworks typically employ a centralized, top-down strategy in which the government establishes policy measures with limited engagement with businesses. This often results in a disconnect between the government's policy objectives and the actual needs and challenges faced by industries. For example, a government might impose regulations or incentives that do not account for the unique circumstances of specific sectors, leading to inefficiencies and frustration among businesses.

In contrast, contemporary approaches to industrial policy advocate for a more collaborative relationship between the government and firms. This new paradigm prioritizes dialogue, feedback mechanisms, and the active co-creation of policies. By fostering an environment where industry leaders and government officials can communicate openly, policymakers can draw upon the valuable insights and expertise that businesses possess regarding market dynamics and operational realities. Such collaboration allows for the design and implementation of interventions that are more relevant and better tailored to address the specific challenges and opportunities faced by different sectors. Consequently, these iterative approaches can enhance the overall efficacy of the measures taken while simultaneously nurturing a more dynamic and innovative industrial landscape. This shift toward a partnership model signifies a profound evolution in how industrial policies are crafted and executed, ultimately benefiting both the state and the business.

Conclusion

South Korea's industrial policy is at a critical juncture, shaped by global economic transitions, geopolitical uncertainties, and rapid technological advancements.[37] As the global landscape shifts toward protectionism, supply chain resilience, and national security-driven industrial strategies, South Korea must recalibrate its approach to remain competitive. One of the primary challenges South Korea faces is balancing its export-driven growth model with the rising trend of localization and strategic autonomy in major economies such as the United States, China, and Japan. As these economies strengthen domestic manufacturing through targeted policies, South Korea risks losing its competitive edge if it does not enhance its domestic production capabilities.[38] Moreover, South Korea's industrial strategy must emphasize innovation-led growth. Unlike previous industrial policies that focused on heavy industries and large-scale manufacturing, future policies should prioritize R&D investments in high-tech sectors. Strengthening public-private collaboration in these areas will be crucial for ensuring that South Korea remains a leader in next-generation industries. Expanding support for startups and tech-driven SMEs will also help create a more dynamic and resilient industrial ecosystem.

Another crucial aspect is South Korea's approach to supply chain security. The country's reliance on global production networks makes it vulnerable to disruptions stemming from trade conflicts, geopolitical tensions, and raw material shortages.[39] South Korea must navigate the evolving geopolitical landscape carefully. The intensifying U.S.-China rivalry poses a unique challenge, as South Korea is economically intertwined with both superpowers. Industrial policies should aim to maintain strategic neutrality while securing access to key technologies and markets.[40]

The shift from traditional industrial policies to more flexible, innovation-driven strategies also requires a transformation in government-business relations. Rather than implementing rigid, top-down interventions, South Korea should adopt a more collaborative, adaptable approach to industrial policy. Encouraging voluntary participation in policy initiatives, tailoring support mechanisms to industry-specific needs, and fostering a business-friendly regulatory environment will enhance the effectiveness of state interventions.

South Korea's industrial policy must evolve to address the realities of a shifting global economy. By prioritizing innovation, enhancing supply chain resilience, and adopting a strategic yet flexible industrial

policy framework, South Korea can sustain its competitive advantage. The government's ability to anticipate global trends and implement proactive, adaptive policies will determine the country's long-term economic success as countries around the world continue to increase the frequency of industrial policies and government interventions.

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