The Impact of Changing East Asian Trade Dynamics on Japanese Growth

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Abstract

After two decades of economic stagnation, Japan finds itself at an important crossroads. In recent years, the country's policymakers have faced two unfortunate but important realities:

(1) Japan has lost its place to China has the world's second largest economy, and (2) it has begun the long path to recovery after a major global recession. Given this, the research presented in this paper analyzes the increased impact that China is having on the Japanese economy. The paper utilizes a 'first differences' linear regression model that, above all, aims to discern the relationship between Chinese economic performance and Japanese GDP growth.

The research findings can be summarized as follows. Whereas economic performance in the United States was closely linked to Japanese GDP growth for much of the 20th century, more recent data shows that the relationship with China is now more significant. This implies that Japan's trading relationship with China will increasingly become one of the most impactful determinants of Japan's economic performance in the future. As a result, it is important for Japanese policy makers to embrace their emerging neighbor and engage in policies that actively promote free trade over protectionism.

I. Introduction

The recent economic changes in East Asia have resulted in a variety of different countryspecific experiences. Consider the highly contrasted cases of Japan and China, for instance. On the one hand, Japan is a mature industrialized economy that is well-beyond its post-war 'economic miracle'. Since the early 1990s, Japan has experienced its lost decades, which can be characterized by debilitating deflation and slow (if not negative) growth (Francis, 2009). Moreover, today, Japan has lost its place as the world's second largest economy and faces many challenges in the years to come. On the other hand, China's experience has been entirely contrasting. After having few people consider its economic potential for much of the 20th century. China has become a global economic superstar. Due to its carefully planned and government managed growth plan that focused on leveraging the country's vast human capital to attract export-based industries. China has become what can only be described as the 'workshop of the world' (Gaulier, Ünal, & Lemoine, 2005). Today, according to Foreign Affairs Magazine, "China's extraordinary economic growth and active diplomacy are already transforming East Asia, and future decades will see even greater increases in Chinese power and influence" (Ikenberry, 2008). In fact, a recent study conducted by PricewaterhouseCoopers found that, by 2050, China will have significantly surpassed the United States as the world's largest economy (Elliott, 2011). Though China will face its fair share of challenges in the future, its outlook, in contrast to Japan's, is extremely positive.

China's rapid and unprecedented growth has raised some important and challenging questions for Japanese policymakers. How will China's rise impact global economic relations? Should Japan view China's rise as a threat or opportunity? How can one leverage Chinese growth for domestic economic benefit?

For Japan, given its two decades of middling economic performance, it is imperative to decide carefully on how to handle its relations with the 'awakening giant' next door. This paper hypothesizes that, although Japan's 'economic miracle' of the latter half of the 20th century was, in part, driven by demand for exports from the United States and the rest of the industrialized world (Thomas White Global Investing, 2011), the country's future growth will be more heavily influenced by China. As such, Japanese policymakers should embrace China's rise and implement a set of policies that can take advantage of it.

In order to test the hypothesis outlined above, a 'first differences' regression model was designed to analyze macroeconomic data collected from the World Bank's World Development Indicators. The model hopes to understand the different determinants of GDP growth in Japan and, above all, discern whether or not the relationship between Chinese GDP growth and Japanese GDP growth has strengthened in recent years.

Overall, it was found that Economic growth in China is positively correlated to growth in Japan and that this correlation has increased significantly in recent years. Conversely, the same relationship between Japan and the United States has become less significant. Moreover, using the findings of a calibrated general equilibrium model designed by David Roland-Holst, it was determined that Japan could take advantage of its dependence on the Chinese economy and experience significant welfare gains through trade liberalization.

II. Historical Background

Following the conclusion of the Second World War, Japan's economy went through what many describe as an 'economic miracle'. The success of the country's economy during this time was largely the result of various internal and external factors including a strong proto-industrial

base, investment (both foreign and domestic), growth in total factor productivity, and strong investment in developing human capital (Mosk, 2004). In addition to these factors, experts often cite a high savings rate, which allowed capital accumulation, as well as the ability to import and

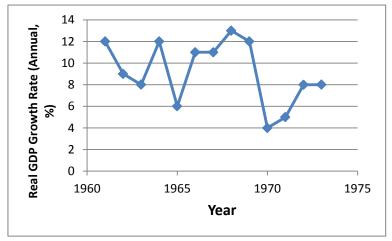


Figure 1 - Japan's Economic Miracle. GDP growth rates through mid-1970s. (Source: World Bank national accounts data, and OECD national accounts data)

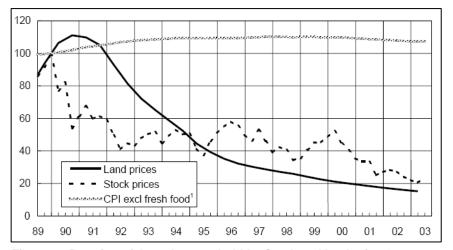


Figure 2 - Bursting of Japan's asset bubble. Stock and land price 1989 though 2003 (Source: Bank of Japan Financial and Economic Statistics Monthly) (Shiratsuka, 2003)

adapt foreign technology as especially important.

As a result of the factors described above, Japan experienced its strongest economic performance in the 1950s, 1960s, and 1970s, when GDP growth rates were at high single digit and often double digit levels (Figure 1), and the country continued to post strong growth

numbers will into the 1980s. As a result of sustained growth, financial deregulation, overconfidence, and improper risk management, the 1980s in Japan was characterized by a rapidly growing asset price bubble, (Shiratsuka, 2003) which eventually burst in the early 1990s, thereby causing a 60% decline in equity prices between 1989 and 1992 and a 70% drop in land prices by the end of the decade (Makin, 2008). Moreover, the country's GDP growth rate plummeted, often reaching negative levels. Despite various attempts by the government of Japan to revitalize its economy, performance remained sluggish throughout the 1990s (Makin, 2008), which were appropriately dubbed the 'lost decade'.

China's economic experience has been vastly different from that of Japan. For much of the period 1950-1970, China was an economic disaster. Under the poorly executed planned

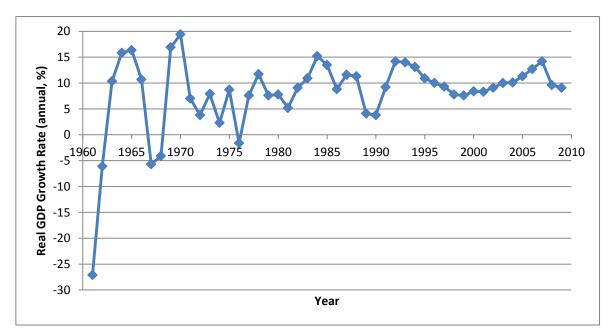


Figure 3 - China GDP Growth Rate 1961-2009 (Source: World Bank, World Development Indicators)

economy of the Chinese Communist Party, the country experienced a range of economic and social problems, including famine, social unrest, and poor (and sometimes double-digit-negative) economic growth. After the death of Mao Zedong in 1976, Chinese policymakers began to take

the country in a different direction by introducing various 'elements' of free market capitalism into the Chinese economy. For instance, various 'Special Economic Zones' were established in order to stimulate trade with the outside world (CBC News Online, 2006). Since then, China has become a global manufacturing center, as both domestic and multinational corporations hope to take advantage of the cost advantages that the country provides. As a result, China has consistently posted double-digit or near-double digit GDP growth rates since the early 1990s (Figure 3). Today, China firmly holds the position as the world's second largest economy is expected, by some, to surpass the United States as soon as 2020 (CBC News Online, 2006).

III. Literature Review

Since the beginning of China's rise in the early 1990s, significant body of research has addressed how China may impact (and has already impacted) the global economy. The literature reviewed below provides a broad overview of current opinions on Japan's outlook in the context of China's rapidly expanding regional dominance.

A recent study by David Roland-Holst found that, for China's neighbors, one of the most promising aspects of the Chinese economy is its rapidly expanding import market. For instance, despite the fact that China is characterized as an export-focused economy, the country's import growth outpaced export growth for five consecutive years between 2000 and 2005 and, as a result, pushed China to become East Asia's largest importer (Roland-Holst & Weiss, 2005). Given this, Roland-Holst argues that, in addition to stiffening export competition within the region, China's domestic market will present an unprecedented and lucrative growth opportunity for Japan and other regional players (Roland-Holst, 2004). However, taking advantage of this

¹ Special Economic Zones were regions (or cities) within China that were specifically exempt from many of the country's restrictive economic policies.

opportunity will take careful planning by Japanese policymakers to create an environment that not only embraces China's rise, but is also flexible enough to adapt to its rapidly changing nature. This can be accomplished through policies that encourage firms to take risks, provide appropriate funding to consistently 'climb the ladder of comparative advantage', invest extensively in education, and simply recognize the lucrative opportunity in China's rise, rather than viewing it as a threat (Roland-Holst & Weiss, 2005).

In addition to discussing the 'trade creation' impact of China, Roland-Holst also goes on to propose a basic model, known as the 'Asian Trade Triangle' that will govern global trade relations over the coming decades. The trade triangle demonstrates the changing nature of global

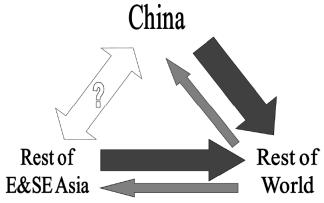


Figure 4 - Asian Trade Triangle, 2005 (Roland-Holst, 2008)

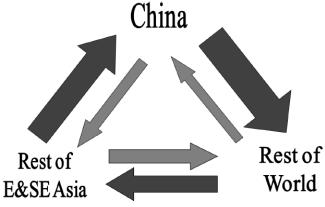


Figure 5 - Asian Trade Triangle, 2020 (Roland-Holst, 2008)

trade between 2005 and 2020. According to the model, in 2020 China will have a significant trade surplus with the 'rest of world' (any country outside of East and Southeast Asia) and a trade deficit with the rest of East and Southeast Asia. This is in contrast to the 2005 trade triangle, which illustrates a significant trade deficit for the 'rest of world' with the entire East Asian region (Roland-Holst, 2008). It is because of this changing trade pattern that regional economies must adapt in order to take advantage of China's rapid growth.

Similarly to Roland-Holst, Ohashi Hideo finds that Japan may find significant benefit from leveraging the Chinese market to develop value-added industries and stimulate the exports of intermediate goods. Hideo notes that, largely due to increased trade interdependence, Chinese exports to Japan and Japanese exports to China have been rapidly increasing. In addition, the rise of manufacturing industries in China has created an unprecedented market for inputs and intermediate goods. For instance, in 1995, when China was just beginning to realize its growth potential, Japanese inputs accounted for 8 out of every 100 units produced in China's machinery industry, and 7.5 out of every 100 units in produced in the country's transportation equipment industry. Similarly, an increasing number of Japanese companies are starting to see China become their primary profit source. For instance, during the 2002-2003 financial year, the Japanese construction equipment giant Komatsu reported approximately 40% of its total profit coming from activities in China. In sum, by taking advantage of new markets in China and by focusing on developing more value-added industries, Japan has much to gain from Chinese growth (Hideo, 2004).

IV. Data and Preliminary Insights

A simple analysis of macroeconomic variables reveals some interesting insights regarding the Japanese economy. A particularly notable trend can be seen in Japan's composition of exports. As shown in Figure 6, in 2001 Japanese exports to China totaled just under ¥4 trillion and have increased steadily to approximately ¥13 trillion in 2010. On the contrary, Japanese exports to the United States, which totaled almost ¥15 trillion in 2001, had decreased to just over ¥10 trillion by 2010. In addition, over the same period, China surpassed the United States as the world's single largest importer of Japanese goods. Given this trend, it would be interesting to see if the relationship between Chinese and Japanese growth has strengthened in recent years.

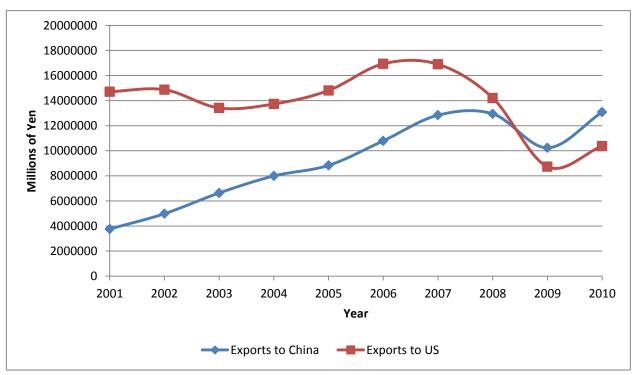


Figure 6 - Japanese exports to China and US, 2001 - 2010. (Source: Ministry of Finance, Japan)

The model presented in this research utilizes data collected from the World Bank's World Development Indicators (WDI) for 1971 through 2008. As shown in Figure 7 below, Japan's average GDP growth rate over the period (largely brought down by low growth in the past two

decades) was modest at 2.98% per year. On the other hand, China posted a significantly higher average growth rates at 9.11%. The 1971 to 2008 averages for unemployment rate, short-term prime lending rate, foreign exchange rate, and inflation rate were found to be 2.96%, 4.70%, 176.66 Yen/USD, and 3.14%, respectively.

				Std.
Variable	Description	N	Mean	Dev.
gr_jp	GDP growth rate (Japan, %)	38	2.98	2.49
gr_ch	GDP growth rate (China, %)	38	9.11	3.56
gr_us	GDP growth rate (US, %)	38	3.06	2.02
unemp	Unemployment rate (%)	38	2.96	1.18
interest	Short-term prime lending rate (%)	38	4.70	2.19
exch_rt	Foreign exchange rate (Yen/USD)	38	176.66	74.62
infl	Inflation rate (consumer price, %s)	38	3.14	4.73

Figure 7 - Summary statistics for World Development Indicators dataset.

V. The Model

In order to properly understand the relationship between Japanese and Chinese GDP growth, this paper proposes two regression models that examine the impacts of various internal and external macroeconomic variables using data from two different time ranges. First, the 14-year time range between 1995 and 2008 was examined to determine whether or not China's GDP growth had a statistically significant correlation with the economy of Japan. Second, once this significance had been established, a lengthier 38-year time range (1971 to 2008) was analyzed to establish whether or not the current relationship with China has increased compared to the long-term average.

The first model used is a simple three variable regression model that looks at GDP growth in Japan as the dependent variable, and GDP growth in China and the USA as the

independent variables. As shown below, the model utilizes a 'first differences' model, which represents variables in terms of their change over the previous year rather than their absolute value. For example, if the GDP growth rate was 2.5% in year 1 and 2.2% in year 2, then a 'first differences' model would interpret this as a -0.3% change in GDP growth. The purpose of this 'first difference' model is to interpret the model as a time-series rather than cross-sectionally:

$$[gr_{jp,t} - gr_{jp,t-1}] = \alpha + \beta_1[gr_{ch,t} - gr_{ch,t-1}] + \beta_2[gr_{us,t} - gr_{us\,t-1}] + \varepsilon_i$$

Given that the first model returned an abnormally low R² value of 0.28 (meaning that it only explained 28% of the variances in Japan's GDP growth rate), a second 'first differences' regression model was designed to take into account the impact of a broader range of macroeconomic variables including unemployment rate, interest rates, inflation rates, foreign exchange rates, Chinese GDP growth rate, and US GDP growth rate. This model was significantly more complex, as shown below:

$$\begin{split} \left[gr_{jp,t}-gr_{jp,t-1}\right] \\ &=\alpha+\beta_1 \left[gr_{ch,t}-gr_{ch,t-1}\right]+\beta_2 \left[gr_{us,t}-gr_{us\,t-1}\right]+\left[unemp_t-unemp_{t-1}\right] \\ &+\left[interest_t-interest_{t-1}\right]+\left[exch_{rt,t}-exchrt_{rt,t-1}\right]+\left[infl_t-infl_{t-1}\right] \\ &+\varepsilon_i \end{split}$$

The second model described above returned an R^2 value of 0.92 when examining the short-term dataset (1995 to 2008). As a result, the long-term dataset (1971-2008) was subsequently examined using the same model.

VI. Results

Both regression models described above were run in Stata 11 to analyze the World Bank World Development Indicators dataset.

Upon analysis of the short-term (1995 to 2008) dataset, the first model demonstrated some convincing support for the hypothesis that Chinese economic growth, even more so than that of the United States, significantly impacts growth in Japan. The independent variable gr_ch was found to have a coefficient of 0.619, implying a positive relationship between economic performance in Japan and China. Moreover, the Chinese growth variable was found to have a p-value of 0.068, which implies a reasonable degree of certainty regarding this relationship. Interestingly enough, economic growth in the United States had a coefficient of -0.182 and an extremely high p-value of 0.638, which seems to imply a lack of correlation between US and Japanese economic performance between 1995 and 2008. This result is rather surprising given the significant trading relationship between Japan and the United States. It should be noted, however, that this model returned an R² value of only 0.28. This means that only 28% of the

N	14
R-squared	0.28

Variable	Description	Coefficient	p-value
gr_ch	GDP growth rate (China, %)	0.619	0.068
gr_us	GDP growth rate (US, %)	-0.182	0.638
constant	constant	-0.06	0.909

Figure 8 – Regression results for first model using short-term dataset (1995-2008).

variations in Japan's GDP growth rate can be explained by economic performance in the United States and China.

The second model built on the insights already gained from the simple 3-variable regression. As shown in Figure 9 (below), in this new model the coefficient on the Chinese GDP growth variable is significantly higher than before at 1.209. Moreover, the p-value of this coefficient is extremely low, at less than 0.000, implying that this result is highly significant. Conversely, the coefficient on US GDP growth was -0.442 with a p-value of 0.057. Again, the negative coefficient on gr_us is surprising given economic relationships between Japan and the United States. The model also demonstrated that the short-term prime lending rate, with a

N	14					
R-						
squared	0.92					
Variable	Description	Coefficient	p-value			
gr_ch	GDP growth rate (China, %)	1.209	0.000			
gr_us	GDP growth rate (US, %)	-0.442	0.057			
unemp	Unemployment rate (%)	0.439	0.646			
	Short-term prime lending rate					
interest	(%)	-6.21	0.001			
	Foreign exchange rate					
exch_rt	(Yen/USD)	-0.135	0.001			
	Inflation rate (consumer					
infl	price, %s)	0.389	0.342			
constant	constant	-1.039	0.009			

Figure 9 - Regression results for second model using short-term dataset (1995 - 2008)

coefficient of -6.21 (p=0.001), had a significantly negative correlation with GDP growth. A similar result was also seen for the foreign exchange rate, which had a coefficient of -0.135 (p=0.001). One particularly interesting result is that unemployment rate and inflation rate

appeared to have no significant relationship with GDP growth rate over this time period (1995-2008). This can perhaps be attributed to the fact that the Japanese economy has characteristically low unemployment and inflation rates. As such, these two variables may not be as closely correlated to growth as would be expected in many other countries. Finally, it should be noted that the model had an R² value of 0.92, meaning that 92% of the variations in Japan's GDP growth rate could be accounted for in this model.

The second model clearly demonstrates the significant impact that variations in Chinese GDP growth have on the Japanese economy. However, the hypothesis presented in this paper

N	38
R-	
squared	0.55

Variable	Description	Coefficient	p-value
gr_ch	GDP growth rate (China, %)	0.053	0.531
gr_us	GDP growth rate (US, %)	0.250	0.103
unemp	Unemployment rate (%)	-3.200	0.006
interest	Short-term prime lending rate (%)	-0.110	0.869
exch_rt	Foreign exchange rate (Yen/USD)	-0.004	0.827
infl	Inflation rate (consumer price, %s)	-0.446	0.001
constant	constant	-0.031	0.929

Figure 10 – Regression results for second model using long-term dataset (1971-2008)

also hopes to examine whether or not the relationship between Japanese and Chinese GDP growth has changed in recent years. As a result, the model was reevaluated using a dataset that spanned 1971 through 2008. As expected, the new data set returned highly interesting and significant results. For instance, for the period 1971 to 2008, economic performance in the US, with a coefficient of .250 (p=.103), was shown to be positively correlated with Japanese GDP growth. This is likely due to the fact that, for much of Japan's post-war history, the United States was a significant source of demand for Japanese exports. On the other hand, over the same

period, China's impact was negligible, which reflects the fact that, for much of the 20th century, China operated under a closed economic system and had few trading relationships with the outside world. In addition, unemployment rate and inflation showed a statistically significant negative impact on Chinese growth, whereas the impact of interest rates and exchange rates was negligible. Finally, the model returned an R² value of 0.55, meaning it could explain 55% of the variations in Japan's GDP growth rate.

Overall, the findings of the findings of the two regression models were in line with expectations. For the recent 14-year period between the beginning of 1995 and the end of 2008, GDP growth in China was found to have a statistically significant positive correlation with economic performance in Japan. Moreover, when a longer-term data set (1971 – 2008) was analyzed using the same model, the same correlation between Chinese and Japanese GDP growth was not seen. This implies that, largely as a result of China's recent rise, China's economic performance is becoming increasingly impactful on GDP growth in Japan. On the other hand, results regarding US GDP growth show the opposite trend. Whereas, US growth showed a positive correlation over the period spanning 1971-2008, a statistically significant correlation was not seen in recent years. Although this change is likely occurred due to a myriad of reasons, it seems that one of the most likely factors is China's increasingly significant role as one of Japan's most important export partners.

VII. Policy Implications

For two decades, Japan has faced what can be described as a policymaker's nightmare. With long periods of deflation, low (if not negative) GDP growth rates, and government debt expected to reach 250% of GDP by 2015 (Worsley, 2010), Japan has yet to find a viable

economic solution for its early 1990s slump. Moreover, whereas Japan's export-driven growth in the 20th century was stimulated, in part, by demand from the United States and other developed nations, recent years have seen the country become increasingly involved in regional trade. For instance, between 2000 and 2005, the share of intraregional exports between Japan, Korea, and China increased from 17.5%² to 22.4%². Similarly, intraregional imports increased from 22.2%² to 25.6%² (Yoon & Yeo, Spring 2007). Moreover, as demonstrated by the models presented in this paper, Japan's economic performance is becoming increasingly tied to GDP growth in China. As such, policymakers in Japan must look to embrace China's emergence as an opportunity and not a threat.

According to recent research, China's rise will have two primary effects on neighboring economies: (1) China will present a huge trade opportunity, as it turns into the largest importer in the region and (2) China will provide stiff competition for export industries in neighboring countries (Roland-Holst & Weiss, 2005). Given this, it would perhaps be beneficial for Japan to embrace Chinese growth by establishing an environment more conducive to trade between the two economies. However, such a policy would not come without opponents, as many see China as a legitimate threat to Japan's future.

In order to fully understand whether or not a free trade agreement (FTA) would be beneficial to the Japanese economy, it is first important to examine analogous arrangements seen in other regions of the world. The North American Free Trade Agreement (NAFTA), for example, bears significant resemblance to potential FTAs currently being discussed between Japan, Korea, in China (Bloomberg News, 2010). Like NAFTA, an FTA between Japan, Korea, and China would involve two relatively developed economies and one developing one. Moreover,

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² Percent of total exports/imports by Japan, Korea, and China.

Japan, Korea, and China are similarly varied in terms of their economic composition and are proximally located (Kim, 2004).

Just as many in Japan have opposed trade liberalization (Kyodo News, 2011), the period leading up to the implementation of NAFTA was characterized by widespread fear that a FTA would have significant negative effects on the American economy. Among the various fears that existed, loss of jobs and a displacement of American industry were among the most loudly voiced. For instance, many in the United States auto industry feared losing their jobs because they expected US auto manufacturers to import cheaper parts and components from Mexico. However, on the contrary, research shows that NAFTA resulted in increased efficiency among US auto parts manufacturers (Burfisher, Robinson, & Thierfelder, Winter 2001). Moreover, although US imports of Mexican auto parts did more than double in the first 5 years following NAFTA, US auto exports to Mexico increased more than 14-fold over the same period (Burfisher, Robinson, & Thierfelder, Winter 2001). Overall, significant research has shown that NAFTA had a positive impact on economic growth in the US, Mexico, and Canada (Kim, 2004).

Given the success of NAFTA, would it be fair to extrapolate that an FTA between Japan, China, and Korea would be equally beneficial? In fact, for the most part, research seems to demonstrate that Japan can expect to gain significantly from an FTA with China (Takeda, 2005). For instance, a recent study detailing the regional trade implications of China's rise assessed various East Asian FTA scenarios. According to a calibrated general equilibrium model (CGE), under a baseline scenario Japan could expect modest economic performance through 2020 with an average Real GDP growth rate of 2.2% per year and a trade surplus of approximately \$21 billion (Roland-Holst, 2008).

	Real		
	GDP	Exports	Imports
China	7.1	6.27	5.85
Japan	2.2	2.37	3.15
ASEAN	4.75	4.46	4.25
USA	2.62	3.07	2.94
EU	2.52	2.37	2.6

Figure 11 - Annualized average growth rates for baseline scenario, 2007-2020 (Roland-Holst, 2008)

	<u>Importer</u>							
Exporter	China	Japan	NIE	ASEAN	USA	EU	ROW	Total
China	0	-5	-135	-41	166	66	71	122
Japan	5	0	39	20	23	-15	-50	21
NIE	135	-39	0	19	-32	-32	-12	40
ASEAN	41	-20	-19	0	18	8	12	41
USA	-166	-23	32	-18	0	48	-40	-168
EU	-66	15	32	-8	-48	0	34	-41
ROW	-71	50	12	-12	40	-34	0	-16
Total	-122	-21	-40	-41	168	41	16	

Figure 12 - Bilateral trade balances in 2020 for baseline scenario. All numbers in billions of USD. (Roland-Holst, 2008)

Although this modest level of economic growth is consistent with what may be expected of an economy of Japan's maturity, the study finds that Japan may realize further economic benefits through trade liberalization. The CGE model was used to assess various potential trade scenarios, including FTAs between some combination of China, Japan, South Korea, ASEAN, and the United States. Based on the model, it was found that Japan could expect noticeable increases in real exports under any of the 4 scenarios assessed. For instance, under complete trade liberalization between Japan, South Korea, and China (NEAFTA), Japan could expect a 10% increase in real exports over the baseline scenario in 2020 (Roland-Holst, 2008). Moreover, if this FTA was expanded to include ASEAN, Japan could expect an additional 2-3% in gains. Finally, however, the highest level of gains were seen under a global trade liberalization scheme.

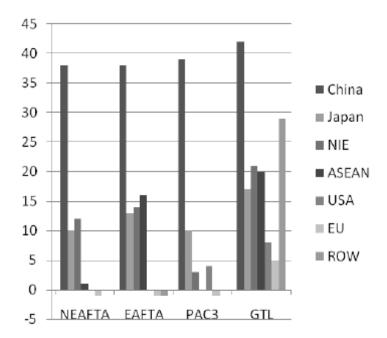


Figure 13 - Increases in real exports caused by trade liberalization. Represented as percent change from baseline scenario in 2020

CNWTO - NEAFTA - Japan + China + Korea; EAFTA - Japan + China + Korea + ASEAN; PAC3 - Japan + China + USA; GTL - Global Trade Liberalization

(Roland-Holst, 2008)

Overall, given China's recent rise and Japan's increasing dependence on the Chinese market, an East Asian Free Trade Agreement with China (and potentially other regional economies) would be highly beneficial to Japan's economic future. As such, it is imperative for Japanese policymakers to begin engaging its neighbors in serious talks regarding potential free trade arrangements.

VIII. Conclusion

What is perhaps the most salient truth about China's current situation is that decisions made by policymakers today will likely dictate the direction that the Japanese economy takes over the coming decades. Although the rise of China is inevitable, if the right policy decisions are made, Japan could maintain its position as a regional and global economic force. Conversely,

poorly planned economic policy could cause the country to lose another two decades to poor growth and deflation.

The research clearly demonstrates that China's rise has caused, and will continue to cause, tectonic shifts in global trading patterns. For instance, China has become Japan's largest trading partner and its share of Japanese exports continues to increase every year. Moreover, as the model presented in this paper demonstrates, the relationship between Chinese and Japanese economic performance has become increasingly significant, implying a growing interdependence among the two nations.

Given these recent developments, it is imperative for Japanese policymakers to assess, in detail, the nature of their current and future relationship with China. With the rise of a superpower as enormous as China, it is far too easy for policymakers to get on the defensive and view the country as a major economic threat. However, the path to economic performance in Japan involves the open embracement of China's rise and a set of policies that reflect this new world order.

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