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The Trajectory of Structural Reform of Japanese Economy: Strategizing Export of Package-Type Infrastructure Overseas

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Abstract

The Japanese government has gradually learned to rearrange its policy priorities to deal with the stagnation post-bubble burst and engagements with international players based on significant structural changes at the global level. Since the early 2000s, the Japanese government has formulated several growth strategies which reflect their policy readjustments from time to time in compliance with domestic and international structural changes.

In early 2000, Liberal Democratic Party attributed Japan's exit from its decade-long recession to its strong export to the western markets (the US and Europe) which accounted for two-thirds of Japan's real GDP growth. This growth pattern was majorly disrupted by the onset of the 2008 Global Financial Crisis. In order to address this setback, the newly instated Democratic Party of Japan under the leadership of Prime Minister Yukio Hatoyama released the 'New Growth Strategy, 2010 which aimed for an ambitious target to increase its nominal GDP growth by 1.4 times to 650 trillion yen and to lower joblessness rate to less than 3 % by 2020. His successors too have formulated growth strategies with similar aims. The important growth strategies after PM Hatoyama's were that of PM Shinzo Abe's Revitalization Strategy, 2014. Each of these growth strategies addressed important structural changes at both domestic and global levels in the past 10 years. Even though a few key areas of investments and policy priorities have changed with every growth strategy what remained conspicuous was Japan's strive towards strategizing infrastructure investments and technological innovation leading to market creation and establishment of strong political and economic relations with the Asian countries.

Keywords: Infrastructure, Growth, Structural Reform, Abenomics Koizumi, Hatoyama

Introduction

The road to a strong economic recovery remains fraught with challenges, and Japan is not ignorant of it since the end of World War II. The Japanese government is known and assessed based on its macro-economic measures to boost the long-term growth and welfare of the country. From the policy perspective, these measures are often identified as ‘structural reform’ driving the growth of the Japanese economy. Being stripped of its means to solidify its military might, Japan has always been keen on structuring and restructuring its economy to secure its position in global politics. Thus, structural reforms in the shape of growth plans play an intrinsic role in Japanese economic and political discourse.

This near-obsession of the Japanese government with a growth plan/strategy has its root traced back to the 1960s. To revive the war-torn Japanese economy, then Prime Minister Hayato Ikeda’s *Income Doubling Plan* promised to double the national income in ten years. The purpose of this plan was to maintain a high economic growth rate by introducing macro-economic reforms for inducing export-led economic growth. One key aspect of Ikeda’s growth strategy was infrastructure investment which played a very important role in the survival of the Japanese economy. Subsequently, Japan’s economy exceeded expectations, increasing 10 percent a year for the next two decades. The success story of Ikeda’s reforms had set the stage for the formulation of more such growth strategies to revive the stagnant economy of Japan post its bubble burst in 1992.

From the 1950s to the early 1970s, the Japanese economy grew at an average rate of four percent per year. Further, in the 1980s the economy encountered a tremendous boom that was not built on a strong economic foundation but fueled by stock market and real estate speculations and reckless lending practices in the financial history. What is known as the *bubble economy* had exploded in the early 1990s, causing the Japanese economy to deflate for almost a decade. Also, the number of productive people in Japan started to decline in 1995. As a result, Japan’s real growth has remained low and sometimes negative pushing Japan to enter a period of stagnation for the next three decades which set the groundwork for all the structural reforms introduced in its aftermath. Japan was in need to find lucrative markets for its goods and expansion of its production base to restore the productivity of its economy.

Further, global political and economic trends and structural transformation at the international level determined such policy decisions. The end of the Cold War, followed by the advent of economic liberalization in Asia since the early 2000s altered Japan's perspective of the Asian region. Owing to these developments at the national and international level, the Japanese government formulated several growth strategies that reflected their policy re-adjustments from time to time to secure Japan's position in global politics.

One very specific aspect of all these growth strategies was Japan's inclination towards enhancing the demand side of the economy by tackling obstacles to efficient production through the expansion of its production base. One way of addressing this was to prioritize infrastructure investments to increase total productivity. Many studies have shown that infrastructure investments influence structural changes through price, investment, and income effects and contribute to productivity growth through the intensive and extensive marginal effects. But there are a limited amount of studies that evaluate the role of the government in influencing these structural changes on both supply and demand side of the productivity equation.

Infrastructure investments in some way or the other have always remained an integral part of most of Japan's growth strategies formulated by the Japanese government. However, in 2010, the New Growth Strategy released by then Prime Minister Yukio Hatoyama of the Democratic Party of Japan (DPJ) explicitly identified a strategy of advancing the development of '*package type infrastructure'* overseas. This strategy identified Asia as a growing market for Japanese companies to create new businesses and envisages Japanese construction companies with advanced skills and technologies sharing their experience of supporting urban and rural infrastructure development. Infrastructure investment was a key macro-economic policy DPJ's ambitious plan to increase Japan's nominal GDP growth by 1.4 times to 650 trillion yen and to lower the joblessness rate to less than three percent by 2020. The policy priorities were rearranged to make Japan a "*strong economy"* with *"robust public finances"* and a *"strong social security system"*.

His successors too have formulated growth strategies with similar aims. The important growth strategies after PM Hatoyama's were that of PM Shinzo Abe's Revitalization Strategy, 2014 followed by Prime Minister Yoshihide Suga's New Growth Strategy, 2021. Each of these growth strategies addressed important structural changes at both domestic and global levels.

Even though a few key areas of investments and policy priorities have changed with every growth strategy what remained conspicuous was Japan's strive towards strategizing infrastructure investments and technological innovation leading to market creation and establishment of strong political and economic relations with the Asian countries.

Thus, this paper will trace how Japan's growth strategy has evolved vis-à-vis the economic crises faced by the Japanese government. It will look into how these growth strategies have strengthened the demand side of the economy by factoring overseas infrastructure investments as an integral part of their structural reform. Further, this paper will also trace how the Japanese government over ten years from 2010 to 2020 has rearranged its policy priorities to strategize infrastructure investments with the dual motive to address both economic challenges and secure its position as a global power.

This paper is divided into four sections; the first section talks about the prominent growth strategies introduced before 2010 during the reign of the Liberal Democratic Party that changed the shape of the Japanese economy. The second section will analyze the trajectory growth strategies formulated post-2010 by the Democratic Party of Japan, the third section assesses the impact of Abenomics and finally the fourth section delves into Japan's structural reforms post the onset of the Covid-19 pandemic.

I. *Structural Reform of Japanese Economy- Pre 2010 Phase*

Structural reforms are essential measures that change the fabric of an economy, the institutional and regulatory framework in which businesses and people operate. They are designed to ensure the economy is fit and better able to realize its growth potential in a balanced way (ECB, What are Structural Changes , 2017). Further, structural reforms work on both the demand and supply side of the economy by tackling obstacles to efficient production which should help in an increase in productivity and investment. Several mainstream theorists opined that structural transition is primarily concerned with the effects of supply-side technological progress, capital deepening, and demand preference. There are only a few studies that shed light on the government's role focused on the effects of demand-side progress related to international trade and investment. Kaiming and Tengqiao (2020) state that infrastructure investment influences structural change through price, investment, and income effects. Improving the level of infrastructure would change the relative prices of sectoral output, thus affecting the sectoral composition of consumption and investment. It further promotes productivity growth and increases aggregate consumption and investment. (Tengqiao, 2020:120)

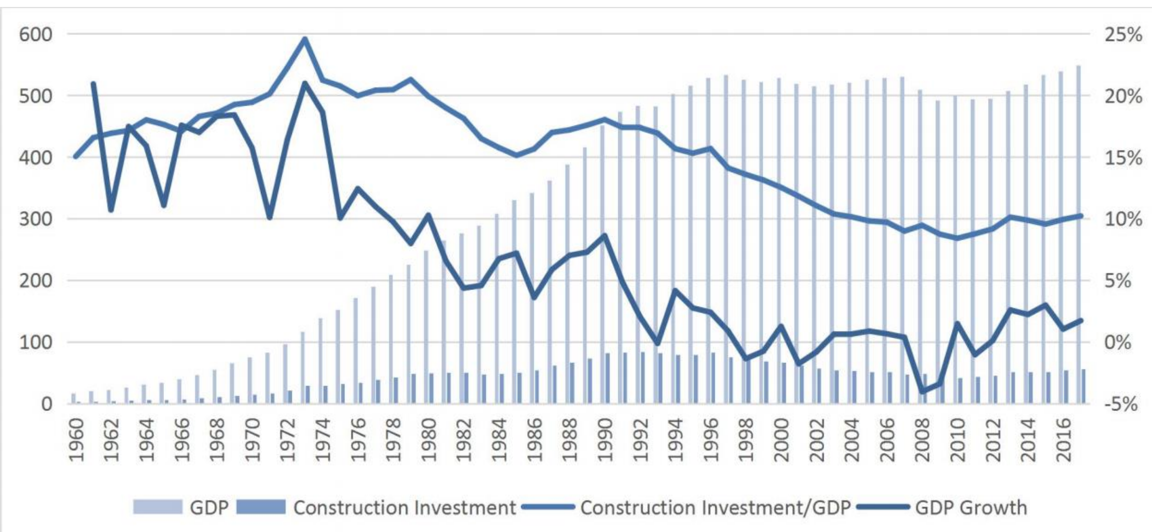
The post-war period in Japan saw the start of a prominent trend toward openness to international trade in the form of export promotion strategies. Following the war, Japan promoted its exports in foreign markets, especially the western markets through an undervalued exchange rate while taking advantage of the reconstruction aid from the United States and International Monetary Fund to build back its domestic infrastructure and encourage the diffusion of productive technology and technical innovation (Jonston, 2021). Thus strengthening the supply-side of factor productivity.

In the 1960s, PM Ikeda's Income-Doubling plan promoted "Appropriate Locations for Industries and Reexamination of Regional Distribution of Public Sector Projects" where the Japanese government promoted modernization of industries and public sector investments to accelerate the development of less developed areas. This was done to maintain a high growth rate, strengthen international competitiveness, and heighten the utility of social capital investment. The government decided how to adjust the amount of money to be invested in public work projects consistent with economic development which at the same time would contribute to minimizing differentials between the regions. This particular strategy of growth was also used to strengthen the export competitiveness in developing foreign markets by investing in their infrastructure. The income-doubling plan also proposed the "Active cooperation with the Development of World Economy" wherein the Japanese government actively sought cooperation with other less developed countries in promoting their infrastructural development to raise their income levels. This was an important strategy for the expansion of Japanese exports and increase in revenue in foreign currency (MITI, The New Growth Strategy: Blueprint for Revitalizing Japan, 2010).

At the end of 1980, Japan's net worth (national wealth) stood at 1,363 trillion yen, which was 5.6 times the GDP. It then increased, reaching 3,531 trillion yen, which was 8.0 times the GDP, at the end of 1990, owing to increasing land and stock prices. At the beginning of 1990, stock prices plummeted, followed by sharp declines in land prices. This marked the start of a major economic recession (collapse of the bubble economy). Japan's financial and economic systems, which were excessively dependent on land, consequently approached collapse. Due to the collapse of the bubble economy, the national wealth decreased, and while there were fluctuations, Japan's economy continued on a downward trend (MIAC, 2021).

It was estimated that from the period of high growth starting in 1954 to the bubble economy of the 1980s, Japan had rapidly developed infrastructure, especially in the metropolitan areas. Construction investment increased steadily and reached 84 trillion yen at its peak in 1992 while the ratio of construction investment to GDP reached 25% at its peak in 1973. In the early 1990s, Japan's bubble economy collapsed and the economy stagnated thereafter. Both construction investment and its ratio to GDP declined continuously and fell by half from the peak (Kikuchi, 2019:130) as shown in Figure 1.

Figure 1: GDP and construction investment in Japan (FY 1960s-2016; in trillion yen)



Source: (Kikuchi and Unzaki, 2019)

The concurrent steady inflation in other countries caused the Japanese yen to depreciate between mid-1995-1997, which made Japanese exports competitive in foreign markets. As a result, In 1999 Japanese economy began to make a moderate recovery after eight years of deflation (Brooks, Felipe, Hasan, & Siregar, 1998). However, investments in plants and equipment were still weak as corporate borrowers suffered serious losses due to a decline in land prices and the recovery was too dependent on foreign demand and information and communication technologies (Statistical Handbook of Japan, 2020).

After the Lost Decade, in early 2000, Japan was still plagued by the issue of economic stagnation when PM Koizumi of LDP decided to introduce a plethora of neo-liberal structural reforms to deal with the eight years of continuous deflation. The 2001 ‘'Structural Reform of the Japanese Economy: Basic Policies for Macroeconomic Management' (also called the 'Basic Policy Outline for Economic Reform')” consisted of three key phases:-

a. Introducing globally standardized capitalism

b. Privatizing government agencies and creating efficient, lean government

c. Introducing market mechanisms into both national and local governments enhances fiscal deficit.

These reforms sought to liberalize Japan’s financial sector and eliminate a major source of funding for industrial policy loans and spending. It broke down the old-fashioned system of administrative guidance that was the pillar of traditional Japan leading to severe downsizing of Japanese firms cutting down on their production cost. On the economic recovery phase starting at the beginning of 2002, the corporate sector, with export-related industries, as the central part, became favorable based on the steady recovery of the global economy and shifted generally with an optimistic tone up until mid-2007 (Statistical Handbook of Japan, 2020). Though policy related to infrastructure did not directly factor in Koizumi’s reform, he was not ignorant of its benefits for the economy. In his speech at the Initiative for Development in East Asia (IDEA) Ministerial Meeting held in 2002, he stressed how Official Development Assistance (ODA) along with trade and investment play an important role in the creation of the foundation of economic growth by building infrastructure. Post the economic liberalization of the Asian region Japan has actively provided ODA to Asian countries, especially China (MOFA, Message from Prime Minister Junichiro Koizumi to the Initiative for Development in East Asia (IDEA) Ministerial Meeting, 2002).

The rise of China as an important economic partner of Japan in the Asian region whose GDP of $ 2,224 billion in 2005 was half of Japan’s GDP. Exports to China accounted for 13 percent of

Japan's total exports in 2005. While imports from China accounted for 20 percent of Japan's total imports. Nonetheless, Japan has been cultivating the Chinese market as a destination for its exports along with the advanced markets of the US and Europe (Sakai, 2006). Over the last 40 years, starting from 1978 Japan has provided yen loans, grant aid, and technical cooperation, totaling ¥3.65 trillion in contributions which were largely focused on the development of large scale infrastructure including harbor maintenance, railroad installations connecting inland regions to coastal areas, and power station construction (Akiyama, 2018). China was a destination for infrastructure investment

During the Koizumi cabinet, Japan-China relations entered a period known for its 'engaged economic ties and distant political ties.' During Koizumi's era, it was believed that the Japanese economy was on a rebound as the Japanese firm regained its competitiveness after strenuous therapy. Many scholars stated that Japanese firms made difficult but productive decisions following Koizumi's reforms which worked in their favor which is evident from considerable progress made in Japan's economic performance in 2006-07 (Takao, 2007) as depicted in Figure 2.

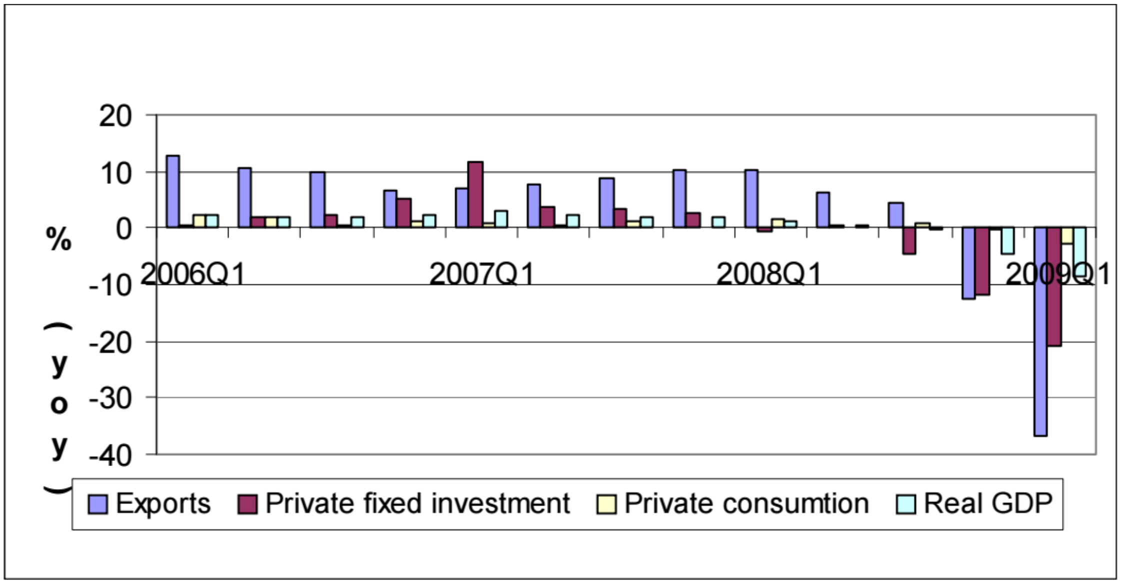
Figure 2: Japan's Economic Performance between 1996-2007 (%)

		1996-2000 Annual average	2001-2005 Annual average	2006	2007
Real GDP growth rate	Japan	1.3	1.3	2.2	2.0
	OECD average	3.3	2.1	3.2	2.5
Nominal GDP growth rate	Japan	0.4	-0.1	1.2	2.2
	OECD average	6.8	4.7	5.5	4.8
Rate of price increase (personal consumption deflator)	Japan	-0.6	-1.3	-0.9	0.4
	OECD average	3.5	2.3	2.2	1.0
Nominal rate of increase in per capita wage	Japan	-0.4	-1.0	0.6	1.5
	OECD average	3.9	2.7	4.1	3.6
Ratio of fiscal deficit to nominal GDP	Japan	-6.1	-6.8	-4.6	-4.0
	OECD average	-1.3	-2.9	-2.0	-2.0
Ratio of primary balance to nominal GDP	Japan	-4.4	-5.4	-3.2	-2.5
	OECD average	1.6	-0.9	-0.2	-0.1

Source: (Takao, 2007)

However, this trend was not long-lasting. The Global Financial Crisis of 2008-09 hit Japan hard. When the US and much of Europe went into recession in early 2008, Japan's real economy did not seem to be affected materially.

Figure 3: Growth Rates of GDP and its Components



Source: (Takagi, 2009)

However, it was adversely affected by the large negative terms of trade shock in 2008 attributing to a sharp rise in oil and other commodity prices until the summer of 2008. This affected the productivity of the manufacturing sector, transportation sector, and heavy industries drastically. Japan experienced a severe economic contraction with a 12.5 percent (year on year) fall in exports in the fourth quarter of 2008. This was followed by 36.8 percent in the first quarter of 2009 due to the prevalent recession in the US and European markets. This adversely affected the Japanese economy's exports, private fixed investments, private consumption, and real GDP as shown in Figure 3.

The decline was also registered not only for exports to the US and Western Europe (which together account for over 40% of Japan's total exports), where the financial crisis originated but also for exports to emerging and developing Asia, Japan's largest export market accounting for over 50% of total exports (Takagi, 2009).

PM Koizumi's reforms aimed at deregulation and liberalizing Japan's capitalist system eventually produced weak results owing to the global financial crisis. Many scholars believed that despite the strong rhetoric of reform toward the US model of capitalism, the Koizumi reforms have been designed to preserve the essence of the Japanese model than destroy it (Oh, 2013). This ensued the historic defeat of the Liberal Democratic Party in the 2009 lower house election by the Democratic Party of Japan (DPJ). The latter now had the opportunity to contribute to the existing literature on structural reforms to deal with the economic crisis faced by Japan.

II. *Structural Reform of Japanese Economy Between 2010-2013: The DPJ Phase*

The year 2010 marked a change in the direction of Japan's policy. Learning from its experience of the global financial crisis, of 2008, it worked towards cultivating an alternative market to the advanced western economies, in the Asian region. Japan's political and economic pivot to Asia became even more prominent owing to the rise of China which surpassed the former to become the second-largest economy in the world. Finally, Japan was suffering from the issue of a decline in its population. It was estimated that the total population would continue to decline and fall below 100 million in 2053. An acute shortage of productive people started to plague the industrial and manufacturing sectors of Japan. This was when Japan decided to expand its domestic production to its neighboring regions in Asia as well as strengthen Asia's growth potential vis-a-via its market potential by promoting sub-regional infrastructural development, industrial development, and institutional improvement in a 'coherent and systematic manner.' (MITI, The New Growth Strategy: Towards Radiant Japan, 2009)

When PM Hatoyama head of the DPJ-led Japan was elected the Prime Minister of Japan, the DPJ unveiled a growth strategy to address the issue of a decline in an export, a large drop in production, and a sharp rise in unemployment. Though not deviating from the LDP's stance Hatoyama's 2009 "New Growth Strategy toward Radiant Japan" set the following targets until 2020 (MITI, The New Growth Strategy: Towards Radiant Japan, 2009):-

- Over 100 ¥ trillion in demand-led growth in three sectors-environment, health, and tourism.
- Reduce unemployment by 3%-4% by creating 4.76 million extra jobs
- An increase in the average annual economic growth rate to more than 3 percent in nominal terms and more than 2 percent in real terms.
- Opening new frontiers in Asia by; creating Free trade Area of the Asia-Pacific, doubling the flow of people, goods, and money, and doubling income in Asia.

His growth strategy explicitly highlighted the importance of building 'safe and secure' infrastructure in Asia as a medium to bridge nations for its growth. The strategy further elaborates on disseminating infrastructure built on environmental technologies as a package throughout Asia supporting the expansion of Japanese construction companies in Asia and advanced markets for Japanese exports. Even Japan International Cooperation Agency (JICA) in their annual reports recognized development assistance as a "vital tool for pursuing international interests and ensuring Japan's survival." (MITI, The New Growth Strategy: Blueprint for Revitalizing Japan, 2010)

However, to the chagrin of many scholars and policymakers, there was a major disconnect between the goals and measures outlined to achieve them. After, hardly eight months in office, PM Hatoyama was replaced by PM Naoto Kan of DPJ. Once again given the mired state of the economy and the mountain of unresolved policy issues, the DPJ led government was tested for its ability to address Japan's deflation. The *2010* "New Growth Strategy: Blueprint for Revitalizing Japan" was seen as a bright spot earning the party a certain level of commendation. The target area of the Blueprint of Revitalizing Japan was similar to the previous growth strategy, however, it elaborated on the macroeconomic approaches for achieving those targets.

Creating stable demand, to achieve a strong economy, both domestically and externally, and establish an economic structure that would enable wealth to be widely circulated, in addition to strengthening the competitiveness of Japanese industry was the highlight of the strategy. Unlike Hatoyama's growth strategy, this blueprint concentrated on promoting growth led by both supply-side and demand-side policy measures. Investing in infrastructure has been conspicuously factored within the demand-side measures which are closely related to Japan's 'Asian Economic strategy'. This strategy exclusively talks about the 'creation of seamless Asian market'. Japan must invest in the infrastructure of Asia for the following purpose: -

- To remove all barriers to economic activities in the Asian region where Japanese firms are becoming increasingly active.
- To remove necessary impediments to the flow of people, goods, and money within the Asian countries

- To unify the Asian market by expanding trading activity and contributing to the doubling of its income. Expansion of Japanese export in Asia would also boost Japanese brand power and its diplomatic strength.

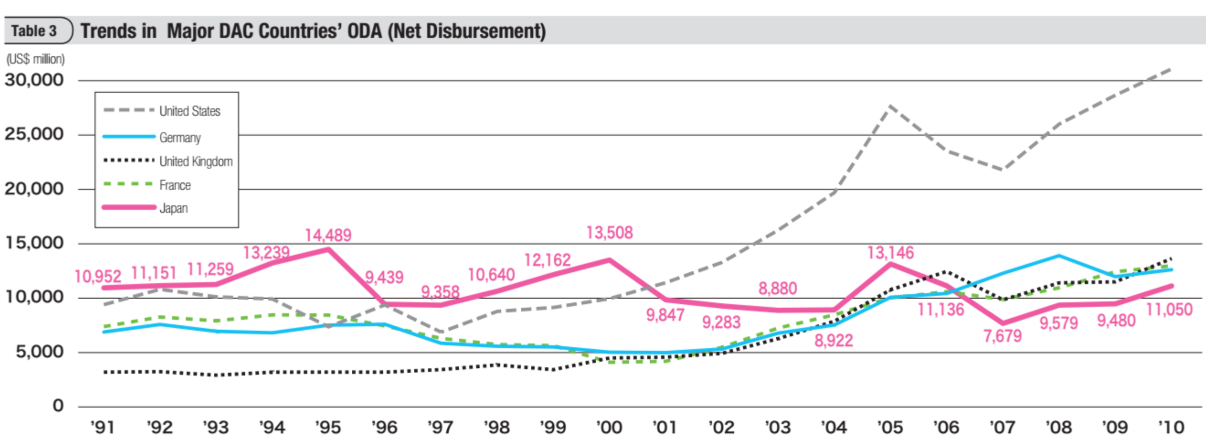
- To sell and popularize Japan's brand of 'safe and secure' environmental technologies for building infrastructure to lessen the environmental burden accompanying the economic growth of the Asian economy.

- The strategy further highlighted the involvement of the private sector in assisting in building infrastructures such as high-speed rail and urban transport, water supply and energy, and the development of cities in harmony with the environment.

There are however many challenges for Japanese companies (private sector) seeking to invest overseas. It is essential that Japanese companies reduce their costs and adjust to local conditions when investing in developing countries. Moreover, Japanese companies typically lack human resources for global operations. The government aims to enhance the international competitiveness of Japanese construction companies by capitalizing on their technologies, skills, and experiences.

Further, in line with the new growth strategy, JICA laid the groundwork for package infrastructure overseas operations and prioritized promoting assistance for sustainable development to strengthen Japan's political and economic collaboration with the Asian countries. As shown in Figure 4, the net ODA disbursement increased up to 16.8% from the previous year i.e. 2009 (JICA, JICA's Programme Goals and Overview, 2011).

Figure 4: Trends of Japan's ODA (Net Disbursement) 1991 FY-2010 FY

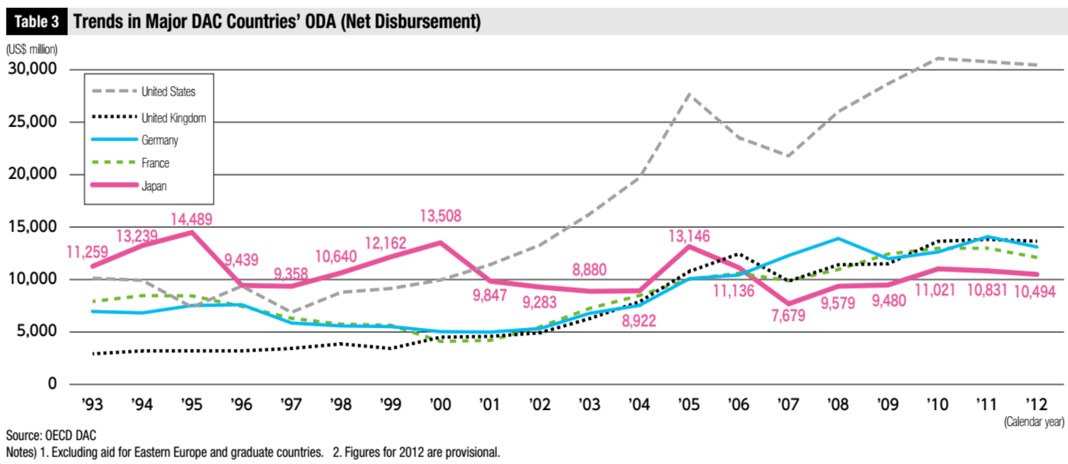


Source: (JICA, JICA's Programme Goals and Overview, 2011)

In 2011, the Great East Japan Earthquake and the subsequent nuclear power plant accident weakened the economic recovery. Due to disruption in the supply chain, Japan's industrial production plummeted by 15.3 percent (ECB, Global Economic Repercussions of the Earthquake in Japan, 2011) causing a subsequent reduction in Japanese exports and the latter registered a record trade deficit of US$78 billion by 2012 (Solis, 2013). This shaped the political and economic undertone of PM Yoshihiko Noda's 2012 "Comprehensive Strategy for the Rebirth of Japan-Exploring the frontiers and building a Country of Co-creation" PM Noda laid great stress on the recovery from the aftermath of the Earthquake by focusing more on revamping the energy policy; shifting the dependence from nuclear power to renewable energy. Further, according to him, the key to successful foreign and security policy is to take 'quiet steps' including reinforcing relations with the US and the Asia-Pacific. Again one way of achieving the same was through his "Priority policy action: Support for overseas deployment of integrated infrastructure systems." His growth strategy talked about packaging 'world-leading environmental and energy-saving technologies, security and safety-related technologies for promoting overseas operation in the infrastructure sector. Based on the 'Program for Promoting Overseas Deployment of Integrated Infrastructure Systems' (decided by the Ministerial Meeting on the Overseas Deployment of Integrated Infrastructure Systems on June 27, 2012), the government would provide support for formulating infrastructure utilizing Japan's technological know-how by engaging in the planning stage of a wide-area development project, reinforcing the capability to explore and formulate infrastructure projects, and so on. At the same time, the government will vigorously support Japanese companies to receive orders for infrastructure projects and achieve successful results. The amended Act on Promotion of Private Finance Initiative (PFI Act) came into force in 2011 to utilize private capital as a measure to improve Japan's public infrastructure. PM Noda's growth strategy further stated that Japan would not only extend its investments to Asia but also to the Middle East and Latin America (Cabinet, Comprehensive Strategy for Rebirth of Japan: Exploring the Frontiers and Building a "Country of Co-creation", 2012).

The economic slowdown also impacted Japan's net disbursement of ODA which was 3.1 percent down from 2011 approximately to US$ 10,493.5 million as depicted in Figure 5. Further, as per JICA's annual report, ODA contributed to supporting Japan's Strategic Diplomacy efforts such as resource development strategy, reinforcing maritime security capacity, and strengthening cyber security. It further stated that 'cooperating with ASEAN, the African Union and other regional organizations, the United Nations and other international institutions, JICA will actively pursue strategic projects that go beyond borders'. (JICA, JICA Annual Report , 2012)

Figure 5: Trends of Japan's ODA (Net Disbursement) 1993 FY-2012 FY



Source: (JICA, JICA Annual Report , 2012)

III. *Structural Reform of Japanese Economy: The Ábenomics Phase*

With the end of DPJ's stint in power in 2011, the LDP rose again under PM Shinzo Abe who leveraged his strong political capital to pursue a series of economic reforms, dubbed *'Abenomics'* to revitalize the Japanese economy. This growth strategy was considered as the most ambitious package of economic reforms aimed at revitalizing corporate earning power setting in motion structural changes to revive the Japanese economy. He reiterated the macroeconomic target for achieving a two percent price stability and highlighted three keywords for his growth strategy; "challenges" - actively taking on challenges - "openness" - openness to other countries - and "innovation." (Cabinet, Speech on Growth Strategy by Prime Minister Shinzo Abe st the Japan National Press Club, 2013)

PM Abe's growth strategy is based on three arrows:-

- **Fiscal stimulus** began in 2013 with economic recovery measures totaling 20.2 trillion yen ($210 billion), of which 10.3 trillion ($116 billion) was direct government spending. Abe's hefty stimulus package focused on building critical infrastructure projects, such as bridges, tunnels, and earthquake-resistant roads. A separate 5.5 trillion yen boost followed in April 2014, and after the December 2014 elections, Abe pushed through another spending package, worth 3.5 trillion yen.

- **Unorthodox monetary policy** brought the Bank of Japan's (BOJ) unprecedented asset purchase program at the heart of the growth strategy. The BOJ simultaneously injected liquidity into the economy and, for the first time, pushed some interest rates into negative territory.

- Initiating **Structural Reform** which includes slashing business regulations, liberalizing the labor market and agricultural sector, cutting corporate taxes, and increasing workforce diversity with the aim to revive Japan's competitiveness.

In his growth strategy, PM Abe went all out on infusing infrastructure investment within one of the three arrows facilitating growth. The Prime Minister articulated its "Infrastructure Export Strategy", aimed at raising infrastructure exports to 30 trillion yen by 2020. Supporting his fiscal stimulus, the PM released the "Japan Revitalization Strategy—Japan is Back" strategy in 2013. Here he, singled out the expansion of overseas infrastructure investment as one of the main policies in Japan's international business development efforts. The Japanese government made "top-level sales" pitches, with a focus on strengthening cooperation between the public and private sectors, promoting international standardization of the advanced technologies possessed by Japanese companies, and implementing economic cooperation with foreign governments. (Kikuchi, 2019)

Further in 2015, PM Abe announced his "Partnership for Quality Infrastructure: Investment for Asia's Future" strategy. He mentioned that Japan would collaborate with the Asian Development Bank to provide approximately US$110 billion for "quality infrastructure investment" in Asia over the next five years till 2020. Following this in May 2016, Prime Minister Abe announced the "Expanded Partnership for Quality Infrastructure" initiative, directed toward the G7 Ise-Shima Summit Meeting, stating that through this initiative, Japan will encourage exports of its high-quality infrastructure and construct win-win relationships that contribute to both to domestic economic growth and to the economic development of partner countries. To this end, Japan would aim to provide, among other things, financing of approximately US$200 billion in the next five years to be allocated to infrastructure projects across the world. In addition, Japan will further improve related measures for the promotion of quality infrastructure investment. Later, at their G7 Ise-Shima Summit, the G7 leaders endorsed the "G7 Ise-Shima Principle for Promoting Quality Infrastructure Investment". This initiative would contribute to regional economic development through creating new jobs and transfer of advanced technology and know-how, to reinforce capacity and improve productivity for local economies through infrastructure construction. Thus maximizing the positive effects of infrastructure has a direct impact on revenue generated by Japanese exports. (Kikuchi, 2019)

Further, one cannot ignore the strategic implication of Abe's announcement of the abovementioned strategies. The launch of the Belt and Road Initiative[1] in 2013 by China generated much speculation regarding how this initiative is being used for furthering Chinese geopolitical influence in the Indo-Pacific region. PM Abe at this point aligned his growth strategy with his Free and Open Indo-Pacific Strategy (FOIP) initiated in 2016 in counter to strategic development related to Belt and Road Initiative. PM Abe's initiative of EPQI is an integral part of both FOIP and Abenomics. Making it's a significant policy addressing both Japan's strategic and economic needs.

PM Abe, like his predecessor, stressed the involvement of the private players in pushing the fiscal stimulus. In 2016, the Japanese government announced its action plan for promoting Public-Private Partnership/Private Finance Initiative (PPP/PFI) programs to create new opportunities for businesses and reduce public costs. The government aims to expand PPP/PFI programs to 21 trillion yen by 2022. Based on this plan, the government is supporting Japanese companies to gain experience in operating and managing large infrastructure projects and participate in infrastructure construction and operation projects overseas. With this in mind, PM Abe instituted the Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN) as a public-private investment fund in 2014. The role of JOIN has been to support private companies in the transport and urban development projects by jointly investing with the private sector, taking high investment risks, facilitating procedures, negotiating with foreign governments to reduce costs and mitigate political risks, and attaching human resources to special-purpose companies to share Japan's technologies and experience and develop human resources on-site for infrastructure management. Further from the legal perspective the 2018 Japanese Cabinet, approved a new law to promote the development and

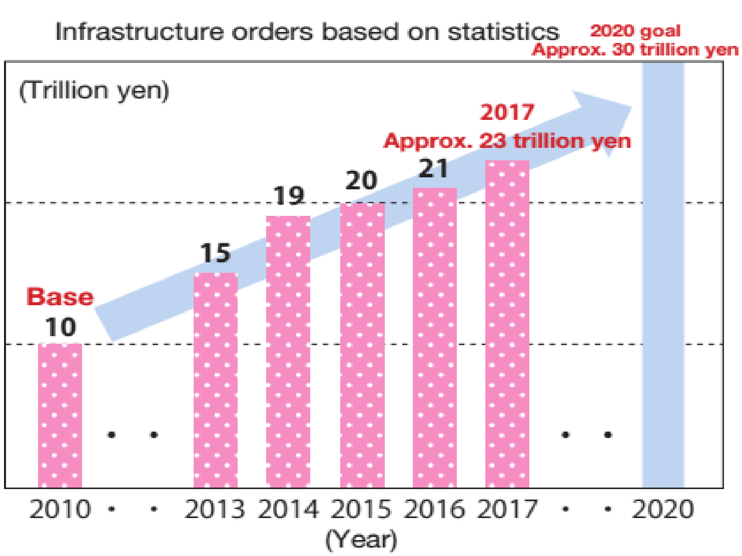
[1] China's initiative of Belt and Road Initiative provide necessary infrastructure to developing countries.

management of social infrastructure overseas by private companies in areas such as railways, airports, ports, sewerage systems, and urban infrastructure. Under the law, the technical knowledge and special skills needed in specific projects reside only with the public sector, while the private companies need to partner with the public sector to participate in such projects. This provision makes it easier for private companies to participate in large-scale infrastructure (Kikuchi, 2019).

Further, since 2017, under the fourth medium-term plan, JICA factored in PM Abe's vision of FOIP and promoted development cooperation activities within this framework. In congruence with PM Abe's PPP initiative, it also aimed toward 'quality', inclusive', 'sustainable', and 'resilient' growth in partner countries by further leveraging the strength of the private sector, including the small and medium business enterprises and mobilise their potential for operating in the developing countries by revitalizing the region through its infrastructural development assistance.

As per the MLIT White Paper 2020, Japan's infrastructure order for overseas more than doubled from about 10 trillion yen in 2010 to about 23 trillion yen in 2017. Further, the transportation and infrastructure development respectively increased from point five trillion yen and one trillion yen in 2010 to 1.7 trillion yen (3.4 times) and 2.9 trillion yen (2.9 times) in 2017, which are higher growth rates than the overall growth i.e.10 trillion yen to 23 trillion yen (2.3 times). (MLIT, 2020)

Figure 6: Japan's Infrastructure Orders for Overseas



Breakdown of main fields
(rough figures, trillion yen)

Field		2010	2016	2017
Energy		3.8	4.7	4.5
Transportation		0.5	1.3	1.7
Telecommunications	Communications	1.0	6.1	6.6
	Telecommunication equipment, etc.	3.0	2.9	2.9
Infrastructure maintenance		1.0	2.2	2.9
Living environment		0.3	0.5	0.4
New fields		0.7	3.5	4.1

Source: MOILT white paper 2020

Further, Japan's ODA stood at US$16.3 billion in 2020, making Japan the fourth-largest donor country in OECD’s Donor Assistance Committee (DAC) and the largest in Asia. This is because 70 percent of Japanese affiliates overseas are located in Asia. As the number of affiliates increase in Asia, the importance of investing in the Asian infrastructure becomes Japan’s priority and this has led to the increase in Japanese infrastructure export as depicted in Figure 6. It has a direct impact on Japan’s trade.

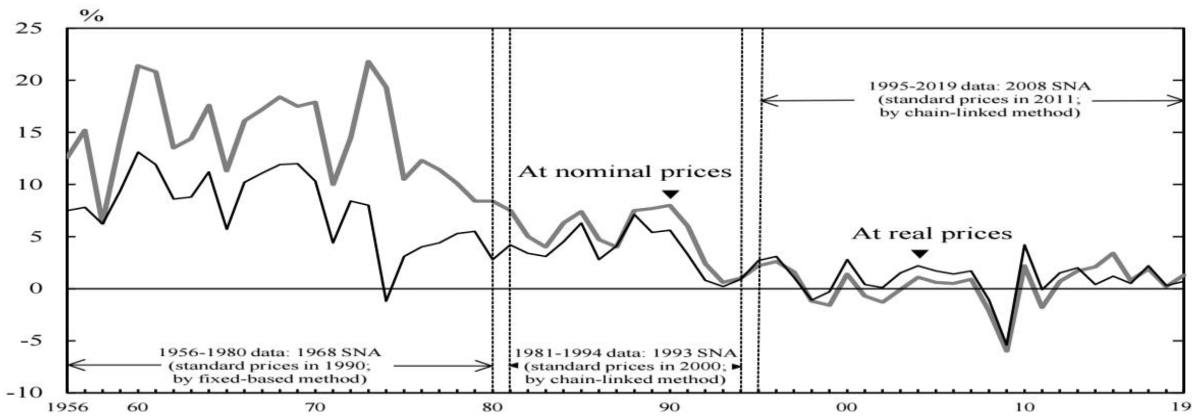
Statistically, Japan’s trade fluctuated from 2010 to 2020. In 2019, its international trade both in terms of its exports and imports decreased. Exports amounted to 76.9 trillion yen, which was 5.6 percent less as compared to 2018, and a decrease for the first time in 3 years. However, Japan has maintained a trade surplus with Asia and the US. Japan's 2019 trade balance with Asia resulted in a 3.9 trillion yen in surplus, a decrease for the second consecutive year. Exports totaled 41.3 trillion yen (down 7.6 percent), a decrease for the first time in 3 years; this happened mainly due to the contributions for the decrease in general machinery and electrical machinery.

However, Japan’s current account surplus contracted 48.2% in 2020 from 2019 (MIAC, 2021). The economic recession owing to the pandemic has affected Japanese exports as high energy prices continued to weigh on the trade balance. The current account balance is one of the widest gauges of international trade. The nation’s trade balance is now at a 431.3 billion yen deficit. However, primary income reflecting returns on overseas investment reflected a surplus of 1.79 trillion yen, which is up by 14.3 percent from 2019 which is partly helped by domestic companies receiving higher dividend payments from their investments in stocks and overseas shipping firms (MIAC, 2021).

For the past ten years, the Japanese economy has continued to show signs of moderate recovery, with profits of companies at high levels, and continued improvement in the employment and income environment. Despite the worldwide recession of 2008-09 which had a negative impact on the growth rate of Japan, the latter managed to maintain a positive growth rate in GDP itself till 2019 as shown in Figure 7. Though it did not reach its target of the nominal growth rate of three percent throughout the 10-year span, it reached quite close to it in 2013 i.e. 2.0 percent. The average growth rate of Japan from 2010 to 2020 has been around 1.1

per cent. It is only in 2020, that Japan is at a -4.8 percent growth rate. This is largely the aftermath of the prevalent pandemic that began in 2020.

Figure 7: Japan's Economic Growth Rate (FY1956- FY 2019)



Source: Economic and Social Research Institute, Cabinet Office

However, due to factors like the slowdown in the few Asian economies especially China, on whom Japan has been heavily dependent for both its imports and exports, and a lull in global demand for information-related goods, the decrease has been evident in some areas of export and production since the second half of 2018 had adversely affected the growth rate of the Japanese economy. On the other hand, the increasing trend in domestic demand has been maintained, supported by factors like improvement in the employment and income environment, and high company profits.

As far as the employment rate is concerned, in 2020, it has reached approximately 60.3 per cent. Japan is one of the leading countries regarding economic key factors, showing a very low unemployment rate compared to major industrial and emerging countries. It has been recently estimated that Japan's unemployment rate fell to 2.7 percent which is definitely closer to the target of PM Hatoyama's growth strategy released in 2010. (Japan's Dec Jobless Rate Falls as Monthly Employment Gain Hits Near 36-year High, 2022). Though 'Abenomics' pushed for an increase in government spending to support growth, the strategy also targeted achieving a budget surplus and bringing down the debt. This aim was made difficult due to the onset of the pandemic.

IV Post Pandemic Phase

Despite the Japanese government's effort to reorient the economy through structural reforms, many structural problems still plague their society. First is the decline in the birthrate and rapid aging of the population. Despite increasing tax revenues through the reforms, the accumulation of government debt has reached an unprecedented level (around 200 per cent of its GDP), more so after the onset of the pandemic (Fukuda, 2021). The implications of these structural problems have exposed the weak points of Japanese society. Further, to deal with the economic aftermath of the pandemic three additional budgets were formulated to finance anti-crisis packages which increased the state budget borrowings. As a result, the share of borrowings amounted to 64.1 per cent of the total GDP which is significantly higher than 2009 (52.1 percent) which was the year of the global financial crisis. Further, the unemployment rate increased for the first time in 10 years. The automotive, tourism and public catering industries were the most affected ones. More importantly, the pandemic impacted the supply chain, especially that of the semi-conductors which has inversely affected Japan's foreign trade. Therefore, for the successive governments under PM Yoshihide Suga and PM Fumio Kishida, it has become imperative while pushing for effective reforms to enhance growth on the supply side of the economy, that they must balance it out with strong demand-side reforms.

Further, the pandemic caused the Japanese government to factor in the security considerations to reduce Japan's dependence on China, by diversifying its supply chain for key materials and products and securing the stockpiles of strategic supplies such as energy resources, semiconductors, etc. In this regard, the Japanese government subsidized shifting manufacturing out of China to the Southeast Asian region owing to the supply chain disruption caused during the pandemic.

Thus, the pandemic has got Japan to focus on the issue of economic security, reduction of supply chain risk, decarbonization, and rapid digital transformation among other things. Thus these were the main areas that were highlighted in PM Suga's growth strategy released in 2021. The growth strategy explicitly highlighted the importance of demand in the domestic and international markets to realize the virtuous cycle of growth and distribution. Therefore, investing in infrastructure be it in the domestic digitalization or enhancing the international market structure to maintain growth from the both demand and supply side of the economy has become an important criterion in the post-pandemic scenario.

To address these gaps from the supply side of the economy, the Japanese government has been holding discussions since February 2020 on the formulation of a new “Infrastructure System Overseas Promotion Strategy 2025” (MOFA, Diplomatic Bluebook 2021, 2021) encouraging export of infrastructure systems from 2021. This strategy laid out new five-year goals stressing upon policy for taking specific steps toward garnering 34 trillion yen in infrastructure system orders in 2025 by promoting the achievement of three goals, they are:-

a. Achieving economic growth,

b. Contributing to achieving the SDGs,

c. Realizing the Free and Open Indo-Pacific Strategy (FOIP).

The current aim of the new strategy is to promote focused approach to combat Covid -19 by contributing to carbon neutrality, tightening export policy on coal-fired power, and promoting the use of digital technologies and data. Thus the discussion held at the Management Council of Infrastructure Strategy considered it important to encourage such export taking into account the market environment surrounding Japanese companies and global challenges owing to the pandemic (METI, 2020). The final report of the Round Table for the global deployment of Infrastructure Systems suggested that:-

a. To overseas from the export of infrastructure systems to their global deployment to increase the importance of their onsite sales, investments, and business.

b. To expand the scope from mere export of technologies/equipment to the co-creation of values. Such as providing products and services in sync with the local needs in Asia and other regions so that both parties could mutually grow from the deal.

c. Legitimize quality infrastructure and supporting values such as sustainability, resilience, and safety.

Conclusion

In conclusion, one can say that successive Japanese governments have recognized the country’s structural weakness and sought to push ahead with reforms in a systematic way by formulating growth strategies. In all the milestone growth strategies investing in overseas infrastructure was factored in to improve the demand-side of the products to support Japan’s economic growth. It was only in the year 2010, such overseas investments were conspicuously endorsed in policy documents and eventually, their strategic significance was also accommodated in the growth strategies that were formulated subsequently.

The commonality between the reforms released from 2010-2020 is that they have not been able to achieve the growth target, as reform implementation has been modest at times with high-level and overarching targets. But the most interesting feature of all these growth strategies is how they have institutionalized infrastructure investment over the span of 10 years. Another development that was observed through the evaluation of these growth strategies that were formulated from 2010 to 2020, is that Japan's infrastructure investments underwent strategic accentuation within at policy level. There has been a direct correlation between the economic and strategic implications of such investments. The evolution of this correlation has been reflected in the consecutive growth strategies launched in the span of these ten years. Post Abe's resignation in 2020, his two consecutive successors have factored in the implication of the pandemic for the Japanese economy within their growth strategy. Under these circumstances, infrastructure investment policy has come to play an important role in the Japanese government's target of rechurning supply chains in the Asian region. This diversification is critical at the contemporary time for managing the risks associated with the supply of goods and services and checking price volatility. Also working on the policy of infrastructure investment would allow Japan to navigate a pathway for linking value chains in the region by creating a network of reliable long-term supplies and appropriate capacities.

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